

**Narcissism and Affirmation of the Ideal Self on Social Media in Thailand**

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## Declaration

I, Yokfah Isaranon, certify that the work presented in this thesis is my own work.



Yokfah Isaranon

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## **Abstract**

Narcissists, characterised by an excessive need for admiration, are among the most prolific users of social media as it may aid narcissists reach their goals of being admired by many people, without needing to build intimacy. Adapted from the Michelangelo phenomenon, this thesis proposes to test the Facebook affirmation model in Thailand. The model asserts that individuals, particularly those with high levels of narcissism, can benefit from using Facebook to receive affirmation of the ideal self and move closer to their ideal selves.

Given that the benefits of Facebook for narcissists may depend on their cultural background, a cross-cultural correlational study was conducted in Study 1. A comparison between Thai and British Facebook users found basic support for the model and showed a similar pattern of the Facebook affirmation model across cultures. The application of cognitive and behavioural strategies was further investigated in Study 2 using an experimental design. The findings suggest that Facebook offers benefits for communal narcissists under specific circumstances, such as when they engage in other-oriented behaviours. The mechanisms underlying the Facebook affirmation process was also examined in Study 3. Results provide evidence that self-esteem influences the way in which communal narcissists experience Facebook affirmation. Lastly, the association between selfie-posting behaviour and affirmation of the ideal self was explored to test whether affirmation of the ideal self can occur under specific activities on other social media platforms. Results demonstrate that selfie-posting on Instagram helps agentic narcissists experience affirmation of the ideal self.

In general, findings provide new evidence that social media facilitates agentic and communal narcissists to feel their best and move towards their ideal self, particularly when cognitive and behavioural strategies used on social media match their orientation towards goals.

## Table of Contents

<b>Declaration .....</b>	<b>2</b>
<b>Acknowledgements .....</b>	<b>3</b>
<b>Abstract.....</b>	<b>4</b>
<b>Chapter 1: Literature Review.....</b>	<b>9</b>
Overview.....	9
Narcissism.....	10
Affirmation of the Ideal Self.....	15
Social Media .....	18
Ideal Self-Construction on Facebook .....	20
Facebook Affirmation Model .....	23
Narcissism and Facebook .....	25
Narcissism and Facebook in Thailand.....	27
Research Objectives.....	32
Summary and Chapter Overview.....	32
<b>Chapter 2: Narcissism and Affirmation of the Ideal Self on Facebook: A</b>	
<b>Preliminary Investigation of the Facebook Affirmation Model .....</b>	<b>35</b>
Overview.....	35
The Present Study .....	37
Hypotheses.....	39
Method .....	40
Data analyses .....	44
Results.....	46
Discussion.....	58
<b>Chapter 3: Narcissism and Affirmation of the Ideal Self on Facebook: The Role</b>	
<b>of Cognitive and Behavioural Strategies.....</b>	<b>66</b>
Overview.....	66
The Present Study .....	69
Hypotheses.....	70
Method .....	71
Data analyses strategy.....	74
Results.....	75
Discussion.....	81

## Table of Contents (continued)

<b>Chapter 4: The Mechanisms Underlying Facebook Affirmation.....</b>	<b>87</b>
Overview.....	87
The Present Study .....	90
Hypotheses.....	91
Method.....	92
Data analyses strategy.....	94
Results.....	95
Discussion.....	112
<b>Chapter 5: Narcissism and Affirmation of the Ideal Self on Instagram: A Selfie</b>	
<b>Experiment .....</b>	<b>119</b>
Overview.....	119
The Present Study .....	122
Hypotheses.....	123
Method.....	125
Data analyses strategy.....	128
Results.....	129
Discussion.....	146
<b>Chapter 6: General Discussion .....</b>	<b>153</b>
Overview.....	153
Key findings.....	154
Summary and interpretation.....	157
Research strengths .....	166
Limitations and future directions .....	168
Implications.....	171
Conclusion .....	174
<b>Reference .....</b>	<b>176</b>
<b>Appendix A.....</b>	<b>198</b>
<b>Appendix B.....</b>	<b>209</b>

## List of Tables

Table 1. Chapter overview (main studies) .....	34
Table 2.1. Sample characteristics.....	41
Table 2.2. Descriptive statistics and Person's correlations of the Thai and British Sample A.....	46
Table 2.3. Chi-square differences between the free-parameter and the constrained models .....	49
Table 2.4. Mediation analysis in Thai sample's model.....	52
Table 2.5. Mediation analysis in British Sample A's model .....	54
Table 2.6. Descriptive statistics and Pearson's correlations in British Sample B .....	56
Table 2.7. Mediation analysis in British Sample B's model.....	58
Table 3.1. Descriptive statistics and Pearson's correlations among variables before manipulation .....	76
Table 3.2. Multiple regression analyses predicting self-focused and other-focused activities on Facebook before manipulation .....	77
Table 3.3. Moderated mediation analysis .....	81
Table 4.1. Mean scores, standard deviation, and alphas of predictors and dependent variables .....	96
Table 4.2. Moderated mediation analyses without self-motives.....	100
Table 4.3. Fit indices of the hypothesised model with the self-motives.....	101
Table 4.4. Moderated mediation analysis with self-esteem .....	104
Table 4.5. Moderated mediation analysis with grandiosity .....	108
Table 4.6. Moderated mediation analysis with power .....	110
Table 5.1. Mean scores, standard deviation, and alphas of predictors and dependent variables .....	130
Table 5.2. Multiple regression analyses predicting photo-posting behaviours on Instagram before manipulation .....	132
Table 5.3. Moderated mediation analysis without self-motives .....	136
Table 5.4. Fit indices of the hypothesised model with self-motives as mediators.....	137
Table 5.5. Moderated mediation analyses with self-esteem as the mediator .....	139
Table 5.6. Moderated mediation analyses with power as the mediator .....	145

## List of Figures

Figure 1.1. The Michelangelo phenomenon model. ....	17
Figure 1.2. The Facebook affirmation model. ....	24
Figure 2.1. Nationality of participants as a potential moderator in the Facebook affirmation model. ....	39
Figure 2.2. Actual and ideal self closeness scale. ....	44
Figure 2.3. Facebook affirmation model in Thai sample's model. ....	50
Figure 2.4. Facebook affirmation model in British Sample A's model. ....	53
Figure 2.5. Facebook affirmation model in British Sample B's model. ....	57
Figure 3.1. Hypothesised model with experimental condition as the moderator. ....	70
Figure 3.2. The moderating effect of cognitive-behavioural strategies. ....	78
Figure 3.3. Interaction effect on Facebook affirmation. ....	79
Figure 3.4. Interaction effect on Facebook movement towards the ideal self. ....	80
Figure 4.1. Facebook affirmation model with the four self-motives (self-esteem, entitlement, grandiosity, and power) as mediators. Each self-motive will be analysed in a separate model. ....	91
Figure 4.2. Hypothesised model without self-motives. ....	98
Figure 4.3. Interaction effect on Facebook affirmation model without self-motives Note. Low and high values for communal narcissism are conditioned at 1 SD below and above the mean. ....	99
Figure 4.4. Hypothesised model with self-esteem as the mediator. ....	102
Figure 4.5. Interaction effect on self-esteem. ....	103
Figure 4.6. Hypothesised model with entitlement as the mediator. ....	105
Figure 4.7. Hypothesised model with grandiosity as the mediator. ....	106
Figure 4.8. Hypothesised model with power as the mediator. ....	109
Figure 5.1. Instagram affirmation model with the four self-motives (self-esteem, entitlement, grandiosity, and power) as mediators. ....	123
Figure 5.2. Instagram affirmation model without the four self-motives. ....	133
Figure 5.3. Interaction effect of agentic narcissism and selfie condition on Instagram affirmation. ....	134
Figure 5.4. Interaction effect of communal narcissism and selfie condition on Instagram affirmation. ....	135
Figure 5.5. Instagram affirmation model with self-esteem as the mediator. ....	138
Figure 5.6. Instagram affirmation model with entitlement as the mediator. ....	140
Figure 5.7. Instagram affirmation model with grandiosity as the mediator. ....	142
Figure 5.8. Instagram affirmation model with power as the mediator. ....	143
Figure 5.9. Interaction effect on power. ....	144

## **Chapter 1**

### **Literature Review**

#### **Overview**

The last decade has seen a rapid rise in the use of social media, changing how people interact and communicate with each other (Torkjazi, Rejaie, & Willinger, 2009). One notable characteristic of the social media is that they allow its users to control and present a certain image of themselves to a large audience which could consist of a diverse range of people, including both close relationship partners as well as strangers from around the world (Boyd & Ellison, 2008). What kind of person might benefit most from the presence of such an admiring audience? The answer may lie in narcissism.

Narcissists, characterised by self-aggrandising behaviours, a sense of grandiosity, and an excessive need for admiration (Emmons, 1987; Morf & Rhodewalt, 2001; Raskin & Terry, 1988), were found to be among the most prolific social media users (Anderson, Fagan, Woodnutt, & Chamorro-Premuzic, 2012). Specifically, narcissists often maximise self-benefits on social media (Buffardi & Campbell, 2008; Carpenter, 2012) such as frequently updating statuses, posting self-portrait photos or selfies, and amassing a large number of friends to maintain their positive self-view, attain popularity, and elevate their sense of superiority (Ong et al., 2011; Twenge & Campbell, 2009; Weiser, 2015). This suggests that narcissists may use social media to present their ideal characteristics and to receive admiration. Given that narcissists are especially prone towards self-enhancement (Campbell, Reeder, Sedikides, & Elliot, 2000), social media, particularly Facebook, might serve as a good platform for pursuing their goals of being admired.

Research on the Michelangelo phenomenon (Rusbult, Finkel, & Kumashiro, 2009; Rusbult, Kumashiro, Stocker, & Wolf, 2005) may help explain why narcissists may be particularly drawn to social media. The Michelangelo model suggests that behavioural affirmation of the ideal self, or being treated in a manner consistent with one's ideal self, by close others over time helps people move towards their ideal selves, which in turn promotes personal and relationship well-being (Rusbult et al., 2005). Since social media operates on the basis of mutual interaction over a period of time (Boyd & Ellison, 2008), Facebook and other similar social media platforms may

serve as a new gateway for fulfilment of the ideal self, particularly among the narcissists who have a grandiose image of themselves.

This thesis is primarily designed to test a new model of affirmation of the ideal self on social media among narcissists in Thailand. The first three studies will focus on Facebook and examine whether affirmation of the ideal self on Facebook is especially prevalent for narcissists and help them move closer to their ideal selves, which in turn promotes personal well-being. Cultural differences and cognitive-behavioural strategies used on Facebook are also investigated. In addition to Facebook, I will examine affirmation of the ideal self through selfie-posting on Instagram in the last study. In this thesis, I will first review the relevant literature and present the rationale for my research. Next, I will present findings from the four studies I have conducted. Finally, I will discuss the results, limitation, and directions for future research.

## **Narcissism**

### **Characteristics of narcissism**

Narcissism has been steeped in the history of psychology for more than 100 years (Ellis, 1898; Freud, 1914/1991) and still catches attention of researchers up to the present time (Adams, Hart, & Burton, 2015; Barnett & Womack, 2015; Campbell, 1999; Campbell & Foster, 2002; Morf & Rhodewalt, 2001; Sedikides & Gregg, 2001). Although early research on narcissism examined narcissism from a clinical perspective and used the term ‘narcissists’ to refer to people with a narcissistic personality disorder (Akhtar & Thompson, 1982; Emmons, 1987; Wink, 1991), this thesis is primarily concerned with narcissistic personality in the non-clinical sample. Thus, people with high narcissism in this thesis refer to individuals without a clinical disorder, who have an extravagant desire for status and power over others, love to show off, take advantage of others in most situations, expect more from others, and have a hubristic pride in their beauty and success. Reflecting these characteristics, the most commonly used narcissism scale for the non-clinical sample, the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), proposes that narcissistic personality comprises of seven components, including authority, self-sufficiency, superiority, exhibitionism, exploitativeness, vanity, and entitlement.

Even though narcissists make a good impression at first and are good at attracting others, they lack intimacy and commitment (Campbell & Foster, 2002;

Morf & Rhodewalt, 2001). In addition, they are likely to exploit and seek power over others to elevate their self-worth (Campbell & Green, 2007; Morf & Rhodewalt, 2001). This shows that narcissists aggrandise their self-view at the expense of others and care less about social boundaries (Hepper, Gramzow, & Sedikides, 2010). Concerning their romantic relationships, narcissists have low commitment to their current partner and pay high attention to alternatives (Campbell, Brunell, & Finkel, 2006). For them, it is easy to turn their back on their partner for a better deal or someone else who can bring them a higher status (Campbell, 1999; Campbell, Foster, & Finkel, 2002). Thus, narcissists are generally not a good friend or romantic partner.

### **Motivations underpinning narcissistic behaviours**

Narcissism may have its origins in childhood interactions with their caregivers. Sedikides, Campbell, Reeder, Elliot, and Gregg (2002) explained how narcissism emerged, based on the work of three psychologists including Freud, Kernberg, and Kohut. They postulated that self-construction of a narcissistic child might develop from abandonment in a parent-child relationship. Given that narcissists felt a strong sense of being dismissed when they were children, they seek love, attention, and admiration but avoid feelings of loss.

The mirroring or realistic feedback from parents is an essential procedure in child development that helps a child establish the sense of self-worth and differentiate the self from others and the environment (Skowron & Friedlander, 1998). A child who does not receive sufficient approval can develop an improper set of self and identity. On the other hand, receiving excessive admiration and love from overindulgent parents can also lead a child to focus on the self, which in turn yields an inability to accept reality (Goodman & Leff, 2012; McLean, 2007). Therefore, a child who either experiences dismissal or receives excessive approval from parents can become a narcissistic adult who engages in intensely seeking external validation including love, attention, and admiration to maintain a narcissistic esteem (Bardenstein, 2009; Sedikides et al., 2002).

In another indication that origins of narcissism are rooted in childhood, prior research has also found the link between narcissism and adult attachment style. For example, Smolewska and Dion (2005) found a positive correlation between grandiose narcissism and avoidant attachment style. This link may be important given that the quality of attachment bonds that individuals initially develop with a primary caregiver

during their infancy could affect the quality of later interpersonal relationships (Malekpour, 2007). Children whose primary caregiver consistently did not meet their needs turn into adults with an avoidant attachment style, who keep an emotional distance from romantic partners and place an overemphasis on maintaining independence and self-reliance (Miller et al., 2011). Thus, this may suggest that similar parental caregiving which produces avoidant attachment styles may also facilitate narcissists' tendencies to emotionally distance themselves from their partners. In other words, a poor childhood experience could determine narcissists' interpersonal relationships.

### **Types of narcissism**

Over the years, different types of narcissism have been proposed by various theorists and researchers. In general, narcissism can be examined as a personality trait or a personality disorder. One major difference between these two perspectives is the presence of pathological personality traits. According to DSM-V (American Psychiatric Association, 2013), individuals with a narcissistic personality disorder are those who possess a pervasive pattern of grandiosity, require excessive admiration, and lack empathy, which lead to many problems in life. Most clinical research focuses on patients with a narcissistic personality disorder. On the other hand, most research on social and personality psychology focuses on non-clinical population with a narcissistic personality, who can still function relatively well in life. In addition, the Narcissistic Personality Inventory (NPI), the most common narcissism scale for the non-clinical sample (Raskin & Terry, 1988), measures narcissism as a continuous variable, instead of categorising people as being either narcissists or non-narcissists. That is, although this paper will use the term narcissists versus non-narcissists, individuals can vary along the continuum, from having low to high levels of narcissism.

The most commonly studied type of narcissism in the non-clinical population in the field of personality and social psychology is the grandiose narcissism, as measured by the NPI. Researchers also sometimes use the term overt narcissism to label grandiose narcissism (Hendin & Cheek, 1997; Rohmann, Neumann, Herner, & Bierhoff, 2012; Rose, 2002; Wink, 1991). Grandiose narcissists have been found to be self-confident and require high levels of admiration (Wink, 1991). Moreover, they are extroverts and are able to function reasonably well, in regards to their social life

(Rose, 2002). Even though some facets of grandiose narcissism such as entitlement and exploitativeness can be maladaptive and lead to aggressive behaviour (Emmons, 1987; Reidy, Zeichner, Foster, & Martinez, 2008), grandiose narcissists still show high levels of self-esteem which help promote personal well-being (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004).

In addition, Horvath and Morf (2010) suggest that the positive outcomes of grandiose narcissists are derived from their high self-esteem. Narcissism alone, on the other hand, leads to problematic behaviours such as aggression (Baumeister, Bushman, & Campbell, 2000), impulsivity (Vazire & Funder, 2006), and self-deceptive behaviours (Horton & Sedikides, 2009; Morf & Rhodewalt, 2001).

### **Agentic and communal narcissism**

Although the majority of research on narcissism focuses on grandiose narcissism with a focus on agentic concerns (Konrath & Bonadonna, 2014), recent research has started to shift attention to a new set of categories: agentic and communal narcissism (Gebauer, Sedikides, Verplanken, & Miao, 2012; Giacomin & Jordan, 2015; Luo, Cai, Sedikides, & Song, 2014; Żemojtel-Piotrowska, Clinton, & Piotrowski, 2014). The theoretical framework proposes that grandiose narcissists can present themselves using agentic or communal-oriented approaches (Gebauer et al., 2012).

It is worth noting that agency and communion are the big two fundamental content dimensions which are directly relevant to human social information processes and motivation (Bakan, 1966). Agency is the dimension related to independent self-construal, competence, and dominance. Traits such as being self-confident, competent, and intelligent are examples of the agentic content dimension (Bakan, 1966; Wojciszke & Sobiczewska, 2013). On the other hand, communion is the dimension related to interdependent self-construal, social desirability, and morality (Abele & Bruckmüller, 2011; Abele & Wojciszke, 2007; Helgeson & Fritz, 1999; Helgeson & Palladino, 2012). People with agentic traits are inclined to differentiate themselves from the group while those with communal traits emphasise group bonding (Buss, 1990).

Grandiose narcissism has long been regarded as being high in agency but low in communion (Emmons, 1987; Raskin & Terry, 1988). Campbell et al. (2006) proposed the agency model of narcissism and described how narcissism manifested

itself at both the intrapersonal and interpersonal levels. Their model suggests that narcissists use certain sets of agentic interpersonal skills (e.g., confidence, charm, self-perceived attractiveness, etc.) and interpersonal strategies (e.g., self-promotion, self-serving bias, trophy partner, etc.) to acquire self-esteem (Campbell et al., 2006). Thus, narcissists with agentic concerns derive their self-esteem from accomplishments in the agentic dimension.

In 2012, Gebauer et al. (2012) introduced the perspective of communal narcissism and revealed the possibility of communal manifestation among grandiose narcissists. They have used the labels agentic versus communal narcissism to describe two complementary forms of grandiose narcissism. Their agency-communion model suggests that the function of agency and communion dimensions can operate at both the trait and mean levels. Agentic narcissism measured by NPI reflects an agency-agency trait. That is, agentic narcissists have agentic traits and adopt agentic means to self-aggrandise (Gebauer et al., 2012). On the other hand, communal narcissism, measured by Communal Narcissism Inventory (CNI), reflects an agency-communion trait. That is, communal narcissists have agentic traits but adopt communal means for self-aggrandising (Gebauer et al., 2012). Accordingly, communal narcissists can be characterised as individuals who have a similar grandiose sense of self-view as agentic narcissists, but have adopted communal approaches to manifest their grandiosity (Gebauer et al., 2012; Luo et al., 2014). Communal narcissists self-aggrandise on the communal domain whereas agentic narcissists overclaim agentic traits (Gebauer et al., 2012). For example, agentic narcissists claim to be successful whereas communal narcissists claim that they are the best friends someone can have.

It is worth noting that even though communal narcissism reflects a facet of communion, communal narcissism differs from another commonly studied trait of unmitigated communion (Gebauer et al., 2012). Early research indicated that unmitigated communion represented an excessive focus on others to the exclusion of the self, which sometimes could be detrimental to well-being (Helgeson & Fritz, 1999). However, Gebauer et al. (2012) found a small correlation between communal narcissism and unmitigated communion. Furthermore, unmitigated communion was not positively related to agentic narcissism whereas communal narcissism was. Thus, these findings showed that communal narcissism and unmitigated communion are different constructs.

Although there is a difference in the strategies used between agentic and communal narcissism (Gebauer et al., 2012; Żemojtel-Piotrowska et al., 2014), both types of narcissism are correlated (Gebauer et al., 2012; Luo et al., 2014). This is because agentic and communal narcissists have a grandiose sense of self-importance and show a strong need to satisfy their core self-motives, which include self-esteem, power, grandiosity, and entitlement (Gebauer et al., 2012). In other words, they desire to enhance their self-esteem, have a high need for power, and believe they deserve more than what they already have to manifest their grandiosity.

Given that agentic and communal narcissism manifest themselves through different means (Gebauer et al., 2012; Luo et al., 2014; Żemojtel-Piotrowska et al., 2014), people around them may react and treat them differently. I speculate that this may affect satisfaction of their self-motives and how they reach their ideal selves of being admired by other people, particularly in circumstances where a long-term reciprocity is highly required.

## **Affirmation of the Ideal Self**

### **Introduction**

The concept of the self has been studied and considered as a prominent construct in psychology for many years (Assor & Tzelgov, 1987; Epstein, 1973; Gecas, 1982; Higgins, 1987; McDonald & Gynther, 1965). The self can be described in terms of how one evaluates (self-esteem) or regards (self-regard) one's own self (Higgins, 1987), and can be conceptualised as a set of attributes related to one's own identity (self-concept). The self-discrepancy theory (Higgins, 1987) proposes that there are three types of self-concept: actual, ought, and ideal self. Actual self refers to the attributes individuals believe they already possess. Ought self refers to the attributes individuals or other people in the society believe they should have. Ideal self refers to the attributes people desire to have for themselves. Individuals who have actual/ought self-discrepancy tend to experience social anxiety and self-criticism (Higgins, Roney, Crowe, & Hymes, 1994). On the other hand, those who have actual and ideal self-discrepancy are likely to feel unhappy with their lives (Higgins, 1987; Higgins, Klein, & Strauman, 1985).

Since large self-discrepancies lead to negative outcomes in life (Higgins, 1987; Higgins et al., 1985), scholars have tried to find ways to understand the process, particularly the discrepancy between actual and ideal self (McDaniel & Grice, 2005;

Vartanian, 2012). One such pathway might lie with close relationships. The Michelangelo phenomenon was proposed as a model in which close relationship partners help reduce the discrepancy between their actual and ideal self through the concept of partner affirmation of the ideal self (Drigotas, Rusbult, Wieselquist, & Whitton, 1999; Kumashiro, Rusbult, Finkenauer, & Stocker, 2007).

### **Michelangelo phenomenon: Definition of the affirmation of the ideal self**

Drigotas et al. (1999) suggest that people can achieve their ideal goal via partner affirmation of the ideal self. When individuals are affirmed on their ideal self by their partner, over time, they can move towards their ideal self, often operationalised as making progress on a desired goal. The name of the concept was originally inspired by one of the most influential artists of all times, Michelangelo Buonarroti, who believed the purpose of sculpturing was to uncover the beauty hidden inside a block of stone (Drigotas, 2002; Rusbult et al., 2009). Applied in a relationship context, partners also can help sculpt each other's ideal self by helping each other bring out the best side of one another (Kumashiro et al., 2006). Consequences of Michelangeloesque sculpting then results in enhanced personal and couple well-being.

Figure 1.1 displays the Michelangelo phenomenon model which proposes that partner perceptual affirmation yields partner behavioural affirmation. Partner perceptual affirmation describes the degree to which a partner believes that the self can acquire the ideal-congruent qualities (Rusbult, Kumashiro, Kubacka, & Finkel, 2009). Partner behavioural affirmation describes the degree to which a partner behaves towards the self in a manner that elicits the ideal-congruent qualities. Such behavioural affirmation of the ideal self also yields self movement towards the ideal self. As a consequence of the model, the outcomes are enhanced personal well-being and relationship well-being (Kumashiro et al., 2006).

For example, Joe wants to become optimistic. If Sarah believes Joe is able to become an optimistic person (perceptual affirmation) and always encourages Joe to think positively over a period of time (behavioural affirmation), it is likely that Joe learns to become more optimistic over time (self movement towards the ideal self) as a result of such reinforcing interactions with Sarah. Moreover, becoming closer to his best self will likely lead to Joe also becoming more satisfied with his life and with his relationship. Importantly, partner behavioural affirmation has been found to be the

most powerful predictor of couple well-being, independent of movement towards the ideal self (Drigota et al., 1999; Rusbult, Kumashiro, Stocker, Kirchner, et al., 2005).

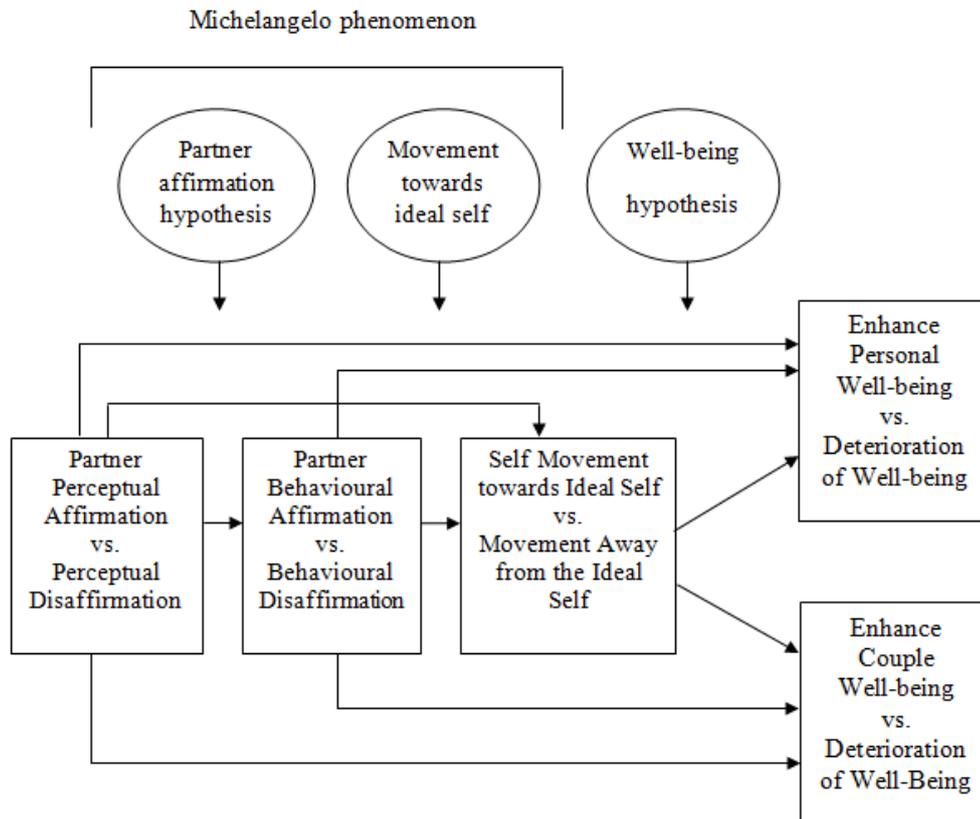


Figure 1.1. The Michelangelo phenomenon model.

On the other hand, partner may bring out the worst in the self or elicit characteristics that are irreverent to the self. Thus, people may experience disaffirmation or non-affirmation of the ideal self if close partners elicit undesired characteristics or characteristics that are unrelated to their ideal self (Rusbult, Kumashiro, Stocker, & Wolf, 2005). For example, Sarah may believe that Joe wants to be a cautious person and consistently encourages him to avoid risks and think of worst-case scenarios. However, given that Joes' ideal self is to be optimistic, Sarah's encouragement and support will not provide affirmation of the ideal self or help him reach his ideal self. Instead, her action may yield Joe to move further away from his ideal self, which is likely to yield negative consequences for his personal and relational well-being.

In addition, prior research found that individual differences in orientations towards goals affect the likelihood of receiving affirmation of the ideal self from

partners (Kumashiro et al., 2007; Righetti, Rusbult, & Finkenauer, 2010). For example, people with a locomotion orientation (those who have a high action mode of self-regulation) were likely to experience partner affirmation compared to those with an assessment orientation (those who have critical evaluation of goals), which may be due to how they pursue their ideal-relevant goals that makes it easier or more difficult for partners to support the goal pursuits (Kumashiro et al., 2007). Similarly, individuals with a promotion focus (focus on the benefit one can gain) were more likely to elicit affirming behaviour from their partner, compared to those with a prevention focus (focus on the loss one can avoid), again due to their goal pursuit behaviours (Righetti et al., 2010). These findings suggest that goal pursuit behaviours can influence the affirmation process.

### **Social Media**

Social media is a platform where social networks can be built based on users' similar interests and backgrounds (Boyd & Ellison, 2008). In addition to sharing one's own profile, connecting to each other, and building relationships over a period of time, people also use social media for self-presentation, self-exploration, and self-enhancement (Amichai-Hamburger, 2007; Amichai-Hamburger & Hayat, 2013; Siibak, 2009). Specifically, recent research also has found that social media such as Facebook and Instagram enable users to project their ideal image and attain admiration (Chua & Chang, 2016; Malik, Dhir, & Nieminen, 2016). Specifically, narcissists are motivated to seek admiration and self-enhance by sharing their photos including selfies (Sorokowski et al., 2015; Zhao et al., 2008). In addition, Boyd and Ellison (2008) have proposed that social media is a web-based service where individuals are allowed to construct a public or semi-public profile within a bounded system. In light of these findings, social media may be able to help people, particularly those with high levels of narcissism, display their ideal self and help them achieve their ideal self goal of being admired.

### **Facebook**

Among hundreds of social media platforms, Facebook has been ranked as the most popular web-based service with more than 1.4 billion users (Statista, 2015). This shows how widespread Facebook has become compared to other social media platforms (i.e. Twitter, MySpace, Pinterest, Instagram, and Tumblr), particularly

amongst those who were born between 1980 and early 2000s or the Millennials (Pinto & Mansfield, 2011).

Facebook serves as a medium for facilitating social interaction (Manago, Taylor, & Greenfield, 2012). Its function renders it to be network of social support for people on screen (Amado & Amador, 2014; Olson, Liu, & Shultz, 2012). Further, people still have high control over their pace of conversation (Boyd & Ellison, 2008). Thus, Facebook may be able to provide affirmation of the ideal self to and bring out the best side of its users, particularly among narcissists who have low commitment levels in close relationships (Campbell & Foster, 2002; Morf & Rhodewalt, 2001) but have high desire for ideal self-fulfilment (Sedikides, Gregg, Cisek, & Hart, 2007).

### **Characteristics of interaction on Facebook**

Facebook provides plenty of activities that users can engage in freely (Boyd & Ellison, 2008). Facebook users can choose to update their Facebook status, share their pictures or videos, leave comments on their friends' profile, tag other people, approve the tag other people add to their own post, and send an instant message (Anderson et al., 2012; Boyd & Ellison, 2008; McAndrew & Jeong, 2012). Moreover, people have full control over their personal information and privacy as they can make their profile private or public and filter (i.e., by friending or unfriending) whom they would like to include in their social networks (Boyd & Ellison, 2008). These functions of Facebook, therefore, not only offer users an opportunity to establish or maintaining connections with others within a bounded system (Ellison, Steinfield, & Lampe, 2007), but also facilitate users' identity construction (Tosun, 2012).

Even though people may use the internet to make anonymous comments, Facebook itself is a social media where it is not supposed to be anonymous (Gil-Or, Levi-Belz, & Turel, 2015; Zhao et al., 2008). In addition, Facebook users often interact and communicate with people whom they already know offline. Moreover, they are required to disclose themselves, including their names, demographic information, images, friends, and preferences towards activities and entertainment contents (Gil-Or et al., 2015; Zhao et al., 2008). Accordingly, some scholars believe that Facebook users may replicate their offline behaviours instead of acting differently from their face-to-face interaction (Amichai-Hamburger & Hayat, 2013). Even when Facebook users try to behave differently, their circle of friends may steer their behaviours back to the known ones.

### **Ideal Self-Construction on Facebook**

As people possess different type of selves (Higgins, 1987), they may display themselves differently in different situations, including on the Internet. For instance, early research found that people were more inclined to display their true self on the Internet rather than in a face-to-face environment as a result of being anonymous (Bargh, McKenna, & Fitzsimons, 2002). True self in this case refers to qualities individuals already possess but are not able to easily express in social settings due to some difficulties. Bargh et al. (2002) explain that everyone longs for close relationships, and in order to develop a relationship, self-disclosure is required. However, face-to-face interaction may be costly for people with taboo identities or those with negative self-aspect, offering the risk of being rejected by others. Based upon the anonymity on the internet, individuals may perceive the Internet as a safe venue for projecting their actual self-concept without social constraints or expectation. Further, the risk of being rejected in a relationship is low (Bargh et al., 2002).

Even though Facebook is not an anonymous platform, previous research found that individuals, particularly those who are unable to express the true self offline, were likely to express their true self on Facebook (Seidman, 2014). For example, socially anxious individuals reported high levels of well-being as a result of receiving social support on Facebook but not from their offline environment (Indian & Grieve, 2014). Further, neurotic people were found to present their hidden and ideal selves on Facebook as they perceived Facebook to be a safe space to disclose their self-aspects (Seidman, 2013). This shows that Facebook users may have a strong motivation to verify their true self-aspect or their hidden self on Facebook to substitute their lack of self-verification offline (Indian & Grieve, 2014). Interestingly, prior research revealed that users exhibited their true self on Facebook for self-oriented goals such as expressing their own emotions, seeking attention, and gaining acceptance from their networks (Seidman, 2013, 2014).

Another line of research proposes that people have the freedom to explore their multiple self-aspects and construct their ideal image on Facebook (Amichai-Hamburger & Hayat, 2013; Amichai-Hamburger & Vinitzky, 2010). Specifically, the absence of some nonverbal cues on Facebook empowers individuals to have more control over their appearance and feel free to explore multiple selves (Amichai-Hamburger & Vinitzky, 2010). For instance, Facebook allows users to control the

attractiveness of their image presented within their network (Amichai-Hamburger, 2007; Amichai-Hamburger & Hayat, 2013). They can post photos of their happy moment during vacation. In particular, the advancement of digital photography technology also allows individuals to beautify their photos as they wish to be perceived (Fox & Rooney, 2015). Consequently, individuals can present their best image for impression management (Wu, Chang, & Yuan, 2015).

In addition, Manago, Graham, Greenfield, and Salimkhan (2008) found that MySpace, one of the largest social media in 2008, could help emerging adults explore the possible self and create their own identity. For example, they found that emerging adults seized this opportunity to try on their ideal selves through their interaction on MySpace, such as displaying profile images. After engaging in impression management and receiving positive feedback from the audience, an ideal self started to develop (Manago et al., 2008).

Similarly, Zhao et al. (2008) found that Facebook helped people construct their identity. Their findings revealed that individuals adopted various tactics to construct their identity on Facebook. Photo sharing and wall posts were found to be implicit ways of forming an identity. On the other hand, narrative self-descriptions through descriptions of the owner's interests and a short sentence or paragraph about the page owner were found to be the explicit strategies to convey the owner's identity. Moreover, common ideal characteristics such as being well-rounded, popular, thoughtful, or cool were both implicitly and explicitly claimed by users. Zhao et al. (2008) concluded that Facebook enabled users to create a possible or an ideal self and to enhance self-image within an optimal online environment without physical barriers. Additionally, they believed that Facebook served as an ideal-self construction platform rather than a space to reveal the true self.

Their idea is later supported by Siibak's (2009) study which found that certain activities on social media helped teenagers construct their ideal self. Her study showed that photos presented alongside personal information of the owner could provide additional information about the owner's identity. Further, teenage girls considered having good looks as the most important way to gain admiration and popularity. This showed that photo selection enabled individuals to present their image in a way they wished to be perceived, and thus, an identity that matched the ideal self could be easily constructed.

Conversely, Gil-Or et al. (2015) have proposed that Facebook may facilitate a false self-presentation. They defined false Facebook self as the gap between the perceived self in a day-to-day environment and perceived self presented on Facebook. Low self-esteem individuals or those with insecure attachment style tended to possess a false Facebook self, which in turn lead to problematic behaviours such as Facebook addiction (Gil-Or et al., 2015). However, there is little empirical research on problematic aspects of Facebook use, and given the rapid changes in use of social media, more research is needed to examine whether Facebook can lead to severe problems for some of its users. The present research only aims to look at ideal self development on Facebook within the non-clinical population.

Although Facebook involves a lot of self-projection and helps people construct their ideal selves (Amichai-Hamburger, 2007; Amichai-Hamburger & Hayat, 2013; Siibak, 2009; Wu et al., 2015; Zhao et al., 2008), empirical studies are still scarce on whether Facebook can affirm the ideal self of its users. It is worth noting that creating an ideal self and affirmation of the ideal self are different constructs. Most research on ideal image on the internet appears to focus on creating an ideal self (Manago et al., 2008; Siibak, 2009; Zhao et al., 2008), which describes the state where individuals are trying to construct a new ideal self. On the other hand, affirmation of the ideal self refers to the perception that the existing ideal self has been affirmed by others. Thus, individuals could attempt to create a new set of ideal self but feel that others are not recognizing it or responding well to it. Given that Facebook environment is particularly geared towards encouraging its users to elicit positive interactions and feedback from others (Boyd & Ellison, 2008), I expect that that it may especially help individuals who desire to be admired experience affirmation of the ideal self and move closer to their ideal selves. Although there is no empirical evidence showing that narcissists have a high need to fulfill their ideal self standard, based on their excessive need for admiration (Morf & Rhodewalt, 2001; Sedikides et al., 2007) and perception of seeing others as a source of admiration (Baumeister & Vohs, 2001), I speculate that narcissists may be particularly motivated to use Facebook to experience Facebook affirmation and reach their ideal self. Moreover, as narcissism is positively associated with avoidant attachment styles (Smolewska & Dion, 2005), Facebook may be a safe platform where they can attain admiration, feel affirmed, and reach their ideal selves while keeping emotional distance from interaction partners.

## **Facebook Affirmation Model**

This thesis proposes a new model of Facebook affirmation based on the Michelangelo phenomenon model. Although the concept of Michelangelo phenomenon was originally proposed in the context of close relationships (Drigotas et al., 1999; Rusbult, Kumashiro, et al., 2009), it is expected that this concept can be modified or applied in other contexts involving mutual interactions over a period of time, such as Facebook. Research on close relationships and motivation suggests that people other than romantic partners are also indeed very important for facilitating personal growth and development (Kumashiro et al., 2006). As previous research found that Facebook is associated with an ideal self-construction (Zhao et al., 2008) and given that Facebook is primarily about social interactions, it is hypothesised that Facebook may be another source of affirmation of the ideal self.

Because Facebook users are capable of and likely to be disclosing their personal information to their friends or the public (Mazer, Murphy, & Simonds, 2007), their Facebook friends or the public can get to know what they are like or would like to be. For instance, users can show their aspiration by updating their status or sharing their attractive side (Mazer et al., 2007). It is even easier for their friends or the public to click like or leave positive comments on their own profile (Chin, Lu, & Wu, 2015), which in turn may help affirming their ideal selves. As narcissists routinely get people do what they want (Morf & Rhodewalt, 2001), it is expected that they may be able to motivate the audience to offer a positive response and manipulate the audience with their ideal self-image to encourage them to repeatedly show their approval. It is also worth noting that if the audience is an internet troll (e.g., those who post off-topic, start an argument, or upset people), or if the narcissistic users do not receive many admiring responses, narcissists may experience disaffirmation of the ideal self and move further away from their ideal self. However, given that Facebook allows its users to delete those who engage in trolling behaviours from their friends' list, I speculate that Facebook users may be likely to experience affirmation of the ideal self rather than disaffirmation.

Modified from the Michelangelo phenomenon model, the present research proposes the 'Facebook affirmation model'. The model suggests that Facebook affirmation promotes Facebook movement towards the ideal self, resulting in enhanced personal well-being. Narcissistic personality is added into the model as a personality trait affecting the Facebook affirmation process, as depicted in Figure 1.2.

It is important to note that the model combines perceptual and behavioural affirmation together into one construct as Facebook affirmation. This is because prior research suggests that behavioural affirmation is the most important factor in predicting well-being (Drigotas, 2002; Rusbult et al., 2005). Moreover, these two constructs have been shown to be highly related. On the social media where interactions can differ considerably from face-to-face interactions, it may be particularly difficult to distinguish between perceptual and behavioural affirmation. Specifically, other people’s perceptions can only be seen through their behaviours, such as by clicking like.

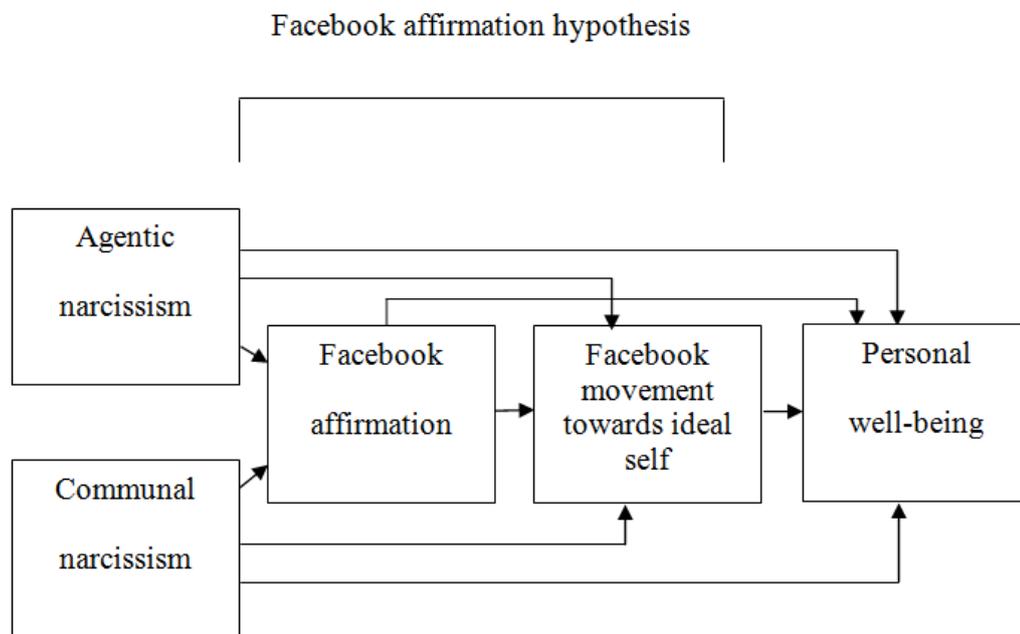


Figure 1.2. The Facebook affirmation model.

The term “Facebook” in this model involves both the Facebook features (e.g., activities, interface, etc.) and the environment (audience response). Therefore, both Facebook affirmation and Facebook movement towards the ideal self refer to the overall experience of Facebook users. In particular, Facebook affirmation refers to the perception of Facebook users that they feel free to exhibit their ideal self on Facebook, other people treat the self in a consistent manner with the ideal self, and they can be perceived by others on Facebook as the kind of people they wish to become. On the other hand, Facebook movement towards the ideal self refers to

perception of Facebook users that they are moving closer to their ideal selves as a result of using Facebook.

It is worth noting that an affirmation of the ideal self on Facebook in this model is a different concept from self-affirmation. Self-affirmation theory suggests that people are motivated to maintain their self-integrity, particularly when the self is threatened (Cohen & Sherman, 2007). Moreover, such process can be in the form of reflection on other important values of life or defensive responses (Sherman & Cohen, 2006). However, affirmation of the ideal self on Facebook in this model refers to the perception of Facebook users that other people on Facebook behave in ways that are consistent with their ideal selves, regardless of whether a self-threat is present or not. In addition to a recent study which found that Facebook could serve as a source of self-affirmation (Toma & Hancock, 2013), I speculate that Facebook affirmation may be another important process for self-improvement and personal development.

### **Narcissism and Facebook**

Because narcissists have a strong motivation towards positive outcomes (Foster & Trimm, 2008) and have approach orientation towards goals (Campbell et al., 2006; Foster, Misra, & Reidy, 2009), they may have a high likelihood of benefitting from the Michelangelo phenomenon (Campbell & Green, 2007). However, the Michelangelo phenomenon occurs over the course of an extended mutual positive interactions (Rusbult, Finkel, et al., 2009), but narcissists have little concern for their partners (Campbell & Foster, 2002). Although they possess several good qualities that can attract a partner, including self-confidence, extroversion, and charm, they do not invest in or commit to their romantic relationships (Campbell et al., 2006).

Given narcissists' interpersonal relationship tendencies, prior research has speculated that they may have a high likelihood of receiving affirmation of the ideal self from their partner but their partner may not receive it in return (Campbell & Green, 2007). Thus, over the long term, it is possible that their egocentrism and short-term attractiveness may decrease the possibility to attain affirmation of the ideal self from their partner. Because the Michelangelo phenomenon is based on the interpersonal relationships over an extended period of time (Rusbult, Finkel, et al., 2009; Rusbult, Kumashiro, et al., 2009), it would be of interest to explore whether there are other types of relationships that require less commitment so that narcissists can become closer to their ideal self of being admired.

A number of studies have shown that narcissists benefit from using Facebook to receive admiration. For example, exhibitionistic narcissists were found to use social media to gain admiration and power (Leung, 2013). They also generated Facebook wall posts more often than their peers and reported higher number of Facebook friends and (Buffardi & Campbell, 2008). Scholars suggest that ‘friending’ someone on Facebook may have less meaning and require less of an emotional connection than establishing new relationships with strangers in real life (Twenge & Campbell, 2009). Therefore, the number of online friends can be a symbol of popularity and status, which fits narcissists’ needs (Bergman, Fearington, Davenport, & Bergman, 2011).

At the same time, wall posting can reflect how much power narcissists have over others in generating contents (DeWall, Buffardi, Bonser, & Campbell, 2011). They seek attention from their Facebook friends by posting new content on wall posts frequently. Further, they post photos of themselves and change their profile more often as the methods of directing attention on the self (Carpenter, 2012). Specifically, they use the first-person singular pronouns (I and me) when describing themselves more frequently than their peers (DeWall et al., 2011; Leung, 2013, Ong et al., 2011). This shows that narcissists use various techniques for self-aggrandizing.

In addition, narcissists often talk about their success on Facebook as a way to gain admiration and attention. For example, Marshall, Lefringhausen, and Ferenczi (2015) found that narcissists were likely to update their status about their achievement and their diet or their exercise routine in order to gain attention from their friends. Further, there was a positive association between updating about their accomplishments and the number of comments and likes. High frequency of updating their achievement affected the number of likes and comments narcissists received. This indicated that narcissists tended to receive likes and comments from their friends when they talked about their success on Facebook. In addition, Marshall et al. (2015) speculated that the positive feedback that narcissists received might lead narcissists to repeatedly talk about their achievement on Facebook for ideal self-validation (Marshall et al., 2015).

In contrast, another line of research discovered that narcissists were less likeable on Facebook than the non-narcissists (Choi, Panek, Nardis, & Toma, 2015; Kauten, Lui, Stary, & Barry, 2015). For example, Kauten et al. (2015) found that narcissistic statuses on Facebook were dislikeable. Specifically, they conducted an experiment using 20 artificial Facebook statuses: 10 narcissistic statuses (e.g., “It

irritates me when people don't notice how good a person I am") and 10 neutral statuses (e.g., "Finally employed. Thank god!"), and 20 mimic Facebook profiles. Participants were asked to rate how likable -successful the person in each mimic profile was, and how likely they would like to be friends with them. Results showed that participants judged the targets with narcissistic statuses to be less likeable, less successful, and less friend-worthy compared to those who posted neutral statuses (Kauten et al., 2015). Similarly, another study also found that narcissists did not receive comments and likes from their friends, and entitlement and exploitativeness were the two sub scales of narcissism that led to these negative outcomes (Choi et al., 2015).

Even though both agentic and communal narcissists are grandiose narcissists, they adopt different strategies to reach their goals (Gebauer et al., 2012). Given that narcissists are very concerned about how others view them on Facebook (Qiu, Lin, & Leung, 2010), I speculate that they may only feel their best when they can use their preferred strategies to present themselves. In particular, agentic narcissists may use and benefit from Facebook when they are able to present their agentic traits. On the other hands, communal narcissists may use and benefit from Facebook when they are able to present their caring side.

### **Narcissism and Facebook in Thailand**

Most research on narcissism and Facebook use were conducted in individualistic cultures. Therefore, little is known about how narcissists in collectivistic cultures use Facebook to raise their self-worth. Importantly, scholars believe culture is an influential factor affecting how people perceive themselves, express their attitude towards social surroundings, and make a decision (Hofstede, 1980; Kim & Sherman, 2007; Shavitt, Lalwani, Zhang & Torelli, 2006; Triandis, 2001; Triandis & Gelfand, 2012; Triandis & Suh, 2002). People in individualistic cultures are likely to be more dominant, normless, and emphasise the values of comfortable life, competition, pleasure, and social recognition (Triandis & Suh, 2002). On the other hand, people in collectivistic cultures are more likely to be socially responsible, sensitive to rejection, and emphasise the values of cooperation, equality, and honesty (Triandis, Leung, Villareal, & Clack, 1985). Thus, previous findings on the association between narcissism and Facebook use in individualistic countries may not be able to generalise to people in collectivistic countries.

To fill this research gap, the current research focuses on narcissistic Facebook users in Thailand for several reasons. First, Thailand is a highly collectivistic country (Triandis, 2001). Second, it has a large number of Facebook users at approximately 37 million users (Leesa-Nguansuk, 2015). Specifically, Bangkok, a capital city of Thailand, has also been ranked as the city with the most Facebook users, compared to other capital cities in the world, with over 8.68 million users (Socialbaker, 2012), despite the fact that it is a small developing country with a population of approximately 70 million.

### **Thailand: A collectivistic culture**

Triandis (2001) defines Thailand as a collectivistic country, suggesting that Thai society encourages the sense of “we-ness”. Thais have their own way of dealing with inappropriate behaviours of others. Instead of acting against such behaviours, Thais tend to express their tolerance through a smiling face to keep the relationship strong and maintain collectivistic values (Triandis, 2004). In addition, Thais also use their smile to maintain social relationships and are likely to avoid destroying relationships with others, and focus on satisfying the needs of their interpersonal relationships rather than focusing on their own benefits (Knutson, 2004). This suggests that social harmony and group goals are highly important in the Thai society.

This is consistent with research by Markus and Kitayama (1991) which proposes that cultural differences affect aspects of self. People with an independent self-construal who mostly reside in individualistic cultures are likely to emphasise on separating the self from others. The internal thoughts and feeling determine behaviours, and their goals rely much on one’s own aspiration and desires. Consequently, their self-esteem is often derived from being able to express one’s own self (Markus & Kitayama, 1991). In contrast, people with an interdependent self-construal who mostly reside in collectivistic cultures focus on connecting the self with others. Social roles and responsibility are primary features determining behaviours, and the ultimate goal is to fit in with the society. As a result, their self-esteem is built based on the ability to maintain harmony with the society (Markus & Kitayama, 1991).

## **Narcissism in Thailand**

Culture affects the variation in personality traits (Benet-Martínez & Oishi, 2008; Triandis & Suh, 2002) and self-regulation (Hamamura & Heine, 2006; Zhang & Shrum, 2009). This includes the prevalence of narcissism between individualistic and collectivistic cultures (Cai, Kwan, & Sedikides, 2012; Foster, Campbell, & Twenge, 2003; Westen, 1985). An early study suggested that narcissism was less prevalent in collectivistic than individualistic cultures because of the emphasis on interdependence and social harmony (Westen, 1985). This is congruent with a later research by Foster et al. (2003) which compared narcissism levels across cultures. Findings showed that participants in Asia were less narcissistic than those in the US.

Later research also found that narcissists in collectivistic cultures perceived and regulated themselves slightly different from those in individualistic cultures (Tanchotsrinon, Maneesri, & Campbell, 2007). For example, Chinese narcissists reported high levels of agreeableness (Zhou, Zhang, Yang, & Chen, 2015). The results contradicted prior research which proposed that agentic narcissists were less agreeable and cooperative (Ames, Rose, & Anderson, 2006). Therefore, this may suggest that narcissism in the Chinese culture have communal characteristics.

In line with the study in China, research on narcissism in Thailand found that Thai narcissists showed a slight difference in their mating choice (Tanchotsrinon et al., 2007). Even though previous research in the west showed that narcissist were more attracted to an unknown opposite sex-target who admired them but less attracted to the target who was friendly and caring (Campbell, 1999), Thai narcissists were more attracted to the target who was friendly or showed his/her caring side than the target who admired them. The results indicated that communal qualities are more important than agentic qualities for narcissists in collectivistic cultures. Specifically, culture influenced the choice preference, despite levels of narcissistic tendencies (Tanchotsrinon et al., 2007).

Given that agentic narcissists adopt an agentic approach but communal narcissists adopt a communal approach to achieve their goals (Gebauer et al., 2012), it is likely that communal narcissists may be prevalent in collectivistic cultures including Thailand. This proposition is supported by a preliminary study which showed that communal narcissism was prevalent among Chinese students, and endorsement of collectivistic values was found to increase the prevalence of communal narcissism (Cai et al., 2012). In addition, along with another collaborator, I

examined the relationships among agentic and communal narcissism, and the Big Five in Thailand (Maneesri & Isaranon, 2015) and found a positive association between communal narcissism and agreeableness but a negative association between agentic narcissism and agreeableness. This suggests that communal narcissists, but not agentic narcissists, in Thailand perceive themselves as agreeable and cooperative.

Based on the research above, it is likely that people enhance themselves in the domains that are central to them (Cai et al., 2012). Since Thailand is a collectivistic country, it is interesting to examine how Thai narcissists behave, express their self-aspect, and move closer to their ideal self on Facebook, and whether their strategies to attain such goals differ from that found in individualistic cultures.

### **Facebook in Thailand**

Although self-expression is not prevalent in a collectivistic culture and members of such cultures are not encouraged to exhibit their personal goals or distinctiveness (Markus & Kitayama, 1991; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis & Suh, 2002), it is unclear if such values will be strongly held on social media such as Facebook.

Previous research found some differences in the use of social media between users in Japan and the USA (Marcus & Krishnamurthi, 2009). For instance, users in the USA were action-oriented and likely to show their individualistic side on their profile photo while those in Japan were relationship-oriented and often use cartoon characters as their profile image. Marcus and Krishnamurthi (2009) explained that the cartoon profile image found among the Japanese users might indicate that they avoided showing off or standing out from others.

In addition, Qiu et al. (2013) compared the behaviour on Renren (Facebook of China) and Facebook (USA-based) among the mainland Chinese students living in Singapore and found that Chinese students perceived Renren to be more sharing- and conformity- oriented than Facebook. Moreover, they were more likely to engage in sharing behaviours on Renren than Facebook, suggesting that the design and country of origin of a social networking service affected user's perception of expected behaviours. Even though the basic function of social media is oriented towards connectedness, interface of Facebook might facilitate self-expression and action-orientation than other social media created for East Asians (Qiu et al., 2013).

Additionally, cultural differences also affect the face ratio (i.e., the ratio of the face to the rest of the photo) of photos posted on Facebook. For example, Huang and Park (2013) compared the differences in profile photos on Facebook between East Asians (Hongkonger, Singaporean, and Taiwanese) and Americans and found a smaller face ratio in photos of Taiwanese users than those of Americans. With regard to the body proportions, American users were more likely to show their faces without the body parts, intensify the focal area (face) than the background, and present their smiling faces with teeth than users in Hong Kong, Singapore, and Taiwan. Their findings are consistent with prior research which suggests that people in individualistic societies have a strong desire to be outstanding and unique while those in collectivistic societies preferred to show harmony and blended with their surroundings or background (Hofstede, 1980; Markus & Kitayama, 1991; Triandis, 2001; Triandis & Suh, 2002).

However, people in individualistic cultures may also use Facebook to satisfy their other-oriented motives, even more than people in collectivistic cultures, to balance their social motives (Jackson & Wang, 2013). For instance, American users showed higher rate of connecting friends and family and meeting new people on Facebook than Chinese users. This may be due to the other-oriented values in China which encourages Chinese people to bond relationship with others offline. On the other hand, people in the US are encouraged to be independent from others. As a result, they may be inclined to gratify their social motives on Facebook to compensate or balance with their non-social motives offline (Jackson & Wang, 2013).

According to the aforementioned samples of research, it is likely that people in collectivistic cultures may use Facebook to serve their need for expression in a subtle way. While following the social regulations and being other-oriented (Jackson & Wang, 2013; Qiu et al., 2013), people in collectivistic cultures still show tendency of presenting their ideal aspect of self on Facebook (Peters, Winschiers-Theophilus, & Mennecke, 2015). Even though there has been no research directly examining self-expression on Facebook in Thailand, the aforementioned studies may be generalised to the Thai culture because expressing personal identity and individual uniqueness in real life is not promoted in Thailand (Triandis, 2001). Therefore, it is expected that Facebook can be an online platform for ideal self goal pursuits among Thai Facebook users, especially the narcissists.

## **Research Objectives**

In recent years, a number of studies have been devoted to examine how narcissism manifests itself on Facebook (Bergman et al., 2011; Carpenter, 2012; DeWall et al., 2011). These efforts have shown that narcissists thrive on Facebook by selecting attractive photos of oneself and having a large number of Facebook friends (Twenge & Campbell, 2009). Yet, prior research only investigated narcissism with agentic concerns or agentic narcissism (Horton et al., 2014; Kauten et al., 2015; Marshall et al., 2015; Stopfer, Egloff, Nestler, & Back, 2013). The lack of research on how communal narcissists manifest and regulate themselves on Facebook has raised questions whether generalisability can be made. The current research, thus, attempts to examine the manifestation on Facebook between agentic and communal narcissists.

Further, no research up to date has investigated the role of Facebook on affirmation of the ideal self. In addition, previous research on the Michelangelo phenomenon focused on interpersonal relationships between romantic partners (Rusbult, Kumashiro, et al., 2009). Since Facebook provides a space for ideal self-projection (Siibak, 2009), it is expected that Facebook may be able to serve as a source of affirmation of the ideal self. Since there is no empirical evidence that links narcissism with an affirmation of the ideal self on Facebook, the current research also aims to bring about the new perspective of Facebook affirmation among the narcissists by proposing the Facebook affirmation model based upon the Michelangelo phenomenon model. Moreover, it also attempts to test whether the model can be used in other social media platforms such as Instagram.

In addition, as there has been little research examining narcissistic manifestation on Facebook in eastern countries or even comparing such processes between cultures, the current research attempts to fill this gap by exploring narcissistic behaviour on Facebook in Thailand. Four main studies were conducted to examine the way Thai narcissists behaved on Facebook to attain Facebook affirmation and move closer to their ideal self.

## **Summary and Chapter Overview**

The current research aims to advance previous research on narcissism and Facebook by proposing the Facebook affirmation model as shown in Figure 1.2.

Study 1 tested the Facebook affirmation model in the Thai culture and investigated whether Facebook could help Thai narcissistic users feel affirmed and

move closer to their ideal selves, resulting in a greater personal well-being. It also compared the difference in the Facebook affirmation model between Thai and British Facebook users using a correlational research design.

Study 2 complimented Study 1 by examining the role of cognitive-behavioural strategies on Facebook affirmation among Thai narcissists. A quasi-experiment was used to test the moderating effect of using specific behavioural-cognitive strategies.

Study 3 used a quasi-experiment research design to further examine the mechanisms underlying the Facebook affirmation model by proposing that satisfying the core self-motives, including self-esteem, grandiosity, power, and entitlement yielded narcissistic Facebook users to feel affirmed, move closer to their ideal self, and have greater personal well-being.

Lastly, Study 4 examined how Thai narcissists received affirmation of the ideal self through selfie-posting. This study aimed to further investigate if affirmation of the ideal self occurred in other social media other than Facebook. The experiment investigated the way in which Thai narcissists received affirmation of the ideal self via taking and posting selfies on Instagram.

Table 1

*Chapter overview (main studies)*

Chapter and research questions	Research design	Sample
Chapter 2: Narcissism and affirmation of the ideal self on Facebook: A preliminary investigation of Facebook affirmation model <ul style="list-style-type: none"> <li>▪ Do narcissists receive Facebook affirmation and move towards the ideal self on Facebook?</li> <li>▪ Does Facebook affirmation differ across cultures?</li> </ul>	Correlational study	107 Thai and 69 British people
Chapter 3: The mechanisms underlying Facebook affirmation <ul style="list-style-type: none"> <li>▪ Do agentic and communal narcissists benefit from using different cognitive-behavioural strategies on Facebook to receive affirmation of the ideal self and move towards their ideals?</li> </ul>	Quasi-experiment	102 Thai people
Chapter 4: Narcissism and Facebook affirmation: The underlying mechanisms <ul style="list-style-type: none"> <li>▪ Does satisfaction of core self-motives underpin Facebook affirmation among narcissists?</li> </ul>	Quasi-experiment	162 Thai people
Chapter 5: Narcissism and affirmation of the ideal self on Instagram: A selfie experiment <ul style="list-style-type: none"> <li>▪ Does selfie-posting yield affirmation of the ideal self among narcissists?</li> </ul>	Quasi-experiment	274 Thai people

## **Chapter 2**

### **Narcissism and Affirmation of the Ideal Self on Facebook: A Preliminary Investigation of the Facebook Affirmation Model**

#### **Overview**

Although prior research on social media has suggested that people, particularly those with high narcissism, benefit from using Facebook to maintain their positive self-views (Amichai-Hamburger & Vinitzky, 2010; Ellison et al., 2007; Marshall et al., 2015; Ong et al., 2011; Ryan & Xenos, 2011; Wang, Jackson, Zhang, & Su, 2012), no previous research that I am aware of has examined whether Facebook can promote movement towards the ideal self. According to the Michelangelo phenomenon model, individuals can move closer to their ideal selves when their close relationship partners affirm their ideal selves (Drigotas et al., 1999; Rusbult, Kumashiro, et al., 2009). This process also leads to greater couple and personal well-being (Kumashiro et al., 2006; Rusbult et al., 2005). Given that other research has found Facebook to be a platform for self-expression (Amichai-Hamburger & Hayat, 2013) and ideal image construction (Siibak, 2009, 2010), using Facebook may help bring out the best side of its narcissistic users and facilitate movement towards the ideal self.

Adapted from the Michelangelo phenomenon model (Rusbult, Kumashiro, et al., 2009), this chapter aims to test the Facebook affirmation model among Thai narcissists (see Figure 1.2 in Chapter 1). It is hypothesised that Facebook is able to provide affirmation of the ideal self to Facebook users, particularly those with high narcissism. In turn, such affirmation of the ideal self is expected to promote movement towards the ideal self and enhance personal well-being. In addition to testing the validity of the Facebook affirmation model amongst Thais, the present chapter also seeks to examine whether the Facebook affirmation model is valid for Facebook users in other individualistic countries such as the UK. The UK was chosen to represent individualistic culture for several reasons. First, the UK is a relatively small country comparable in size to Thailand. Its population is 64 million while those of Thailand is 67 million (Office for National Statistics, 2015; Worldometers, 2016). Similarly, number of Facebook users in Thailand and the UK is nearly equal at approximately 37 million users (Leesa-Nguansuk, 2015; Perfectinsider, 2015).

Moreover, narcissistic behaviour on Facebook found in the UK is similar to those in other individualistic countries (Davenport, Bergman, Bergman, & Fearington, 2014; Mehdizadeh, 2011). Lastly, British people are a convenience sample for this research project. Majority of the research on narcissism has focused on the agentic aspect of narcissism (Campbell et al., 2006; Collins & Stukas, 2008; Morf & Rhodewalt, 2001; Sedikides & Gregg, 2001), which may not reflect communal narcissistic behaviours. Since agentic narcissists capitalise on agentic means whereas communal narcissists capitalise on communal means, the present study explores if there are any differences in Facebook affirmation between these two types of narcissism and examine if there are any cultural differences, given that communal narcissism may better suit the collectivistic nature of Thailand.

### **Narcissism and Facebook behaviour in the Thai culture**

Hardly any research has been conducted on narcissism in Thailand, but the limited number of existing research has yielded some interesting findings, especially regarding agentic versus communal narcissism (see the literature review for a comprehensive review). For example, Thai agentic narcissists in Thailand preferred a target with communal qualities when choosing a mate (Tanchotsrinon et al., 2007). In addition, a positive correlation between collectivism and communal narcissism, but not agentic narcissism, found in my other research (Maneesri & Isaranon, 2015) lead to initial speculation that communal narcissism might be more prevalent in the predominantly collectivistic Thai culture.

Although there have not been much research on narcissism and Facebook in the Thai culture (see the literature review for a comprehensive review), general research on Facebook usage in Thailand reveals that Thais use Facebook for social cohesion. These include establishing new relationships, maintaining existing relationships, keeping up with current events and trends, coordinating their behaviours with their friends, and complying with peer pressure (Dumrongsiri & Pornsakulvanich, 2010; Liengpradit, Sinthupinyo, & Anuntavoranich, 2014; Pornsakulvanich & Dumrongsiri, 2013). In addition to social cohesion, they are also likely to be using Facebook for other purposes. Given that collectivistic cultures such as Thailand promote group goals over individual goals (Triandis & Gelfand, 2012), Thai users may be using Facebook to express their personal aspiration and move

closer to their ideal self. Moreover, narcissists who have an excessive need for admiration (Emmons, 1987; Morf & Rhodewalt, 2001; Raskin & Terry, 1988) may put more effort in using Facebook to attain such benefits.

### **Narcissism and Facebook behaviour in the British culture**

While the majority of research on narcissism has been conducted in the USA, several studies attempt to examine narcissism in the UK. Specifically, most of them are concerned with agentic narcissism. Consistent with research in the US, agentic narcissists in the UK engage in self-promotion and self-enhancement (Mehdizadeh, 2011). They have grandiose feelings (Gregg & Sedikides, 2010; Mehdizadeh, 2011), desire to control others (Matosic et al., 2015), and are low in empathy (Hepper et al., 2014). On the other hand, the original research on communal narcissism by Gebauer et al. (2012) included British samples; therefore, results from their research can generalise to British communal narcissists and reveal that they satisfy their self-motives by using communal strategies such as overestimating their communal attributes.

Although there are not many studies in the UK looking at narcissistic behaviour on Facebook, the existing evidence still shows that British agentic narcissists frequently update their Facebook status, use photo editing software, and use positive adjectives to describe themselves on Facebook for self-promotion (Mehdizadeh, 2011). Further, another UK-based research showed that the topics agentic narcissists were likely to post were related to their accomplishments (Marshall et al., 2015). Given that British society promotes the sense of autonomy, authority ranking, and personal goal achievement (Shavitt, Lalwani, Zhang, & Torelli, 2006), and that they have a strong desire to separate themselves from others and thrive for uniqueness, the British, especially those with high narcissism, may also use Facebook to exhibit personal aspirations and pursue their ideal selves on Facebook.

### **The Present Study**

Adopted from the Michelangelo phenomenon model (Rusbult, Finkel, et al., 2009), the present study proposes to test the Facebook affirmation model (see Figure 2 in Chapter 1). The model postulates that Facebook can bring its users, particularly narcissists, to become closer to their ideal selves through experiencing affirmation of

the ideal self. In turn, Facebook affirmation and movement towards the ideal self are also expected to enhance personal well-being.

Given that there is no research to date that I am aware of which has examined differences in agentic versus communal narcissism in Facebook use, the current study focuses on both agentic and communal narcissism and explores if there are any differences between them in the Facebook affirmation model. Although communal narcissism has been understudied to date, given the nature of Facebook which is based on building relationships, communal narcissists may have a better chance than agentic narcissists to reach their ideal selves on Facebook.

In addition to testing the Facebook affirmation model in the Thai sample, this study examines the model in the British sample to test whether the Facebook affirmation model is valid in an individualistic country and explores whether culture affects the model. British and Thai cultures are classified as being individualistic and collectivistic cultures, respectively.

No *a priori* hypothesis is provided for cultural effects. On the one hand, since people from different cultures emphasise the importance of their personal aspiration differently (Traindis, 2001), it is possible that culture may moderate the relationship between both types of narcissism and Facebook affirmation. Compared to users in the UK, Thais may use Facebook as a form of compensation to get around constraints on self-expression (Bunloet et al., 2010). As Facebook enables ideal self-expression (Siibak & Hernwall, 2011) and provides freedom to its users to control their information and privacy (Boyd and Ellison, 2008), it is possible that Thais, especially those with high narcissism, who are discouraged from expressing their aspiration in real life may be particularly motivated to use Facebook to reach their ideal selves of being admired by others as a mean of compensation. Alternatively, it is also possible that British narcissists may benefit more than Thais from experiencing affirmation of the ideal self on Facebook, as a way to augment their drive for reaching their ideal selves. Given that individualistic cultures actively promote and support pursuit of personal goals in offline settings (Traindis, 2001), they may find Facebook as another platform where they can reach their ideal selves; in fact, given their avoidant tendencies (Miller et al., 2011), British narcissists may particularly benefit from Facebook by enabling them to have an appreciative audience while avoiding actual intimacy. Specifically, prior research found that the British narcissists were likely to

talk about their accomplishment on Facebook (Mehdizadeh, 2011). Finally, there may be no cultural differences: Not all people in collectivistic cultures are collectivistic or have interdependent self-construal, and not all people in individualistic cultures are individualistic and have independent self-construal (Triandis & Suh, 2002).

Moreover, there are more than one dimensions underlying independent and interdependent self-construals including self-reliance, self-containment, difference, self-interest, consistency, and self-direction dimensions (Vignoles, et al., in press).

Thus, it is possible that there may be no cultural differences when comparing people from different countries.

The present study uses a correlational research design to test the Facebook affirmation model. Data were collected in Thailand and the UK using both online and paper-and-pencil questionnaires.

### Hypotheses

The following hypotheses were tested based on the hypothesised model as shown in Figure 2.1.

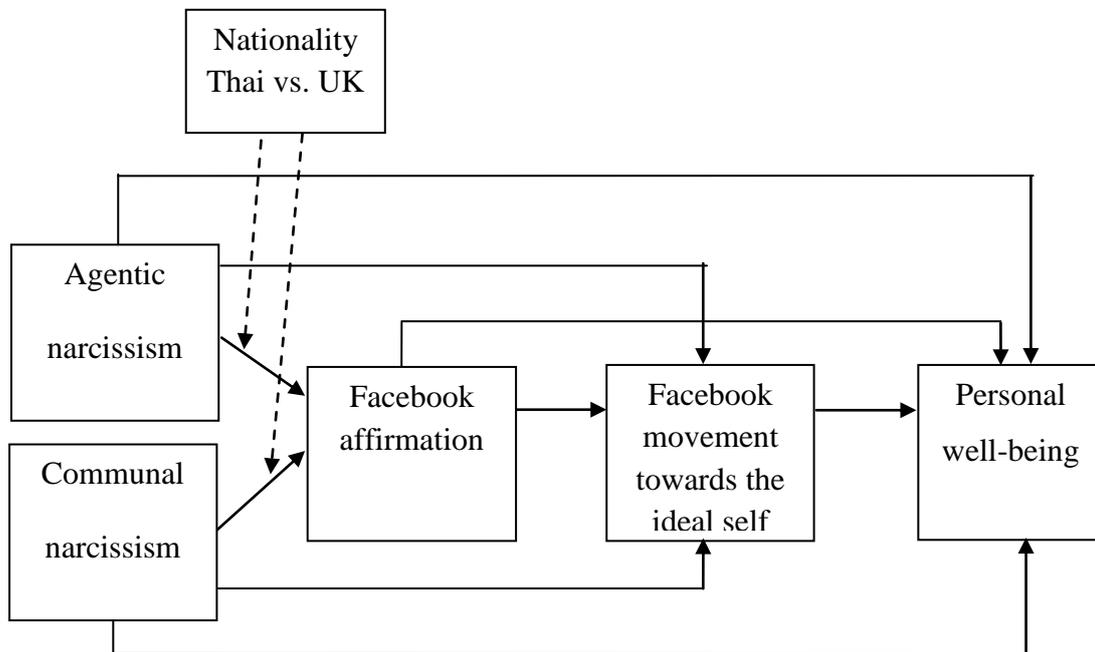


Figure 2.1. Nationality of participants as a potential moderator in the Facebook affirmation model.

### **Testing the direct effects**

*Hypothesis 1.* Agentic narcissism (a) and communal narcissism (b) will positively predict Facebook affirmation.

*Hypothesis 2.* Agentic narcissism (a) and communal narcissism (b) will positively predict Facebook movement towards the ideal self.

*Hypothesis 3.* Agentic narcissism (a) and communal narcissism (b) will positively predict personal well-being.

*Hypothesis 4.* Facebook affirmation will positively predict Facebook movement towards the ideal self.

*Hypothesis 5.* Facebook affirmation will positively predict personal well-being.

*Hypothesis 6.* Facebook movement towards the ideal self will positively predict personal well-being.

### **Testing the mediating effects**

*Hypothesis 7.* Facebook affirmation will mediate the effect of agentic narcissism (a) and communal narcissism (b) on Facebook movement towards the ideal self.

*Hypothesis 8.* Facebook affirmation will mediate the effect of agentic narcissism (a) and communal narcissism (b) on personal well-being.

*Hypothesis 9.* Facebook movement towards the ideal self will mediate the effect of agentic narcissism (a) and communal narcissism (b) on personal well-being.

*Hypothesis 10.* Facebook movement towards the ideal self will mediate the effect of Facebook affirmation on personal well-being.

**Exploring cultural differences.** As I also aim to explore whether culture will affect the model, the moderating effect of nationality of participants will be tested. It is possible that Thai narcissists may experience Facebook affirmation at a higher level than the British based on compensatory behaviour. However, it can be vice versa as the British may be more familiar with reaching ideal self offline and may find Facebook to be another platform to pursue their ideal self goal. Alternatively, it is also possible that culture may not be a moderator in the model. Given these three possible directions, this study will explore the effect of culture distinguished by nationality of participants without offering *apriori* hypotheses.

## Methods

**Participants.** Samples were Thai and British participants aged between 18-30. The age range was chosen to represent the Millennials or Generation Y, a cohort which has grown up using the social media (Bergman et al., 2011). Table 2.1 contains information about the three samples that I recruited in the current study. The Thai sample and British Sample A were recruited through Facebook recruitment. I created a Facebook fan page and advertised the project as “YokfahPhDproject” using paid-Facebook advertisement to invite Facebook users to participate in the study. British Sample B was recruited during a mass battery test for the first year psychology undergraduate students at Goldsmiths, University of London, using a paper-and-pencil version of the survey. Thai and British participants recruited via Facebook were screened based on the ethnicity question. Thus, they were 100% Thai and British nationals, respectively. However, given that British sample B was recruited in the classroom as part of the battery test at Goldsmiths, and there was no ethnicity question, a few of them may not have been British nationals.

Table 2.1

### *Sample characteristics*

Sample	Recruitment	N (total)	Sex		Age	
			<i>N</i> (female)	<i>N</i> (male)	<i>M</i>	<i>SD</i>
Thai	Internet	107	75	32	21.38	3.01
British A	Internet	69	53	16	21.49	2.73
British B	Battery test	130	82	48	21.66	3.35

**Research design and procedure.** A cross-cultural correlational research method was used to test the Facebook affirmation model in Thai and British samples. Specifically, the mediating roles of Facebook affirmation and Facebook movement towards the ideal self on personal well-being among both agentic and communal narcissists were tested.

Facebook advertisement was used to recruit participants with a link to an online survey ([www.surveymonkey.com](http://www.surveymonkey.com)). The Thai sample and British Sample A who saw and clicked the advertisement of the study went to the online survey page

automatically. They were asked to complete a set of online questionnaires including narcissistic personality inventory (NPI), communal narcissism inventory (CNI), Facebook affirmation scale, Facebook movement towards the ideal self scale, and the satisfaction with life scale (SWLS).

British Sample B, who was recruited from the battery test, was asked to complete the paper-and-pencil questionnaire in a classroom. British Sample B completed the same measures as the Thai sample and British Sample A, with the exception of Facebook movement towards the ideal self. Due to time limitations, British Sample B completed an actual and ideal self closeness scale instead of Facebook movement towards the ideal self scale. All scales are listed in Appendix A.

**Materials.** All scales in the Thai version were translated and back-translated by two native Thai speakers who are fluent in English.

**Agentic narcissism.** To assess agentic narcissism, the 13-item narcissistic personality inventory (NPI-13; Gentile, Miller, Hoffman, Reidy, Zeichner, & Campbell, 2012), which is a short version of the most common 40-item NPI (NPI-40; Raskin & Terry, 1988), was administered. Participants were asked to indicate which one of each pair represented themselves the most. For example, in the following pair, the narcissistic statement is “I know that I am a good person because everybody keeps telling me so”, and the non-narcissistic statement is “When people compliment me I get embarrassed”. Scores were calculated by summing the number of narcissistic statements they chose for the 13 forced-choice NPI items ( $\alpha$ s = .56, .75, and .62 for Thai, British Sample A, and British Sample B, respectively).

It is important to note that the Cronbach’s alpha for the 13-item NPI in the Thai sample was .56 and in the British Sample B was .62, while the original paper by Gentile et al. (2012) showed that the Cronbach’s alpha of the overall scale ranged from .73 to .82. Although these statistics indicated that this scale had quite low internal consistency in the Thai sample and British sample B, it is still essential to use the same measurement for cross-cultural comparison, particularly as this is the first attempt to examine and compare the Facebook affirmation model in Thailand and the UK. Importantly, it is highly recommended to use equivalent measurement for cross-cultural comparison (Bond, 2011).

Most of the following measures were assessed using 7-point response scales (e.g., 1 = strongly disagree, 7 = strongly agree), except where noted for the movement

towards the ideal self scales, where participants were instructed to rate the degree to which they agree with each item of the scales. Scores were calculated by calculating the average score for each participant such that higher scores of each measure indicated greater levels of each construct.

***Communal Narcissism.*** Participants were asked to complete the 16-item communal narcissism inventory (CNI-16; Gebauer et al., 2012). This measure assesses individual differences in the extent to which people report communal narcissism traits. An example of items is “I am the most helpful person I know” ( $\alpha$  = .90, .90, and .93 for Thai, British Sample A, and British Sample B, respectively).

***Facebook affirmation.*** An 8-item Facebook affirmation scale was created, based on the affirmation scale from the Michelangelo phenomenon model (Rusbult, Finkel, et al., 2009). An example of items is “When I’m on Facebook, I feel free to display the kind of person I ideally want to become” ( $\alpha$  = .74, .76, and .74 for Thai, British Sample A, and British Sample B, respectively).

***Facebook movement towards the ideal self.*** Two measures were used to assess Facebook movement towards the idea self in this study.

***Facebook movement towards the ideal self scale.*** A 5-item Facebook movement towards the ideal self scale was created, based on the movement towards the ideal self scale from the Michelangelo phenomenon model (Rusbult, Finkel, et al., 2009). Participants were asked to indicate the degree to which they have moved closer to their ideal selves as a result of their Facebook usage in 5 domains: values, relationship goals, desired personal traits, hobbies, and overall ideal self. Response options of Facebook movement towards the ideal self scale were between minus 3 and plus 3 (-3 = I have moved further away from my ideal self and 3 = I have moved closer to my ideal self). The Thai sample and British Sample A completed this scale ( $\alpha$  = .85 and .88 for Thai and British Sample A, respectively).

***Actual and ideal self closeness scale.*** An actual and ideal self closeness scale on Facebook was modified based on the concept of the Michelangelo phenomenon. Participants were presented nine pairs of circles that portray how close their actual self is to their ideal self, where the circle on the left represents their actual self and the one on the right represents their ideal self. Participants were asked to choose one from nine pairs that best represent their actual and ideal selves (1 = their actual and ideal selves do not overlap at all and 9 = their actual and ideal selves are the same). British

Sample B completed this scale. Figure 2.2 shows the actual and ideal self closeness scale.

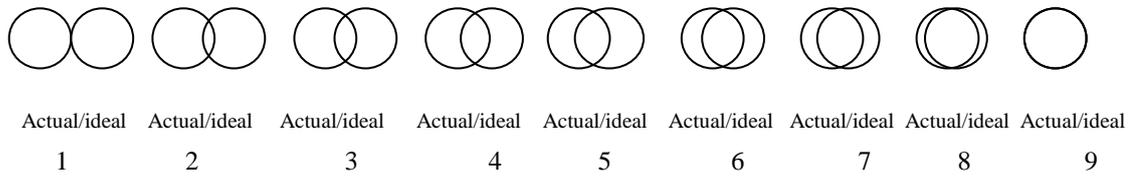


Figure 2.2. Actual and ideal self closeness scale.

**Personal well-being.** To assess personal well-being, participants completed the 5-item satisfaction with life scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). This scale assesses the extent to which people report satisfaction with their life. An example of items is “I am satisfied with life” ( $\alpha$ s = .86, .86, and .83 for Thai, British Sample A, and British Sample B, respectively).

### Data analyses strategy

To test the Facebook affirmation model and compare the possible differences in the model between participants in Thailand and the UK, all participants need to complete the same set of measures. Since British Sample B did not complete Facebook movement towards the ideal self scale, I will first test the model on Thai and British Sample A, but will conduct further analyses on British Sample B.

Multiple-group path analysis will be carried out using Mplus version 6.0 software programme for Windows. Maximum Likelihood (ML) will be used as an estimator because it can provide parameter estimates and bootstrap standard errors (Muthén & Muthén, 1998-2010).

In addition, recommended practice is that the ratio of the number of sample size to number of free parameters should be at least 5:1 but 10:1 is more preferable (Bentler & Chou, 1987). Since there are 17 free parameters in the hypothesised model for each group, number of participants in each group should be at least 85. However, according to Preacher and Coffman (2006), the minimum sample size required to achieve power of .80 with  $df = 1$  for a test of close fit with RMSEA ( $H_0$ ) = 0.05 and

RMSEA (H1) = 0.08 is 6,875 for each group. Therefore, interpretation of the current model needs to be made with caution, as the sample size is lower than recommended.

Several analyses will be conducted because this study attempts to test the Facebook affirmation model in both the Thai and British samples and examine any cross-cultural effects. First, the hypothesised model will be tested separately for Thai and British sample A. Comşa (2010) suggests that the model fit for each group should be tested before estimating the invariance models, and the model form in both groups should be the same.

Next, the difference in Facebook affirmation between narcissists in Thailand and the UK will be tested. Multiple-group path analysis will be carried out as it enables comparisons of the model across groups (Kenny, 2011). Data of the Thai and British Sample A will be combined, with the nationality of participants dummy coded (UK = 0 and Thailand = 1). The key concept of multiple group analysis is to constrain parameters in the model based on hypotheses (Preacher & Hayes, 2008). This invariance testing technique allows the researcher to examine if the parameters in the model are equal across groups (Muthén & Muthén, 1998-2010). If the parameters in the multiple group models are constrained and the chi-square between the constrained model and the free-parameter model is significantly different, then the parameters are not equal across groups, suggesting that there is a moderating effect.

After testing the model between Thai and British participants, parameter estimates in each group will be interpreted. The main effects and mediating effects will be explored. Path analysis model can produce direct, indirect, and total effect of predictors on each on outcome variables though a default and the indirect effect commands (Bruin, 2006). The direct effect of predictors represents the effect of the distal predictor on the outcome when mediators are included in the model. The indirect effect represents the mediating effect of mediators on the association between the distal predictor and the outcome. Total effect equals the sum of direct and indirect effects (Kenny, 2015). For example, to investigate the indirect effect of X on Y when M and Z are mediators, a specific command “X ind Y” is required. Then, the programme will generate path coefficients, standard errors, t values and p values of the total effect of X on Y and indirect effects of X on Y via M, Z, and M and Z together. The program will produce the mediating effect of each mediator and the combination of mediators in the model (Bruin, 2006).

## Results

Descriptive statistics and correlations are presented in Table 2.2.

Table 2.2

*Descriptive statistics and Person's correlations of the Thai and British Sample A*

Variables	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	1	2	3	4
<i>Thai sample ( n = 107)</i>								
1. NPI	1.00	12.00	4.23	2.29	-			
2. CNI	1.69	6.38	4.31	0.84	.20*	-		
3. Facebook affirmation	2.38	6.75	4.71	0.90	-.11	.26*	-	
4. Facebook movement	3.00	7.00	5.06	0.76	-.07	.23*	.25*	-
5. SWLS	2.00	7.00	4.73	1.07	-.19*	.19	.54**	.33*
<i>British Sample A ( n = 69)</i>								
1. NPI	0.00	12.00	3.59	2.73	-			
2. CNI	1.63	6.19	4.12	0.92	.24*	-		
3. Facebook affirmation	2.75	7.00	4.63	1.00	.07	.41**	-	
4. Facebook movement	1.00	7.00	4.24	1.21	-.10	.17	.36**	-
5. SWLS	1.20	7.00	4.18	1.30	.08	.31*	.34**	.05

*Note.* NPI = 13-item Narcissistic Personality Inventory; CNI = communal narcissism inventory; Facebook movement = Facebook movement towards the ideal self; SWLS = satisfaction with life scale. \* $p < .05$ . \*\* $p < .01$ .

Results of the Thai sample showed that agentic narcissism was positively correlated with communal narcissism but negatively correlated with life satisfaction. It was not significantly correlated with other variables. On the other hand, communal narcissism was significantly correlated with Facebook affirmation and Facebook movement towards the ideal self. Moreover, Facebook affirmation was positively correlated with Facebook movement towards the ideal self. Lastly, Facebook

affirmation and Facebook movement towards the ideal self were positively correlated with life satisfaction.

Results of the British sample B showed that agentic narcissism was positively correlated with communal narcissism. However, it was not correlated with the remaining variables. Even though communal narcissism was positively correlated with Facebook affirmation and life satisfaction, it was not correlated with Facebook movement towards the ideal self. In addition, Facebook affirmation was positively correlated with Facebook movement towards the ideal self and life satisfaction. However, Facebook movement towards the ideal self was not correlated with life satisfaction.

### **Assessment of model fit**

First, fit indices of Thai and British sample A's models were tested. Several fit statistics were carried out. According to MacCallum, Browne, and Sugawara (1996), root mean square error of approximation (RMSEA) lower than 0.01, 0.05, and 0.08 indicates excellent, good, and mediocre fit. In addition, comparative fit index (CFI) that is greater than .95 can be interpreted as an acceptable fit (Schermelleh-Engel, Moosbrugger, & Müller, 2003).

Fit indices of the Thai sample's model showed that the Facebook affirmation model in the Thai sample had an excellent fit,  $\chi^2 (1) = 0.65, p = .42, CFI = 1.00,$  and  $RMSEA = 0.000$ . On the other hand, fit indices of the British Sample A's model showed that the Facebook affirmation model in British Sample A had a mediocre fit,  $\chi^2 (1) = 1.43, p = .23, CFI = 0.98,$  and  $RMSEA = 0.079$ .

### **Invariance testing on Facebook affirmation across groups**

Multiple-group analysis was carried out to test whether Facebook affirmation would differ between narcissists in Thailand and the UK. After combining data of Thai and British Sample A, fit statistics were tested. Results showed that the model form with free-parameters estimation in the two groups had a good fit,  $\chi^2 (2) = 2.27, p = .32, CFI = 1.00,$  and  $RMSEA = 0.039$ . This indicated that parameter estimates in the multiple-group models could be interpreted.

**Exploring the moderating effect of culture.** The invariance testing of the effects of agentic and communal narcissism on Facebook affirmation was conducted

next to test whether Thai agentic and communal narcissists received Facebook affirmation at a higher level than the British. The parameters to be constrained were the path coefficients between agentic and communal narcissism on Facebook affirmation.

First, the parameter of the effect of agentic narcissism on Facebook affirmation was constrained. Results from the model with this parameter constrained showed that this restricted model still fitted well with the data,  $\chi^2(3) = 3.43$ ,  $p = .33$ , CFI = 1.00 and RMSEA = 0.041. Results from the Satorra-Bentler scaling correction revealed that Chi-square difference between this model and the free-parameter model was not statistically different,  $\Delta\chi^2(1) = 1.17$ , *ns*. This showed that the nationality of participants did not moderate the effect of agentic narcissism on Facebook affirmation. In other words, there was no difference in Facebook affirmation between agentic narcissists in Thailand and the UK.

The parameter of the effect of communal narcissism on Facebook affirmation was constrained next. Results from the model with the effect of communal narcissism on Facebook affirmation constrained showed that this restricted model still fitted well with the data,  $\chi^2(3) = 3.02$ ,  $p = .39$ , CFI = 1.00, and RMSEA = 0.009. Chi-square difference between this model and the free-parameter model was not statistically different,  $\Delta\chi^2(1) = 0.70$ , *ns*. This showed that the nationality of participants did not moderate the effect of communal narcissism on Facebook affirmation, indicating that there was no difference in Facebook affirmation between communal narcissists in Thailand and the UK as shown in Table 2.3.

Although not hypothesised, I further looked at whether there would be any differences in other paths of the model between Thais and the British. Results showed that there were no differences in the effects of Facebook affirmation on Facebook movement towards the ideal self, Facebook affirmation on life satisfaction, or Facebook movement towards the ideal self on life satisfaction.

Additionally, I also examined whether Thai and British participants would differ in levels of Facebook affirmation and Facebook movement, regardless of their narcissism levels. A series of the independent *t*-tests were carried out. Results showed that although Thai participants did not have higher scores on Facebook affirmation ( $M_{British} = 4.63$ ,  $SD_{British} = 0.99$ ,  $M_{Thai} = 4.71$ ,  $SD_{Thai} = 0.90$ ,  $t = 0.52$ , *ns*), they reported higher scores on Facebook movement towards the ideal self than the British ( $M_{British} =$

4.24,  $SD_{British} = 1.21$ ,  $M_{Thai} = 5.06$ ,  $SD_{Thai} = 0.76$ ,  $t = 5.01$ ,  $p < .01$ ). This showed that culture affected Facebook movement towards the ideal self only when neither type of narcissism were taken into account.

Table 2.3

*Chi-square differences between the free-parameter and the constrained models*

Model	$\chi^2$	$df$	$P$	$CFI$	$\Delta\chi^2$	$\Delta df$
All parameters free	2.27	2	.32	1.00		
<i>Constrained model</i>						
NPI -> Facebook affirmation	3.43	3	.33	0.99	1.17	1
CNI -> Facebook affirmation	3.02	3	.39	1.00	0.70	1
NPI -> Facebook movement towards ideal self	2.48	3	.45	1.00	0.10	1
CNI -> Facebook movement towards ideal self	2.48	3	.48	1.00	0.23	1
Facebook affirmation-> Facebook movement towards ideal self	4.39	3	.22	0.98	2.47	1
Facebook affirmation -> SWLS	3.05	3	.38	0.99	0.72	1
Facebook movement towards ideal self -> SWLS	4.39	3	.22	0.98	2.06	1

*Note.* NPI = narcissistic personality inventory; CNI = communal narcissism inventory; SWLS = satisfaction with life scale.

### Testing Facebook affirmation model in the Thai sample

**Testing direct effects.** Figure 2.3 shows results from the Thai sample's model. Contradicting Hypotheses 1a, 2a, and 3a, agentic narcissism was a negative predictor of Facebook affirmation ( $\beta = -.17$ ,  $p < .05$ ) and life satisfaction ( $\beta = -.24$ ,  $p < .05$ ). In addition, it did not predict Facebook movement towards the ideal self ( $\beta = -.12$ , *ns*).

On the other hand, results showed support for the equivalent hypotheses for communal narcissism (Hypotheses 1b, 2b, and 3b). Communal narcissism was a positive predictor of Facebook affirmation ( $\beta = .28, p < .01$ ), Facebook movement towards the ideal self ( $\beta = .25, p < .01$ ), and life satisfaction ( $\beta = .24, p < .01$ ).

Consistent with Hypotheses 4-5, results showed that the effect of Facebook affirmation on Facebook movement towards the ideal self was marginal ( $\beta = .19, p = .064$ ) while its effect on life satisfaction was significant ( $\beta = .50, p < .01$ ). In addition, Facebook movement towards the ideal self positively predicted life satisfaction ( $\beta = .19, p < .05$ ) which supported Hypothesis 6.

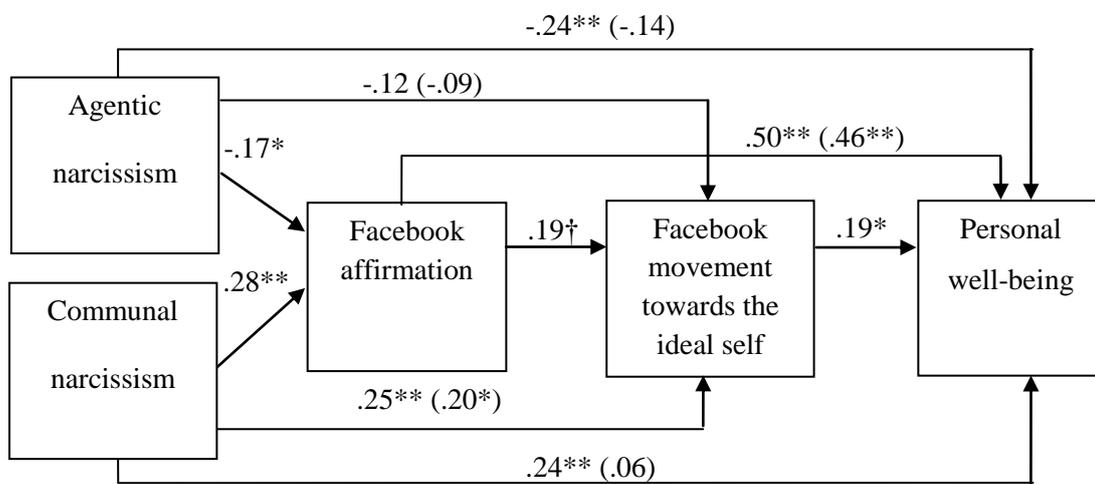


Figure 2.3. Facebook affirmation model in Thai sample's model.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

**Testing mediations.** Contrary to Hypothesis 7a, which had predicted the mediating effect of Facebook affirmation on the association between agentic narcissism and Facebook movement towards the ideal self, results showed that the indirect effect was not significant ( $\beta = -.03, ns$ ).

Moreover, even though agentic narcissism and Facebook affirmation predicted life satisfaction, the mediating effect of Facebook affirmation was not significant, ( $\beta = -.08, ns$ ). Thus, these results rejected Hypothesis 8a. In addition, given that agentic narcissism did not predict Facebook movement towards the ideal self, and Facebook

movement towards the ideal self did not predict life satisfaction, findings failed to show support for Hypothesis 9a.

Contrary to Hypothesis 7b, even though communal narcissism and Facebook affirmation predicted Facebook movement towards the ideal self, Facebook affirmation did not mediate the effect of communal narcissism on Facebook movement towards the ideal self ( $\beta = .05$ , *ns*). On the other hand, results supported Hypothesis 8b which had predicted the mediating effect of Facebook affirmation on the relationship between communal narcissism and life satisfaction ( $\beta = .13$ ,  $p < .05$ ). Specifically, when Facebook affirmation was taken into account, the effect of communal narcissism on life satisfaction became nonsignificant ( $\beta = .06$ , *ns*), suggesting a full mediation. However, Facebook movement towards the ideal self did not mediate such a relationship which rejected Hypothesis 10a. Although the mediating effect of Facebook movement towards the ideal self was expected, Facebook movement towards the ideal self did not mediate the relationship between Facebook affirmation and life satisfaction ( $\beta = .04$ , *ns*), rejecting Hypothesis 10 as shown in Table 2.4.

In brief, it was expected that both types of narcissism would positively predict Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction. Facebook affirmation was expected to mediate the association between both types of narcissism and Facebook movement towards the ideal self. Facebook affirmation and Facebook movement towards the ideal self were also expected to mediate the association between both types of narcissism and life satisfaction. However, Facebook affirmation did not mediate the relationship between communal narcissism and Facebook movement towards the ideal self. Facebook movement towards the ideal self did not mediate the relationship between communal narcissism and life satisfaction or Facebook affirmation and life satisfaction. The finding that agentic narcissism was negative predictor of Facebook affirmation and life satisfaction also contradicted the hypotheses. All other results supported the hypotheses.

Table 2.4

*Mediation analysis in Thai sample's model*

Mediation of associations	B	95% CI	S.E.	<i>t</i>
<i>Predicting Facebook movement towards the ideal self:</i>				
NPI -> Facebook affirmation -> Facebook movement towards the ideal self	-.03	[-0.07, 0.01]	0.02	-1.30
CNI -> Facebook affirmation -> Facebook movement towards the ideal self	.05	[-0.01, 0.10]	0.03	1.76
<i>Predicting life satisfaction:</i>				
NPI -> Facebook affirmation -> SWLS	-.08	[-0.15, -0.01]	0.04	-1.86
CNI -> Facebook affirmation -> SWLS	.13*	[0.04, 0.21]	0.05	2.50
CNI -> Facebook movement towards the ideal self -> SWLS	.04	[-0.01, 0.09]	0.03	1.50
CNI -> Facebook affirmation -> Facebook movement towards the ideal self ->SW LS	.01	[-0.01, 0.02]	0.01	1.32
Facebook affirmation -> Facebook movement towards the ideal self -> SW LS	.04	[-0.01, 0.08]	0.03	1.41

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; CNI = communal narcissism inventory; SWLS = satisfaction with life satisfaction scale; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

**Testing Facebook affirmation model in the British Sample A**

**Testing direct effects.** Figure 2.4 shows results from testing the British sample A's model. Contrary to Hypotheses 1a, 2a, and 3a, agentic narcissism was not a significant predictor of Facebook affirmation ( $\beta = -.02$ , *ns*), Facebook movement towards the ideal self ( $\beta = -.15$ , *ns*), nor life satisfaction ( $\beta = .01$ , *ns*).

On the other hand, results showed support for Hypotheses 1b, 2b, and 3b that communal narcissism was a positive predictor of Facebook affirmation ( $\beta = .40, p < .01$ ), Facebook movement towards the ideal self ( $\beta = .21, p < .05$ ), and life satisfaction ( $\beta = .30, p < .01$ ).

Consistent with Hypotheses 4 and 5, Facebook affirmation was a significant predictor of Facebook movement towards the ideal self ( $\beta = .33, p < .01$ ) and life satisfaction ( $\beta = .26, p < .05$ ). However, Facebook movement towards the ideal self did not predict life satisfaction ( $\beta = -.09, ns$ ), rejecting Hypothesis 6.

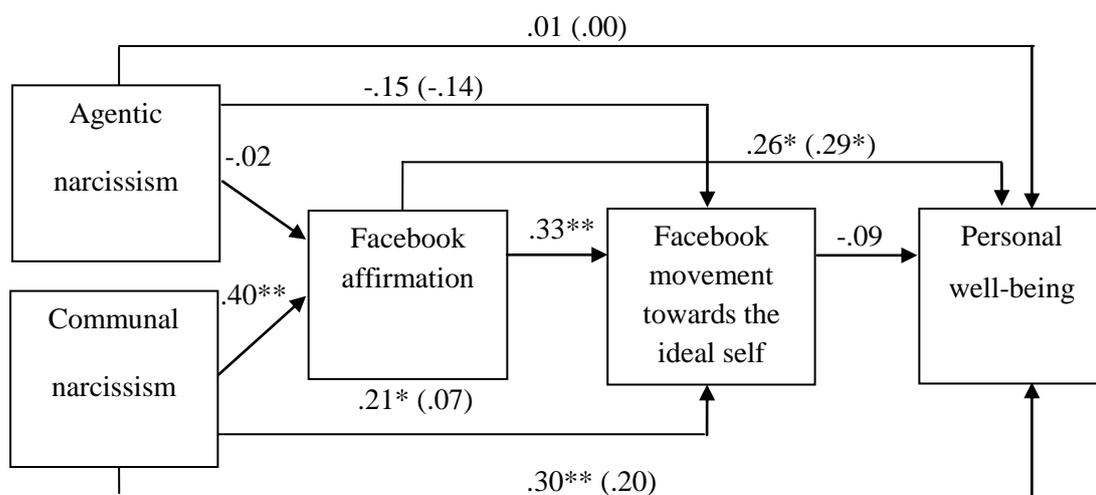


Figure 2.4. Facebook affirmation model in British Sample A's model.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

**Testing mediations.** Given that agentic narcissism did not predict Facebook affirmation, Hypothesis 7a which had predicted the mediating effect of Facebook affirmation on Facebook movement towards the ideal self, and Hypothesis 8a which had predicted the mediating effect of Facebook affirmation on life satisfaction were not supported. Similarly, as agentic narcissism did not predict Facebook movement towards the ideal self, Hypothesis 9a which had predicted the mediating effect of Facebook movement towards the ideal self was not supported.

Consistent with Hypothesis 7b, Facebook affirmation mediated the effect of communal narcissism on Facebook movement towards the ideal self ( $\beta = .13, p < .05$ ). Specifically, when communal narcissism and Facebook affirmation were entered

into the model together, the effect of communal narcissism became nonsignificant ( $\beta = .07, ns$ ), suggesting a full mediation

Consistent with Hypothesis 8b, Facebook affirmation mediated the effect of communal narcissism on life satisfaction ( $\beta = .12, p < .05$ ). In particular, when communal narcissism, Facebook affirmation and Facebook movement towards the ideal self were both entered in the model, the effect of communal narcissism decreased and became nonsignificant ( $\beta = .20, ns$ ), suggesting a full mediation as shown in Table 2.5. However, given that Facebook movement towards the ideal self did not predict life satisfaction, Hypothesis 9b and 10 which had predicted the mediating effect of Facebook movement towards the ideal self were not supported.

Table 2.5

*Mediation analysis in British Sample A's model*

Mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting Facebook movement towards the ideal self:</i>				
CNI -> Facebook affirmation -> Facebook movement towards the ideal self	.13*	[0.03, 0.24]	0.06	2.14
<i>Predicting life satisfaction:</i>				
CNI -> Facebook affirmation -> SWLS	.12*	[0.01, 0.22]	0.06	1.93
CNI -> Facebook movement towards the ideal self -> SWLS	-.01	[-0.04, 0.03]	0.01	-0.57
CNI -> Facebook affirmation -> Facebook movement towards the ideal self -> SWLS	-.01	[-0.06, 0.03]	0.02	-0.55
Facebook movement towards the ideal self -> SWLS	-.03	[-0.13, 0.07]	-0.48	0.64

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; SWLS = satisfaction with life satisfaction scale; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

In general, it was expected that both types of narcissism would positively predict Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction. Moreover, Facebook affirmation was expected to mediate the association between both types of narcissism and Facebook movement. Facebook affirmation and Facebook movement towards the ideal self were also expected to mediate the association between both types of narcissism and life satisfaction. However, results showed that Facebook movement towards the ideal self did not mediate the relationship between communal narcissism and life satisfaction as expected. The results which showed that agentic narcissism was not a significant predictor of Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction also contradicted the hypotheses. All other results supported the hypotheses.

Since the sample size of the British Sample A's model was small, I further tested the Facebook affirmation model using British Sample B to see if similar findings will be obtained. The same path analysis as Sample A was carried out, using a different measure of Facebook movement towards the ideal self.

### **Testing Facebook affirmation model in the British Sample B**

Descriptive statistics and correlations are presented in Table 2.6. Results showed that agentic narcissism was positively correlated with communal narcissism. On the other hand, communal narcissism was significantly correlated with Facebook affirmation. Facebook affirmation was positively correlated with Facebook movement towards the ideal. Lastly, Facebook affirmation and Facebook movement towards the ideal self were positively correlated with life satisfaction.

Table 2.6

*Descriptive statistics and Pearson's correlations in British Sample B*

Variables	Min	Max	M	SD	1	2	3	4
1. NPI	0.00	12.00	5.42	2.67	-			
2. CNI	1.66	6.69	4.23	1.14	.35**	-		
3. Facebook affirmation	2.00	6.75	4.75	0.94	-.06	.20*	-	
4. Facebook movement	1.00	9.00	5.76	1.94	.10	.01	.30**	-
5. SWLS	1.00	6.80	4.40	1.29	.11	.15	.47**	.39**

*Note.*  $N = 130$ . NPI = 13-item Narcissistic Personality Inventory; CNI = communal narcissism inventory; Facebook movement = Facebook movement towards the ideal self; SWLS = satisfaction with life scale. \* $p < .05$ . \*\* $p < .01$ .

Fit indices showed that the model form of the British sample B's model had an excellent fit with the data,  $\chi^2(1) = 0.06$ ,  $p = .84$ , CFI = 1.00, and RMSEA = 0.000. As shown in Figure 2.5, agentic narcissism was not a significant predictor of Facebook affirmation ( $\beta = -.15$ , *ns*), Facebook movement towards the ideal self ( $\beta = .11$ , *ns*), nor life satisfaction ( $\beta = .06$ , *ns*). In this regard, Facebook affirmation did not mediate the effects of agentic narcissism on and Facebook movement towards the ideal self. Further, both Facebook affirmation and Facebook movement towards the ideal self did not mediate the effects of agentic narcissism on life satisfaction.

On the other hand, communal narcissism was a positive predictor of Facebook affirmation ( $\beta = .25$ ,  $p < .01$ ). However, it did not predict Facebook movement towards the ideal self ( $\beta = -.03$ , *ns*) nor life satisfaction ( $\beta = .13$ , *ns*). On the other hand, Facebook affirmation was a significant predictor of Facebook movement towards the ideal self ( $\beta = .33$ ,  $p < .01$ ). It also predicted life satisfaction ( $\beta = .48$ ,  $p < .01$ ). Further, Facebook movement towards the ideal self positively predicted life satisfaction ( $\beta = .27$ ,  $p < .01$ ). Even though communal narcissism predicted Facebook affirmation, Facebook affirmation did not mediate the effect of communal narcissism on Facebook movement towards the ideal self. Further, both Facebook affirmation and Facebook movement towards the ideal self did not mediate the effects of communal narcissism on life satisfaction.

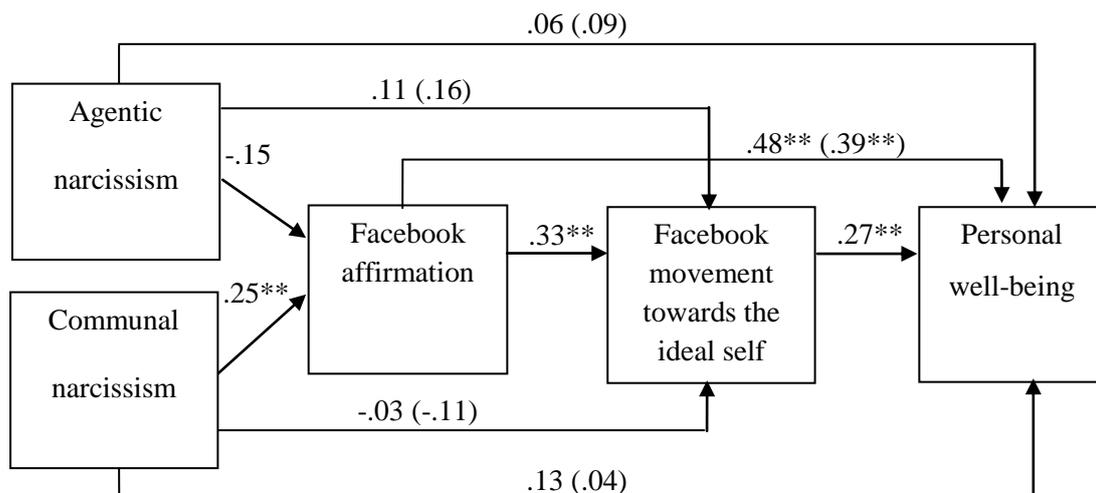


Figure 2.5. Facebook affirmation model in British Sample B's model.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

However, Facebook movement towards the ideal self mediated the effect of Facebook affirmation on life satisfaction ( $\beta = .09, p < .05$ ). Specifically, the effect of Facebook affirmation on life satisfaction decreased ( $\beta = .39, p < .01$ ) when Facebook movement towards the ideal self was entered in the model, suggesting a partial mediation as shown in Table 2.7.

In brief, there were two main differences between the British Sample A and British Sample B's models. First, the association between Facebook movement towards the ideal self and life satisfaction was significant in the latter model but not significant in the prior model. Second, Facebook movement towards the ideal self mediated the relationship between Facebook affirmation and life satisfaction in the latter model but did not in the prior model. However, most associations found in both British participants' models were similar.

Table 2.7

*Mediation analysis in British Sample B's model*

Mediation of associations	$\beta$	95% CI	S.E	<i>t</i>
<i>Predicting Facebook movement towards the ideal self</i>				
CNI -> Facebook affirmation -> Facebook movement towards the ideal self	.08*	[0.02, 0.15]	0.04	2.16
<i>Predicting life satisfaction:</i>				
CNI -> Facebook affirmation -> SWLS	.10*	[0.03, 0.16]	0.04	2.42*
Facebook affirmation -> Facebook movement towards the ideal self -> SWLS	.09*	[0.01, 0.16]	0.05	1.97

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; SWLS = satisfaction with life satisfaction scale; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

### Discussion

The current study tested the Facebook affirmation model in the Thai culture and investigated whether the model differed between collectivistic and individualistic cultures. British people were selected for the cross-cultural comparison. Given the good fit of the model in each group, the Facebook affirmation models in both Thai and British samples were justified to interpret. Communal narcissists in both Thailand and the UK reported high levels of Facebook affirmation and Facebook movement towards the ideal self. Even though Facebook affirmation improved personal well-being of both Thai and British communal narcissists, Facebook movement towards the ideal self increased personal well-being in the Thai culture only. However, there was no evidence for the effect of culture on Facebook affirmation or Facebook movement towards the ideal self among narcissists. Contrary to the hypotheses, agentic narcissists did not benefit from Facebook affirmation process. Given that findings supported some hypotheses but rejected other hypotheses, the Facebook affirmation model may have to be further modified.

## **Facebook affirmation model**

The most important finding in this study concerns the Facebook affirmation model. Extending from prior research which found Facebook to be a platform for self-presentation and self-promotion (Amichai-Hamburger & Hayat, 2013), Facebook in this study was found to serve as a source of affirmation of the ideal self and facilitate movement towards the ideal self for communal narcissists in both Thailand and the UK. As expected, a positive association between communal narcissism and Facebook affirmation was found. This suggests that communal narcissists may be more likely to use Facebook to project their ideal self and attain affirmation of the ideal self on Facebook in return, compared to the non-narcissists. However, it may work for communal narcissists but not for agentic narcissists. As Facebook emphasises interpersonal relationships and friendship network (Boyd & Ellison, 2008; Liu & Yu, 2013), it may provide more benefits to those with other orientation or those who capitalize on communal means such as communal narcissists.

In addition, the effect of Facebook affirmation on Facebook movement towards the ideal self was marginal for the Thai sample and significant for the British sample. Moreover, the degree to which British communal narcissists moved closer to their ideal selves was significantly affected by Facebook affirmation. This suggests that Facebook movement towards the ideal self can be the outcome of Facebook affirmation.

Importantly, Facebook affirmation was found to improve personal well-being in both Thailand and the UK. This suggests that receiving affirmation of the ideal self assists individuals in both individualistic and collectivistic cultures in becoming more satisfied with their lives than those who do not receive such affirmation. In line with the hypotheses, Facebook affirmation also mediated the association between communal narcissism and life satisfaction in both Thai and British samples. This provides evidence that Facebook can be an affirmation of the ideal self platform for both Thai and British communal narcissists to be more satisfied with their lives. It also suggests that the affirmation of the ideal self process can operate in an online environment.

Even though Facebook movement towards the ideal self did not mediate the relationship between both types of narcissism and life satisfaction, it positively predicted life satisfaction in the Thai sample. This is in line with prior research on

self-discrepancy which asserts that the discrepancy between the actual and ideal self significantly leads to life dissatisfaction (Higgins, 1987). Therefore, individuals have a strong desire to reduce the discrepancy between the actual and ideal self (Higgins et al., 1985). When there is a large overlap between actual and ideal self, people become satisfied with life.

It is worth noting that the Facebook affirmation model was tested in two British samples, but the cultural comparison was based on the Thai sample and British Sample A. In addition, there was a difference in the effect of Facebook movement towards the ideal self between results in British sample A's and B's models. That is, a significant effect of Facebook movement towards the ideal self on life satisfaction was found in the British Sample B's model, but not in the British Sample A's model. This may be due to the difference in the sample size. The number of participants in British Sample B is nearly two times greater than those of British Sample A, and it is likely that a significant result will be detected in the British Sample B's model. Button et al. (2013) suggests that studies with small sample size may reduce the chance of detecting a true effect. Further, these two samples completed different scales of Facebook movement towards the ideal self. British Sample A completed the 5-item Facebook movement towards the ideal self scale. This scale assesses the degree to which participants reported moving closer or further away from their ideal self as a result of Facebook use. On the other hand, British Sample B completed the actual and ideal self closeness scale. This scale assesses the perceived closeness between actual and ideal self on Facebook. The overlapping between the actual and ideal self on Facebook may reflect the self-discrepancy at the present time rather than movement towards the ideal self. Thus, it is possible that both scales may tap different part of the construct of movement towards the ideal self on Facebook which results in the variation in predicting life satisfaction. Future research should try to identify the most suitable and reliable measurement for measuring Facebook movement towards the ideal self and replicate the study.

### **Agentic versus communal narcissism**

A somewhat surprising finding is that agentic narcissism had no positive effects in this study, compared to other studies (Buffardi & Campbell, 2008; Twenge & Campbell, 2009). This may indicate that agentic narcissism did not benefit from

using Facebook to receive Facebook affirmation or move towards their ideal selves in the present study. Specifically, Thai agentic narcissists reported less levels of Facebook affirmation than non-narcissists.

One explanation may have to do with the agentic narcissism measurement that was used in the present study. A short version of NPI consisting of 13 items was used in the present study as it is believed to save time for participants to complete the questionnaire. NPI-13 is a validated measure which was found to be highly correlated with NPI-40 and have high reliability. However, this scale has not been validated in Thailand. The Cronbach's alpha of this measurement in the Thai sample was much lower, compared to those in the British Sample A, This suggests that there may be problem in translation. He and van de Vijver (2012) argue that the inapplicability of item contents in different cultures may yield an item bias. Certain words in English may not have direct equivalents in another language. Moreover, Thais may not be familiar with the forced-choice scale because they provided comments at the end of the survey that they were reluctant to answer the NPI. This is consistent with He and van de Vijver's (2012) suggestion that response modes of the scale may affect the scores on target measures.

In addition, the reliability of NPI in the British Sample B was also slightly low. It could also be that data of Sample B was collected at Goldsmiths, where many students are from ethnic minorities (although ethnicity was not measured) or it could be that in mass testing, students were careless in responding the questionnaires.

Another explanation for the lack of association for agentic narcissists may be due to the prevalence of agentic narcissism in Thailand. Given that Thailand is a highly collectivistic country where the sense of "we-ness" is mainly promoted (Triandis, 2001), holding individualistic values and expressing such values by being high self-oriented are often discouraged. According to the NPI-13, each narcissistic item reflects the sense of grandiosity, entitlement, and exploitativeness (Gentile et al., 2012). Having high levels of such self-focused trait may not serve the core values in the collectivistic cultures (Triandis & Suh, 2002). Those who have such trait may have a low tendency to be socially accepted and satisfied with life. As Facebook affirmation involves social approval and validation, it is possible that agentic narcissists in Thailand are less likely to attain Facebook affirmation or become satisfied with their lives, compared to non-narcissists.

### **Thais versus the British**

Findings from this study showed no cultural differences in the Facebook affirmation process, and that Thai narcissists did not differ from British narcissists on their experience of Facebook affirmation. This shows that Facebook affirmation may be applicable to communal narcissists in both individualistic and collectivistic contexts and the extent to which communal narcissists receive affirmation of the ideal self on Facebook may not be related to their cultural background.

The above explanation is supported by literature on narcissism and Facebook consistently which shows that narcissists from different cultures benefit from using Facebook in the similar way. Regardless of their cultural background, narcissists are likely to draw attention to themselves on Facebook to attain status and power such as frequently posting their pictures, amassing friends, and talking about their achievement (Bergman et al., 2011; Carpenter, 2012; Kauten et al., 2015; Lee, Ahn, & Kim, 2014; Marshall et al., 2015; Mehdizadeh, 2010; Ong et al., 2011; Ruo, 2012; Stopfer, Egloff, Nestler, & Back, 2013). Even though these studies focused on the agentic aspect of narcissism, they may be able to generalise to communal narcissism as both agentic and communal narcissists have the same self-motives (Gebauer et al., 2012).

However, the Thai sample still showed higher scores on Facebook movement towards the ideal self than the British, regardless of their narcissism levels. This reflects some aspects about cultural differences. In alignment with the concept of compensatory behaviour, people in a collectivistic culture who are discouraged from showing their personal aspirations may be more motivated to use Facebook as a channel for expressing their voice and acting in ways that they cannot in real life. This is highly likely because Facebook can provide freedom to its users to project their ideal attributes with the anonymity and facelessness (Amichai-Hamburger & Hayat, 2013). As a result, people in a collectivistic culture may move closer to the ideal self than those in an individualistic culture, regardless of narcissism levels.

### **Research strengths**

The current study contributes to literature that investigates the benefits of Facebook use among narcissists by introducing the Facebook affirmation model. Findings of this study show new evidence that Facebook can provide affirmation of the ideal self, facilitate movement towards the ideal self, and enhance personal well-being to its users, especially communal narcissists.

This study is also the first attempt to examine both agentic and communal narcissism in Facebook research. The difference in attaining Facebook affirmation between agentic and communal narcissism found in this study also portrays that communal narcissists may have a better chance of moving closer to their ideal selves through Facebook use, compared to agentic narcissists. In addition, since the Facebook affirmation model was examined in both Thailand and the UK, generalisability of the findings can be extended. In particular, a cross-cultural research highlights and separates behaviour from the context. Findings which showed no effect of culture suggest that Facebook affirmation process may be universal. Facebook may be able to provide affirmation of the ideal self to communal narcissists, regardless of their cultural background.

### **Research limitations**

Even though the current study has many strengths, it has several limitations. First, this study did not examine individualism and collectivism at an individual level. Participants were mainly categorised as either individualistic or collectivistic based on their nationality. However, previous research has suggested that it is possible that some people from individualistic cultures may have interdependent self-construal and those from collectivistic cultures may have independent self-construal (Triandis, 2001). Additionally, recent research on cultural differences argues that cultural variation can be seen through various dimensions of self-construal, and the proper way to study cultural differences should not differentiate people based on the individualism-collectivism spectrum based on nationality (Vignoles, et al., in press). Therefore, any future research replicating this study should examine cultural differences in terms of self-construal dimensions at the individual level to test if it will yield the same outcome.

Second, this study examined the Facebook affirmation model among Thai and British samples. The multiple-group model used for cross-cultural comparison was also based on the data from a sample of 107 Thai and 69 British participants, resulting in a low power of the study. Therefore, current findings in cultural differences may not be able to generalise to the entire population in these countries or to other collectivistic/individualistic countries. To improve generalisability, an additional research with larger sample size, and from other countries may be needed to investigate whether culture affects Facebook affirmation and movement towards the ideal self.

The third limitation in this study concerns the use of NPI-13 instead of the most common NPI-40 to assess agentic narcissism. Even though NPI-13 was found to be a reliable measure (Gentile et al., 2012), its internal consistency in the Thai sample as well as British Sample B was slightly low. This may be the reason why agentic narcissism did not play role in Facebook affirmation. Thus, any future study aiming to replicate this study should use NPI-40 to measure agentic narcissism to see if results remain the same.

Lastly, as this study used correlational research design to test the hypotheses, a causal relationship cannot be claimed. Thus, an additional research with an experimental design is required. Specifically, it is important to look at the strategies that both agentic and communal narcissists use to attain Facebook affirmation and reach their ideal selves. Hence, the next study will focus on the role of cognitive and behavioural strategies that can be used on Facebook.

## **Conclusion**

This chapter investigated the Facebook affirmation model, particularly in the Thai culture. Besides, cross-cultural comparison between Thai and British samples was also made to test if the model is applicable in both individualistic and collectivistic cultures and whether culture affected the model. Results indicated that Facebook can provide affirmation of the ideal self to the communal narcissists in both Thailand and the UK. Communal narcissists reported higher levels of Facebook affirmation and movement towards the ideal self. Specifically, Facebook affirmation was found to improve personal well-being for communal narcissists in both cultures, suggesting that culture did not affect the Facebook affirmation model. This makes a

contribution to literature on narcissism and Facebook use by showing the positive outcome of Facebook use. It also contributes to the Michelangelo phenomenon research that affirmation of the ideal self can operate on Facebook.

Although the current study supports the proposition that communal narcissists can reach their ideal selves on Facebook, more research is needed to uncover how they gain such benefit. Moreover, the current findings, with its limitation on agentic narcissism scale, may not show whether or not agentic narcissists are able to achieve their ideal self on Facebook. Thus, the next chapter will investigate the cognitive and behavioural strategies used on Facebook among both agentic and communal narcissists, and will focus only on the Thai culture.

### **Chapter 3**

## **Narcissism and Affirmation of the Ideal Self on Facebook: The Role of Cognitive and Behavioural Strategies**

### **Overview**

Even though the previous chapter found some support for the hypothesised Facebook affirmation model for communal narcissists, more research is needed to uncover the various mechanisms and moderators of the process. Moreover, given the problems with the low reliability of the narcissism scale, it is uncertain if agentic narcissists are unable to experience Facebook affirmation or if the findings were due to measurement issues. Therefore, this chapter aims to extend findings of the previous study by investigating the strategies used on Facebook to receive Facebook affirmation and move towards the ideal self among both types of narcissists. The rest of the dissertation will examine the model only in the Thai culture, which is the main focus of this dissertation.

Cognitive and behavioural strategies have been found to play a crucial role in directing and regulating one's own behaviour towards a goal (Fransen, Fennis, Vohs, & Pruyn, 2009). Often, people differ in their orientation to be either self- or other-focused (Nurmi, 2001), which may affect adopting different strategies for goal pursuit. For example, self-focused individuals are more likely to pay attention to themselves and focus on achieving their own goals (Muraven, 2005). In contrast, other-focused individuals tend to pay more attention to other people or the environment than themselves and focus on meeting the needs of their significant others (e.g., friends, partners) for relationship maintenance (Kimble & Hirt, 2005).

Agentic and communal narcissists are actually both self-centered but have adopted different strategies for goal attainment (Gebauer et al., 2012). While agentic narcissists use agentic means (e.g., overclaiming agentic traits and their knowledge in the agentic domain), communal narcissists use communal means (e.g., overclaiming communal traits and their knowledge in the communal domain) to satisfy their self-motives (Gebauer et al., 2012). Therefore, it is likely that agentic and communal narcissists may use a different approach to experience Facebook affirmation and reach their ideal selves on Facebook.

Successful goal attainment may also depend on regulatory fit (Higgins, 2005; Spiegel, Grant-Pillow, & Higgins, 2004). People who are able to adopt the strategies that match their regulatory orientation are likely to experience regulatory fit and have a higher likelihood of attaining their desired goal (Spiegel et al., 2004). Various regulatory orientations have been examined, including promotion- vs. prevention-focus (Spiegel et al., 2004), approach vs. avoidance (Lee & Higgins, 2009), assessment vs. locomotion (Higgins, 2005), duty- vs. hope-orientation (Freitas & Higgins, 2002), and self- vs. other-focus (Fransen et al., 2009). For example, the regulatory focus theory suggests that there are two separate motivation systems: promotion and prevention focus. A promotion focus is concerned with approaching gains and focuses on accomplishment and hopes, while a prevention focus is concerned with avoiding losses and focuses on safety and responsibility (Higgins, 1997). People with a promotion focus have been found to become motivated to achieve goals when they think about the positive outcomes they can gain, whereas people with a prevention focus have been found to become motivated to achieve goals when they think about the negative outcomes they can avoid (Cesario, Higgins, & Scholer, 2007; Spiegel et al., 2004).

Similarly, agentic narcissists may experience Facebook affirmation when they are able to focus on themselves. On the other hand, communal narcissists are expected to receive such affirmation when they are able to focus on others on Facebook. In turn, experiencing Facebook affirmation is also expected to facilitate movement towards the ideal self on Facebook.

A quasi-experimental design will be used to examine the interplay between both types of narcissism and the use of different cognitive-behavioural strategies, where participants will be randomly assigned to engage in either self or other focused task on Facebook. Findings will be presented and discussed in relation to narcissism and cognitive-behavioural strategies.

## **Narcissism and Cognitive and Behavioural Strategies**

### **Agentic narcissism and self-focused orientation**

Agentic narcissists are not only high on self-focus and low on other-focus (Campbell, Rudich, & Sedikides, 2002; Morf & Rhodewalt, 2001), but they are also likely to have an analytical cognitive-perceptual style (Konrath et al., 2009). This type

of style refers to the likelihood of perceiving and interpreting the object as unique and unrelated to the context or the environment. Possessing this style suggests that agentic narcissists prefer to view and put themselves in front of other people and see themselves as separate from others.

In addition to this cognitive style, agentic narcissists are also likely to display a specific behavioural strategy of exhibiting self-focused behaviours on Facebook. For example, they draw attention to themselves by posting their own stories (Buffardi & Campbell, 2008; Carpenter, 2012) updating such stories frequently, and using the first-person singular pronouns (I and me) to describe themselves (Dewall et al., 2011; Leung, 2013, Ong et al., 2011). This may suggest that self-focused activities on Facebook may be more attractive to agentic narcissists compared to their non-narcissistic counterparts. Hence, they may benefit the most from using Facebook in a self-oriented way.

### **Communal narcissism and other-focused orientation**

Even though there is a limited amount of research on communal narcissism, the theory posits that communal narcissists possess agentic traits but use communal means to fulfil their desires (Gebauer et al., 2012). For example, they were found to overclaim their ability in a communal domain to satisfy their grandiose ego (Gebauer et al., 2012). In addition, in a previous study, my collaborator and I have found that communal narcissism is positively associated with both agreeableness and agentic narcissism in Thailand, while agentic narcissism is negatively associated with agreeableness (Maneesri & Isaranon, 2015), which is in line with prior research conducted in western countries for agentic narcissists (Paulhus & Williams, 2002). Thus, these results further show that communal narcissism is distinct from agentic narcissism, and people with high communal narcissism can be communally oriented. Given the findings of these studies, it is likely that communal narcissists may use other-oriented strategy to serve their self-focused need.

Since there has been no empirical investigation of Facebook activities that communal narcissists prefer, the hypotheses related to communal narcissism are based on the general communal narcissism literature. It is expected that communal narcissists may benefit the most from using Facebook in other-oriented ways.

## **The Present Study**

The present research extends the findings of the previous chapter by examining the role of cognitive and behavioural strategies on Facebook affirmation process. Specifically, it attempts to investigate and compare the strategies used on Facebook to reach the ideal self between Thai agentic and communal narcissists.

Given that Facebook has a wide range of activities and users have the choice to engage in any activities they prefer (Boyd & Ellison, 2008; Ellison et al., 2007), individuals who are able to behave on Facebook in a manner consistent with their own dispositional tendencies may feel good about themselves and feel their best. Thus, individuals with self-focused orientations may benefit most from using Facebook when they can focus on themselves. On the other hand, those with other-focused orientations may gain benefit from Facebook when they can focus on other people. This idea is supported by the literature on regulatory fit which has proposed that people are likely to achieve goals when they can use strategic means that match their motivational orientation (Cesario et al., 2008; Spiegel et al., 2004).

Thus, Facebook is expected to help individuals, particularly narcissists, feel closer to their ideal selves when cognitive and behavioural strategies used on Facebook match one's own dispositions to be self or other oriented. The full scale of the NPI will be used to assess agentic narcissism as the reliability of the NPI-13 was low in the previous chapter. In order to manipulate the cognitive and behavioural strategies, participants will be randomly assigned to engage in either self-oriented or other-oriented task on Facebook.

Due to the cognitive and behavioural strategies congruence, it is expected that the use of different cognitive and behavioural strategies will moderate the effect between both agentic and communal narcissism on Facebook affirmation. Agentic narcissists are expected to experience Facebook affirmation when they can focus on themselves, while communal narcissists are expected to experience Facebook affirmation when they can focus on other people. In addition, Facebook affirmation is expected to mediate the effects of both types of narcissism on Facebook movement towards the ideal self.

## Hypotheses

The following hypotheses were tested as shown in Figure 3.1:

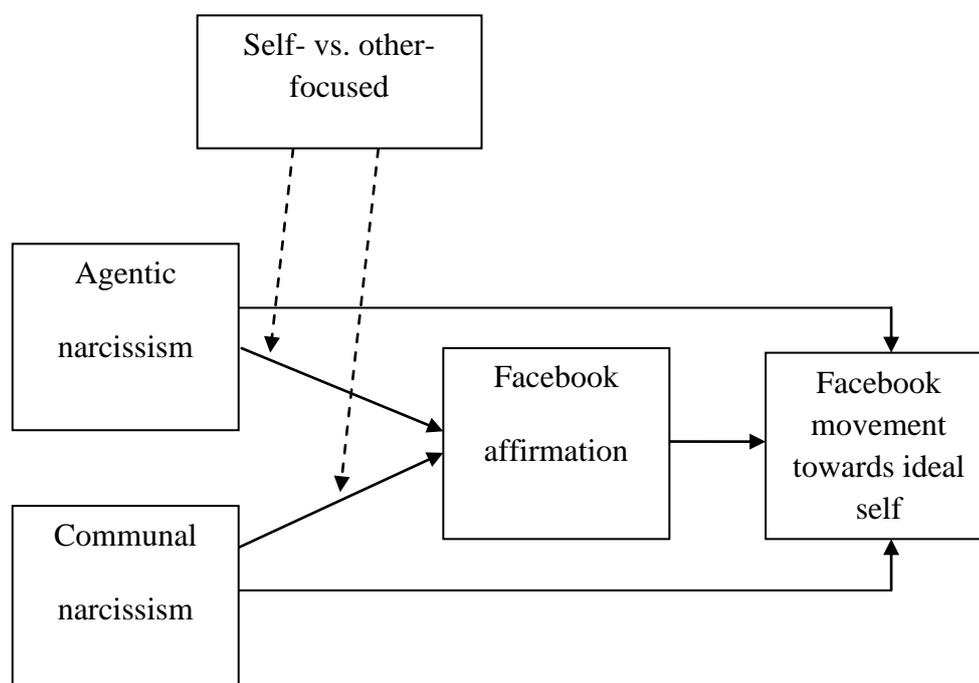


Figure 3.1. Hypothesised model with experimental condition as the moderator.

### Testing the moderating effects of experimental condition

*Hypothesis 1.* Agentic narcissists in the self-focused condition will report higher levels of (a) Facebook affirmation and (b) Facebook movement towards the ideal self than agentic narcissists in the other-focused condition.

*Hypothesis 2.* Agentic narcissists in the self-focused condition will report higher levels of (a) Facebook affirmation and (b) Facebook movement towards the ideal self than non-narcissists in the same condition.

*Hypothesis 3.* Communal narcissists in the other-focused condition will report higher levels of (a) Facebook affirmation and (b) Facebook movement towards the ideal self than communal narcissists in the self-focused condition.

*Hypothesis 4.* Communal narcissists in the other-focused condition will report higher levels of (a) Facebook affirmation and (b) Facebook movement towards the ideal self than non-narcissists in the same condition.

### Testing moderated mediations

*Hypothesis 5.* Facebook affirmation will predict Facebook movement towards the ideal self.

*Hypothesis 6.* Facebook affirmation will mediate the interaction term between agentic narcissism and the experimental condition on Facebook movement towards the ideal self.

*Hypothesis 7.* Facebook affirmation will mediate the interaction term between communal narcissism and the experimental condition on Facebook movement towards the ideal self.

### Method

**Participants.** Participants were Thai undergraduate students from Chiangmai University and Srinakarinwirot University who were enrolled in a general psychology course. All participants were recruited in the classroom. From 254 students who signed up and initially completed the first session of the experiment, there were only 102 students (30 males, 72 females, 63 self-focused condition, 39 other-focused condition,  $M$  age = 19.85) aged between 18-30 who completed the whole experiment. Participants received extra course credits for participating in this experiment<sup>1</sup>. The sample size was determined based on the ratio of the number of sample size to number of free parameters should be at least 5:1 (Bentler & Chou, 1987). As there are 18 free parameters in the model, the sample size should be at least 90.

**Research design and procedure.** A quasi-experimental research design was used in the present study to test the role of cognitive-behavioural strategies (self- vs. other-focus) on Facebook affirmation and movement towards the ideal self among both agentic and communal narcissists. There were three sessions in this experiment: pre-test, cognitive-behavioural manipulation, and post-test sessions.

First, participants were recruited in a classroom. Due to the time limitation in the classroom, those who were interested in taking part in the experiment were asked

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<sup>1</sup> There were 152 participants who dropped out, 97 of which were females. A series of independent sample  $t$ -test showed that there were no differences in agentic ( $M_{stay} = 11.72$ ,  $SD_{stay} = 5.43$ ,  $M_{dropout} = 12.31$ ,  $SD_{dropout} = 5.32$ ,  $t = -0.85$ ,  $ns$ ) nor communal narcissism levels ( $M_{stay} = 4.62$ ,  $SD_{stay} = 0.64$ ,  $M_{dropout} = 4.56$ ,  $SD_{dropout} = 0.67$ ,  $t = 0.94$ ,  $ns$ ) between participants who completed the experiment and those who dropped out.

to provide an email address and mobile phone number for future contact. Participants' email address, mobile phone number, and students' names were kept confidential. All participants agreed that the researcher could reach them via email and mobile phone for research purpose only. Approximately 24 hours after the recruitment, participants were sent a survey link via email and asked to complete a set of online questionnaires: NPI-40, CNI-16, Facebook affirmation scale, actual and ideal self closeness scale, and Facebook usage questionnaire.

Two weeks later, participants received an email containing a link which guided them to their task and agreement to follow the instruction. They also received a short message notifying them to check their email. Participants were then randomly assigned to complete either self- or other-focused task over the next 24 hours.

Twenty-four hours later they received another email which asked them to complete another set of online questionnaires including Facebook affirmation and actual and ideal self closeness scales. Manipulation check questions were also asked to examine if participants followed the assigned instruction. Participants were debriefed at the end of the survey.

**Materials.** All scales were translated and back-translated by two native Thai speakers who are fluent in English. All scales are listed in Appendix A.

**Agentic narcissism.** To assess agentic narcissism, the 40-item narcissistic personality inventory (NPI-40; Raskin & Terry, 1988) was administered. Participants completed this scale in the pre-test session. Participants were asked to indicate which one of each pair represented themselves the most. For example, in the following pair, the narcissistic statement is "I know that I am a good person because everybody keeps telling me so", and non-narcissistic statement is "When people compliment me I get embarrassed". The NPI-40 contains seven subscales: authority, superiority, self-sufficiency, exhibitionism, exploitativeness, vanity, and entitlement. As is standard practice, the overall narcissism score was calculated by summing the number of narcissistic statement they chose on the 40 forced-choice NPI items ( $\alpha = .78$ ).

**Communal narcissism.** The same 16-item CNI scale used in Chapter 2 was also assessed in this study ( $\alpha = .86$ ). Participants completed this scale in the pre-test session.

**Facebook affirmation.** The 8-item Facebook affirmation scale used in Chapter 2 was administered in the current experiment. Participants were asked to

complete this scale before and after the manipulation so that the pre scores can be used as a control variable, to be able to assess changes post-test. For the pre-test session, participants were asked to think about how they felt when they were on Facebook in general. For the post-test session, they were asked to think about their behaviours on Facebook during the last 24 hours ( $\alpha_s = .56$  and  $.72$  before and after the manipulation, respectively).

***Facebook movement towards the ideal self.*** An actual-ideal self closeness scale used in Chapter 2 was administered in the current experiment. Participants were also asked to complete this scale before and after the manipulation. Pre-scores of Facebook movement towards the ideal self was used as a control variable, in order to be able to assess any changes post-test. For the pre-test session, they were asked to rate the degree to which they have moved closer to their ideal selves on Facebook in general. For the post-test session, they were asked to think about their behaviours on Facebook during the last 24 hours. Higher scores indicated greater Facebook movement towards the ideal self.

***Facebook usage.*** Participants were asked to indicate the number of Facebook friends they had (0 = 10 or less, 1 = 11-50, 2 = 51-100, 3 = 101-150, 4 = 151-200, 5 = 201-250, 6 = 251-300, 7 = 301-400, 8 = more than 400) and the duration of time they spent on Facebook in each day (0 = less than 10 minutes, 1 = 10-30 minutes, 2 = 31-60 minutes, 3 = 1-2 hours, 4 = 2-3 hours, 5 = more than 3 hours).

***Experimental materials.*** There were two experimental conditions in the current study: self-focused and other-focused. Participants were asked to engage in their assigned activities on Facebook for the next 24 hours after receiving the assignment. I set the duration of time to be 24 hours so that participants could have enough time to follow the instruction.

Participants in the self-focused condition were asked to focus on themselves. The instruction of self-focused task read: "For the next 24 hours, whenever you log into your Facebook account, please update your Facebook profile by changing your profile picture, updating your Facebook status about your latest activity, and posting comments about your own feeling and opinion. However, please do not click like, comment, or share your friends' status for the next 24 hours, until you have completed the final set of online questionnaires which will be sent to you tomorrow. This task requires your full willingness to follow the instruction. You can log into your

Facebook account as much as you want to comment, share, and click like on your friends' status and give your friends support. Please follow the instructions until you have completed the online questionnaires, which will be sent to you after 24 hours”.

The instruction of the task for participants in other-focused condition was the same, with the exception of the assigned activities. The instruction for this condition read: “Please comment, share, click like on your friends' status or give your friends other types of support. However, please do not change your profile picture, update your Facebook status about your latest activity or post comments about your own feeling and opinion until you have completed the final set of online questionnaires which will be sent to you tomorrow”.

***Manipulation check.*** To check if participants followed the instructions, questions regarding Facebook activity engagement were administered before and after the manipulation. Participants were asked to indicate the degree to which they typically engage in 12 behaviours on Facebook before the manipulation and 18 behaviours on Facebook after the manipulation. An example of questions is “How many times did you edit your profile picture?”. Please see Appendix A for the questions used before and after the manipulation.

### **Data analyses strategy**

To test the interplay between the experimental condition and levels of both types of narcissism on Facebook affirmation and Facebook movement towards the ideal self, path analysis will be carried out using Mplus version 6.0 software programme for Windows. A single-group path analysis will be used to test the main effects, interaction effects, and mediating effects. This is mainly because the number of participants in each condition is small, and using multiple group analysis with small sample size of each sub group may yield low statistical power. A single-group model, with an interaction term, is an alternative way of interpreting parameter estimates in the unconstrained model.

Scores of agentic and communal narcissism, pre scores of Facebook affirmation, and pre scores of Facebook movement towards the ideal self will be mean centered. The experimental condition will be dummy coded (self-focus = 0 and other focus = 1). Both agentic and communal narcissism will be multiplied by the dummy variable to create the interaction terms: agentic narcissism X condition and communal

narcissism X condition. In addition, the pre-test scores of the criterion (e.g., Facebook affirmation, Facebook movement towards the ideal self) will be controlled in order to be able to assess how the condition affected these outcomes.

Fit indices of the model will be tested to see if it is appropriate for interpretation. Following this, the main effects, interaction effects, and mediating effects will be tested. If the interaction effects are significant, simple slopes will be further tested. In addition to the main hypotheses, general behaviours on Facebook before the manipulation will also be examined to test if narcissists are more likely to engage in certain activities than non-narcissists. To test the mediating effect of Facebook affirmation, a mediation analysis strategy used in Chapter 2 will be used in this study.

## Results

### Manipulation check

A series of independent sample *t*-tests were carried out to test the effectiveness of the experimental manipulation. Results from the *t*-tests showed that participants followed the experimental condition, with participants in the self-focused condition more likely to edit pictures ( $M_{self} = 0.57$ ,  $SD_{self} = 0.49$ ,  $M_{other} = 0.15$ ,  $SD_{other} = 0.36$ ,  $t = 4.86$ ,  $p < .01$ ) than those in the other-focused condition. On the other hand, participants in the other-focused condition were more likely to click like ( $M_{other} = 8.92$ ,  $SD_{other} = 9.65$ ,  $M_{self} = 3.98$ ,  $SD_{self} = 8.79$ ,  $t = 2.64$ ,  $p < .05$ ), share their friends' status ( $M_{other} = 0.68$ ,  $SD_{other} = 0.74$ ,  $M_{self} = 0.10$ ,  $SD_{self} = 0.35$ ,  $t = 5.43$ ,  $p < .01$ ), and provide comments on friends' status ( $M_{other} = 2.65$ ,  $SD_{other} = 2.65$ ,  $M_{self} = 0.87$ ,  $SD_{self} = 1.89$ ,  $t = 3.89$ ,  $p < .01$ ) than those in the self-focused condition.

### Pre-manipulation descriptive statistics

Table 3.1 shows the means and standard deviations along with the associations among variables before the manipulation. Agentic narcissism was positively correlated with communal narcissism, Facebook affirmation, and Facebook movement towards the ideal self. On the other hand, communal narcissism was positively correlated with Facebook affirmation.

Table 3.1

*Descriptive statistics and Pearson's correlations among variables before manipulation*

Variables	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	1	2	3
1. Agentic narcissism	1.00	27.00	11.75	5.42	-		
2. Communal narcissism	2.38	6.13	4.61	0.64	.23*	-	
3. Facebook affirmation	3.13	6.50	4.52	0.72	.27**	.35**	-
4. Facebook movement towards the ideal self	2.00	9.00	6.15	1.90	.24*	.08	.38**

*Note.*  $N = 102$ . \* $p < .05$ . \*\* $p < .01$ .

I further explored the associations among agentic and communal narcissism, Facebook affirmation, Facebook movement towards the ideal self, and different types of activities on Facebook before the manipulation. Findings showed that agentic narcissism was positively correlated with the number of friends on Facebook ( $r = .28$ ,  $p < .01$ ), editing profile pictures ( $r = .19$ ,  $p = .059$ ), and talking about one's own feelings on Facebook ( $r = .32$ ,  $p < .01$ ). On the other hand, communal narcissism was positively correlated with clicking like on their friends' status ( $r = .17$ ,  $p = .080$ ), although the association was only marginal. In addition, results of multiple regression analyses confirmed that agentic narcissism positively predicted number of friends, editing pictures, and talking about one's own feelings on Facebook, when variance from communal narcissism was taken into account, as shown in Table 3.2, whereas the effects for communal narcissism disappeared.

These findings partially supported previous research that agentic narcissists preferred to engage in self-focused activities such as posting photos, updating status, and amassing a large number of friends (Carpenter, 2012; Deters et al., 2014; Dewall et al., 2011; Leung, 2013, Ong et al., 2011). Moreover, even though communal narcissism did not make a unique contribution to other-focused activities on

Facebook, it still showed a weak but simple positive correlation with another-focused activities of clicking like.

Table 3.2

*Multiple regression analyses predicting self-focused and other-focused activities on Facebook before manipulation*

Outcome variables	Agentic narcissism	Communal narcissism
1. Number of friends	.28**	-.06
2. Time spent	.03	.01
3. Edit pictures	.17†	.07
4. Update one's own status	.14	.05
5. Talking about one's own feelings	.32**	.01
6. Comment on friends' status	.07	.06
7. Click like on friends' status	.06	.16
8. Share friends' status	.06	.06

*Note.* Values in the table are standardised regression coefficients. † $p < .10$ . \*\* $p < .01$ .

### Hypotheses testing

**Assessment of model fit.** Fit indices of the model showed that the hypothesised model had an excellent fit,  $\chi^2(1) = 0.71$ ,  $p = .40$ , CFI = 1.00, and RMSEA = 0.00. This showed that parameter estimates in the model can be interpreted.

**Testing the moderating effects of the experimental condition.** Figure 3.2 shows results from the hypothesised model. The findings of the path model showed that even though the main effect of experimental condition on Facebook affirmation was significant ( $\beta = .17$ ,  $p < .05$ ), the main effect of agentic narcissism was not significant ( $\beta = -.13$ ,  $ns$ ). Contrary to the Hypotheses 1a and 2a, which predicted the interaction between agentic narcissism and experimental condition on Facebook affirmation, such interaction effect was not significant ( $\beta = .09$ ,  $ns$ ). This showed that there was no difference in Facebook affirmation between agentic narcissists in self-focused and other-focused conditions, and between agentic narcissists and non-narcissists in self-focused condition.

Similarly, agentic narcissism ( $\beta = -.01, ns$ ) and experimental condition ( $\beta = .13, ns$ ) did not predict Facebook movement towards the ideal self. Further, contrary to Hypotheses 1b and 2b, which predicted the interaction between agentic narcissism and experimental condition on Facebook movement towards the ideal self, results showed that such interaction effect was not significant ( $\beta = -.12, ns$ ). This indicated that there was no difference in Facebook movement towards the ideal self between agentic narcissists in self-focused and other-focused condition, and between agentic narcissists and non-narcissists in self-focused condition.

On the other hand, results showed some support for predictions for communal narcissism. Even though the main effect of communal narcissism on Facebook affirmation was not significant ( $\beta = -.04, ns$ ), the interaction effect between communal narcissism and experimental condition on Facebook affirmation was significant ( $\beta = .21, p < .05$ ).

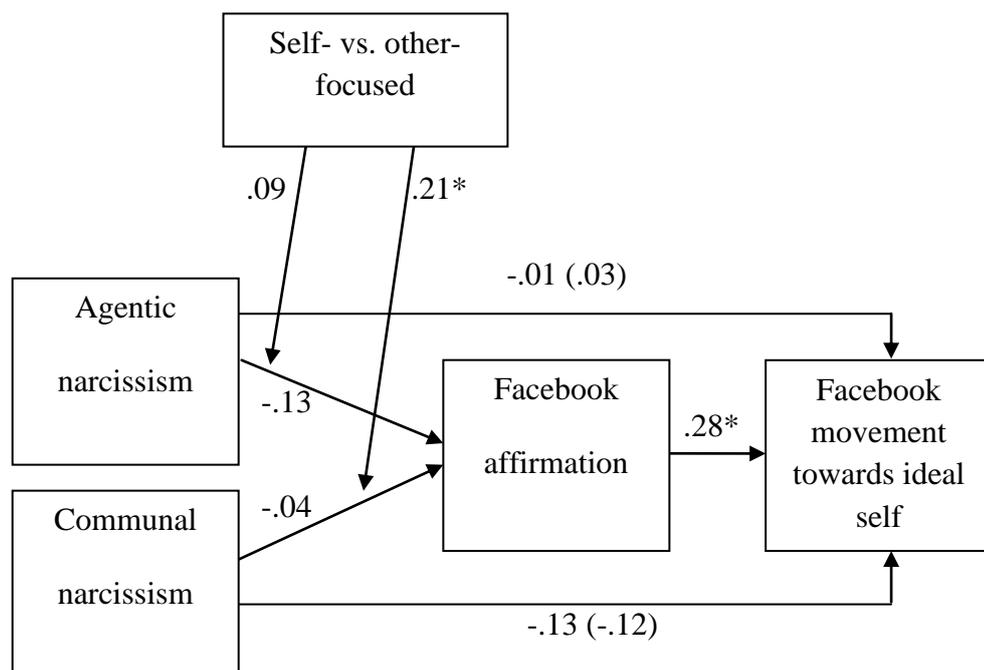


Figure 3.2. The moderating effect of cognitive-behavioural strategies.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediator is included in the model.

Consistent with Hypotheses 3a and 4a, tests of simple slope (Aiken & West, 1991) further revealed that the effect of experimental condition on Facebook affirmation was significant and positive among communal narcissists (+1 *SD*), simple slope = 0.59,  $t(95) = 2.91$   $p < .01$ . That is, communal narcissists in the other-focused condition reported higher levels of Facebook affirmation than their peers in the self-focused condition. Moreover, communal narcissists in the other-focused condition showed higher levels of Facebook affirmation than non-narcissists in the same condition, simple slope = 0.43,  $t(95) = 2.36$ ,  $p < .05$  as shown in Figure 3.3.

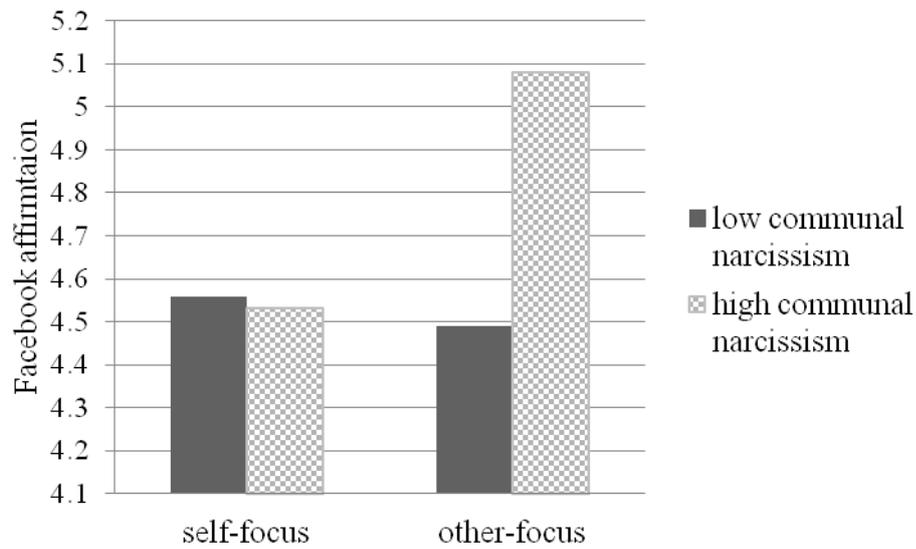


Figure 3.3. Interaction effect on Facebook affirmation.

Note. Low and high values for communal narcissism are conditioned at 1 *SD* below and above the mean.

Similarly, even though the effect of communal narcissism on Facebook movement towards the ideal self were not significant ( $\beta = -.13$ , *ns*), the interaction effect between communal narcissism and experimental condition on Facebook movement towards the ideal self was significant ( $\beta = .21$ ,  $p < .05$ ).

Consistent with Hypothesis 3b, tests of simple slope showed that the effect of experimental condition on Facebook movement towards the ideal self was significant and positive among communal narcissists (+1 *SD*), simple slope = 1.68,  $t(95) = 2.19$ ,  $p < .05$ . That is, communal narcissists in the other-focused condition reported higher

levels of Facebook movement towards the ideal self than those in the self-focused condition as shown in Figure 3.4. However, communal narcissists in the other-focused condition did not have higher levels of Facebook movement towards the ideal self than non-narcissists in the same condition, simple slope = 0.34,  $t(95) = 0.95$ , *ns*. Therefore, these results rejected Hypothesis 4b.

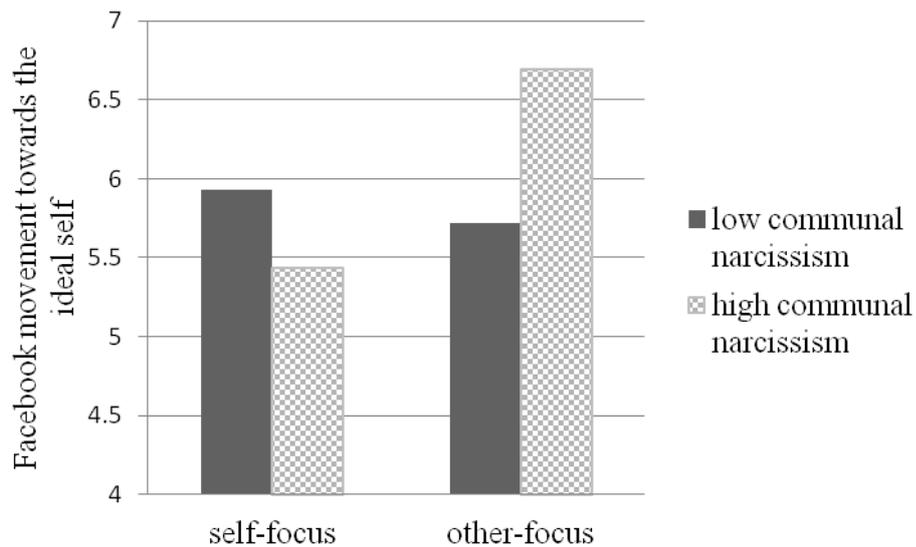


Figure 3.4. Interaction effect on Facebook movement towards the ideal self.

Note. Low and high values for communal narcissism are conditioned at 1 *SD* below and above the mean.

**Testing the mediating effects.** Given that the interaction effects between agentic narcissism and experimental condition on Facebook affirmation was not significant, Hypothesis 6, which predicted that Facebook affirmation would mediate such interaction effect on Facebook movement towards the ideal self, was not supported. On the other hand, even though the main effect of Facebook affirmation on Facebook movement towards the ideal self was significant ( $\beta = .28$ ,  $p < .05$ ), which supported Hypothesis 5, Facebook affirmation did not mediate the interaction term communal narcissism and experimental condition on Facebook movement towards the ideal self ( $\beta = .06$ , *ns*) as shown in Table 3.3. Thus, these results rejected Hypothesis 7.

Table 3.3

*Moderated mediation analysis*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting Facebook affirmation:</i>				
<b>Moderating effect</b>				
NPI X condition -> Facebook affirmation	.09	[-0.02, 0.06]	0.11	0.85
CNI X condition -> Facebook affirmation	.21*	[0.12, 0.92]	0.11	2.07
<i>Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
CNI X condition -> Facebook affirmation -> Facebook movement towards ideal self	.06	[-0.06, 0.03]	0.04	1.41
<b>Total effect</b>				
CNI X condition -> Facebook movement towards the ideal self	.21*	[0.05, 0.37]	0.98	2.12

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; CNI = communal narcissism inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); S.E. = standard error; CI = confidence interval.\* $p < .05$ .

### Discussion

Following up on the findings from previous chapter which revealed the potential benefit of Facebook in delivering affirmation of the ideal self for communal narcissists, the present study further investigated the cognitive and behavioural strategies that may help narcissists acquire Facebook affirmation and move towards the ideal self. Results using a path model analysis partially supported the main hypotheses that communal narcissists in the other-focused condition would have higher levels of Facebook affirmation and Facebook movement towards the ideal self than their peers in the self-focused condition. Moreover, they reported higher levels of affirmation than non-narcissists. This showed that communal narcissists benefitted from using Facebook to attain Facebook affirmation and become closer to their ideal

selves when they were allowed to focus on other people on Facebook. Contrary to the hypotheses, Thai agentic narcissists did not report higher levels of Facebook affirmation or come closer to their ideal selves when they were asked to focus on themselves on Facebook, compared to those who were asked to focus on other people.

### **Agentic narcissism**

Although agentic narcissists were expected to experience Facebook affirmation and move closer to their ideal self when they were able to adopt self-focused strategies (e.g., editing profile picture, updating status, talking about personal stories), results from this study failed to support the hypotheses. This is seemingly at odds with previous studies which had found that agentic narcissists used Facebook for self-promotion and self-presentation by engaging in self-focused activities (Carpenter, 2012; Dewall et al., 2011; Ong et al., 2011), although these studies did not examine affirmation or movement towards the ideal self.

There may be several reasons for this lack of significant findings. First, this may be due to the characteristics of agentic narcissists and types of relationship established on Facebook. Agentic narcissists are more likely to establish their dominance, manifest themselves with agentic means, and are less interested in having a close relationship with others (Campbell et al., 2006, 2007), compared to non-narcissists. However, relationships on Facebook somewhat emphasises reciprocity (Yoo & de Zúñiga, 2014), and thus, Facebook may not be able to serve agentic needs.

Interestingly, based on the correlations among variables before the manipulation, agentic narcissism was found to be positively correlated with the number of friends on Facebook and the tendency to talk about one's own feelings on Facebook. These associations suggest that agentic narcissists are still likely to have a large number of friends on Facebook and draw attention to themselves through self-focused activities. Such findings are also in line with previous studies which pointed out that Facebook can provide a sense of status and power to agentic narcissists (Bergman et al., 2011; Buffardi & Campbell, 2008; Gentile et al., 2012). However, the benefits of using such self-promotion tendencies may not result in affirmation of the ideal self or movement towards the ideal self, and other outcomes such as satisfaction of the self-motives or increased social status should be explored.

Lastly, it is worth noting that the average NPI score in this study ( $M = 11.8$ ,  $SD = 5.4$ ) is much lower than that in the USA ( $M = 15.3$ ,  $SD = 6.8$ ), Europe ( $M = 15.0$ ,  $SD = 6.3$ ), Asia ( $M = 14.3$ ,  $SD = 6.7$ ), and the Middle East ( $M = 13.9$ ,  $SD = 6.9$ ; Foster et al., 2003). This suggests that Thai participants who have high NPI scores may not be representative of agentic narcissists, and agentic narcissism in Thailand may not be prevalent. Moreover, people who promote themselves or try to be outstanding from others may not get rewarded by others with admiration in the Thai culture (Pimpa, 2012). This could be another important reason why Thai agentic narcissists did not benefit from using self-focused strategy to achieve their ideal self. On the contrary, people in individualistic cultures are encouraged to focus on their personal goals and achievement (Triandis & Gelfand, 2012). Thus, it is possible that individualistic cultures may reward agentic narcissists with self-focused behaviours more than collectivistic cultures.

### **Communal narcissism**

Consistent with the hypotheses, communal narcissists benefited more from using Facebook to attain affirmation of the ideal self and move closer to their ideal selves after being allowed to focus on others, compared to communal narcissists who focused on themselves. These findings confirm and are congruent with previous research on communal narcissism which showed that communal narcissists capitalise on communal means to satisfy their self-motives (Gebauer et al., 2012). In other words, communal narcissists are likely to benefit the most from Facebook by adopting a communal approach. This also supports the idea that when people can use the strategies that match their regulatory orientation, they are more likely to achieve their goals (Spiegel et al., 2004).

In addition, the finding that communal narcissists reported higher Facebook affirmation than the non-narcissists in the same condition also suggests that communal narcissists may benefit more from using other-oriented behaviours on Facebook, compared to non-narcissists.

It is also important to note that other-focused behaviours on Facebook in the current study included clicking like, sharing friend's status, or giving friends other types of support on Facebook. Engaging in such activities on Facebook, a platform where contents and activities can be seen by a large number of audience (Boyd &

Ellison, 2008; Ellison et al., 2007), may provide a chance for communal narcissists to be seen as helpful or friendly individuals to the public. Accordingly, communal narcissists may find Facebook beneficial when they can adopt a communal approach, such as paying attention to others, and can project such ideal image to a large number of people.

Although communal narcissists were found to benefit from using a communal approach to attain their ideal selves on Facebook, it is worth noting that communal narcissists are not necessarily more helpful even when they report being more helpful than the non-narcissists (Gebauer et al., 2012). It is possible that compared to actual interactions, Facebook, especially during the other-focused task, may allow them to easily present themselves as the friendliest person via their comments on their friends' statuses. Features on Facebook which allow people to control their content may also facilitate communal narcissists to exercise their strategy of enhancing themselves to a greater degree than in face-to-face interactions.

### **Self- and other-focused activities on Facebook**

Most people are more likely to be engaging in other-focused behaviours rather than self-focused behaviours, regardless of narcissism levels, since relationships on Facebook emphasise reciprocity (Buccafurri, Nicolazzo, & Nocera, 2015). Further, the Facebook environment seems to encourage constructive and supportive interactions. This can be seen through the use of "like" and "share" status, and features that allow users to make complaints about offensive contents on Facebook. As a result, using other-oriented strategy on Facebook is likely to enhance the possibility of receiving Facebook affirmation. Specifically, this may be especially necessary in a collectivistic culture where other-oriented values have been entrenched in the culture (Triandis, 2001; Triandis & Suh, 2002). This is consistent with previous research which found that Thais used Facebook for social cohesion (Dumrongsiri & Pornsakulvanich, 2010). This may particularly be the case for communal narcissists who utilise communal means to maintain their grandiosity.

### **Research strengths**

The current study provides additional support for the hypothesis that communal narcissists who adopt communal approach for goal attainment would experience affirmation of the ideal self. It also confirms that the presence of regulatory fit enhances the likelihood of attaining goals. In particular, communal means such as engaging in other-focused activities on Facebook enhance the likelihood of attaining Facebook affirmation and becoming closer to the ideal self for communal narcissists.

Another strength in this study is the use of pretest-posttest design where pre-scores of Facebook affirmation and Facebook movement towards the ideal self were controlled. In general, it can be difficult to detect changes using this design, partly due to the effect of testing and regression to the mean. That is, participants who are familiar with the pre-test or have extreme scores in the pretest may respond similarly to the same measure in the post-test or move towards less extreme positions. These threats may reduce the effectiveness of the experimental treatment (Mitchell & Jolley, 2012), particularly when there is a short interval between pretest and posttest. Thus, obtaining a significantly different finding between pre-test and post-test indicates the effectiveness of experimental manipulation. Thus, for this study, a somewhat cautious causal relationship between experimental condition and Facebook affirmation can be made.

In addition, this study also both replicates and extends findings from the previous chapter that communal narcissists may have a greater likelihood of receiving Facebook affirmation than non-narcissists. This is especially highly likely when they can use their preferred strategy on Facebook.

### **Research limitations**

Even though the current study contributes to literature on narcissism and Facebook use, there are some limitations concerning the low internal consistency of Facebook affirmation scale in the pre-test session. Even though Facebook affirmation scale had a high internal consistency in previous study and in the post-test session, Cronbach's alpha of this measure in the pre-test session was low. Thus, interpretation needs to be made with caution. Further, future studies should replicate the study to see if results remain the same.

## **Conclusion**

In brief, the findings from this study indicated that using different cognitive and behavioural strategies affected levels of Facebook affirmation and Facebook movement towards the ideal self among Thai communal narcissists. Communal narcissists who were able to adopt a communal approach such as engaging in other-oriented behaviour (clicking like, sharing, and giving friend's support on Facebook) had a greater likelihood of experiencing Facebook affirmation and movement towards their ideal selves on Facebook than communal narcissists who engaged in self-oriented behaviours. Moreover, their communal behaviour helped them experience Facebook affirmation more than non-narcissists. Consistent with findings from the previous chapter, there were no differences in Facebook affirmation and Facebook movement towards the ideal self between agentic narcissists in self-focused and other-focused conditions. However, it may be too early to conclude that agentic narcissists will not be able to move closer to their ideal selves on Facebook, especially in the light of the low NPI scores in this sample.

Given the above findings and limitations, future research is needed to examine the role of cognitive-behavioural strategies on Facebook affirmation in other samples. Moreover, more research is needed to uncover why communal narcissists experience Facebook affirmation and movement towards the ideal self when they can use the strategies that match their focus orientation. Thus, the next chapter will focus on the mechanisms underlying Facebook affirmation and will focus on communal narcissism only.

## **Chapter 4**

### **The Mechanisms Underlying Facebook Affirmation**

#### **Overview**

Although findings from the previous chapter showed some support for the hypothesis that communal narcissists will receive Facebook affirmation and move towards their ideal selves after engaging in other-focused activities on Facebook, the underlying processes are still unclear. Therefore, this chapter aims to investigate potential factors mediating Facebook affirmation among narcissists in Thailand. Since results from Chapters 2 and 3 showed that agentic narcissism did not play a role in Facebook affirmation, this study mainly focuses on communal narcissism.

Four self-motives, which include self-esteem, entitlement, grandiosity, and power, have been proposed to be core self-motives for communal narcissists (Gebauer et al., 2012). Specifically, communal narcissists use communal means to satisfy these self-motives. This chapter will examine whether Facebook affirmation experienced by communal narcissists who engage in other-oriented activities on Facebook is via the satisfaction of these four self-motives. The same quasi-experimental design employed in Chapter 3 will be used again, but this chapter will also assess the four self-motives (self-esteem, entitlement, grandiosity, and power) after completing the self or other-oriented activities over a 24-hour period.

#### **Narcissism and self-motives**

Previous research has shown support for each of the four self-motives including self-esteem, entitlement, grandiosity, and power, as being primary motives for narcissism, both in offline and online settings (Bergman et al., 2011; Gebauer et al., 2012; Gonzales & Hancock, 2011; Marshall et al., 2015). Moreover, it appears that narcissists may continuously chase after fulfilment of these four self-motives. This idea is supported by prior research which suggests that narcissists have an exceptionally high desire for praise and admiration (Campbell et al., 2011; Moeller et al., 2009; Morf & Rhodewalt, 2001) and may adapt themselves to the praise and approval they receive much faster than non-narcissists (Baumeister & Vohs, 2001). After initial feeling of satisfaction with receipt of praises or admiration, they may start seeking new ways of receiving more admiration in order to boost their core self-

motives of self-esteem, entitlement, grandiosity, and power. Baumeister and Vohs (2001) suggest that narcissists may not be able to maintain their satisfaction with the same amount or the same source of admiration or approval. As a result, their strong motivation and cognitive distortions may drive them to be trapped in the cycle of self-motives seeking. I will briefly describe each of the four motives below.

First, narcissism has been strongly associated with the desire for self-esteem (Horvath & Morf, 2010; Sedikides et al., 2004). In fact, narcissists are addicted to self-esteem (Baumeister & Vohs, 2001). Their strong motivation to maintain their grandiose self-view has been posited to be the main reason that leads them to continually seek admiration and approval from others. However, it may not be the feedback itself but their unrealistic self views that maintain their perception of being superior to other people (Baumeister & Vohs, 2001). Admiration from others typically works as a simple pathway to satisfaction; yet, narcissists have distortions that allow them to perceive themselves as superior to others without necessary receiving admiring feedback from others. In addition, it is also worth noting that even though narcissists have high self-esteem, they are different from non-narcissists who have high self-esteem. Narcissists feel satisfied with themselves because they feel superior to others whereas non-narcissists with high self-esteem perceive themselves as a worthy person without the need to feel superior to others (Brummelman, Thomaes, & Sedikides, 2016).

Interestingly, social media such as Facebook was found to be a source for self-esteem. For example, prior research found that exposure to Facebook could increase self-esteem, particularly when individuals were allowed to edit their profile (Gonzales & Hancock, 2011). This may suggest that when people are able to present their best image on Facebook, their need for self-esteem is likely to be met. In this regard, narcissists who crave admiration may be able to satisfy their need for self-esteem when they are able to present their ideal selves through their preferred strategy.

Second, narcissists also have a high sense of entitlement, believe that they deserve to attain things more than others (Ackerman et al., 2010; Moeller, Crocker, & Bushman, 2009) and expect a special treatment from others (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004). Their sense of entitlement often results in anti-social behaviours, such as aggression (Reidy, Zeichner, Foster, & Martinez, 2008). Moreover, narcissists have also been shown to exhibit a sense of entitlement on

Facebook. For example, narcissists are likely to engage in unpleasant behaviours such as seeking more social support than providing it and retaliating against negative comments (Carpenter, 2012).

In addition, narcissists also have a strong desire for grandiosity (Reidy et al., 2008; Rosenthal, Hooley, Montoya, & Steshenko, 2007). They perceive themselves to be superior to and more important than others (Morf & Rhodewalt, 2001). Research has shown that narcissists' grandiose sense of self-importance is not only apparent in everyday situations, but also on social media such as Facebook (Anderson et al., 2012; Bergman et al., 2011; Marshall et al., 2015). For instance, narcissists with high grandiosity and exhibitionism (GE) often promote themselves on Facebook by frequently updating their status and changing their profile pictures (Carpenter, 2012).

Lastly, narcissists seek status and power over others in numerous ways and in various situations (Campbell, Hoffman, Campbell, & Marchisio, 2011). In offline settings, narcissists desire to control others (Raskin & Terry, 1988), fantasise about having power (Campbell & Foster, 2002), and strive to have higher status than others (Campbell, 2002; Morf & Rhodewalt, 2001). Their drive to have higher status than others can be seen in the form of buying prestigious products to identify themselves with high-status people (Sedikides et al., 2007), choosing a trophy partner (Campbell et al., 2002), or highly demanding loyalty from followers (Rosenthal & Pittinsky, 2006). On Facebook, they amass a large number of friends (Buffardi & Campbell, 2008) and update status about their success or achievement on Facebook to reflect their popularity, power, and status (Marshall et al., 2015).

Although the above studies examined the agentic aspect of narcissism, previous research has shown that communal narcissists have the same four self-motives as agentic narcissists. It is only the strategy they use for self-aggrandising that is different. Agentic narcissists adopt agentic means such as overclaiming agentic traits, whereas communal narcissists adopt communal means such as overclaiming communal traits to satisfy the four self-motives (Gebauer et al., 2012; see the literature review for a comprehensive review).

## **The Present Study**

The present study extends findings from the previous chapter by investigating the mediating effects of the four self-motives (self-esteem, entitlement, grandiosity, and power) on the relationship between cognitive and behavioural strategies and Facebook affirmation among narcissists. The current study will also examine if Facebook affirmation and movement towards the ideal self will result in higher life satisfaction. Even though life satisfaction tends to be stable over time (Pavot & Diener, 1993), it is worth examining whether there will be some changes in life satisfaction after the manipulation.

Given that the findings of Chapters 2-3 consistently found no effect of agentic narcissism on Facebook affirmation, this study will primarily focus on communal narcissism. Since other studies have shown agentic narcissism to be associated with many Facebook behaviours (Carpenter, 2012; Dewall et al., 2011; Ong et al., 2011) and found positive correlations between the two types of narcissism (Gebauer et al., 2012; Luo et al., 2014), agentic narcissism will still be assessed to examine if previous chapters' null findings for agentic narcissism can be replicated in another sample and to assess the pure effects of communal narcissism.

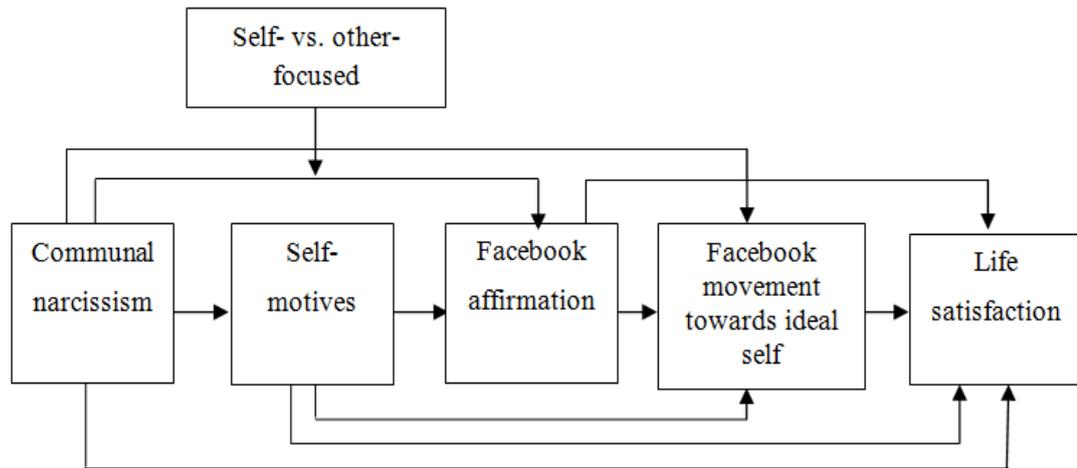
This study will mainly be a replication of Chapter 3, with the addition of the four self-motives (self-esteem, entitlement, grandiosity, and power) and well-being. Participants will be asked to complete narcissism measures and will be randomly assigned to engage in either self-focused or other-focused tasks. After being given 24 hours to complete the task, they will be asked to complete a set of measures to assess the four self-motives, Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction.

Consistent with the hypothesised Facebook affirmation model, it is expected that communal narcissists who capitalise on other-oriented means will report higher levels of Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction when they are asked to engage in other-focused task, compared to communal narcissists who are asked to engage in self-focused task. In addition, a series of moderated mediation analysis will be conducted to test the mediating effects of the four self-motives between the interaction of communal narcissism and experimental condition on Facebook affirmation, as well as examine the subsequent

mediating effects of Facebook affirmation and Facebook movement towards the ideal self on the next steps in the model (see Figure 4.1).

## Hypotheses

The following hypotheses were tested as shown in Figure 4.1:



*Figure 4.1.* Facebook affirmation model with the four self-motives (self-esteem, entitlement, grandiosity, and power) as mediators. Each self-motive will be analysed in a separate model.

### Testing the moderating effects of experimental condition

*Hypothesis 1.* Communal narcissists in the other-focused condition will report higher levels of (a) Facebook affirmation, (b) Facebook movement towards the ideal self, and (c) life satisfaction than communal narcissists in the self-focused condition.

*Hypothesis 2.* Communal narcissists in the other-focused condition will report higher levels of (a) Facebook affirmation, (b) Facebook movement towards the ideal self, and (c) life satisfaction than non-narcissists in the same condition.

### Testing moderated mediations

*Hypothesis 3.* The four self-motives (self-esteem, entitlement, grandiosity, and power) will mediate the interaction effect between communal narcissism and the experimental condition on (a) Facebook affirmation, (b) Facebook movement towards the ideal self, and (c) life satisfaction.

*Hypothesis 4.* Facebook affirmation will mediate the effects of the four self-motives (self-esteem, entitlement, grandiosity, and power) on (a) Facebook movement towards the ideal self and (b) life satisfaction.

*Hypothesis 5.* Facebook affirmation will mediate the interaction effect between communal narcissism and the experimental condition on (a) Facebook movement towards the ideal self and (b) life satisfaction.

*Hypothesis 6.* Facebook movement towards the ideal self will mediate the effects of the four self-motives (self-esteem, entitlement, grandiosity, and power) on life satisfaction.

*Hypothesis 7.* Facebook movement towards the ideal self will mediate (a) the interaction effect between communal narcissism and the experimental condition and (b) the effect of Facebook affirmation on life satisfaction.

In addition to the main hypotheses, agentic narcissism will also be examined. Given the contradictions between previous chapters' findings and the existing literature on agentic narcissism, no *apriori* hypothesis will be generated.

## **Method**

**Participants.** Participants were 162 undergraduate students from Chulalongkorn University and Srinakharinwirot Universities in Thailand (30 males, 132 females, 87 in the self-focused condition, 75 in the other-focused condition, *M* age = 19.42, age range = 18-22) who were enrolled in a general psychology course. Participants were recruited in a classroom as part of their course and received extra course credits for participating in this experiment. Sample size was determined based on the ratio of the number of sample size to number of free parameters which should be at least 5:1 (Bentler & Chou, 1987). As there are 30 free parameters in the model, the sample size should be more than 150.

**Research design and procedure.** A quasi-experimental research design was used to examine the mechanisms underlying Facebook affirmation among communal narcissists. Similar to Chapter 3, there were three sessions in this experiment: pre-test, cognitive and behavioural strategies manipulation, and post-test sessions.

First, participants were recruited in a classroom. Those who were interested in taking part in the experiment were asked to provide an email address and mobile

phone number for future contact. Participants' email address, mobile phone number, and students' names were kept confidential and used for the research purpose only. Approximately 24 hours after the recruitment, participants were sent a survey link via email and asked to complete a set of online questionnaires: NPI-40, 16-item CNI, Facebook affirmation scale, actual and ideal self closeness scale, and Facebook usage questionnaire.

Two weeks later, participants received an email which contained a link guiding them to their condition and asking them to sign an agreement to follow the instruction. Participants were then randomly assigned to complete either self- or other-focused tasks over the next 24 hours. Twenty-four hours later, they received another email which contained a link to the final set of online questionnaires. The questionnaires included Rosenberg's self-esteem scale, psychological entitlement scale, narcissistic grandiosity scale, sense of power scale, Facebook affirmation scale, actual and ideal self closeness scale, and satisfaction with life scale. Participants were asked to think about the activities they engaged in during the past 24 hours before completing the questionnaires. Manipulation check questions were also asked to examine if participants followed the assigned instructions. Participants were debriefed at the end of survey.

**Materials.** All scales were translated and back-translated by two native Thai speakers who are fluent in English. The same experimental materials used in Chapter 3 were also used in this study. Below are experimental materials that have not been assessed in the previous chapters. All scales are listed in Appendix A.

The following measures were assessed using 7-point response scales (e.g., 1 = strongly disagree, 7 = strongly agree). Participants were instructed to think about the activities on Facebook they had completed during the last 24 hours and rate the degree to which they agree with each item of the scales. Scores were calculated by calculating the average score for each participant such that higher scores of each measure indicated greater levels of each construct:

**Self-esteem.** Participants were asked to complete Rosenberg's (1965) self-esteem scale (RSES; Rosenberg, 1965). This measure assesses individual difference in the extent to which people report self-esteem levels. An example of items is "On the whole, I am satisfied with my life".

**Entitlement.** The 9-item psychosocial entitlement scale (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004) was administered to assess entitlement. An example of items is “I feel entitled to more of everything”.

**Grandiosity.** Participants completed the 16-item narcissistic grandiosity scale (Rosenthal, Hooley, Montoya, & Steshenko, 2007). They were asked to rate the degree to which each of the 16 adjectives related to grandiosity describes them. An example of adjectives is “prestigious”.

**Power.** Participants were instructed to complete the 8-item sense of power scale (Anderson, John, & Keltner, 2012) to assess sense of power levels. An example of items is “I think I have a great deal of power”.

**Manipulation check.** To examine if participants complied with the assigned condition, the same set of questions used in Chapter 3 were assessed in this study. Please see Appendix A for the questions used before and after the manipulation.

### **Data analyses strategy**

First, the hypothesised model without self-motives will be tested to see if findings from Chapter 3 can be replicated. Path analysis will be carried out to test the interplay between the experimental condition and levels of communal narcissism on Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction. Fit indices of the model will be tested to see if it is appropriate for interpretation. Next, the main effects, interaction effects, and mediating effects will be investigated. Lastly, simple slopes will be tested if the interaction effect is significant.

Scores of communal narcissism, pre and post scores of Facebook affirmation, and pre and post scores of Facebook movement towards the ideal self will be mean centered. The experimental condition will be dummy coded (self-focus = 0 and other focus = 1). Communal narcissism will be multiplied with the dummy variable to create the interaction term: communal narcissism X condition. Pre-scores of Facebook affirmation and pre-scores of Facebook movement towards the ideal self will be controlled in order to be able to see changes after engaging in self- or other- oriented behaviours. In addition, scores of agentic narcissism will be mean centered and added in the model to control the shared variance between agentic and communal narcissism. Although this chapter does not focus on agentic narcissism, I will

examine the effects of agentic narcissism as well in a separate analysis, to see if this sample has similar sets of null findings as in the previous chapters.

Next, the mediating effects of the four self-motives will be tested in the hypothesised model, if the required conditions for mediations are met. The same strategy used in Chapter 2 to test mediating effects will be used in this study, where the indirect effects of the mediators will be produced by the indirect effect command. (Bruin, 2006). Scores of self-esteem, entitlement, grandiosity, and power will be mean centered and added in the model. Each self-motive will be analysed in a separate model, to examine the variance of each self-motive independently from each other and to avoid multicollinearity between the four self-motives. This is in line with the original research that examined the four self-motives among communal narcissists, which also adopted this method (Gebauer et al., 2012).

## Results

### Manipulation check

A series of independent sample *t*-tests were used to test the effectiveness of the experimental manipulation. Results showed that participants in the self-focused condition were more likely to have edited their profile pictures ( $M_{self} = 0.84$ ,  $SD_{self} = 0.40$ ,  $M_{other} = 0.00$ ,  $SD_{other} = 0.00$ ,  $t = 19.58$ ,  $p < .01$ ), updated their own activities ( $M_{self} = 1.21$ ,  $SD_{self} = 1.10$ ,  $M_{other} = 0.21$ ,  $SD_{other} = 1.09$ ,  $t = 4.76$ ,  $p < .01$ ), and presented their own feelings ( $M_{self} = 2.54$ ,  $SD_{self} = 7.56$ ,  $M_{other} = 0.40$ ,  $SD_{other} = 1.135$ ,  $t = 2.59$ ,  $p < .05$ ) than those in the other-focused condition.

On the other hand, participants in the other-focused condition were more likely to have clicked like ( $M_{other} = 12.79$ ,  $SD_{other} = 15.07$ ,  $M_{self} = 1.60$ ,  $SD_{self} = 5.11$ ,  $t = 6.13$ ,  $p < .05$ ), shared their friends' status ( $M_{other} = 0.91$ ,  $SD_{other} = 0.83$ ,  $M_{self} = 0.02$ ,  $SD_{self} = 0.15$ ,  $t = 9.14$ ,  $p < .01$ ), and provided comments on their friends' status ( $M_{other} = 3.53$ ,  $SD_{other} = 4.05$ ,  $M_{self} = 0.48$ ,  $SD_{self} = 0.41$ ,  $t = 6.41$ ,  $p < .01$ ) than those in the self-focused condition. These results showed that participants in the self-focused condition engaged in self-focused activities more than those in the other-focused condition and vice versa, suggesting that the cognitive and behavioural strategies manipulation was effective.

### Pre-manipulative descriptive statistics

Table 4.1 shows mean scores, standard deviation, and Cronbach's alpha of the measurements. Results from Pearson's correlation also showed that agentic narcissism was positively correlated with communal narcissism ( $\beta = .27, p < .05$ ) and pre-scores of Facebook affirmation ( $\beta = .17, p < .05$ ). On the other hand, communal narcissism was positively correlated with pre-scores of Facebook affirmation even though it was marginal ( $\beta = .14, p = .080$ ). Pre-scores of Facebook affirmation was also positively correlated with pre-scores of Facebook movement towards the ideal self ( $\beta = .35, p < .01$ ).

Table 4.1

*Mean scores, standard deviation, and alphas of predictors and dependent variables*

Variables	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	$\alpha$
<i>Pre-manipulation</i>					
Agentic narcissism	1.00	28.00	11.70	5.30	.78
Communal narcissism	2.69	5.75	4.46	0.58	.84
Facebook affirmation	2.13	6.50	4.53	0.73	.65
Facebook movement towards the ideal self	1.00	9.00	6.22	1.83	-
<i>Post-manipulation</i>					
Self-esteem	2.90	7.00	5.10	0.81	.86
Entitlement	1.67	5.67	4.05	0.56	.61
Grandiosity	1.00	5.75	3.73	0.76	.94
Power	2.75	6.38	4.33	0.61	.72
Facebook affirmation	3.13	6.31	4.52	0.65	.63
Facebook movement towards the ideal self	1.00	9.00	5.98	1.95	-
Life satisfaction	2.40	7.00	4.59	0.93	.85

*Note.*  $N = 162$ .

## Hypothesis testing

**The hypothesised model without self-motives.** First, a path model analysis was carried out on the original Facebook affirmation model, without self-motives, to see if findings from Chapter 3 can be replicated. Fit indices of the model showed that the hypothesised model without self-motives had a good fit,  $\chi^2(4) = 4.52, p = .34$ , CFI = 0.99, and RMSEA = 0.029. This showed that parameter estimates in the model can be interpreted.

**Testing the moderating effects of experimental condition.** Figure 4.2 shows the results from this model. Even though the main effects of communal narcissism ( $\beta = -.08, ns$ ) and the experimental condition ( $\beta = -.03, ns$ ) on Facebook affirmation were not significant, the interaction effect between communal narcissism and experimental condition on Facebook affirmation was significant ( $\beta = .19, p < .05$ ).

Consistent with Hypotheses 1a and 2a, tests of simple slope showed that the effect of experimental condition on Facebook affirmation was marginal and positive among communal narcissists (+1 *SD*), simple slope = 0.21,  $t(156) = 1.90, p = .059$ . That is, communal narcissists in the other-focused condition reported higher levels of Facebook affirmation than their peers in the self-focused condition as shown in Figure 4.3. Moreover, communal narcissists in the other-focused condition also had higher levels of Facebook affirmation than non-narcissists in the same condition, simple slope = 0.48,  $t(156) = 4.59, p < .01$ .

Although not initially hypothesised and contrary to findings from the previous chapter, non-narcissists in the other-focused condition reported lower levels of Facebook affirmation than their peers in the self-focused condition, simple slope = -0.38,  $t(156) = -3.45, p < .01$ , though in the self-focused condition, Facebook affirmation levels did not differ between non-narcissists and communal narcissists, simple slope = -0.03,  $t(156) = -0.37, ns$ . In Chapter 3, non-narcissists in both self- and other-focused conditions had the same levels of Facebook affirmation, with communal narcissists in the other-focused condition reporting high levels of Facebook affirmation. However, results in this study, though looked similar to those found in Chapter 3, showed that non-narcissists reported lower levels of Facebook affirmation. In addition, the scores for communal narcissists in other-focused condition were slightly lower than that found in Chapter 3.

Contrary to the hypotheses 2a and 2b, the main effects of communal narcissism ( $\beta = -.05, ns$ ) and the experimental condition ( $\beta = -.08, ns$ ) and the interaction effect between communal narcissism and experimental condition ( $\beta = .08, ns$ ) on Facebook movement towards the ideal self were not significant.

Contrary to Hypotheses 1c and 2c, the interaction effect between communal narcissism and the experimental condition ( $\beta = .04, ns$ ) on life satisfaction were not significant. Additionally, the main effects of communal narcissism ( $\beta = .07, ns$ ) and experimental condition ( $\beta = .10, ns$ ) on life satisfaction were not significant.

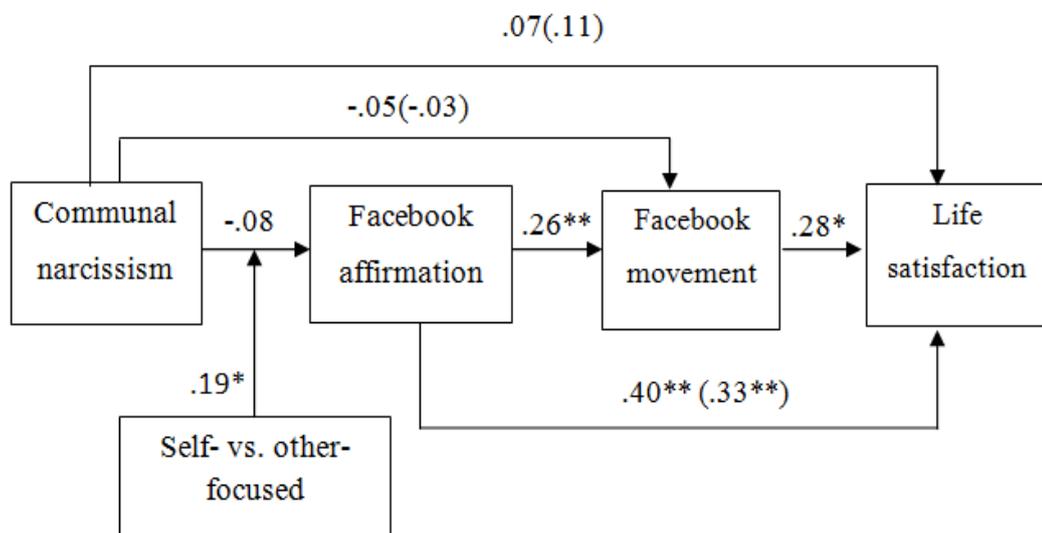
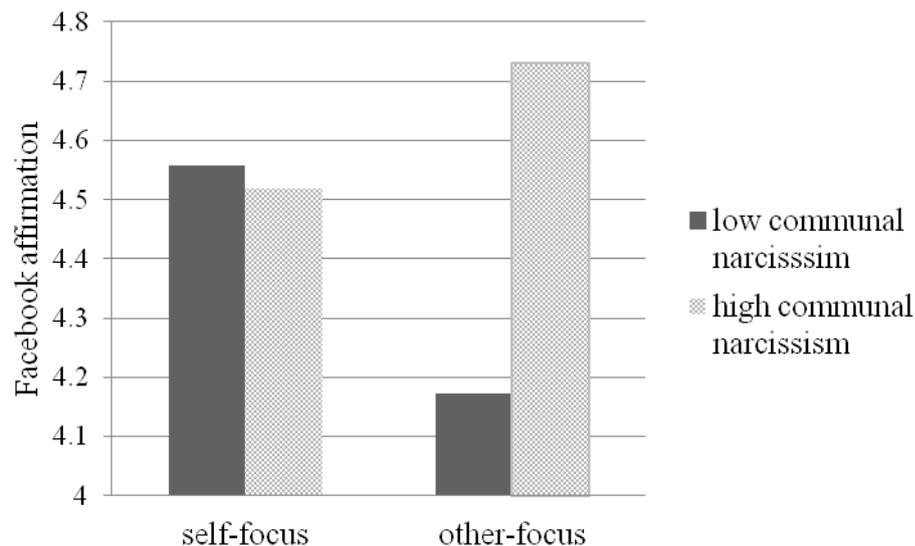


Figure 4.2. Hypothesised model without self-motives.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.



*Figure 4.3.* Interaction effect on Facebook affirmation model without self-motives  
*Note.* Low and high values for communal narcissism are conditioned at 1 SD below and above the mean.

***Testing moderated mediations without the four self-motives.*** Table 4.2 shows results from the mediation analyses. Even though the main effects of Facebook affirmation on Facebook movement towards the ideal self ( $\beta = .26, p < .01$ ) and life satisfaction were significant ( $\beta = .40, p < .01$ ), Facebook affirmation did not mediate the interaction term between communal narcissism and the experimental condition on Facebook movement towards the ideal self ( $\beta = .05, ns$ ) nor life satisfaction ( $\beta = .06, ns$ ). Therefore, these results rejected hypotheses 5a and 5b.

Given that the interaction term between communal narcissism and the experimental condition did not predict Facebook movement towards the ideal self, Hypothesis 7a which predicted the mediating effect of Facebook movement towards the ideal self was not supported.

Consistent with the Hypothesis 7b, the indirect effect of Facebook affirmation on life satisfaction via Facebook movement towards the ideal self was significant ( $\beta = .07, p < .05$ ). In particular, the effect of Facebook affirmation on life satisfaction decreased when Facebook movement towards the ideal self was entered in then model ( $\beta = .33, p < .01$ ). This indicated that Facebook movement towards the ideal self partially mediated the effect of Facebook affirmation on life satisfaction.

Table 4.2

*Moderated mediation analyses without self-motives*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting Facebook affirmation:</i>				
<b>Moderating effect</b>				
CNI X condition -> Facebook affirmation	.19*	[0.05, 0.33]	0.08	2.19
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
CNI X condition -> Facebook affirmation -> Facebook movement towards ideal self	.05	[-0.01, 0.10]	0.03	1.63
<b>Total effect</b>				
CNI X condition -> Facebook movement towards ideal self	.08	[-0.11, 0.27]	0.12	0.69
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
CNI X condition -> Facebook affirmation -> SWLS	.06	[0.00, 0.06]	0.04	1.65
Facebook affirmation -> Facebook movement towards ideal self -> SWLS	.07*	[0.04, 0.25]	0.04	2.05
<b>Total effect</b>				
CNI X condition -> SWLS	.04	[-0.12, 0.19]	0.10	0.37
Facebook affirmation -> SWLS	.40**	[0.23, 0.57]	0.11	3.82

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error. \* $p < .05$ . \*\* $p < .01$ .

**Testing the mediating effects of the four self-motives.** Next, a series of path analyses were carried out to test the mediating effects of the four self-motives. Since each self-motive was analysed independently from each other<sup>2</sup>, there were 4 models. Table 4.3 shows fit indices of each model. The fit indices showed that the four models had a mediocre to good fit. Thus, parameter estimates in each model could be interpreted.

Table 4.3

*Fit indices of the hypothesised model with the self-motives*

Model	$\chi^2$	<i>df</i>	<i>p</i>	CFI	RMSEA
Model with self-esteem	0.08	1	.77	1.00	0.000
Model with entitlement	1.18	1	.28	0.99	0.030
Model with grandiosity	0.06	1	.80	1.00	0.000
Model with power	1.93	1	.16	0.99	0.076

***Model with self-esteem as the mediator.*** Figure 4.4 shows the results from this model with self-esteem as the mediator. Even though the main effects of communal narcissism ( $\beta = -.01$ , *ns*) and experimental condition ( $\beta = .06$ , *ns*) on self-esteem were not significant, there was an interaction effect between communal narcissism and the experimental condition on self-esteem ( $\beta = .22$ ,  $p < .05$ ).

Tests of simple slope showed that the effect of experimental condition on self-esteem was significant and positive among communal narcissists (+1 *SD*), simple slope = 0.37,  $t(156) = 2.36$ ,  $p < .05$ . That is, communal narcissists in the other-focused condition reported higher levels of self-esteem than those in the self-focused condition as shown in Figure 4.5. Moreover, communal narcissists in the other-focused condition also had higher levels of self-esteem than non-narcissists in the same condition, simple slope = 0.47,  $t(156) = 3.11$ ,  $p < .01$ .

In addition, self-esteem predicted Facebook affirmation ( $\beta = .35$ ,  $p < .01$ ) and life satisfaction ( $\beta = .50$ ,  $p < .01$ ). However, it did not predict Facebook movement towards the ideal self ( $\beta = .11$ , *ns*).

<sup>2</sup> A simultaneous mediation analysis was also conducted with all 4 mediators (self-esteem, entitlement, grandiosity, and power) in the same model. Findings showed identical results.

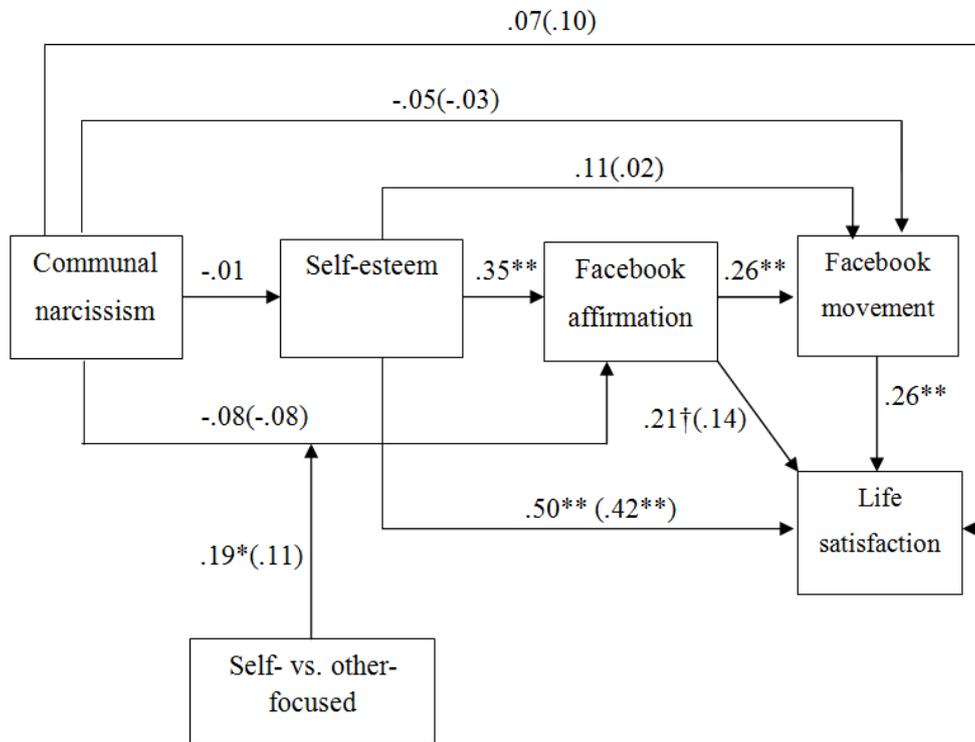


Figure 4.4. Hypothesised model with self-esteem as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

*Testing moderated mediations with self-esteem.* Table 4.4 shows results from the mediation analyses. Consistent with Hypothesis 3a, the indirect effect of the interaction term between communal narcissism and experimental condition on Facebook affirmation via self-esteem was significant ( $\beta = .08, p < .05$ ). Moreover, when self-esteem was entered in the model, the effect of such interaction term became nonsignificant ( $\beta = .11, ns$ ). This indicated that self-esteem fully mediated the interaction effect between communal narcissism and experimental condition on Facebook affirmation. However, given that self-esteem did not predict Facebook movement towards the ideal self, Hypothesis 3b, which predicted the mediating effect of self-esteem on Facebook movement towards the ideal self, was not supported.

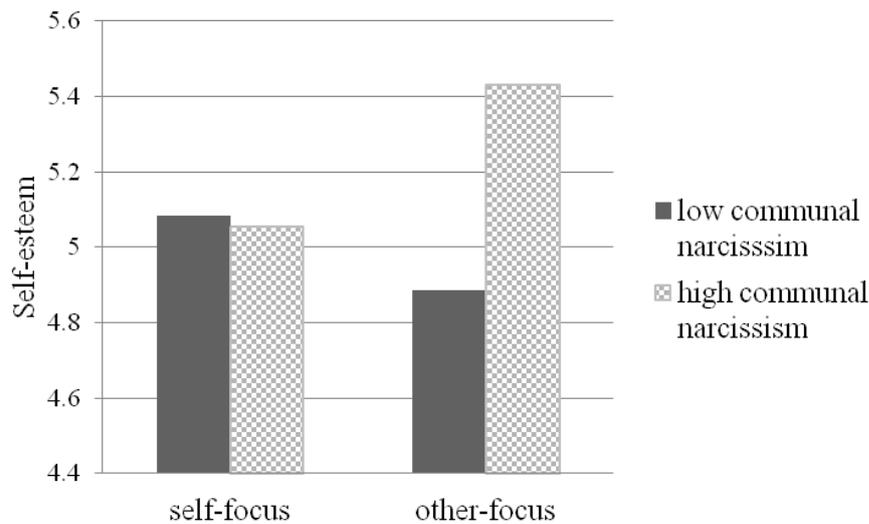


Figure 4.5. Interaction effect on self-esteem.

Note. Low and high values for communal narcissism are conditioned at 1 SD below and above the mean.

On the other hand, self-esteem was found to mediate the interaction effect between communal narcissism and experimental condition on life satisfaction ( $\beta = .09, p < .05$ ) which supported Hypothesis 3c. However, such interaction term did not predict life satisfaction in total ( $\beta = .04, ns$ ). This indicated that such interaction term might share some variance with self-esteem in predicting life satisfaction. Yet, it was not enough for the interaction term to predict life satisfaction in total.

Similarly, even though Facebook affirmation predicted Facebook movement towards the ideal self ( $\beta = .26, p < .01$ ) and mediated the effect of self-esteem on Facebook movement towards the ideal self ( $\beta = .09, p < .01$ ), which supported Hypothesis 4a, self-esteem was not a significant predictor of Facebook movement towards the ideal self ( $\beta = .11, ns$ ). This showed that self-esteem and Facebook affirmation might share some variance in predicting Facebook movement towards the ideal self. Yet, it was not enough for self-esteem to be able to predict Facebook movement towards the ideal self in total.

Contrary to Hypotheses 4b and 5, even though Facebook affirmation ( $\beta = .21, p = .072$ ) and Facebook movement towards the ideal self ( $\beta = .26, p < .05$ ) predicted life satisfaction, they did not mediate the effect of self-esteem on life satisfaction. The

indirect effects of self-esteem on life satisfaction via Facebook affirmation ( $\beta = .05$ , *ns*), Facebook movement towards the ideal self ( $\beta = .01$ , *ns*), and Facebook affirmation and Facebook movement towards the ideal self together ( $\beta = .02$ , *ns*) were not significant.

Table 4.4

*Moderated mediation analysis with self-esteem*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting self-esteem:</i>				
<b>Moderating effect</b>				
CNI X condition -> RSES	.22**	[0.09, 0.36]	0.15	-0.04
<i>Predicting Facebook affirmation:</i>				
<b>Indirect effect</b>				
CNI X condition -> RSES -> Facebook affirmation	.08*	[0.02, 0.08]	0.06	2.25
<b>Total effect</b>				
CNI X condition -> Facebook affirmation	.19*	[0.05, 0.33]	0.15	2.15
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
CNI X condition -> RSES -> SWLS	.09*	[0.03, 0.16]	0.10	2.30
RSES -> Facebook affirmation -> SWLS	.05	[-0.02, 0.12]	0.05	.20
<b>Total effect</b>				
CNI X condition -> SWLS	.04	[-0.12, 0.19]	0.25	0.36
RSES -> SWLS	.50**	[0.38, 0.62]	0.09	6.55

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); RSES = Rosenberg's self-esteem scale; SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error. \* $p < .05$ . \*\* $p < .10$ .

**Model with entitlement as the mediator.** Next, entitlement self-motive was entered into the model. Figure 4.6 shows the results from this model. The main effects of communal narcissism ( $\beta = .16, ns$ ) and experimental condition ( $\beta = .06, ns$ ), and their interaction effect on entitlement ( $\beta = .07, ns$ ) were not significant. In addition, entitlement did not predict Facebook affirmation ( $\beta = .03, ns$ ), Facebook movement towards the ideal self ( $\beta = .02, ns$ ), or life satisfaction ( $\beta = .06, ns$ ).

**Testing moderated mediations with entitlement.** As entitlement did not predict Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction, results did not support Hypotheses 3a, 3b, and 3c, which predicted the mediating effects of entitlement on Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction. Further, as entitlement did not predict Facebook affirmation and movement towards the ideal self, results did not support Hypotheses 4a and 4b, which had predicted the mediating effects of Facebook affirmation on Facebook movement towards the ideal self and life satisfaction, and Hypothesis 6, which had predicted that Facebook movement towards the ideal self would mediate the effect of entitlement on life satisfaction.

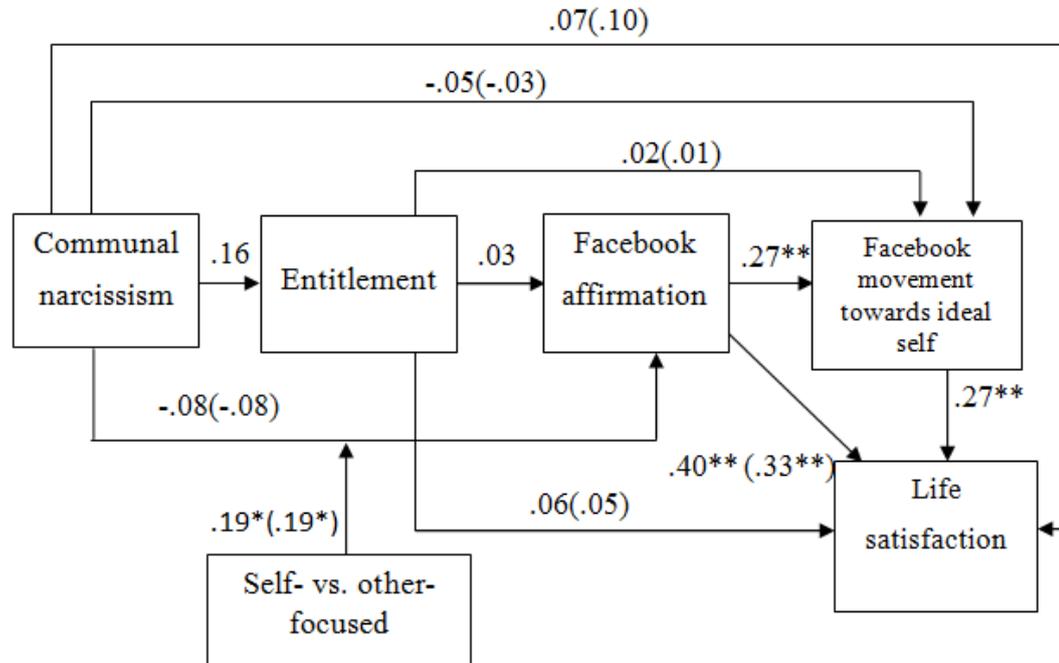


Figure 4.6. Hypothesised model with entitlement as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

**Model with grandiosity as the mediator.** Figure 4.7 shows the results from this model with grandiosity as the mediator. Results revealed that the main effect of communal narcissism on grandiosity was significant ( $\beta = .30, p < .01$ ). However, the main effect of experimental condition ( $\beta = .02, ns$ ) and the interaction effect between communal narcissism and experimental condition ( $\beta = .12, ns$ ) on grandiosity were not significant. In addition, grandiosity positively predicted Facebook affirmation ( $\beta = .26, p < .01$ ), Facebook movement towards the ideal self ( $\beta = .20, p < .05$ ), and life satisfaction ( $\beta = .36, p < .01$ ).

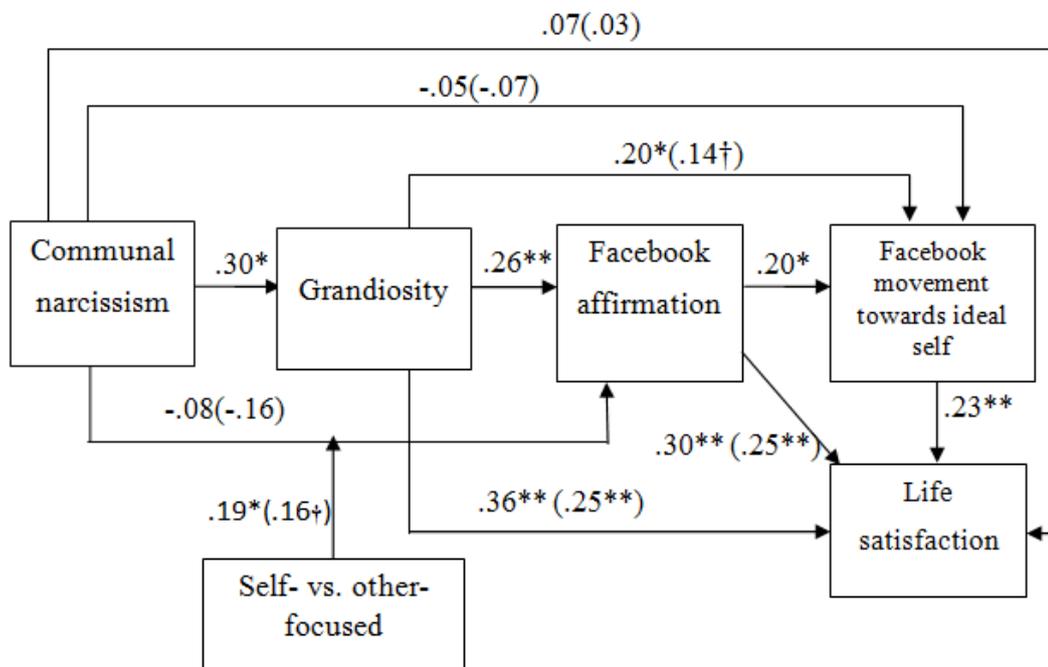


Figure 4.7. Hypothesised model with grandiosity as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

*Testing moderated mediations with grandiosity.* Given that interaction effect between communal narcissism and experimental condition on grandiosity was not significant, results rejected Hypotheses 3a, 3b, and 3c. Consistent with Hypotheses 4a and 4b, results showed that the indirect effect of grandiosity on Facebook movement towards the ideal self via Facebook affirmation was significant ( $\beta = .06, p < .05$ ). Specifically, the effect of grandiosity on Facebook movement towards the ideal self decreased and became nonsignificant when Facebook affirmation was entered in the model ( $\beta = .14, ns$ ). This indicated that Facebook affirmation fully mediated the effect of grandiosity on Facebook movement towards the ideal self. Further, the indirect effect of grandiosity on life satisfaction via Facebook affirmation was also significant. ( $\beta = .07, p < .05$ ). In addition, the effect of grandiosity on life satisfaction decreased when Facebook affirmation and Facebook movement towards the ideal self were added in the model ( $\beta = .25, p < .01$ ), suggesting a partial mediation as shown in Table 4.5. However, the indirect effect of grandiosity on life satisfaction via Facebook movement towards the ideal self was not significant ( $\beta = .03, ns$ ) which rejected Hypothesis 6.

Table 4.5

*Moderated mediation analysis with grandiosity*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting grandiosity:</i>				
<b>Moderating effect</b>				
CNI X condition -> NGS	.12	[-0.05, 0.30]	0.11	1.16
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NGS -> Facebook affirmation -> Facebook movement towards ideal self	.06*	[0.01, 0.10]	0.03	1.91
<b>Total effect</b>				
NGS -> Facebook movement towards ideal self	.20*	[0.07, 0.33]	0.08	2.54
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NGS -> Facebook affirmation -> SWLS	.07*	[0.01, 0.12]	0.03	2.09
NGS -> Facebook movement towards ideal self -> SWLS	.03	[-0.01, 0.07]	0.02	1.44
NGS -> Facebook affirmation -> Facebook movement towards ideal self -> SWLS	.01	[-0.01, 0.03]	0.01	1.30
<b>Total effect</b>				
NGS -> SWLS	.36**	[0.21, 0.52]	0.09	3.86

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); NGS = narcissistic grandiosity scale; SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error. \* $p < .05$ .

**Model with power as the mediator.** Finally, power was entered into the model as the mediator (see Figure 4.8). The main effect of experimental condition on power was significant ( $\beta = .20, p < .01$ ). However, the main effect of communal narcissism ( $\beta = .07, ns$ ) and the interaction effect between communal narcissism and experimental condition ( $\beta = .10, ns$ ) on power were not significant. In addition, even though power predicted Facebook affirmation ( $\beta = .30, p < .01$ ), it did not predict Facebook movement towards the ideal self ( $\beta = .03, ns$ ) nor life satisfaction ( $\beta = .08, ns$ ).

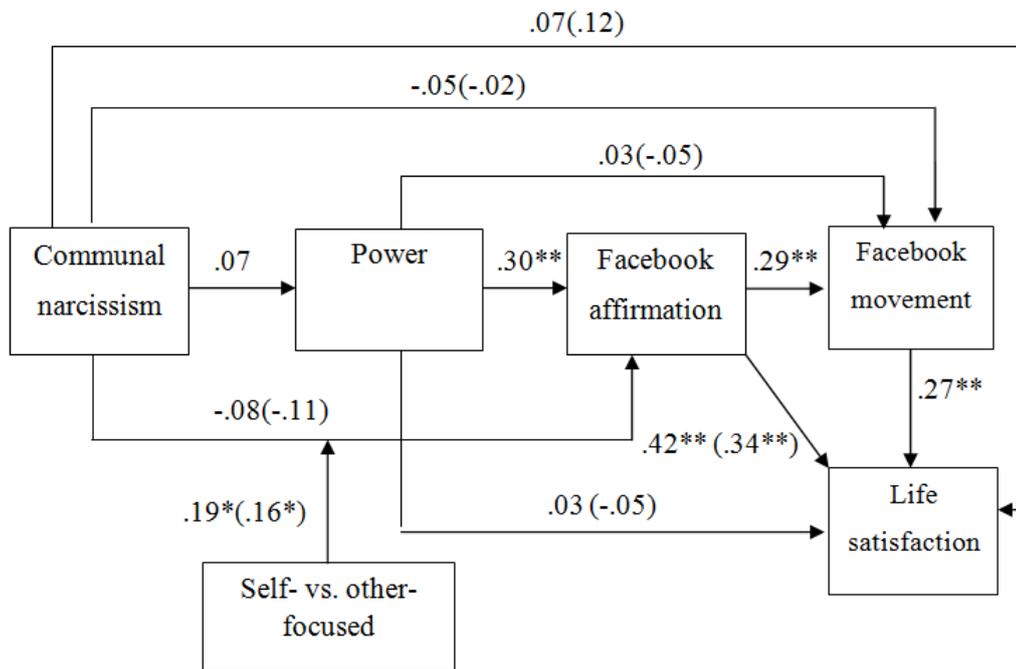


Figure 4.8. Hypothesised model with power as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

**Testing moderated mediations with power.** Given that the interaction effect between communal narcissism and experimental condition on power was not significant, results rejected Hypotheses 3a, 3b, and 3c which had predicted that power would mediate the effects of the interaction term on Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction.

Results further showed that Facebook affirmation mediated the effect of power on Facebook movement towards the ideal self ( $\beta = .09, p < .01$ ) which supported

Hypothesis 4a as shown in Table 4.6. However, the main effect of power on Facebook movement towards the ideal self was not significant. This indicated that power and Facebook affirmation might share some variance in predicting Facebook movement towards the ideal self.

Table 4.6

*Moderated mediation analysis with power*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting power:</i>				
<b>Moderating effect</b>				
CNI X condition -> Power	.10	[-0.09, 0.29]	0.12	0.89
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
Power -> Facebook affirmation -> Facebook movement towards ideal self	.09**	[0.03, 0.14]	0.03	2.57
<b>Total effect</b>				
Power -> Facebook movement towards ideal self	.03	[-0.09, 0.16]	0.08	0.45
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
Power -> Facebook affirmation -> SWLS	.10*	[0.04, 0.17]	0.04	2.63
Power -> Facebook movement towards ideal self -> SWLS	-.01	[-0.05, 0.02]	0.02	-0.65
Power -> Facebook affirmation -> Facebook movement towards ideal self -> SWLS	.02	[0.00, 0.05]	0.01	1.72
<b>Total effect</b>				
Power -> SWLS	.08	[-0.07, 0.22]	0.09	0.86

*Note.* Values in the table are standardised regression coefficients. CNI = communal narcissism inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error. \*\* $p < .01$ . \* $p < .05$ .

Similarly, although Facebook affirmation mediated the effect of power on life satisfaction ( $\beta = .10, p < .01$ ) which supported Hypothesis 4b, the main effect of power on life satisfaction was still not significant. This showed that power and Facebook affirmation might share some variance in predicting life satisfaction. Yet, it was not enough for power to predict life satisfaction in total. Lastly, Facebook movement towards the ideal self did not mediate the effect of power on life satisfaction ( $\beta = -.01, ns$ ) which rejected Hypothesis 6.

### **Summary results**

In brief, results from the hypothesised model without self-motives replicated the previous chapter's findings that the experimental condition moderated the effect of communal narcissism on Facebook affirmation. Communal narcissists in the other-focused condition had higher levels of Facebook affirmation than their peers in the self-focused condition. In addition, they reported higher levels of Facebook affirmation, compared to non-narcissists.

Findings from the hypothesised model with the inclusion of self-motives showed that self-esteem was the only factor underlying Facebook affirmation among communal narcissists. That is, communal narcissists who engaged in the other-focused activities on Facebook reported higher levels of Facebook affirmation because their need for self-esteem was met. The other 3 self-motives did not mediate such association.

Moreover, other hypotheses were not supported. Communal narcissists in the other-focused condition did not have higher levels of Facebook movement towards the ideal self or life satisfaction than communal narcissists in the self-focused condition or than non-narcissists in the same condition. Specifically, none of the four self-motives mediated such associations. In addition, Facebook affirmation did not mediate the the interaction effect between communal narcissism and experimental condition on Facebook movement towards the ideal self. Neither Facebook affirmation nor Facebook movement towards the ideal self mediated the interaction effect between communal narcissism and experimental condition on life satisfaction.

Interestingly, those whose need for grandiosity were met showed higher levels of Facebook movement towards the ideal self and life satisfaction after receiving Facebook affirmation, regardless of their assigned condition or their communal

narcissism levels. In contrast, those whose need for entitlement and power were met did not report higher levels of Facebook affirmation, Facebook movement towards the ideal self, or life satisfaction than those whose need for entitlement and power were not met.

### **Role of agentic narcissism**

I also did an additional analysis to test the effect of agentic narcissism. Another dummy variable was created: agentic narcissism X condition. Scores of communal narcissism, pre-scores of Facebook affirmation, and pre-scores of Facebook movement towards the ideal self were controlled. Each self-motive was analysed independently in a separate model.

Results from the hypothesised model without self-motives showed that the interaction effects between agentic narcissism and experimental condition on Facebook affirmation ( $\beta = .00$ , *ns*), Facebook movement towards the ideal self ( $\beta = .10$ , *ns*), or life satisfaction ( $\beta = .19$ , *ns*) were not significant. Moreover, examination of each self-motive in a separate model revealed that none of the four self-motives mediated the interaction term between agentic narcissism and the experimental condition on Facebook affirmation, Facebook movement towards the ideal self, and life satisfaction (see Table 1-5 in Appendix B for full details). These findings replicated findings from the previous chapter that agentic narcissists did not receive Facebook affirmation, move towards their ideal selves, or become satisfied with their lives even when they engaged in self-focused activities on Facebook.

## **Discussion**

This chapter extended previous findings by investigating the mechanisms underlying Facebook affirmation process among communal narcissists. As self-esteem, entitlement, grandiosity, and power were previously found to be the core self-motives for narcissists (Gebauer et al., 2012), it was expected that the satisfaction of these four self-motives may hold the key to Facebook affirmation and movement towards the ideal self. As in the previous chapter, it was expected that communal narcissists with other-focused orientation would experience Facebook affirmation when being allowed to engage in other-focused activities on Facebook, due to cognitive and behavioural congruence between regulatory orientation and behaviour.

The satisfaction of the four self-motives were expected to be underlying such affirmation of the ideal self. Further, Facebook affirmation was expected to promote movement towards the ideal self and enhance life satisfaction.

Findings from this study replicated Chapter 3 in that communal narcissists in the other-focused condition reported higher levels of Facebook affirmation than their peers in the self-focused condition and than non-narcissists in the same condition.

Self-esteem was found to be the only self-motive underlying Facebook affirmation among communal narcissists. The other 3 self-motives, which included entitlement, grandiosity, and power, did not seem to play a role in Facebook affirmation among communal narcissists. However, regardless of their assigned condition and their communal narcissism levels, those whose need for grandiosity was met reported higher levels of Facebook affirmation, which resulted in having higher levels of Facebook movement towards the ideal self and life satisfaction.

### **Communal narcissists, the four self-motives, and Facebook affirmation**

Results from this study showed that communal narcissists benefitted more from using Facebook to experience Facebook affirmation when they were asked to engage in other-oriented activities, compared to those who were asked to engage in self-focused activities. This replicated findings from the previous chapter that communal narcissists had more opportunities to experience Facebook affirmation when their cognitive and behavioural strategies matched their focus orientation. However, in contrast to findings from the previous chapter, although this was not a focus of this dissertation, non-narcissists in other-focused condition reported lower levels of Facebook affirmation than their peers in the self-focused condition, though similar to Chapter 3, both narcissists and non-narcissists in the self-focused condition reported similar levels of Facebook affirmation. Given the contradictory findings between the two chapters for non-narcissists in the other condition, further research is needed to investigate effects of engaging in only self or other oriented strategies for non-narcissists. In both chapters, it appears that communal narcissists felt more affirmed when they engaged in other-oriented tasks only. Since most people are likely to engage in a mixture of both self- and other-oriented activities on Facebook, it might have felt unnatural for non-narcissists in this sample to engage in only other-oriented activities, while communal narcissists may have discovered that they received more

positive feedback from the social network when engaging in other-oriented activities only. Given that the studies did not examine what kind of feedback was received from their friends on the social network, future research should explore this potentially confounding factor.

Even though self-esteem, entitlement, grandiosity, and power have been shown to be the core self-motives of communal narcissists (Gebauer et al., 2012), self-esteem was the only self-motive underlying Facebook affirmation among communal narcissists in the other-focused condition. That is, after communal narcissists behave in other-oriented ways on Facebook (e.g., clicking like, sharing, or proving supportive comments on their friends' status), they felt good about themselves. This, in turn, led them to experience affirmation, or perceive that others were treating them in ways that were consistent with their ideal selves.

It was unexpected finding that the other 3 self-motives did not play a role in Facebook affirmation for communal narcissists. A possible explanation may be due to the construct of self-motives and experimental manipulation. Self-esteem refers to the extent to which people evaluate their abilities or attributes (Brown & Marshall, 2006) and have also been regarded as an interpersonal monitor to gauge acceptance levels (Leary, 1999). The sociometer theory in fact posits that the self-esteem motive does not function to maintain self-esteem, but rather to reduce the likelihood of being rejected by others (Leary, 1999; Leary, Tambor, Terdal, & Downs, 1995). In this case, engaging in other-focused activities on Facebook for 24 hours might have been better able to satisfy communal narcissists' need for self-esteem, as they may have felt more accepted by their social network when they focused on other-oriented activities. Interestingly, the previous chapter revealed in examining pre-manipulation Facebook activities that communal narcissism did not show much associations with other-oriented activities. Thus, engaging in other-oriented activities may have resulted in receiving more positive feedback than typical for communal narcissists. This is especially likely to be the case for people in collectivistic cultures where other-oriented value is strongly held (Triandis, 2001, 2004).

However, engaging in such activities may not be immediately able to satisfy communal narcissists' need for entitlement, grandiosity, or power. For instance, communal narcissists may not feel that they receive a special treatment from others, feel superior to others, or feel that they have power over others after clicking like or

sharing their friends' status, even if their friends acknowledged their other-oriented behaviours. Other self-motives may be derived more from drawing attention to their own activities. Moreover, communal narcissists may be likely to engage in both self- and other-focused activities in their real Facebook behaviours, and not just on other-focused behaviours. It might be that a condition testing a mixture of self- and other-focused activities may have better served their self-motives. In addition, it could be that a 24-hour manipulation was not effective enough for communal narcissists to experience these feelings, as more response may be required to feel sense of entitlement and power. Further, features of Facebook, which encourages clicking like on other's pages, may be better suited for satisfying self-esteem needs than the other motives, and other social media platforms may be better for showcasing grandiosity, power, or entitlement.

Nevertheless, it is somewhat surprising that individuals whose need for grandiosity was met, regardless of their communal narcissism levels and their assigned condition, reported higher levels of Facebook affirmation, which resulted in moving closer their ideal selves and becoming more satisfied with their lives, compared to those whose need for grandiosity was not met. One explanation could be that people who feel grandiose and superior to others may perceive that they are getting closer to their ideal standard. This idea is supported by the notion that narcissistic grandiosity scale (Rosenthal et al., 2007) used to assess grandiosity is an adjective-based scale, and most adjectives reflect ideal attributes (e.g., perfect, glorious, etc.). Thus, people who believe that they possess these qualities may also believe that their ideal self standard has been reached. On the other hand, it could be that the grandiose feelings were not induced by this experimental manipulation, and future research may seek a more effective manipulation.

### **Agentic narcissists, the four self-motives, and Facebook affirmation**

Consistent with the previous chapter, results from an additional set of analyses showed that agentic narcissists did not report higher levels of Facebook affirmation or Facebook movement towards the ideal self when they were able to focus on themselves on Facebook. This may suggest that agentic narcissists do not benefit from using Facebook to experience Facebook affirmation or reach their ideal selves.

Alternatively, results which found no association between agentic narcissism and Facebook affirmation may be explained by the average scores of NPI used to measure agentic narcissism. As in previous chapters, since the average score of NPI in the Thai sample found in the present study was 11.6, which was lower than that found in the both western and Asian countries which ranged from 13.9-15.3 (Foster et al., 2003), it may suggest that those with high agentic narcissism may not be good representatives of agentic narcissists. Therefore, future research should test this hypothesis with samples from other countries.

### **Facebook affirmation and personal well-being**

Although communal narcissists in the other-focused condition experienced Facebook affirmation via the satisfaction of self-esteem needs, they did not have higher levels of life satisfaction than those in the self-focused condition. One explanation is concerned with the duration of time that participants were instructed to engage in their assigned task on Facebook. According to the manipulation, participants had twenty-four hours to complete the task. In this regard, it may not reflect real life activities and could be too short to affect participants' life satisfaction in general. In addition, the satisfaction with life scale (SWLS) may not be suitable for assessing changes in a very short period of time. Specifically, early research also suggested that life satisfaction assessed by SWLS tended to show a temporal stability over time (Pavot & Diener, 1993). Thus, future research may seek to wish a different measure, such as seeking short-term mood instead.

### **Research strengths**

The present study contributes to literature on narcissism and Facebook use that satisfaction of self-esteem is an important factor that helps communal narcissists experience Facebook affirmation when they are able to use communal strategy such as engaging in other-focused activities on Facebook. It also supports prior research which asserts that self-esteem is one of the four self-motives underpinning goal pursuit among narcissists (Gebauer et al., 2012).

Additionally, given that this study used a quasi-experimental research design to test the role of the four self-motives and to manipulate cognitive and behavioural strategies of participants, it can help point to the presence of a causal relationship.

Thus, it appears that the satisfaction of self-esteem affects the extent to which communal narcissists who adopt other-oriented strategy feel good about themselves and experience Facebook affirmation.

### **Research limitations**

Even though one mechanism underlying Facebook affirmation was identified, there are some limitations in this study. Similar to Chapter 3, this study manipulated cognitive and behavioural strategies of participants for 24 hours. As a result, such artificial manipulation may not be able to reflect real life activities. Specifically, other people on Facebook may have noticed that participants did not engage in their usual activities, which may affect the results. In addition, findings which revealed that Facebook affirmation did not enhance life satisfaction among communal narcissists may be due to the short period of time of the manipulation. Given that life satisfaction tend to be stable over time (Pavot & Diener, 1993), it may be too difficult to detect changes within 24 hours. Moreover, it is also possible that a potential positive effect from Facebook affirmation to life satisfaction could have been countered by the discomfort of not being able to engage in their normal activities, which presumably they engage in to feel good about their life. Hence, future research may use other measurements that are sensitive enough to detect changes in a short period of time. Specifically, it may allow participants to have more time to engage in their assigned task or assign other tasks and measurements that may be better able to detect the effects. In addition, other methodologies, such as diary studies should also be conducted to examine the effect of Facebook affirmation in real-life situations.

### **Conclusion**

Findings from this study replicated Chapter 3 in that communal narcissists experienced Facebook affirmation when they were able to focus on other people. In addition, the findings revealed the effects may be due to satisfaction of the need for self-esteem. The other 3 self-motives did not play a role in Facebook affirmation among communal narcissists. On the other hand, there were no differences in Facebook movement towards the ideal self and life satisfaction between communal narcissists in the self-focused and other-focused conditions, or between communal narcissists and non-narcissists in the other-focused condition.

Similar to Chapter 3, additional analysis showed that agentic narcissism again did not play a role in the model. This appears to confirm that agentic narcissists may not be able to experience affirmation of the ideal self or move towards their ideal self on Facebook. This casts doubt as to whether agentic narcissists will be able to experience affirmation of the ideal self and reach their ideal self through the use of social media. Importantly, it may be that features of Facebook may be more conducive for communal narcissists, and other social media may better serve agentic narcissists' needs. Also, it is unclear whether affirmation of the ideal self can occur on other social media platforms. Thus, the next chapter will investigate the affirmation of the ideal self on other social media platforms, and will focus on both agentic and communal narcissists.

## Chapter 5

### Narcissism and Affirmation of the Ideal Self on Instagram: A Selfie Experiment

#### Overview

The previous chapters showed some support for the Facebook affirmation model for communal narcissists, whereby communal narcissists in Thailand were able to experience Facebook affirmation and move towards the ideal self when they could use communal strategies (e.g., engaging in other-focused activities on Facebook), via satisfaction of self-esteem needs. However, there was no evidence that agentic narcissists can attain such benefits. This calls into question whether agentic narcissists can experience affirmation of the ideal self on social media. Prior research, which suggests that agentic narcissists may be attracted to other types of social media (Davenport et al., 2014) and certain types of activities such as photo sharing (Mehdizadeh, 2010; Ong et al., 2011), brings an alternative hypothesis that certain activities on a different social media platform may help agentic narcissists experience affirmation of the ideal self.

One type of activity that may benefit agentic narcissists may be taking of ‘selfies’, defined as a self-portrait photograph that one has taken of oneself and usually posted on social media. Taking of selfies has recently become a popular mainstream activity (Chua & Chang, 2016; Döring, Reif, & Poeschl, 2016; Kwon & Kwon, 2014; Lyu, 2016; Mascheroni, Vincent, & Jimenez, 2015), and unsurprisingly, narcissists who like to show off (Morf & Rhodewalt, 2001; Raskin & Terry, 1988) were found to post their selfies more frequently than their non-narcissistic peers (Sheldon & Bryant, 2016; Sorokowski et al., 2015; Weiser, 2015).

Based on this idea, I expect that selfie-posting may be able to help narcissists, particularly agentic narcissists, experience affirmation of the ideal self and become closer to their ideal selves. This chapter, therefore, attempts to investigate the role of selfie-posting on affirmation of the ideal self among both agentic and communal narcissists.

Instagram was selected as a platform for selfie-posting in order to test whether Thai narcissists can receive affirmation of the ideal self after taking and sharing their selfie photographs. It is also worth noting that the number of Instagram users in Thailand has dramatically increased from 1.7 million in early 2015

(Vichienwanitchkul, 2015) to 5.9 million in November of the same year (Berezowski, 2015), indicating that there is a rapid growth in Instagram usage among Thai people.

A quasi-experimental design will be used to examine the effect of selfie-posting among both agentic and communal narcissists. Participants will be randomly assigned to 1 of 3 conditions: selfie, usie (selfies with friends), and control (pictures of others excluding themselves) conditions. Participants will be asked to take and post photos matching their assigned condition on their Instagram account.

I will investigate whether posting photos of themselves or with other people will help agentic and communal narcissists experience affirmation of the ideal self and move towards their ideal selves. In addition, to replicate the previous study, the four self-motives (self-esteem, entitlement, grandiosity, and power) will be investigated and expected to mediate the extent to which both agentic and communal narcissists experience affirmation of the ideal self. Given that the previous chapter found no effect for personal well-being, which may be due to the short time frame, this study also explores whether Instagram affirmation and movement towards the ideal self can influence immediate positive and negative affect.

### **Narcissism and selfie-posing**

Photo sharing is an activity that especially draws in narcissists (Carpenter, 2012; Mehdizadeh, 2010; Ong et al., 2011). This may be because photo sharing is able to effectively serve the motivation to seek affection, attention, and have influence over others (Malik et al., 2016). Given that narcissists demand admiration and praise (Campbell et al., 2006, 2007), it is possible that photo sharing maybe a crucial strategy for narcissists to promote themselves and enhance their sense of grandiosity and superiority.

Selfie, a self-portrait photograph, is one type of photographs that narcissists are likely to take and post for self-enhancement. Sorokowski et al. (2015) explored the motivation underlying three types of selfie-posting (selfie, selfie with a partner, and group selfie) in Poland. They used a Polish version of narcissistic personality inventory which comprised of four subscales: leadership, self-sufficiency, admiration demand, and vanity. The leadership subscale combined authority and entitlement together, whereas admiration demand combined entitlement, superiority, and exhibitionism together. Their results showed that levels of agentic narcissism,

particularly its admiration demand subscales, were the most influential factors affecting the frequency of selfie-posting, particularly among men. This indicated that the need for admiration underlined selfie-posting behaviour among narcissists.

In addition, Fox and Rooney (2015) examined selfie-posting among men and also found that agentic narcissistic men were more likely to post selfies and edit them before posting than their peers. This suggests that selfies, particularly the edited selfies, posted on social media can fulfill the expectation of agentic narcissists.

Among the different types of social media platforms, Instagram, which became part of Facebook in 2012 (Mehra, 2015), is believed to be one of the largest photo sharing networks. The number of Instagram users has exceeded 400 million monthly active users in 2015 (Smith, 2015). Further, there have been more than 58 million photos using selfie hash tag on Instagram, reflecting the popularity of Instagram for being a home of selfies (Ahmad, 2013). These statistics show that people often use Instagram to post their selfies.

Even though people can use Instagram to get to know other people or document their lives, agentic narcissists often use Instagram for self-promotion (Sheldon & Bryant, 2016). Specifically, they spent a lot of time editing their photos before posting them on Instagram. These findings provide additional support for the hypothesis that agentic narcissists may use Instagram to elevate their sense of superiority. Together with prior research on selfie-posting behaviour (Fox & Rooney, 2015; Lyu, 2016; Sorokowski et al., 2015), it may suggest that agentic narcissists put effort into beautifying their selfies and presenting their best image on Instagram. In this regard, it is likely that selfie-posting may be able to help narcissists, particularly agentic narcissists, experience affirmation of ideal self and reach their ideal selves.

Although no research on selfie-posting on Instagram and communal narcissism has been done before, it is expected that communal narcissists, who have a grandiose self-view and the same self-motives as agentic narcissists, may also prefer posting photos on social media. However, as agentic and communal narcissists use different strategies to satisfy their self-motives, they may receive affirmation of the ideal self through different types of photos. Agentic narcissists who adopt agentic means (Campbell et al., 2006; Gebauer et al., 2012) may feel their best when they can draw attention to themselves only. Therefore, posting selfies on Instagram may help agentic narcissists experience affirmation of the ideal self. In contrast, communal

narcissists who use communal means (Gebauer et al., 2012) may feel their best when they can focus on others. As previous findings found that communal narcissists did not benefit from self-oriented activities, posting only selfies is unlikely to help them experience affirmation of the ideal self. Previous chapters only focused on other or self-oriented activities. Usie is a type of photo that includes both the self and other people. Given that communal narcissists still seek to promote themselves (Gebauer et al., 2012), it is likely that usies may be a particular useful tool for self-promotion while appearing to be other-oriented. In addition, similar to the prior findings which found that communal narcissists benefited when they engaged in purely other-oriented tasks, they may also benefit when posting pictures of others, without themselves in the picture. Thus, they may benefit equally from posting usies or photos of other people, but not from posting selfies.

### **The Present Study**

Findings from the previous studies which showed that Facebook failed to provide affirmation of the ideal self to agentic narcissists suggests that agentic narcissists in Thailand did not benefit from using Facebook to experience Facebook affirmation. Since other prior studies pointed out that agentic narcissists might be drawn to other types of social media (Davenport et al., 2014) and certain activities such as selfie-posting (Sorokowski et al., 2015), the present study examines whether selfie-posting on Instagram can help narcissists, particularly agentic narcissists, experience affirmation of the ideal self and reach their ideal selves.

Given that agentic narcissists adopt agentic means for self-aggrandising (Campbell et al., 2006; Gebauer et al., 2012), they may experience affirmation of the ideal self after posting their selfies on Instagram (Instagram affirmation) at a higher level than those who post photos of others excluding themselves. On the other hand, communal narcissists who use communal means (Gebauer et al., 2012) may be less likely to experience Instagram affirmation after posting selfies than those who post usies or photos of others excluding themselves. In contrast, they may similarly benefit from posting either usie or photos of other people on Instagram. This study also sought to examine the pure effects of posting of photos on Instagram for narcissists, without the potential confounding effects of receiving positive or negative feedback

from others; the previous findings may have been influenced by actual feedback from their social network.

Moreover, Instagram affirmation is expected to promote Instagram movement towards the ideal self. To replicate the findings from Chapter 4, the mediating effect of the four self-motives (self-esteem, entitlement, grandiosity, and power) on Instagram affirmation will also be tested. Given that previous findings found no effect of experimental condition on life satisfaction among narcissists, this study will examine whether self-posting behaviour will influence immediate positive and negative affect.

### Hypotheses

The following hypotheses were tested as shown in Figure 5.1:

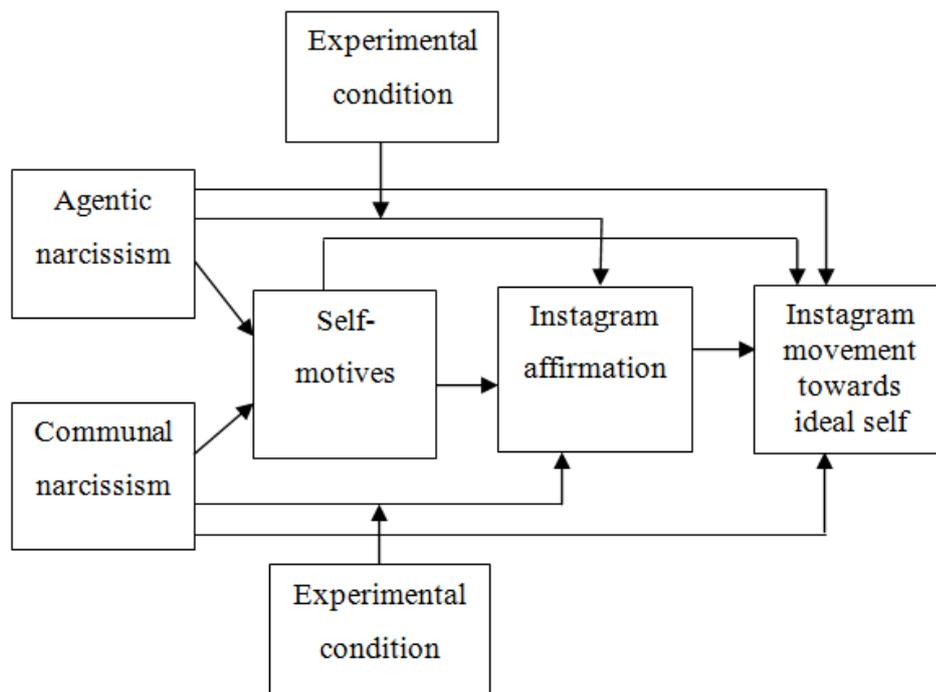


Figure 5.1. Instagram affirmation model with the four self-motives (self-esteem, entitlement, grandiosity, and power) as mediators.

Note. Each self-motive will be analysed in a separate model.

### **Testing moderating effects of the experimental condition**

*Hypothesis 1.* Agentic narcissists in the selfie condition will report higher levels of (a) Instagram affirmation and (b) Instagram movement towards the ideal self than agentic narcissists in the control condition.

*Hypothesis 2.* Agentic narcissists in the selfie condition will report higher levels of (a) Instagram affirmation and (b) Instagram movement towards the ideal self than non-narcissists in the selfie condition.

*Hypothesis 3.* Communal narcissists in the selfie condition will report lower levels of (a) Instagram affirmation and (b) Instagram movement towards the ideal self than communal narcissists in the control condition.

*Hypothesis 4.* There will be no differences in (a) Instagram affirmation and (b) Instagram movement towards the ideal self among communal narcissists in use and control conditions.

**Testing moderated mediations.** Given that previous findings only found the mediating effect of self-esteem, the study aims to replicate whether self-esteem will still play a role as mediator in the model. Further, the other 3 self-motives (entitlement, grandiosity, and power) will still be examined, since posting photos may aid these self-motives more. However, given the previous chapter's findings, it is possible that these 3 self-motives may not act as mediators.

*Hypothesis 5.* The four self-motives (self-esteem, entitlement, grandiosity, and power) will mediate the interaction effect between agentic narcissism and selfie condition on (a) Instagram affirmation and (b) Instagram movement towards the ideal self.

*Hypothesis 6.* The four self-motives (self-esteem, entitlement, grandiosity, and power) will mediate the interaction effect between communal narcissism and selfie condition on (a) Instagram affirmation and (b) Instagram movement towards the ideal self.

*Hypothesis 7.* Instagram affirmation will mediate the interaction effect between (a) agentic narcissism and selfie condition and (b) between communal narcissism and selfie condition on Instagram movement towards the ideal self.

*Hypothesis 8.* Instagram affirmation will mediate the effect of the four self-motives (self-esteem, entitlement, grandiosity, and power) on Instagram movement towards the ideal self.

Since previous findings showed that life satisfaction assessed by satisfaction with life scale (SWLS) did not change within 24 hours, this study will assess immediate assessment of positive and negative affect using Positive Affect and Negative Affect Schedule (PANAS) as a measure of well-being. Participants may experience elevated mood from simply posting photos, but since participants will not receive feedback from their social network and will not have the time to admire the photos they posted, there is also a large likelihood that mood will not be affected. Thus, this study will seek to examine the effects on mood without offering *apriori* hypotheses.

## **Method**

**Participants.** Participants were Thai undergraduate students from Chulalongkorn University who were enrolled in a general psychology course. They were recruited through blackboard, an academic online system used within Chulalongkorn University. Sample size was first determined based on the ratio of the number of sample size to number of free parameters should be at least 5:1 (Bentler & Chou, 1987). As there are 57 free parameters in the model, the sample size should at least 285. However, from 313 students who took part in the experiment, there were 274 students (53 males, 221 females, 78 in the selfie condition, 106 in the usie condition, 90 in the control condition,  $M$  age = 19.39, range = 18-26) who posted the photos correctly based on their assigned condition. In addition, there were no differences in agentic ( $M_{incorrect} = 12.45$ ,  $SD_{incorrect} = 5.86$ ,  $M_{correct} = 12.11$ ,  $SD_{correct} = 5.62$ ,  $t = 0.35$ , *ns*) and communal narcissism ( $M_{incorrect} = 4.59$ ,  $SD_{incorrect} = 0.67$ ,  $M_{correct} = 4.48$ ,  $SD_{stay} = 0.72$ ,  $t = 0.52$ , *ns*) between participants who posted photos correctly or incorrectly. They received extra course credits for participating in this experiment.

**Research design and procedure.** A quasi-experimental design was used to investigate the effect of selfie-posting on Instagram affirmation and Instagram affirmation movement towards the ideal self among both agentic and communal narcissists. Other outcomes including positive affect and negative affect were also examined. In this experiment, there were three sessions: pre-test, experimental manipulation, and post-test sessions.

First, participants were recruited through blackboard used within Chulalongkorn University. Details of the experiment were described on the web board. Those who were interested in taking part in the experiment were asked to complete an online questionnaire via surveymonkey.com. The link was provided on the web board. This pre-test questionnaire included 40-item NPI, 16-item CNI, Instagram affirmation scale, actual and ideal self closeness on Instagram scale, and Instagram use scale. At the end of the pre-test questionnaire, participants were randomly assigned into one of three conditions including selfie, usie, and control conditions. In particular, participants were asked to take 5 photos according to the assigned conditions within the next 24 hours.

Twenty-four hours later, participants received an email comprised of an online survey link to the post-test questionnaire. The post-test session used Qualtrics survey as it included a countdown timer function. Participants were then asked to post those 5 photos they took based on their condition on their Instagram account all at once, within the next 5 minutes, using the hash tag #YKstudy and hash tag the number of photo (e.g., #1, #2, #3, #4, and #5). Moreover, participants were also asked to make their Instagram public so that each photo could be accessed and checked. Participants' photos, Instagram information, and email address were kept confidential for research purposes only.

Five minutes later, the survey page automatically went to the post-test questionnaire page. Participants were finally asked to complete a set of questions including Rosenberg's self-esteem scale, psychological entitlement scale, narcissistic grandiosity scale, sense of power scale, Instagram affirmation scale, actual and ideal self closeness on Instagram scale, and positive affect and negative affect schedule (PANAS). As participants completed the measurements immediately after posting the photos, they were asked to think about how they felt at the moment. Participants were debriefed at the end of survey.

It is important to note that general Instagram affirmation and Instagram movement towards the ideal self were measured instead of affirmation and movement towards the ideal self after taking and sharing photos. In the previous chapter, participants had been asked to complete the equivalent measures in regards to how they felt over the last 24 hours. This decision was taken to disguise the actual research purposes, since participants were asked to complete these measures immediately after

posting their photos and thus, the Instagram affirmation and movement towards the ideal self scales should capture how they felt as a result of posting the photos.

**Materials.** All scales were translated and back-translated by two native Thai speakers who are fluent in English. Below are experimental materials that have not been used in the previous chapters. See Appendix A for the full scales.

**Instagram affirmation.** An 8-item Instagram affirmation scale was constructed based on the Facebook affirmation scale used in Chapters 2-4. Participants were asked to rate the degree to which they agree with each of 8 items (1 = strongly disagree and 7 = strongly agree). An example of items is “When I’m on Instagram, I feel free to display the kind of person I ideally want to become”. Scores were calculated by calculating the average score for each participant such that higher scores indicated greater Instagram affirmation. Participants were asked to respond to this scale twice: before and after the manipulation. For the pre-test session, they were asked to complete the scale based on their behaviours on Instagram on a regular basis. For the post-test session, they were asked to think about how they felt at the moment.

**Instagram movement towards the ideal self.** Participants were presented with the same actual-ideal self scale used in the previous chapters, with the instructions reflecting Instagram instead of Facebook. Participants were asked to choose one from nine pairs to represent their actual and ideal selves (1 = their actual and ideal selves do not overlap at all and 9 = their actual and ideal selves are the same). The higher scores indicated greater Instagram movement towards the ideal self. Participants were also asked to complete this scale before and after the manipulation. For the pre-test session, they were asked to choose the circle that best represents themselves based on their behaviours on Instagram on a daily basis. For the post-test session, they were instructed to think about how they felt at the moment.

**Instagram use.** Participants were asked to indicate their photo-sharing behaviours on Instagram (1 = not at all and 7 = always). An example item is “To what extent do you typically post photos of yourself (without other people) on Instagram?”.

**Experimental materials.** There were three experimental conditions in the present study: selfie, usie, and control conditions. In general, participants were asked to take 5 photos based on the assigned condition within 24 hours. They were asked to post those photos after they received an email the next day.

Participants in the selfie condition were asked to take 5 selfies. The instruction of the task was, “During this portion of the experiment, you will be required to update your Instagram in order to assess the relationship between personality and Instagram usage. Please take 5 selfies of yourself (without other people) by tomorrow. You can take photos at anytime you want. And please keep those 5 photos ready to be posted on your Instagram when you receive another email from us tomorrow”. The instructions of the task for participants in use and control conditions were the same, with changes to only one sentence for the other conditions. For the use condition, the instruction read, “Please take 5 selfies of you and your friends (in the same photo)”. For the control condition, the instruction read, “Please take 5 photos of your friends, family, or loved ones without you”.

***Positive affect and negative affect.*** Participants completed the positive and negative affect schedule (PANAS; Watson, Clark, & Tellegan, 1988). They were instructed to rate the degree to which they felt that each of the 20 adjectives applies to them at the moment (1 = not at all and 7 = extremely). An example adjective is “enthusiastic”. Positive affect scores were calculated by calculating the average score for the items assessing positive affect. Negative affect scores were calculated by calculating the average score for the items assessing negative affect.

***Manipulation Check.*** All participants’ photos uploaded on Instagram were accessed using hash tag #ykstudy and saved to check the validity of each photo. Data analysis was based on the data of participants who followed the assigned instructions and took photos accordingly.

### **Data analyses strategy**

To test the original model and using a similar strategy to Chapter 4, the hypothesised model without the self-motives will be tested first. Path analysis will be carried out to test the interplay between the experimental condition and levels of agentic and communal narcissism on Instagram affirmation and Instagram movement towards the ideal self. Fit indices of the model will be tested to see if it is appropriate for interpretation. Next, the main effects, interaction effects, and mediating effects will be investigated. Lastly, simple slopes will be tested if an interaction effect is significant.

Scores of agentic and communal narcissism, pre and post scores of Instagram affirmation, and pre and post scores of Instagram movement towards the ideal self will be mean centered. Pre-scores of Instagram affirmation and Instagram movement towards the ideal self will be controlled to examine the effects of the manipulation.

The experimental condition will be dummy coded. There will be 2 dummy variables: selfie condition (selfie = 1 and otherwise = 0) and usie condition (usie = 1 and otherwise = 0). Aiken and West (1991) suggest that a comparison group in three dummy variable coding systems is a group that is assigned a value of 0 for all dummy variables. Therefore, the control group will be a comparison group for both dummy variables. The selfie condition compares the selfie condition with the control condition, and the usie condition compares the usie condition with the control condition.

Both agentic and communal narcissism will be multiplied with the dummy variable to create the interaction terms: agentic narcissism X selfie condition, agentic narcissism X usie condition, communal narcissism X selfie condition, and communal narcissism X usie condition.

The hypothesised model with the inclusion of the self-motives will then be tested later. Scores of self-esteem, entitlement, grandiosity, and power will be mean centered and added to the model. Each self-motive will be analysed in a separate model. Lastly, an additional analysis with positive affect and negative affect as outcome variables will be examined. The strategy used to test the mediating effects in Chapters 2-4 will be used in this study.

## **Results**

### **Manipulation check**

Photos of participants were checked to see whether they matched the condition each participant received. From 313 students, there were 274 students (87% of participants) who posted photos correctly and whose data were included in the data analysis.

### **Pre-manipulation descriptive statistics**

Table 5.1 shows mean scores, standard deviation, and Cronbach's alphas of the measurements assessing variables in the model. Results from one-way ANOVAs also

revealed that there were no differences in the predictors among participants in each condition.

Analyses using Pearson's correlations were further carried out to explore the relationships among variables before the manipulation. Results showed that agentic narcissism was positively correlated with communal narcissism ( $r = .37, p < .01$ ). It was also positively correlated with Instagram affirmation ( $r = .11, p < .10$ ) and Instagram movement towards the ideal self ( $r = .11, p < .10$ ) although these correlations were marginal. In addition, communal narcissism was positively correlated with Instagram affirmation ( $r = .27, p < .01$ ) and Instagram movement towards the ideal self ( $r = .13, p < .05$ ). Moreover, Instagram affirmation was positively correlated with Instagram movement towards the ideal self ( $r = .21, p < .05$ ).

Table 5.1

*Mean scores, standard deviation, and alphas of predictors and dependent variables*

Variables	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	$\alpha$
<i>Pre-manipulation</i>					
Agentic narcissism	0.00	31.00	12.11	5.63	.80
Communal narcissism	2.13	6.16	4.48	0.73	.90
Instagram affirmation	2.13	6.63	4.62	0.79	.70
Instagram movement towards the ideal self	1.00	9.00	6.09	1.68	-
<i>Post-manipulation</i>					
Instagram affirmation	2.60	6.80	4.65	0.82	.82
Instagram movement towards the ideal self	1.56	5.89	5.96	1.73	-
Self-esteem	1.00	5.69	5.07	0.93	.87
Entitlement	1.50	5.63	3.99	0.73	.74
Grandiosity	1.63	7.00	3.47	0.87	.93
Power	1.00	9.00	3.66	0.60	.53
Positive affect	1.00	7.00	4.17	1.12	.93
Negative affect	1.00	6.00	2.08	1.03	.92

*Note.*  $N = 274$ .

<sup>3</sup>I also investigated general behaviours of narcissists on Instagram by examining the associations between both types of narcissism and types of photos posted on Instagram before the manipulation. Results from Pearson's correlations showed that agentic narcissism was positively correlated with number of followers ( $r = .19, p < .01$ ), time spent on Instagram ( $r = .19, p < .01$ ), and selfie-posting ( $r = .24, p < .01$ ). On the other hand, communal narcissism was positively correlated with selfie-posting ( $r = .18, p < .01$ ) and usie-posting ( $r = .18, p < .01$ ). Results from multiple regression analyses also showed similar findings. Agentic narcissism positively predicted number of followers, time spent on Instagram, and selfie-posting.

On the other hand, communal narcissism positively predicted selfie-posting, although it was marginal. In addition, it positively predicted usie-posting on Instagram. These findings partially supported previous research (Sorokowski et al., 2015; Weiser, 2015) that showed agentic narcissists were likely to post their selfies, while communal narcissists were likely to post their usies, as shown in Table 5.2. In addition to these pre-manipulation statistics, I also examined the associations among association among main predictors and outcome variables in each experimental condition (please see Appendix B).

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<sup>3</sup> Since there were only 53 males (19.3%) and since previous studies have shown that males were more likely to post selfies (Sorokowski et al., 2015), I also examined whether there would be any differences in photo-posting behaviours on Instagram between male and female participants before the manipulation. A series of independent sample  $t$ -tests were carried out. Results showed that females have spent more time on Instagram ( $M_{female} = 2.97, SD_{female} = 1.59, M_{male} = 2.45, SD_{male} = 1.73, t = 2.08, p < .05$ ), and posted usies ( $M_{female} = 4.14, SD_{female} = 1.54, M_{male} = 3.25, SD_{male} = 1.77, t = 3.66, p < .01$ ) and photos of others excluding themselves on Instagram ( $M_{female} = 2.23, SD_{female} = 1.38, M_{male} = 1.77, SD_{male} = 1.09, t = 2.22, p < .05$ ) more frequently than males. Females also had higher pre-scores of Instagram affirmation than males ( $M_{female} = 4.67, SD_{female} = 0.79, M_{male} = 4.39, SD_{male} = 0.73, t = 2.28, p < .05$ ). However, since there were so few male participants, these findings should be interpreted cautiously, and no additional analyses probing sex differences will be carried out due to lack of power.

Table 5.2

*Multiple regression analyses predicting photo-posting behaviours on Instagram before manipulation*

Outcome variables	Predictors	
	Agentic narcissism	Communal narcissism
1. Number of followers	.17**	.04
2. Time spent	.18**	.03
3. Posting selfie photos	.20**	.11†
4. Posting usie photos	.03	.18**
5. Posting photos of friends/family	-.07	-.04
6. Posting photos of others	-.02	-.01

*Note.*  $N = 274$ . † $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

### Hypothesis testing

**Testing the baseline model without the self-motives.** The model was initially tested without the four self-motives to test the original model. Fit indices of the model showed that the hypothesised model without self-motives had an excellent fit,  $\chi^2(8) = 7.72$ ,  $p = .46$ , CFI = 1.00, and RMSEA = 0.000. This showed that parameter estimates in the model can be interpreted.

**Testing the moderating effects of the experimental condition.** Figure 5.2 shows the results from the hypothesised model without self-motives. Results showed that the main effects of agentic narcissism ( $\beta = -.03$ , *ns*), selfie condition ( $\beta = -.03$ , *ns*), and usie condition ( $\beta = -.05$ , *ns*) on Instagram affirmation were not significant. Although the interaction effect between agentic narcissism and usie condition on Instagram affirmation was not significant ( $\beta = .02$ , *ns*), the interaction effect between agentic narcissism and selfie condition was significant ( $\beta = .15$ ,  $p < .05$ ).

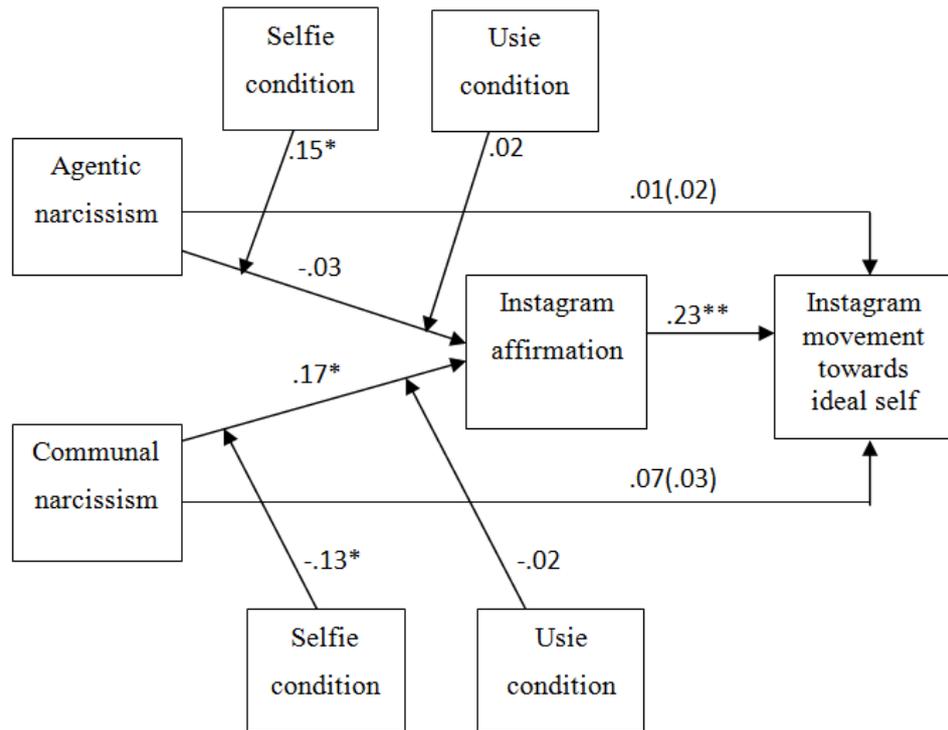


Figure 5.2. Instagram affirmation model without the four self-motives.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

Consistent with Hypotheses 1a and 2a, tests of simple slope showed that the effect of selfie condition on Instagram affirmation was marginal and positive among agentic narcissists (+1 *SD*), simple slope = 0.61,  $t(262) = 1.77$ ,  $p = .078$ . That is, agentic narcissists in the selfie condition reported higher Instagram affirmation than agentic narcissists in the control condition. Moreover, agentic narcissists in the selfie condition showed higher levels of Instagram affirmation than non-narcissists in the same condition, simple slope = 0.03,  $t(262) = 2.45$ ,  $p < .05$  as shown in Figure 5.3.

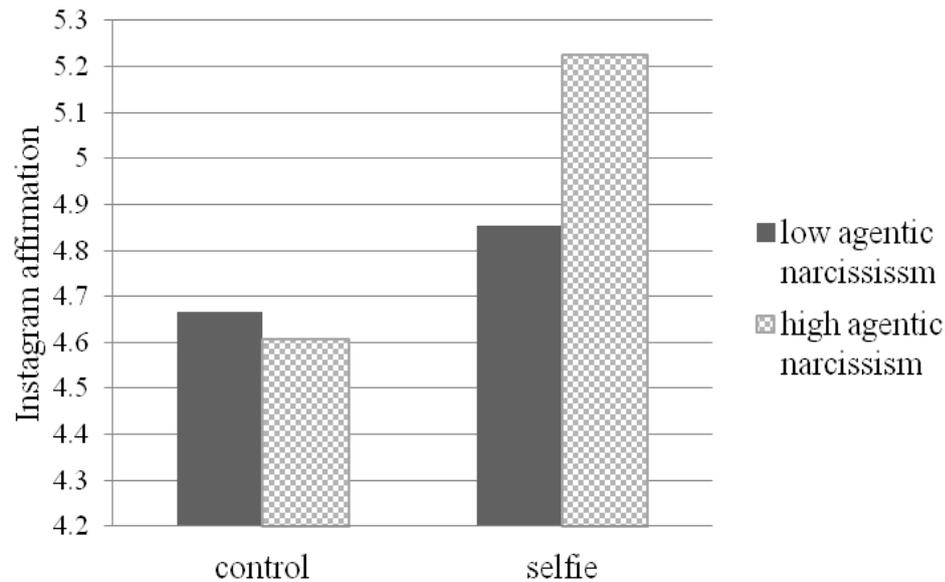


Figure 5.3. Interaction effect of agentic narcissism and selfie condition on Instagram affirmation.

Note. Low and high values for agentic narcissism are conditioned at 1 SD below and above the mean.

Contrary to Hypotheses 1b and 2b, the interaction effect between agentic narcissism and selfie condition on Instagram movement towards the ideal self was not significant ( $\beta = -.08, ns$ ). In addition, the main effects of agentic narcissism ( $\beta = .01, ns$ ), selfie condition ( $\beta = .00, ns$ ) and usie condition ( $\beta = -.05, ns$ ) on Instagram movement towards the ideal self were not significant.

Results also showed that the interaction effect between communal narcissism and selfie condition on Instagram affirmation was significant ( $\beta = -.13, p < .05$ ). Consistent with Hypothesis 3a, tests of simple slope showed that the effect of selfie condition on Instagram affirmation was marginal and negative among communal narcissists (+1 SD), simple slope = -1.29,  $t(262) = -1.67, p = .096$ . That is, communal narcissists in the selfie condition reported lower levels of Instagram affirmation than their peers in the control condition. Moreover, communal narcissists in the selfie condition showed lower levels of Instagram affirmation than non-narcissists in the same condition, simple slope = -0.29,  $t(262) = -2.50, p < .05$  as shown in Figure 5.4.

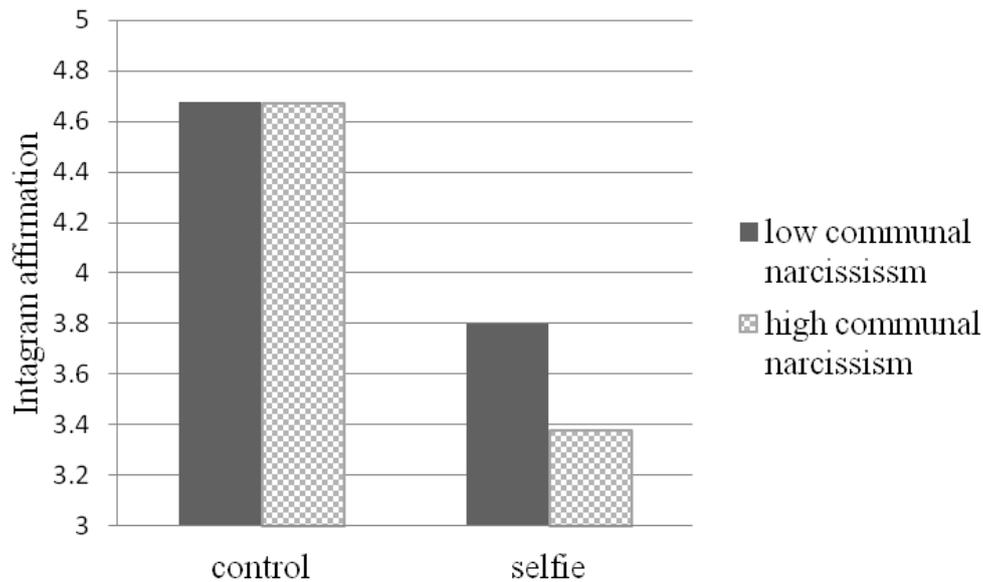


Figure 5.4. Interaction effect of communal narcissism and selfie condition on Instagram affirmation.

Note. Low and high values for communal narcissism are conditioned at 1 SD below and above the mean.

Consistent with Hypothesis 4a, the interaction effect between communal narcissism and selfie condition on Instagram affirmation was not significant ( $\beta = -.02$ , *ns*), suggesting that there was no difference in Instagram affirmation between communal narcissists in selfie and control conditions. Results also showed that the interaction effects between communal narcissism and selfie condition ( $\beta = .03$ , *ns*) and between communal narcissism and selfie condition ( $\beta = -.02$ , *ns*) on Instagram movement towards the ideal self were not significant. This indicated that there was no difference in Instagram movement towards the ideal self between communal narcissists across conditions, which rejected Hypothesis 3b but supported Hypothesis 4b.

In addition to the hypotheses, results also showed that there was no difference in positive affect between agentic narcissists across conditions, and between communal narcissists across conditions. Similarly, results further revealed that there was no difference in negative affect between agentic narcissists across conditions, and between communal narcissists across conditions.

**Mediating effects of Instagram affirmation.** Even though the interaction between agentic narcissism and selfie condition on Instagram affirmation was significant, its indirect effect on Instagram movement towards the ideal self via Instagram affirmation was not significant. Thus, Hypothesis 7a, which predicted a mediating effect of Instagram affirmation, was not supported. Contrary to Hypothesis 7b, the indirect effect of the interaction term between communal narcissism and selfie condition on Instagram movement towards the ideal self via Instagram affirmation was not significant as shown in Table 5.3.

Table 5.3

*Moderated mediation analysis without self-motives*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting Instagram affirmation:</i>				
<b>Moderating effect</b>				
NPI X selfie condition -> Instagram affirmation	.15*	[0.05, 0.26]	0.07	2.33
NPI X usie condition -> Instagram affirmation	-.02	[-0.08, 0.12]	0.06	0.36
CNI X selfie condition -> Instagram affirmation	-.13*	[-0.23, 0.02]	0.07	-1.97
CNI X usie condition -> Instagram affirmation	.02	[-0.14, 0.11]	0.08	-0.21
<i>Predicting Instagram movement towards ideal self:</i>				
<b>Indirect effect</b>				
NPI X selfie condition -> Instagram affirmation -> Instagram movement towards ideal self	.03	[0.00, 0.03]	0.02	1.76
CNI X selfie condition -> Instagram affirmation -> Instagram movement towards ideal self	-.03	[-0.06, 0.00]	0.02	-1.78

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; CNI = communal narcissism inventory; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

**Testing the mediating effects of the four self-motives.** Next, the four self-motives were included in the model. As each self-motive was analysed independently in a separate model<sup>4</sup>, there were 4 models. Table 5.4 shows fit indices of each model. According to the fit indices, each model had the same fit indices and indicated that it had an excellent fit. Thus, parameter estimates in each model could be interpreted.

Table 5.4

*Fit indices of the hypothesised model with self-motives as mediators*

Model	$\chi^2$	<i>df</i>	<i>p</i>	CFI	RMSEA
Model with self-esteem	7.72	8	.46	1.00	0.000
Model with entitlement	7.72	8	.46	1.00	0.000
Model with grandiosity	7.72	8	.46	1.00	0.000
Model with power	7.72	8	.46	1.00	0.000

**Model with self-esteem as the mediator.** Figure 5.5 shows the results in the model with self-esteem as the mediator. The main effect of agentic narcissism on self-esteem was marginal ( $\beta = .16, p < .10$ ) whereas the main effect of selfie condition on self-esteem was significant ( $\beta = -.12, p < .05$ ). However, the main effects of the remaining predictors, including the interaction terms, on self-esteem were not significant. In addition, the effects of self-esteem ( $\beta = .26, p < .01$ ) on Instagram affirmation and Instagram movement towards the ideal self ( $\beta = .20, p < .01$ ) were significant.

Table 5.5 shows results from the mediation analysis. Although the effect of self-esteem on Instagram affirmation was significant, self-esteem did not mediate the interaction effect between agentic narcissism and the selfie condition ( $\beta = .00, ns$ ) nor the interaction effect between communal narcissism and the selfie condition ( $\beta = -.02, ns$ ) on Instagram affirmation. Thus, these results rejected Hypothesis 5a and 6a. Similarly, even though self-esteem predicted Instagram movement towards the ideal self, it did not mediate the interaction effect between agentic narcissism and the selfie condition ( $\beta = .00, ns$ ) nor the interaction effect between communal narcissism and

<sup>4</sup>A simultaneous mediation analysis was also conducted with all 4 mediators (self-esteem, entitlement, grandiosity, and power) in the same model. Findings showed identical results.

the selfie condition ( $\beta = -.01$ , ns) on Instagram movement towards the ideal self. Thus, these results rejected Hypotheses 5b and 6b.

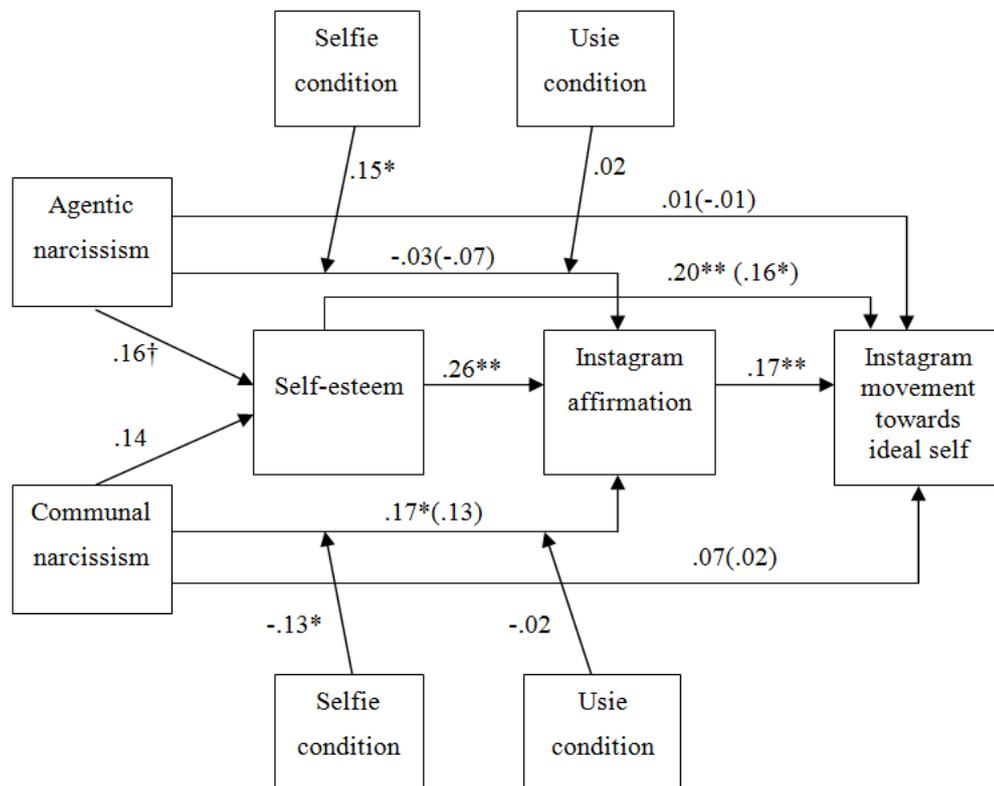


Figure 5.5. Instagram affirmation model with self-esteem as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

Consistent with Hypothesis 8, the indirect effect of self-esteem on Instagram movement towards the ideal self via Instagram affirmation was significant ( $\beta = .05$ ,  $p < .05$ ). Specifically, when Instagram affirmation and self-esteem were entered in the model together, the effect of self-esteem slightly decreased ( $\beta = .16$ ,  $p < .05$ ), suggesting a partial mediation.

In addition to the hypotheses, results also showed that self-esteem predicted positive affect ( $\beta = .27$ ,  $p < .01$ ). However, Instagram affirmation and Instagram movement towards the ideal self did not predict positive affect ( $\beta = .09$  and  $.10$ , both ns). On the other hand, self-esteem ( $\beta = -.43$ ,  $p < .01$ ) and Instagram affirmation ( $\beta = -$

.30,  $p < .01$ ) negatively predicted negative affect. Instagram affirmation also mediated the effect of self-esteem on negative affect ( $\beta = -.08, p < .01$ ). However, Instagram movement towards the ideal self did not predict negative affect was not significant ( $\beta = -.02, ns$ ).

Table 5.5

*Moderated mediation analyses with self-esteem as the mediator*

Moderated mediation of associations	$\beta$	95% CI	S.E.	$t$
<i>Predicting self-esteem:</i>				
<b>Moderating effect</b>				
NPI X selfie condition -> RSES	.01	[-0.12, 0.14]	0.08	0.15
NPI X usie condition -> RSES	-.06	[-0.18, 0.06]	0.07	-0.84
CNI X selfie condition -> RSES	-.08	[-0.22, 0.06]	0.08	-0.97
CNI X usie condition -> RSES	.05	[-0.09, 0.19]	0.09	0.58
<i>Predicting Instagram affirmation:</i>				
<b>Indirect effect</b>				
NPI X selfie condition -> RSES -> Instagram affirmation	.00	[-0.03, 0.04]	0.02	0.14
CNI X selfie condition -> RSES -> Instagram affirmation	-.02	[-0.06, 0.02]	0.02	-0.93
<i>Predicting Instagram movement towards ideal self:</i>				
<b>Indirect effect</b>				
NPI X selfie condition -> RSES -> Instagram movement towards ideal self	.00	[-0.02, 0.02]	0.01	0.14
CNI X selfie condition -> RSES -> Instagram movement towards ideal self	-.01	[-0.04, 0.01]	0.02	-0.85
RSES -> Instagram affirmation -> Instagram movement towards ideal self	.05*	[0.01, 0.08]	0.02	2.38

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; CNI = communal narcissism inventory; RSES = Rosenberg's self-esteem scale; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

**Model with entitlement as the mediator.** Figure 5.6 shows the results in the model with entitlement as the mediator. The main effect of agentic narcissism on entitlement was significant ( $\beta = .24, p < .05$ ). However, the main effects of the remaining predictors including the interaction terms were not significant.

Given that entitlement did not predict Instagram affirmation nor Instagram movement towards the ideal self, Hypotheses 5a, 5b, 6a, and 6b which predicted the mediating effects of entitlement were not supported. Further, as entitlement did not predict Instagram affirmation, Hypothesis 8 which predicted the mediating effect of Instagram affirmation was not supported.

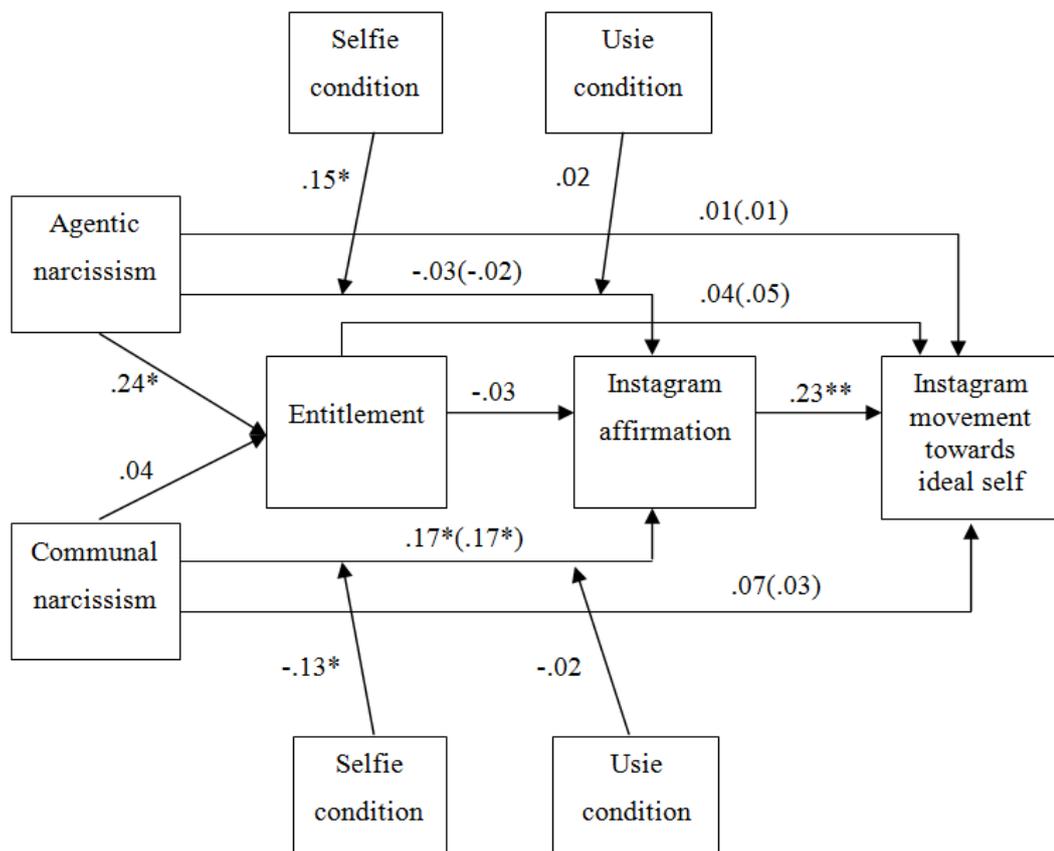


Figure 5.6. Instagram affirmation model with entitlement as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

In addition to the hypotheses, results also showed that Instagram affirmation positively predicted positive affect ( $\beta = .17, p < .01$ ). However, entitlement ( $\beta = .05, ns$ ) and Instagram movement towards the ideal self ( $\beta = .14, ns$ ) did not predict positive affect. On the other hand, even though the main effect of entitlement ( $\beta = -.13, p = .051$ ) on negative affect was marginal, and that of Instagram affirmation was significant ( $\beta = -.41, p < .01$ ), Instagram affirmation did not mediate the effect of entitlement on negative effect ( $\beta = .01, ns$ ). In addition, the effect of Instagram movement towards the ideal self on negative affect was not significant ( $\beta = -.10, ns$ ).

***Model with grandiosity as the mediator.*** Figure 5.7 shows the results in the model with grandiosity as the mediator. The main effects of agentic narcissism ( $\beta = .36, p < .01$ ), communal narcissism ( $\beta = .22, p < .05$ ), and usie condition ( $\beta = -.17, p < .01$ ), on grandiosity were significant. However, the remaining predictors including the interaction terms were not significant. Given that grandiosity did not predict Instagram affirmation and Instagram movement towards the ideal self, Hypotheses 5a, 5b, 6a, and 6b which predicted the mediating effect of grandiosity were not supported. Further, given that grandiosity did not predict Instagram affirmation, Hypothesis 8 which predicted the mediating effect of Instagram affirmation was not supported.

In addition to the proposed hypotheses, results showed that grandiosity ( $\beta = .37, p < .01$ ) and Instagram affirmation ( $\beta = .15, p < .01$ ) positively predicted positive affect. However, Instagram affirmation did not mediate the effect of grandiosity on positive affect ( $\beta = .01, ns$ ). Given that Instagram movement towards the ideal self ( $\beta = .10, ns$ ) did not predict positive affect, there were no mediating effects of Instagram movement towards the ideal self. Even though the main effect of Instagram affirmation on negative affect was significant ( $\beta = -.30, p < .01$ ), the main effects of grandiosity ( $\beta = .06, ns$ ) and Instagram movement towards the ideal self ( $\beta = -.02, ns$ ) were not.

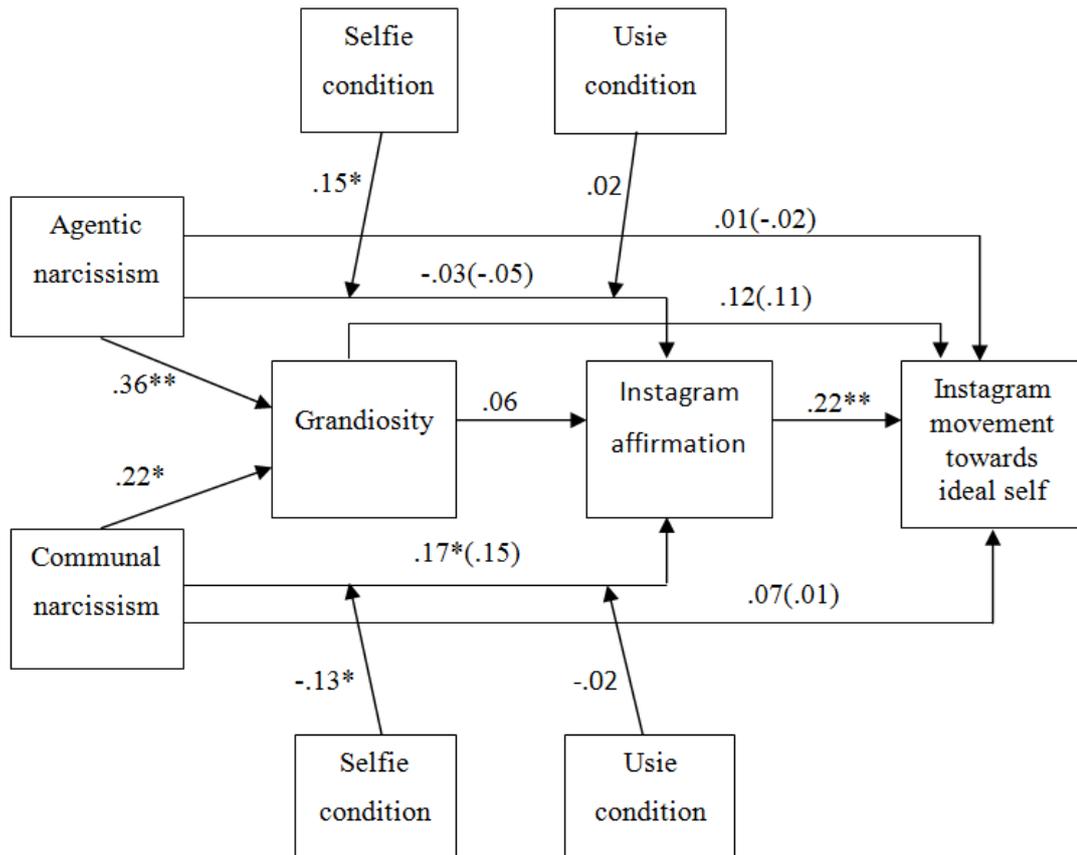


Figure 5.7. Instagram affirmation model with grandiosity as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

**Model with power as the mediator.** Figure 5.8 shows the results in the model with power as the mediator. Results found a marginal main effect of agentic narcissism ( $\beta = .24, p = .068$ ) and a significant interaction effect between communal narcissism and selfie condition ( $\beta = .21, p < .05$ ) on power. However, the main effect and the interaction effect of the remaining predictors were not significant.

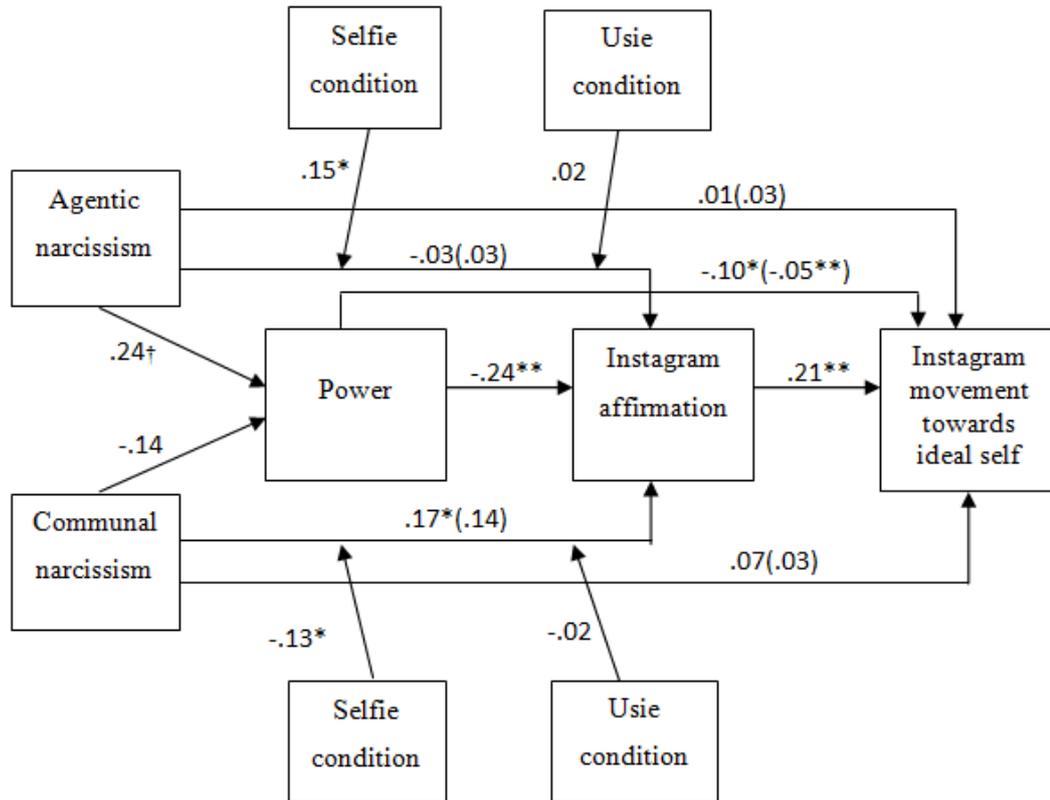


Figure 5.8. Instagram affirmation model with power as the mediator.

Note. The path coefficients are standardised. Values in the parentheses represent the direct effect after mediators are included in the model.

Tests of simple slope showed that the effect of selfie condition on Instagram affirmation was significant and positive among communal narcissists (+1 *SD*), simple slope = 1.65,  $t(263) = 2.33, p < .05$ . In addition, the effect of selfie condition on Instagram affirmation was significant and positive among non-narcissists (-1 *SD*), simple slope = 1.15,  $t(263) = 2.26, p < .05$ . That is, both communal narcissists and non-narcissists in the selfie condition reported higher levels of power than those in the control condition. Moreover, communal narcissists in the selfie condition reported higher levels of power than non-narcissists in the same condition, simple slope = 0.23,  $t(263) = 2.10, p < .05$  as shown in Figure 5.9.

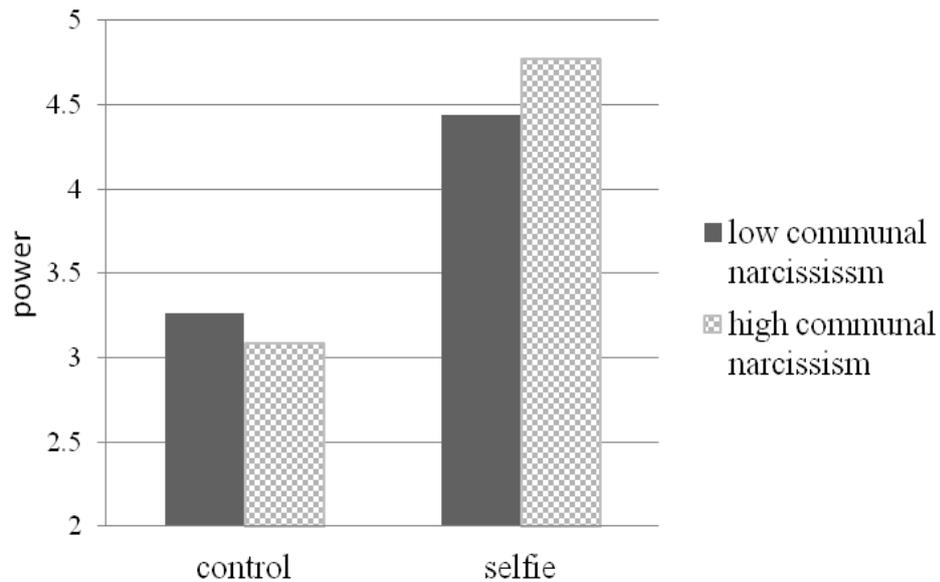


Figure 5.9. Interaction effect on power

Note. Low and high values for communal narcissism are conditioned at 1 SD below and above the mean.

Unexpectedly, the main effect of power on Instagram affirmation was negatively significant ( $\beta = -.24, p < .01$ ). Given that the interaction effect between agentic narcissism and the selfie condition, Hypotheses 5a and 5b, which predicted the mediating effect of power, were not supported. On the other hand, power mediated the interaction effect between communal narcissism and the selfie condition ( $\beta = -.05, p < .05$ ) on Instagram affirmation as shown in Table 5.6. However, such indirect effect was negative, which was in the opposite direction of the hypothesis. Thus, these results rejected Hypothesis 6a. In addition, power did not mediate the interaction effect between communal narcissism and the selfie condition ( $\beta = -.01, ns$ ) on Instagram movement towards the ideal self, which rejected Hypothesis 6b. Even though Instagram affirmation mediated the effect of power on Instagram movement towards the ideal self, such effect was negative ( $\beta = -.05, p < .05$ ). Thus, it rejected Hypothesis 8.

In addition to the hypotheses, results also showed that the effect of Instagram affirmation on positive affect ( $\beta = .20, p < .01$ ) was significant while those of Instagram movement towards the ideal self was marginal ( $\beta = .16, p = .064$ ). Even though Instagram affirmation mediated the effect of power on positive affect ( $\beta = -.04, p < .05$ ), it was not enough for power to predict positive affect in total. On the

other hand, Instagram movement towards the ideal self did not mediate the effect of power on positive affect ( $\beta = -.01, ns$ ).

On the other hand, even though the main effects of power ( $\beta = .28, p < .01$ ) and Instagram affirmation ( $\beta = -.34, p < .01$ ) on negative affect were significant, the effect of Instagram movement towards the ideal self was not significant ( $\beta = -.08, ns$ ). When Instagram affirmation and Instagram movement towards the ideal self were entered in the model, the effect of power on negative decreased ( $\beta = .20, p < .01$ ). Instagram affirmation partially mediate the effect of power on negative effect ( $\beta = .08, p < .01$ ). However, its indirect effect via Instagram movement towards the ideal self was not significant ( $\beta = .00, ns$ ).

Table 5.6

*Moderated mediation analyses with power as the mediator*

Moderated mediation of associations	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting power:</i>				
<b>Moderating effect</b>				
NPI X selfie condition -> Power	-.05	[-0.22, 0.12]	0.10	-0.48
NPI X usie condition -> Power	.02	[-0.15, 0.19]	0.10	0.20
CNI X selfie condition -> Power	.21*	[0.07, 0.35]	0.08	2.53
CNI X usie condition -> Power	.15	[-0.02, 0.32]	0.10	1.50
<i>Predicting Instagram affirmation:</i>				
<b>Indirect effect</b>				
CNI X selfie condition -> Power -> Instagram affirmation	-.05*	[-0.09, 0.12]	0.02	-2.16
<i>Predicting Instagram movement towards ideal self:</i>				
<b>Indirect effect</b>				
CNI X selfie condition -> Power -> Instagram movement towards ideal self	-.01	[-0.03, 0.01]	0.01	-0.86
Power -> Instagram affirmation -> Instagram movement towards ideal self	-.05**	[-0.08, -0.02]	0.02	-2.66

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; CNI = communal narcissism inventory; S.E. = standard error; CI = confidence interval. \* $p < .05$ .

## **Summary results**

In summary, the experimental condition moderated the effect of agentic narcissism on Instagram affirmation. Specifically, agentic narcissists in the selfie condition had higher levels of Instagram affirmation than agentic narcissists in the control condition. On the other hand, communal narcissists in the selfie condition had lower levels of Instagram affirmation than communal narcissists in the control condition. Further, there were no differences in Instagram affirmation and movement towards the ideal self between communal narcissists in selfie and control conditions. In addition, there was no difference in Instagram movement towards the ideal self between agentic narcissists across conditions and between communal narcissists across conditions.

Even though power was the only self-motives that played a role as a mediator for communal narcissists in selfie condition, such effect was negative. Other 3 self-motives (self-esteem, grandiosity, and entitlement) did not play a role as mediators in the model. In addition to the hypotheses, results also showed no differences in positive and negative affect between agentic narcissists or communal narcissists across conditions.

## **Discussion**

Given that findings from Chapters 2-4 found no association between agentic narcissism and Facebook affirmation, the present study attempted to test whether agentic narcissists would be able to attain affirmation of the ideal self on other types of social media with certain types of activities. It also sought to examine whether communal narcissists would attain affirmation of the ideal self on other social media platforms. As selfie-posting behaviour has been found to be a way for self-enhancement among narcissists (Sorokowski et al., 2015; Weiser, 2015), the present study proposed that narcissists, particularly agentic narcissists, might experience affirmation of the ideal self through selfie-posting. Instagram was selected as a platform where selfies would be published.

Results from this study partially supported the hypothesis that agentic narcissists who were asked to post their selfies on their Instagram were more likely to attain affirmation of the ideal self, compared to those who posted photos of other people excluding themselves. On the other hand, communal narcissists who were

asked to post their selfies on their Instagram did not report higher levels of affirmation of the ideal self, compared to those who posted photos of other people excluding themselves. In addition, communal narcissists who were asked to post their selfies reported less levels of affirmation of the ideal self than those who were asked to post photos of other people on their Instagram. This indicated that selfie-posting on Instagram can provide affirmation of the ideal self to agentic narcissists, but not to communal narcissists. Unexpectedly, power was a negative indicator in the model.

### **Narcissism and selfie-posting behaviour**

Findings from the present study showed that selfie-posting can be beneficial for selfie-posters with high agentic narcissism. Agentic narcissists who were asked to post their selfies on Instagram reported higher levels of affirmation of the ideal self than agentic narcissists who were asked to post photos of other people excluding themselves. These findings can be explained by the role of cognitive and behavioural orientation. Since agentic narcissists focus on agentic rather than communal concerns (Campbell et al., 2006; Emmons, 1987; Raskin & Terry, 1988), being able to focus on themselves should enhance their sense of grandiosity and fuel their narcissistic esteem. In this case, it is possible that agentic narcissists may find posting their selfies on Instagram to be a good strategy to draw attention from the audience. This may be because the admiration they expect to attain would belong to them only, and not to others.

For certain types of social media, particularly Instagram, individuals are able to choose or edit their selfies in order to present their best image (Lyu, 2016). Such ability to control the way they present themselves through their selfies may also allow them to project their ideal image and have more opportunities to receive affirmation of the ideal self in return. When being allowed to post their selfies, agentic narcissists, who are highly concerned with their physical appearance and have excessive need for admiration (Buffardi & Campbell, 2008; Collins & Stukas, 2008; Raskin & Terry, 1988), may put effort to select their best selfies to show to the public. Given that participants in this study were able to edit photos before publishing them on their Instagram, they were able to present their best image. This, in turn, may enable agentic narcissists to feel free to display their ideal aspect of self. As a result, they

may perceive that other people would see and regard them as the kind of person they wish to become.

However, agentic narcissists in the selfie condition did not move closer to their ideal selves. One explanation may be concerned with the short time lag between the moment they posted their selfies and the moment time they completed the post-test questionnaires. Specifically, participants only had five minutes to post their photos. Once the time ran out, they were asked to report how they felt immediately afterwards. Thus, it is possible that agentic narcissists might perceive that they could exhibit their ideal image and expect other people would treat them in line with their ideal self-presentation. However, whether they would move towards their ideal selves may require much more than posting their selfies on Instagram. I speculate that agentic narcissists might move closer to their ideal selves if they have more time to look at their selfies, admire them, and receive positive feedback from their friends after posting their selfies.

Other explanation may be concerned with the measurement issues. Given that Instagram moment towards the ideal self in this study was based on post scores of actual and ideal self closeness after controlling for the pre scores of actual and ideal self closeness, it could be that this measurement was not sensitive enough to detect changes after the manipulation. Thus, future research may use other assessments to measure Instagram movement towards the ideal self.

Consistent with the hypotheses, communal narcissists in the selfie condition reported less levels of Instagram affirmation than communal narcissists in the control condition. This confirms prior research and provides additional support for the hypothesis that communal narcissists benefit most from using other-oriented means (Gebauer et al., 2012). In this case, they had more chance to experience affirmation of the ideal self when being asked to post photos of other people, compared to those who were asked to post their selfies only. In addition, communal narcissists in usie and control condition did not show differences in Instagram affirmation or Instagram movement towards the ideal self. This suggests that posting photos of other people, whether they are in those photos or not, can be beneficial for communal narcissists.

Interestingly, many participants who were assigned to take either usies or photos of other people excluding themselves took photos of their parents or family members. It is possible that taking and posting photos of their parents on Instagram,

with or without them, may help them receive affirmation of the ideal self. This can be explained in terms of cultural values in Thailand. Gratitude and caring for the elderly have been found to be the core values of Thai society (Knodel, Saengtienchal, & Sittitrai, 1995). Thais are encouraged to have high responsibility for their parents or the elderly in their family. As this experiment was conducted in Thailand and participants were Thai students, publishing photos of one's own parents to the public may evoke the sense of being grateful which is an ideal standard attribute in the Thai society. Future research may seek to replicate the study in individualistic cultures.

Since this is the first attempt to investigate the role of selfie-posting among narcissists in Thailand, the associations between both types of narcissism and Instagram usage pattern on a daily basis were also investigated. A preliminary investigation showed that agentic narcissism was positively correlated with number of followers, time spent on Instagram, and selfie-posting on Instagram. On the other hand, communal narcissism was positively correlated with usie-posting. This supports prior research that agentic narcissists are particularly drawn to selfie-posting (Sheldon & Bryant, 2016; Sorokowski et al., 2015). It also suggests that communal narcissists may prefer posting their usies even though it may not provide affirmation of the ideal self in return. Future research may focus on the benefits of usie-posting for communal narcissists in other aspects.

### **The mediating role of the four self-motives**

Since this study also aimed to replicate the previous chapter, the mediating role of the four self-motives was also investigated. However, the results showed unexpected findings. Power was found to be a negative indicator in the model. Communal narcissists who were asked to take and post their selfies on Instagram reported less levels of Instagram affirmation than those who were asked to take and post photos of other people. Moreover, this was mainly because their need for power was satisfied. Such results raised questions why power yielded a negative outcome. A possible explanation may be concerned with the measurement. Given that the sense of power scale used to measure power in this study had low internal consistency with a Cronbach's alpha of .53, results related to power may have low reliability. Hence, future research should replicate the study.

Even though the other 3 motives including self-esteem, entitlement, and grandiosity did not play a role as mediators, they still showed some effects on the outcome variables. Regardless of narcissism levels and experimental condition, self-esteem and grandiosity appeared to promote Instagram movement towards the ideal self and increase positive affect. In contrast, entitlement was a positive indicator for negative affect. This suggests that natural levels of self-esteem, grandiosity, and entitlement levels are driving the effect.

### **Selfies-posting and positive-negative affect**

Although agentic narcissists in selfie condition experienced Instagram affirmation, they did not have higher levels of positive affect or lower levels of negative effect, compared to those in control condition. Further, there were no differences in positive and negative affect between communal narcissists across conditions. This may have to do with the experimental manipulation.

Given that participants had only 5 minutes to post photos that they took on Instagram and report how they felt immediately, they did not have much time to admire the photos that they posted. Therefore, it is possible that this manipulation was not able to affect their mood. Further, given that participants were aware that they were able to remove the photos that they posted after the experiment ended, those who felt constrained to post the assigned photos might feel more relaxed. This may result in no changes in positive and negative affect between participants whose assigned condition matched or did not match their orientation towards goals.

### **Research strengths**

The present study provides additional support that apart from Facebook, posting photos on Instagram can provide affirmation of the ideal self. Specifically, selfie-posting on Instagram appears to help agentic narcissists attain affirmation of the ideal self. It also supports prior research which suggests that the agentic narcissists often use social media to attain admiration and project their ideal image (Marshall et al., 2015; Ong et al., 2011; Twenge & Campbell, 2009; Weiser, 2015).

As this study used a quasi-experimental research design to test the effect of selfie-posting, it can help identify a causal relationship between selfie-posting and the

positive outcomes. The results then suggest that selfie-posting on Instagram can increase the likelihood for agentic narcissists to attain affirmation of the ideal self.

Another research strength in this study is concerned with the experimental manipulation. Given that participants had to report how they felt immediately after posting photos on Instagram, the effects found in this study can refer to the pure effects of posting photos, and not the effects of feedback from other people.

Additionally, this study investigated both selfies and usies among both agentic and communal narcissists. Thus, findings can explain the association between narcissism and selfie-posting from a broader perspective. In addition, it suggests that types of selfies may affect the tendency to receive affirmation of the ideal self and movement towards the ideal self among both agentic and communal narcissists.

Moreover, the strategy used to check the experimental manipulation by assessing the photos that participants posted on their Instagram was also objective. Therefore, it can reduce measurement errors mentioned in the previous chapters.

### **Research limitations**

Although this study contributes to the literature on narcissism and social media that selfie-posting can be beneficial and lead to positive outcomes, there are some limitations concerning the experimental manipulation and measurements.

This study manipulated cognitive and behavioural strategies of participants within a short period of time. Even though participants had 24 hours to take photos, they had only 5 minutes to post those photos and were required to report how they felt afterwards. Such artificial manipulation may not reflect real life activities. Those who do not normally post some types of photos on Instagram may experience the discomfort of being asked to act inconsistently with their normal behaviours. Therefore, future research might consider using other methodologies such as diary methods or longitudinal studies to reflect real life behaviours. In addition, it may also allow participants to have more time to admire their photos and receive feedback from others before measuring how they feel. In addition, a follow-up session may be conducted to test how long the effect of selfie-posting on affirmation of the ideal self can last.

Moreover, since the sense of power scales had low internal consistency, future research may wish to replicate this study and may use other measurements to assess

need for power. Furthermore, the study could be replicated on other social media platforms, such as Twitter, to see if other types of social media may better enhance these four self-motives among narcissists.

## **Conclusion**

The current experiment attempted to fill the gap in previous chapters by investigating the role of cognitive and behavioural strategies on affirmation of the ideal self process via selfie-posting on Instagram among narcissists in the Thai culture. Moreover, the four self-motives (self-esteem, entitlement, grandiosity, and power) were also examined as potential mediators of the model and expected to be underlying affirmation of the ideal self process.

Findings showed that selfie-posting on Instagram can provide affirmation of the ideal self to selfie-posters with high agentic narcissism only. This suggests that that Instagram may have functions that serve agentic narcissists more than communal narcissists and help fulfil agentic narcissists' needs.

Even though power played a role as a mediator, its effect was negative, which was an unexpected finding. Other 3 self-motives did not play a role as mediators in the affirmation process. However, it may be too soon to conclude from this initial study that communal narcissists cannot benefit from posting selfies, or that the four self-motives are not positively related to affirmation of the ideal self on Instagram among narcissists. Thus, future research with sample from other countries or using other experimental paradigms and measurements may be required to clarify this question.

## **Chapter 6**

### **General Discussion**

#### **Overview**

Narcissism, characterised by an inflated self-view and a sense of entitlement, has been found to be linked with excessive self-promotion (Collins & Stukas, 2008; Hepper et al., 2010). Narcissists are particularly interested in seeking ways to maintain their grandiosity and reach their ideal selves (Morf & Rhodewalt, 2001). Often, they use social media to seek admiration (Anderson et al., 2012; Dewall et al., 2011). However, although previous research has found that social media operates as a platform for self-presentation and self-enhancement for narcissists (Anderson et al., 2012; Marshall et al., 2015; Ong et al., 2011; Ryan & Xenos, 2011; Wang et al., 2012), empirical research has yet to investigate whether social media can actually affirm the ideal self of narcissists and promote movement towards the ideal self.

The present thesis thus sought to offer a new perspective that narcissists could benefit from using social media to move closer to their ideal selves. Based on the Michelangelo phenomenon model (Drigotas et al., 1999; Rusbult et al., 2005), I proposed the Facebook affirmation model, later expanded to a more general social media affirmation model to include other social media platforms. The Michelangelo phenomenon model suggests that consistent affirmation of the ideal self from their significant others over a period of time helps individuals to move closer to their ideal self (Drigotas et al., 1999; Rusbult, Finkel, et al., 2009). Importantly, this process can enhance both couple and personal well-being (Kumashiro et al., 2006, 2007). Adapted from this model, I proposed that this affirmation process may be applicable in other environments involving mutual interactions over time.

Therefore, this thesis was mainly designed to test a new model of affirmation of the ideal self on social media among narcissists in Thailand. Four studies were conducted to test the Facebook affirmation model and explore whether this model could apply to other social media platforms. The first study investigated the validity of the Facebook affirmation model in Thailand and the UK, and made cross-cultural comparisons to examine the role of cultural differences. The second study examined the role of using self- or other-focused cognitive and behavioural strategies in predicting Facebook affirmation. The third study examined the mechanisms

underpinning the Facebook affirmation model, by investigating the role of four self-motives that had previously been offered in the literature (Gebauer et al., 2012). The last study investigated whether affirmation of the ideal self process could generalise to other social media platforms like Instagram and whether selfie-posting can specifically help agentic narcissists affirm their ideal self.

Together, findings from this thesis showed that Facebook operated as a platform where its communal narcissistic users could experience affirmation of the ideal self, especially when they used a communal approach that matched their communal orientations. In addition to Facebook, affirmation of the ideal self process also occurred on another social media platforms of Instagram. Specifically, it provided affirmation of the ideal self to agentic narcissists through selfie-posting activities. Key findings, implications, limitations, and future directions will be presented in this chapter.

## **Key findings**

**Chapter 2.** The first preliminary investigation of the Facebook affirmation model was conducted using a cross-cultural correlational design to test whether Facebook could aid narcissists in their desire to reach their goals of being admired by many people. In particular, a cross-cultural comparison was also made to explore whether Facebook affirmation occurred across cultures. Thailand and the UK were selected to represent collectivistic and individualistic countries.

Findings revealed that Facebook affirmation process occurred in both Thailand and the UK. Communal narcissists, but not agentic narcissists, were more likely to experience affirmation of the ideal self and move closer to their ideal selves on Facebook, compared to non-narcissists. Facebook affirmation was also found to enhance personal well-being of communal narcissists. This suggests that Facebook may have the potential to provide affirmation of the ideal self and improve personal well-being among communal narcissists. On the other hand, findings which showed no effects of agentic narcissism may need to be interpreted cautiously as the short NPI-13 scale used to measure agentic narcissism had a low reliability.

Even though there was no cultural difference in Facebook affirmation among narcissists, Thais received reported moving closer to their ideal selves compared to the British, regardless of their narcissism levels. This suggests, in line with prior

research that Facebook enables self-disclosure and ideal self goal pursuit for people facing restrictions in self-expression offline (Amichai-Hamburger & Vinitzky, 2010; Bargh et al., 2002), that Thais may be more motivated to use Facebook to reach their ideal selves.

**Chapter 3.** Building upon findings in Chapter 2 which found that communal narcissists experienced Facebook affirmation and moved towards their ideal selves, this chapter examined whether certain cognitive-behavioural strategies are more effective for receiving Facebook affirmation. Given that people can experience regulatory fit when their regulatory focus matches their disposition (Fransen et al., 2009; Freitas & Higgins, 2002; Spiegel et al., 2004), this chapter proposed that narcissists might experience Facebook affirmation when their cognitive and behavioural strategies used on Facebook match their regulatory orientation. For example, focusing on one's own self may provide benefits to agentic narcissists with a self-oriented orientation, whereas focusing on others may be more helpful for communal narcissists with an other-focused orientation. Self and other oriented cognitive and behavioural strategies were manipulated by asking participants to engage in either self- or other-focused tasks on Facebook for 24 hours.

Findings showed that communal narcissists who engaged in other-focused tasks reported higher levels of Facebook affirmation and Facebook movement towards the ideal self than those who engaged in self-focused tasks. Results suggest that communal narcissists can utilise Facebook to reach their ideal selves by adopting communal means such as clicking like, sharing friends' status, and providing supportive comments to support their friends on Facebook. In line with previous research (Gebauer et al., 2012), findings demonstrate that communal narcissists benefitted the most from adopting such communal strategy. However, agentic narcissists did not benefit from engaging in self-focused tasks. This suggests that agentic narcissists may not be able to receive affirmation of the ideal self on Facebook, although they may still attain other positive outcomes that were not examined in this study.

**Chapter 4.** This chapter further addressed the mechanisms underlying Facebook affirmation. Given that agentic narcissism did not play a role in the model, this chapter mainly focused on why communal narcissists experienced Facebook affirmation and moved closer to their ideal selves when they were able to focus on

others. The four self-motives (self-esteem, entitlement, grandiosity, and power) were examined, as previous research showed that these self-motives motivated narcissists to reach their goals (Gebauer et al., 2012).

Findings replicated Chapter 3 in that communal narcissists who engaged in other-focused tasks had higher levels of Facebook affirmation than those who engaged in self-focused tasks, but the sample in this study did not report greater Facebook movement towards the ideal self. While other self-motives did not play mediating roles in the model, self-esteem was found to be underlying such affirmation of the ideal self. This indicated that satisfaction of the need for self-esteem helped communal narcissists experience Facebook affirmation. In addition to the main hypotheses, results also again revealed that agentic narcissism did not play a role in the Facebook affirmation process. This suggests that agentic narcissists may not be able to experience affirmation of the ideal self on Facebook.

**Chapter 5.** Given that findings from Chapters 2-4 found no effect of agentic narcissism on Facebook affirmation, this chapter attempted to investigate whether agentic narcissists would experience affirmation of the ideal self on a different social media platform. Recent research has found a positive association between agentic narcissism and selfie-posting behaviour and pointed out that selfie-posting may be an effective strategy for agentic narcissists to attain attention and admiration from others (Sheldon & Bryant, 2016; Sorokowski et al., 2015). In this regard, selfie-posting behaviours on Instagram were examined and expected to aid agentic narcissists to experience affirmation of the ideal self and move towards their ideal self. On the other hand, posting selfies may be less helpful for communal narcissists who capitalise on other-oriented means, and instead, posting pictures that include other people may be more helpful. In addition, the mediating effects of the four self-motives were also explored to examine if selfie-posting behaviours enhance self-motives, even though I initially speculated that they might not play mediating roles in the process, based on Chapter 4's findings.

To test the role of selfie-posting in predicting affirmation of the ideal self, selfie-posting behaviours were manipulated. Participants were randomly assigned to take 5 photos: selfies, selfies with friends (usies), or photos of other excluding themselves (control). Findings revealed that agentic narcissists in the selfie condition reported higher levels of Instagram affirmation than those in the control condition.

This indicated that selfie-posting on Instagram helped agentic narcissists experience affirmation of the ideal self, although this activity did not promote movement towards the ideal self. On the other hand, communal narcissists in the selfie condition reported lower levels of Instagram affirmation than those in the control condition, suggesting that communal narcissists may only benefit from using other-oriented strategies. In addition, there was no difference in affirmation levels between communal narcissists in the use and control conditions. This yielded initial speculation that posting photos on Instagram may be beneficial for communal narcissists only when there are other people included in the photos, with or without themselves. The four self-motives did not have a positive effect for narcissists, although power was found to be a negative indicator for communal narcissists.

### **Summary and interpretation**

In summary, findings from this thesis show that social media can operate as a platform for ideal self fulfilment, particularly when strategies used on social media match one's own orientation towards goals. Narcissists seem to benefit more than non-narcissists from using social media to experience affirmation of the ideal self and move towards their ideal selves, although the type of social media and activities on social media appear to influence this process. Engaging in other-oriented activities on Facebook appear to serve communal narcissists' needs whereas selfie-posting on Instagram may be more responsive to agentic narcissists' needs. Several findings are worth discussing, which will be discussed below.

**Agentic and communal narcissism.** Findings from the present thesis provide new evidence communal narcissists can also benefit from using social media, a research area that had previously focused on agentic narcissists. Specifically, communal narcissists were found to experience affirmation of the ideal self and move towards their ideal selves on Facebook whereas agentic narcissists did not seem to derive such benefits. On the other hand, agentic narcissists, but not communal narcissists, were found to experience affirmation of the ideal self via selfie-posting activities on Instagram.

Recent research on narcissism posits that agentic and communal narcissism are the two complimentary forms of grandiose narcissism (Gebauer et al., 2012). Agentic narcissists use agentic means (e.g., overclaiming agentic traits such as being

intelligent) while communal narcissists use communal means (e.g., overclaiming communal traits such as being friendly) to maintain their grandiosity. In this regard, this thesis proposed that the two types of narcissists may experience affirmation of the ideal self under different circumstances and contexts.

Communal narcissists who capitalise on communal means (Gebauer et al., 2012) reported higher levels of Facebook affirmation and Facebook movement towards the ideal self when they were able to focus on other people, compared to those who were asked to focus on themselves. This shows some support for the hypothesis that Facebook can be beneficial for the communal narcissists when they can use communal strategies (Gebauer et al., 2012). Further, it also highlights the importance of regulatory fit in goal pursuit (Spiegel et al., 2004), including movement towards ideal self. Regulatory fit theory suggests that a match between orientation towards goals and the means used to pursue such goals improves task performance (Higgins, 2005) and increase motivation to achieve goals (Cesario et al., 2007; Spiegel et al., 2004). Thus, this thesis provides additional support for the notion that the extent to which individual will move towards their ideal self also depends on the presence of regulatory fit. Those who are capable of using the strategies that match their orientation have more opportunities to experience affirmation of the ideal self and achieve their ideal self goal.

However, it was unexpected finding that only communal narcissists, but not agentic narcissists, benefitted from using Facebook to experience Facebook affirmation or move closer to their ideal selves. Even though a positive association between agentic narcissism and Facebook use (e.g., number of friends, time spent, etc.) have been consistently found in previous research (Buffardi & Campbell, 2008; Ong et al., 2011) as well as in Chapter 3, such activities do not seem to translate to Facebook affirmation or movement towards the ideal self.

This may be because communication made on Facebook is more reciprocal (Buccafurri et al., 2015), compared to other types of social media. Agentic narcissists who are less interested in establishing real intimacy (Campbell et al., 2006) may not find Facebook as their best option to reach their ideal selves, especially when there are plenty of other social media platforms operating at the present time.

Prior research on narcissism and social media consistently has found that photo-sharing is an activity in which the agentic narcissists are more inclined to

engage (Mehdizadeh, 2010; Ong et al., 2011). Specifically, selfie-posting has recently been found to match agentic narcissists' need for admiration and attention (Sorokowski et al., 2015). Since Instagram was believed to be the home of selfies (Ahmad, 2013), the last experiment shifted focus of the dissertation to examine the role of selfie-posting on affirmation of the ideal self on Instagram.

Findings showed that selfie-posting on Instagram helped agentic narcissists experience affirmation of the ideal self. That is, agentic narcissists perceived that other would treat them in ways that are congruent with their ideal selves, presumably presented through selfies-posting. This suggests that agentic narcissists perceive selfie-posting as a way to project their ideal image. After they publish such photos, they expect and perceive that other would regard and treat them the way they ideally would like to be seen. Given that this study ensured no actual feedback was provided by others, merely the act of posting photos seems to make agentic narcissists feel that their ideal selves are being affirmed. In addition, results showed that communal narcissists who posted their selfie without others reported lower levels of affirmation of the ideal self than those who posted photos of other people. This also confirms prior findings that communal narcissists capitalise on other-oriented means (Gebauer et al., 2012).

These results also help clarify the question of whether agentic narcissists would attain affirmation of the ideal self on other social media platforms. Moreover, the findings which showed that affirmation of the ideal self for agentic narcissists occurred through selfie-posting on Instagram, but not through self-focused activities on Facebook, may also confirm the idea that agentic narcissists may be more drawn to other types of social media than Facebook.

It is worth noting that Instagram is one of the largest photo- or video-sharing networking sites (Ahmad, 2013; Smith, 2015). The term 'follower' and 'following' on Instagram has also been used to indicate the number of people within one's own network. Given such characteristics, it is possible that selfie-posting on Instagram may have more potential to facilitate ideal self-projection and affirmation of the ideal self for agentic narcissists, compared to other types of self-focused activities on Facebook.

**The role of four self-motives.** Previous research had found that self-esteem, entitlement, grandiosity, and power were the core self-needs behind agentic and communal narcissists' motivation (Gebauer et al., 2012). In particular, narcissists are addicted to self-esteem and need approval to show that they are better than others (Baumeister & Vohs, 2001). They desire to possess things more than they have and seek to have power over others (Ackerman et al., 2010; Exline et al., 2004; Moeller, et al., 2009). However, even though the four self-motives (self-esteem, entitlement, grandiosity, and power) were expected to be underlying affirmation of the ideal self on social media, results from this thesis showed mixed findings.

Results from Chapter 4 showed that self-esteem was the only self-motive underpinning Facebook affirmation among communal narcissists, suggesting a positive effect of self-esteem in the model for communal narcissists. This indicated that communal narcissists became satisfied with their need for self-esteem after engaging in other-oriented activities, which led to reporting affirmation of the ideal self on Facebook. Interestingly, self-esteem in this study assessed state self-esteem rather than stable individual differences. Thus, the fluctuation of self-esteem after the experimental manipulation may reflect the function of self-esteem as a monitor of social acceptance (Leary, 1999), and communal narcissists may have either felt that they would be more accepted or actually received more approval after engaging in other-oriented tasks. In fact, findings in Chapter 3 on reporting of regular activities on Facebook suggest that communal narcissists do not seem to be engaging in more other-focused activities than non-narcissists; requiring communal narcissists to engage in other-oriented activities may have led to increases in positive feedback, which may have increased their feelings of social acceptance and self-worth.

However, the other 3 self-motives did not play a role as mediators in the model. A possible explanation may be concerned with the experimental manipulation and the time frame. It could be that engaging in other-oriented activities on Facebook for 24 hours was not enough to evoke the sense of entitlement, grandiosity, or power for communal narcissists. Specifically, other-oriented activities included clicking like, sharing friends' status, and providing support to friends on Facebook. These activities may be able to deliver feelings of self-worth but may not be effective to activate the sense of grandiosity, entitlement, or power for communal narcissists. In addition, participants were asked to engage in tasks that may be inconsistent with their

normal behaviours on Facebook. Thus, it is possible that they may not have received desired feedback from their friends. Specifically, given that other people were likely to have provided comments and feedback on the participants' Facebook page, their friends or other people may have noticed the changes in participants' behaviours and commented, which may have influenced the self-motives. Further, participants were still allowed to contact with their friends offline and use other social media during the 24-hour manipulation. Thus, there might be other factors affecting the results.

In contrast, none of the four self-motives including self-esteem had a positive effect on affirmation of the ideal self for narcissists in Chapter 5. This may also due to the 5-minute manipulation, where participants had no chance to admire their photos or receive any potential feedback from others. Granted, this design was purposefully chosen to avoid the potentially confounding effects of other people's feedback in the previous chapters. The lack of findings for the self-esteem motive may reinforce the idea that communal narcissists may have received more positive feedback from their social network in the previous chapters after engaging in other-oriented tasks. Given that it is difficult to control other people's feedback, further research is needed to examine how the social network's actual reactions contribute to the self-motives.

Unexpectedly, power was a negative indicator in the model for communal narcissists. Specifically, communal narcissists in the selfie condition whose need for power was met reported less affirmation of the ideal self, compared to those whose need for power was not met. Moreover, power itself had a negative effect on affirmation of the ideal self. This is seemingly at odds with the hypothesis. However, this could be mainly due to the low reliability of the measurement as the alpha of the power scale was only .53. In addition, it could be that communal narcissists in Thailand may encounter some difficulties in finding balance between their motives. At some point, communal narcissists who are asked to post selfies may feel more powerful and superior to others. However, it was not their own decision to behave in a self-oriented manner, and given that their regulatory orientation is via the other-oriented route (Gebauer et al., 2012) and the self-effacing nature of the Thai society (Knutson, 2004), communal narcissists may also perceive that their selfie-posting will not help affirm their ideals from their social network. Future research may test this hypothesis.

One major confounding factor may be that self-motives were not evaluated before the manipulation. Therefore, the effects found in this thesis can be the effects of these four self-motives that already resided within the person, and were not affected by the experimental condition. For example, it could be that the mediating effect of self-esteem on Facebook affirmation among communal narcissists in other-focused condition may be the natural effect of self-esteem that led to positive outcomes such as affirmation of the ideal self, regardless of whether participants were assigned to engage in either self- or other-focused tasks. This initial speculation is supported by the findings that self-esteem led to life satisfaction but did not help communal narcissists who met their self-esteem needs become more satisfied with their lives. Future study may test this hypothesis by controlling pre-levels of the four self-motives before the manipulation.

**Affirmation of the ideal self on social media.** The benefits of social media (e.g., Facebook, Instagram, etc.) have already been examined for various domains of life, including maintaining existing relationships, establishing new relationships (Pempek et al., 2009), bridging social capital (Ellison et al., 2007), and exploring one's own self, and constructing an ideal self (Amichai-Hamburger, 2007; Amichai-Hamburger & Hayat, 2013; Siibak, 2009; Wu et al., 2015; Zhao et al., 2008). This thesis is the first attempt to examine the benefits of social media as being a platform for ideal self-development. Findings from this thesis which suggest that social media users, particularly its narcissistic users, can experience affirmation of the ideal self shed new light on the social media literature.

Given that social media has become an important tool for communication (Osterrieder, 2013), it has the potential to complement different parts of people's lives. This thesis provides additional knowledge that people can also experience affirmation of the ideal self and move towards their ideal selves through social media use. Findings are also in line with prior research that social media, particularly Facebook, enables self-expression (Amichai-Hamburger & Hayat, 2013) and self-presentation (Anderson et al., 2012). This may be explained by the distinct characteristics of social media. The absence of some nonverbal cues on social media may encourage users to reveal their hidden motives and personal aspirations (Bargh et al., 2002). Moreover, online interactions on social media have the potential for asynchronicity. That is, people can delay their feedback and respond to their network

at anytime they want, without the pressure of an instant response and reactions required in face-to-face interactions (Gackenbach & von Stackelberg, 2007). This may allow people to have more time to present their best image. Additionally, people have full control over their privacy and information within their social networks (Boyd & Ellison, 2008). For example, they can filter the contents, select whom they want to be friend with, or even delete the negative feedback from others on social media. In this regard, social media users may feel more confident to pursue their personal aspirations and act in ways that they cannot perform in offline settings (Seidman, 2014; Tosun, 2012; Zhao et al., 2008).

The above speculation is also supported by the findings in Chapter 2 which found that Thais reported greater movement towards the ideal self on Facebook than the British, regardless of their narcissism levels. Such findings seem to be congruent with the idea of compensatory behaviour. Compared to those in individualistic cultures, individuals residing in collectivistic cultures may be discouraged from expressing their personal aspirations, thoughts, feelings, and desires. As Facebook provides the freedom of expression and enables users to have high control over their content (Boyd & Ellisom, 2008), those who want to pursue their ideal self goals may feel more motivated to use Facebook to reach their ideal selves, regardless of their narcissism levels.

In general, the Thai society highly promotes the sense of social cohesion (Triandis, 2001). Thais are encouraged to meet the general needs of their interpersonal relationships rather than focusing on a certain aspects or insisting one's own standpoint (Knutson, 2004). Thus, they may have a strong motivation to use Facebook to project their ideal image and reach their ideal selves as they need not worry much about whether their behaviours would be violating social norms or whether their self-presentation would be inconsistent with their offline behaviours (Amichai-Hamburger & Hayat, 2013). In this regard, it is also possible that affirmation of the ideal self on social media may have high tendency to occur and benefit users in a restricted self-expression societies such as Thailand.

Findings from this thesis also extend ongoing research on the Michelangelo phenomenon. Given that most research on the Michelangelo phenomenon focuses on close relationships in the offline world (Drigotas et al., 1999; Kumashiro et al., 2007; Rusbult et al., 2005), this thesis provides new knowledge that affirmation of the ideal

self process may be able to operate on social media where relationships and interactions occur within a virtual environment. This has an important implication for future research that affirmation of the ideal self may apply to other types of relationships in other settings or other circumstances.

It is worth noting that there may be other things that can be driving the effect of social media on affirmation of the ideal self in Thailand. Research on the Michelangelo phenomenon suggests that affirmation of the ideal self is different from the concept of enhancement or verification (Rusbult et al., 2005). The original theory operationalised enhancement as positive feedback on normatively desirable traits and goals, whereas affirmation of the ideal self focuses on each individual's own desired traits and goals, irrespective of the social desirability of such traits or goals. Enhancing one another on socially desirable aspects that fall outside of the individual's own ideal self may not promote movement towards the ideal self. However, given that Thai society emphasises the sense of "we-ness" and promotes the groups' goal (Triandis, 2001), I speculate that ideal self of Thais may be in alignment with their ought self.

This idea is in line with recent research on values by Cheung, Maio, Rees, Kamble, and Mane (2016) which has suggested that the ideals serve as important self-guide in individualistic cultures whereas both oughts and ideals serve as important self-guide in collectivistic cultures. They found that people in collectivistic cultures endorsed central values as both ideals and oughts, indicating that both ideals and oughts may be equally predominant in collectivistic cultures. This suggests that there may not be much difference between ideal and ought self-presentation in collectivistic cultures. This proposition may be able to generalise to the Thai society where social obligation and duties are emphasised (Knutson, 2004). It can be that social standards which may be reflected through the oughts may influence Thai ideals. For example, they may learn from their childhood experience that social orientation is a normative attribute because it is highly valued in their society. Such experience may later affect their ideal attributes.

This initial speculation is also supported by results in Chapters 3 and 4 that other-oriented activities on Facebook helped communal narcissists experience Facebook affirmation. On the other hand, the findings may also be due to the nature of Facebook, which promotes reciprocity (Yoo & de Zúñiga, 2014). Presenting ideal

characteristics as being other-oriented on a platform where reciprocity is emphasised may provide greater opportunities for experiencing affirmation of the ideal self. Thus, future research may need to clarify the concept of ought self and ideal self in Thailand and examined whether it is the ideal self or ought self of users that has been affirmed. Additionally, it should examine this on different types of social media.

Given that social media has been found to help people reveal their true self, especially those who lack self-verification offline (Indian & Grieve, 2014), it could be that the effect of social media found in this thesis may be related to self-verification. Self-verification is primarily concerned with the desire to be known and receive evaluation from other people that is in line with the actual self (Chen, Chen, & Shaw, 2004). People may find Facebook as a platform for self-verification. Feelings arisen after engaging in other-focused activities on Facebook or after posting selfies on Instagram may be the pleasant feelings of having an actual self verified. Future research may test this hypothesis and differentiate affirmation of the ideal self from self-verification on social media.

**Personal well-being.** Even though it was expected that affirmation of the ideal self on social media such as Facebook and Instagram may enhance personal well-being, and a positive correlation between communal narcissism and life satisfaction via Facebook affirmation was found in the first study, later studies failed to replicate this effect. Chapters 4 and 5, which aimed to assess the potential outcomes (e.g., life satisfaction, positive affect) of affirmation of the ideal self on social media, found that neither Facebook nor Instagram affirmation of the ideal self enhanced life satisfaction or positive affect for narcissists. This raises the question of whether affirmation of the ideal self on social media can actually enhance personal well-being. It could be that these inconsistent findings may be due to the relative stability of the construct and the artificial nature of the experimental manipulation.

Unlike Chapter 2, which had examined participant's natural use of social media, participants in Chapters 3 and 4 were asked to report how they felt after a 24-hour experimental task. It could be that such a short interval may not be able to affect life satisfaction. Specifically, research has found that judgment of life satisfaction tend to be stable over time (Schimmack, Diener, & Oishi, 2002). Thus, changing behaviours within 24 hours may not cause changes in life satisfaction. Moreover, these studies did not examine what kind of feedback and reaction participants

received from their social network; it is possible that engaging in assigned tasks led to poor reactions from their social network, for some people.

Although Chapter 5 aimed to reduce such limitations by measuring immediate positive and negative affect, results again failed to show the effect of affirmation of the ideal self on Instagram on these outcomes. Another possible explanation may have to do with the experimental manipulation. It can be that the manipulation was not strong enough to induce mood changes. Further, it can also be that a 5-minute manipulation, without the benefit of receiving any kind of feedback from their social network, was not long enough to induce mood changes. Therefore, these inconsistent findings require replication with other measurements and different manipulation or examination of natural behaviours.

### **Research strengths**

This thesis makes a contribution to research on narcissism and social media. Findings from four studies show a potential benefit of social media as a platform for ideal self achievement, particularly among narcissists. Specifically, this thesis also fills the research gap on narcissism in Thailand, which has been understudied.

The present thesis is the first attempt to propose the model of Facebook affirmation which suggests that individuals can experience affirmation of the ideal self on Facebook and potentially come closer to their ideal selves. Additionally, the model has also been expanded to Instagram, another social media platform. This suggests that the model can also apply to other types of social media.

The model itself has a clear theoretical perspective based on the Michelangelo phenomenon model (Drigotas et al., 1999; Rusbult et al., 2005) which asserts that receiving consistent affirmation of the ideal self over time from significant others help individuals move towards their ideal selves, leading to a greater personal well-being. Although previous research mainly focused on an offline close relationship (Kumashiro et al., 2007; Righetti et al., 2010), the Facebook affirmation model posits that such affirmation of the ideal self process can also occur through online interactions on social media. Findings from this thesis offer support for the proposed model and also expand the knowledge of affirmation of the ideal self.

Moreover, the presence of multiple studies strengthens the support for the affirmation hypothesis and suggests that the findings can be generalised to a wider

population. For example, the model was first tested in both Thailand and the UK. Importantly, each study also mostly replicated the findings of the previous study and revealed that different social media platforms and activities may differentially help agentic and communal narcissists experience affirmation of the ideal self. Therefore, the findings together point to a strong conceptual framework, with identification of important moderators.

Given that three out of four studies in this thesis used a quasi-experimental research design to test the model, they allow researchers to have a clearer picture of what can be a potential cause of affirmation of the ideal self on social media. Specifically, the use of pretest-posttest design in Chapters 3-5 indicate that the cognitive and behavioural strategies adopted by narcissists (such as engaging in self- or other-oriented task on Facebook in Chapters 3 and 4) led to experiences of affirmation.

Another strength in this thesis is concerned with the experimental manipulation in Chapter 5 which examined the role of selfie-posting on Instagram. The post-test session was measured immediately after the manipulation, helping eliminate the confounding factors (e.g., feedback from others) which may affect the results. Posting of the pictures on actual Instagram accounts is likely to have led participants to anticipate potential reactions from their social network. Further, the manipulation check was not based on self-report measure but assessing actual behaviours of participants. That is, photos that participants were required to take and post on their Instagram were checked to ensure that participants followed the instructions. Thus, findings from this thesis are sufficiently reliable.

Lastly and importantly, this thesis examined affirmation of the ideal self on social media for both agentic and communal narcissism. Not many studies at the present time have investigated or differentiated agentic from communal narcissism. Thus, this thesis also provides additional support for the hypothesis that agentic and communal narcissists benefit and experience affirmation of the ideal self on social media in a distinct way. In addition to the main research purposes, findings from this thesis also help researchers understand more about agentic and communal narcissism in Thailand. It appears that communal narcissists in Thailand may benefit more than agentic narcissist from using social media such as Facebook. It also suggests that communal narcissists may be better able to adapt to social obligation and duties

emphasised in collectivistic cultures such as Thailand to seek admiration and become closer to their ideals. Future research may test this hypothesis both offline and online.

### **Limitations and future directions**

**Sample.** Although the present thesis contributes to the literature on narcissism, affirmation of the ideal self, and social media use, there are some limitations related to the sample. Specifically, samples in the present thesis were primarily Thais. Even though a cross-cultural correlational study was conducted in Chapter 2 to test whether Facebook affirmation process occurred across cultures, samples were small and only from Thailand and the UK. Therefore, the findings may not be able to generalise to the broader population across the world. This is especially the case for agentic narcissism, as the average NPI score in the present experiment was as much lower than that in the USA, Europe, and the Middle East (Foster et al., 2003), suggesting that Thais agentic narcissists were not a good representative of agentic narcissists. Moreover, cultural differences examined in Chapter 2 were differentiated based on participants' nationality, and individualism and collectivism at the individual level were not examined. Consequently, results may not reflect within-person cultural variation. Thus, future research should replicate the study and investigate cultural variation at both the individual and national levels.

Further, samples in this thesis were female, young, and well-educated, who attended some of the best universities in Thailand. In addition, most of them were living in Bangkok, the capital city of Thailand. Therefore, results from this thesis may not be able to generalise to older, uneducated, or male samples in the rural communities, even in Thailand. Hence, an additional research with samples with various backgrounds should be conducted to replicate the study and improve generalisability.

**Measurement.** Another limitation in the present thesis is due to the measurement issues. The low reliability in several measures may affect the results. These include the low reliability of Facebook affirmation scale in the pre-test session in Chapter 3 and the sense of power scale in Chapter 5. It could be that some measurements could not be translated properly. This idea is supported by prior research which suggests that certain words in English may not have direct equivalent meanings in another language (He & van de Vijver, 2012). In addition, response

modes of the scale may also affect the scores on target measures. It could be that Thais may not be familiar with the forced-choice format of the NPI-40, resulting in no effects of agentic narcissism in Chapters 2-4.

It is also worth noting that this thesis mainly used an actual and ideal self closeness scale to measure movement towards the ideal self on Facebook and Instagram. Even though the pre-levels of actual and ideal self were controlled to identify the effect on the post-levels, the scale itself may not truly reflect the changes in moving closer to the ideal self after the manipulation. Therefore, future research may replicate the study and use other measurements to assess movement towards the ideal self.

Furthermore, it is important to note that levels of Facebook affirmation and Facebook movement towards the ideal self were mainly based on participants' own perception. The notion that participants may overestimate their Facebook affirmation or movement towards the ideal self can be confounding factors. Therefore, future research with a dyadic approach may reduce such potential bias. This may include having a close friend on Facebook as an observer to report participants' levels of movement towards the ideal self and compare observers' evaluation with participants' evaluation.

**Experimental manipulation.** The experimental manipulation appeared to be effective based on the manipulation check items, but they were still based on self-report measures. Participants were asked to indicate the number of times they engaged in self- and other-focused activities in Chapters 3 and 4. Thus, it is possible that participants may forget, underestimate, or overestimate their self- or other-focused behaviour during the manipulation. At first, I attempted to access each participant's behaviours on Facebook during the manipulation by asking participants to download a copy of their Facebook data and send it to me as part of the experiment. However, this technique can also be very sensitive in terms of privacy because the downloaded Facebook data includes all details which are not directly relevant to the manipulation. As a result, self-report measure was the only assessment for manipulation check in Chapters 3 and 4. Nevertheless, such errors can be reduced if future research can employ other objective measurements for manipulation check and strictly keep the privacy of each participant at the same time.

In addition, the interval between the experimental manipulation and assessing affirmation of the ideal self in post-test session may also affect the results. In Chapters 3 and 4, participants were allowed to engage in self- or other-focused activities based on their assigned task for only 24 hours. Participants in Chapter 5 were asked to post 5 photos on their Instagram according to their assigned condition and report how they felt immediately afterwards. Such limited amount of time for the manipulation may not long enough to change participants' tendency to move closer to their ideal selves or life satisfaction. This might be the reason why experimental manipulation did not affect movement towards the ideal self, life satisfaction, and positive-negative affect in Chapters 3-5. Therefore, researchers who aim to replicate these studies may need to consider how much time the manipulation should be so that it can have an impact on participants' movement towards the ideal self or other outcomes.

Importantly, the manipulation in this thesis does not reflect real life behaviours. Participants were asked to engage in some activities which are likely not similar to their normal activities. This may have lead to discomfort in not being able to behave naturally. Specifically, other people may have noticed the changes in their behaviours and may not have provided desirable feedback or questioned why they were acting strangely. Thus, future research may also evaluate the natural levels of self- and other-orientation and examine whether they affect the process.

**Evolution of social media.** Given the rise in the number of social media nowadays, there has been a rapid migration from one platform to another (Torkjazi et al., 2009). The fall of MySpace and the rise of Facebook may be a good example that research on social media also needs to be updated constantly. For example, this thesis was conducted in 2013-2015 when Facebook only had 'like' button. Therefore, other-focused manipulation in Chapters 3-4 was based on clicking like, sharing status, and providing supportive comments. However, Facebook has just launched 5 new emoticons of love, haha, wow, sad, and angry, to help users express their emotions. Such changes may affect the results in this thesis in terms of generalisability. Findings from this thesis may no longer be reliable in the next 5 or 10 years. Thus, future research may also need to consider the rapid changes in social media use and find ways to predict its effects based on its core functions.

Moreover, the time this thesis was conducted was also affected by a serious social crisis in Thailand. Since there have been political changes in Thailand for the

past decade, it is likely that Thais are more motivated to use Facebook to express their political views or keep themselves updated about the political situation (Carthew, 2010). In this regard, it may have caused frustrations with having to engage in either self- or oriented activities during the crisis. In fact, some of the studies were timed to allow sufficient time to pass after a political event (e.g., a period of large demonstrations and strikes near the city center). However, these limitations can be lessened if a replication study will be conducted in the future.

The mixed findings on the association between agentic narcissism and affirmation of the ideal self on Facebook and Instagram also need to be clarified. Findings which showed that agentic narcissism played a role on affirmation of the ideal self on Instagram, but not on Facebook, require further investigation and comparison. Even though the present thesis provides a possible explanation that Instagram may have features that better serve agentic narcissists rather than Facebook, more empirical studies are still needed. Therefore, future research may investigate whether the affirmation of the ideal self process can occur on other social media platforms such as Twitter, Pinterest, or Snapchat. Specifically, future study may directly compare the benefits of Facebook and Instagram use in for both agentic and communal narcissists. This should include the amount of time they spend, the number of friends or followers they have, and also the sense of grandiosity, superiority, and power each social media can provide to them. In addition, other personality types may also be examined to test whether such process can be beneficial to a larger group of social media users or if other self processes contribute to the effect.

## **Implications**

**Ongoing research on narcissism and social media.** Given that there have not been studies examining the associations between both types of narcissism and social media use, this thesis contributes a new perspective that it may be necessary to investigate and differentiate the benefits of social media use between agentic and communal narcissists. Specifically, findings in this thesis have shown that agentic and communal narcissists gain benefits from different social media platforms under different circumstances.

Moreover, this thesis also demonstrates that the benefits of social media are not limited to connecting with friends or strangers (Boyd & Ellison, 2008; Manago et

al., 2012) or providing social support (Amado & Amador, 2014; Pempek et al., 2009; Olson et al., 2012), as previously shown in the literature. This has implication for social media research to point out other benefits of social media use and examine ways to make the most of using social media.

Importantly, this thesis also provides new ideas for research on narcissism and social media use in Thailand and in similar cultures. Specifically, given that the concept of narcissism in collectivistic cultures such as Thailand is understudied, this thesis may clarify and help researchers understand more about narcissism in Thailand, especially the differences between agentic and communal narcissism in the Thai culture. In turn, findings of this thesis could help researchers in other understudied collectivistic cultures like Thailand.

Even though self-esteem in this thesis was mainly investigated at the state level, future search may also examine the role of self-esteem as a personality trait that works closely together with narcissism. Specifically, prior research has found that various positive outcomes for narcissists were based on their high self-esteem. Without the buffering effect of self-esteem, the effects of narcissism by itself are often associated with negative behaviours (Baumeister et al., 2000; Horton & Sedikides, 2009; Morf & Rhodewalt, 2001; Vazire & Funder, 2006). Thus, future research may investigate whether narcissism can still play a role in the model when natural levels of self-esteem are taken into account.

**Promoting movement towards ideal self and personal well-being.** Even though there were inconsistent findings that social media such as Facebook and Instagram may or may not help narcissists move closer to their ideal selves and enhance personal well-being, this thesis still shows a potential positive outcomes from using social media to experience affirmation of the ideal self. Therefore, it can be beneficial to use Facebook as a practice-based platform for expressing or pursuing ideal self goals. Facebook is a semi-anonymous social media (Gil-Or et al., 2015; Zhao et al., 2008). The lack of actual face to face contact on Facebook may facilitate people who have difficulties exhibiting their personal aspirations in real life (e.g., people with anxiety, people in a collectivistic culture, etc.) to try achieving such goals without worrying about their actual physical appearance or the negative feedback they may attain. This is because people have a full control over their contents and privacy (Boyd & Ellison, 2008). Importantly, most people befriend with their offline friends

and are more likely to interact with people they know offline (Gil-Or et al., 2015). Pursuing and achieving ideal self goals on Facebook may enhance the possibility of pursuing and achieving such goals in real life.

Even though Facebook affirmation did not appear to enhance personal well-being among narcissists in majority of the studies, a positive association between Facebook affirmation and personal well-being found in the correlational study still suggests that social media such as Facebook may have a potential to help its users feel satisfied with their lives.

In fact, Facebook may be used to promote well-being. For example, in 2011, the charity Samaritans announced the suicidal prevention on Facebook to encourage Facebook users across the UK to spot people who may have a tendency of committing suicide and provide support to those people (Horton, 2011). In addition, in March 2016, the University of Leicester researchers also launched a project which aims to understand how adolescents use social media to develop an intervention to promote well-being among young people through the use of social media. Similar to these campaigns, practitioners and public health officials may want to create a new campaign that promotes personal well-being through the social media affirmation process. It can be in form of a Facebook group or Facebook page in collaboration with schools, universities, institutions, or organisations created to establish a friendly and supportive environment for students, workers, or anyone who may be struggling to pursue their ideal self goal.

For educational institutions, the Facebook affirmation model may be used as an implication process for improving academic well-being for students. Students may be encouraged to use Facebook in a constructive way to promote and support each others' ideal self. The programme can monitor students' development and aid students to reach their ideal self goals. Specifically, an instant messenger application on Facebook may be used to provide supportive comment directly and privately so that students who may have difficulties expressing their own aspirations would feel less anxious and be more confident for ideal goal achievement. Similarly, workers in any organisation may use Facebook to reach their full potential under Facebook affirmation process. With such supportive and affirmative environment for ideal self achievement, students or workers may be able to achieve their ideal self goals and have a greater personal and academic/workplace well-being. This in turn may enhance

the commitment for the ideal goal attainment, facilitate productivity, and increase performance.

Importantly, activities on Facebook to be promoted should suite or match people's disposition. Since Facebook was found to be beneficial for communal narcissists, but not agentic narcissists, Facebook may suit people with other-oriented approach. Therefore, if Facebook affirmation process is promoted, other-focused activities on Facebook should mainly be employed in the process in order to facilitate movement towards the ideal self.

**Commercial benefits.** Findings from the present thesis also have an implication for industries. Companies that aim to advertise their products on social media may consider narcissistic personality of their targets and create an advertisement that has a potential to attract their target effectively. Given that narcissists were found to have excessive need for ideal self fulfilment (Sedikides et al., 2007), they may be particularly drawn to advertisements which would help them become closer to their ideal selves. In particular, they may be more motivated to click Facebook or Instagram advertisement that can help them move closer to their ideal selves of being powerful and admired. This may include advertisements with celebrity endorsement which they can identify with high-status people (Sedikides et al., 2007).

It is essential to note that the results in this thesis showed that agentic and communal narcissists who adopted different strategies received different outcomes on social media. Agentic narcissists who use agentic approach to pursue their goals (Gebauer et al., 2012) may find advertisements that present their individuality and superiority in the agentic dimension attractive. On the other hand, communal narcissists who employ communal strategy for goal attainment may prefer advertisements that present their communal side while being able to maintain outstanding.

## **Conclusion**

In brief, the present thesis introduces novel concept of affirmation of the ideal self on social media by proposing that narcissists can experience affirmation of the ideal self and move closer to their ideal selves on social media, particularly when their cognitive and behavioural strategies match their disposition. It was primarily designed to test a model of affirmation of the ideal self on social media among narcissists in

Thailand. In general, findings provide supportive evidence that Facebook can operate as a platform where communal narcissistic users can feel their best and become closer to their ideals. Importantly, satisfaction of the need for self-esteem was found to partially affect this process. In addition to Facebook, affirmation of the ideal self process was also found to operate on Instagram. Specifically, agentic narcissists have a high likelihood of attaining affirmation of the ideal self through selfie-posting. This suggests that whether agentic and communal narcissists will benefit most from using social media to experience affirmation of the ideal self and move towards their ideal self depends on the activities they engage and the types of social media they use. Nevertheless, it would be beneficial for future research to examine the role of affirmation of the ideal self on social media in other contexts with other personality traits. To date, the positive outcomes of social media use have been overlooked by a large number of researchers. Findings from this thesis present an alternative perspective that social media may have a large potential for personal growth and development.

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## Appendix A

### Scales used in Chapter 2

#### **Communal Narcissism Inventory**

People have all kinds of private thoughts about themselves. From person to person, these self-thoughts can vary quite a lot in content. We are interested in the sort of self-thoughts you possess. Below you will find a list of self-thoughts you may have. For each self-thought, please indicate whether you have this or a similar thought (1 = strongly disagree 7 = strongly agree).

1. I am the most helpful person I know.
2. I am going to bring peace and justice to the world.
3. I am the best friend someone can have.
4. I will be well known for the good deeds I will have done.
5. I am (going to be) the best parent on this planet.
6. I am the most caring person in my social surrounding.
7. In the future I will be well known for solving the world's problems.
8. I greatly enrich others' lives.
9. I will bring freedom to the people.
10. I am an amazing listener.
11. I will be able to solve world poverty.
12. I have a very positive influence on others.
13. I am generally the most understanding person.
14. I'll make the world a much more beautiful place.
15. I am extraordinarily trustworthy.
16. I will be famous for increasing people's well-being.

### **Narcissistic Personality Inventory (NPI-13)**

In each of the following pairs of attitudes, choose the one that you MOST AGREE with. Mark your answer by writing EITHER A or B in the space provided. Only mark ONE ANSWER for each attitude pair, and please DO NOT skip any items.

1.     A. I find it easy to manipulate people.  
       B. I don't like it when I find myself manipulating people.
2.     A. When people compliment me I get embarrassed.  
       B. I know that I am a good person because everybody keeps telling me so.
3.     A. I like having authority over other people.  
       B. I don't mind following orders.
4.     A. I insist upon getting the respect that is due me.  
       B. I usually get the respect I deserve.
5.     A. I don't particularly like to show off my body.  
       B. I like to show off my body.
6.     A. I have a strong will to power.  
       B. Power for its own sake doesn't interest me.
7.     A. I expect a great deal from other people.  
       B. I like to do things for other people.
8.     A. My body is nothing special.  
       B. I like to look at my body.
9.     A. Being in authority doesn't mean much to me.  
       B. People always seem to recognize my authority.
10.    A. I will never be satisfied until I get all that I deserve.  
       B. I will take my satisfactions as they come.
11.    A. I try not to be a show off.  
       B. I will usually show off if I get the chance.
12.    A. I am a born leader.  
       B. Leadership is a quality that takes a long time to develop.
13.    A. I like to look at myself in the mirror.  
       B. I am not particularly interested in looking at myself in the mirror.

### **Narcissistic Personality Inventory (NPI-40)**

In each of the following pairs of attitudes, choose the one that you MOST AGREE with. Mark your answer by writing EITHER A or B in the space provided. Only mark ONE ANSWER for each attitude pair, and please DO NOT skip any items.

1. A I have a natural talent for influencing people.  
B I am not good at influencing people.
2. A Modesty doesn't become me.  
B I am essentially a modest person.
3. A I would do almost anything on a dare.  
B I tend to be a fairly cautious person.
4. A When people compliment me I get embarrassed.  
B I know that I am a good person because everybody keeps telling me so.
5. A The thought of ruling the world frightens the hell out of me.  
B If I ruled the world it would be a better place.
6. A I can usually talk my way out of anything.  
B I try to accept the consequences of my behavior.
7. A I prefer to blend in with the crowd.  
B I like to be the center of attention.
8. A I will be a success.  
B I am not too concerned about success.
9. A I am no better or no worse than most people.  
B I think I am a special person.
10. A I am not sure if I would make a good leader.  
B I see myself as a good leader.
11. A I am assertive.  
B I wish I were more assertive.
12. A I like having authority over other people.  
B I don't mind following orders.
13. A I find it easy to manipulate people.  
B I don't like it when I find myself manipulating people.
14. A I insist upon getting the respect that is due me.  
B I usually get the respect I deserve.
15. A I don't particularly like to show off my body.  
B I like to show off my body.
16. A I can read people like a book.  
B People are sometimes hard to understand.
17. A If I feel competent I am willing to take responsibility for making decisions.  
B I like to take responsibility for making decisions.
18. A I just want to be reasonably happy.  
B I want to amount to something in the eyes of the world.
19. A My body is nothing special.  
B I like to look at my body.
20. A I try not to be a show off.  
B I will usually show off if I get the chance.
21. A I always know what I am doing.  
B Sometimes I am not sure what I am doing.

22. A I sometimes depend on people to get things done.  
B I rarely depend on anyone else to get things done.
23. A Sometimes I tell good stories.  
B Everybody likes to hear my stories.
24. A I expect a great deal from other people.  
B I like to do things for other people.
25. A I will never be satisfied until I get all that I deserve.  
B I will take my satisfactions as they come.
26. A Compliments embarrass me.  
B I like to be complimented.
27. A I have a strong will to power.  
B Power for its own sake doesn't interest me.
28. A I don't care about new fads and fashion.  
B I like to start new fads and fashion.
29. A I like to look at myself in the mirror.  
B I am not particularly interested in looking at myself in the mirror.
30. A I really like to be the center of attention.  
B It makes me uncomfortable to be the center of attention.
31. A I can live my life anyway I want to.  
B People can't always live their lives in terms of what they want.
32. A Being in authority doesn't mean much to me.  
B People always seem to recognize my authority.
33. A I would prefer to be a leader.  
B It makes little difference to me whether I am a leader or not.
34. A I am going to be a great person.  
B I hope I am going to be successful.
35. A People sometimes believe what I tell them.  
B I can make anyone believe anything I want them to.
36. A I am a born leader.  
B Leadership is a quality that takes a long time to develop.
37. A I wish someone would someday write my biography.  
B I don't like people to pry into my life for any reason.
38. A I get upset when people don't notice how I look when I go out in public.  
B I don't mind blending into the crowd when I go out in public.
39. A I am more capable than other people.  
B There is a lot I can learn from other people.
40. A I am much like everybody else.  
B I am an extraordinary person.

*Note.* This scale was used in Chapters 3-5.

### Facebook / Instagram affirmation scale

To what extent do you agree in general with each of the following statements about Facebook? Please think about activities and interaction when you have on Facebook during answering in each statement (1 = strongly disagree 7 = strongly agree).

When I'm on Facebook/ Instagram,...

1. I feel free to display the kind of person I ideally want to become.
2. Others seem to regard me as the kind of person I really do not wish to be.
3. I feel that people perceive me as kind of the person I really wish to become.
4. I feel pressured to put on a false front that does not represent my ideals.
5. Other people treat me like the kind of person I aspire to become.
6. I often feel misunderstood in my attempts to present the best side of me.
7. Other people believe in my potential to achieve my most important goals and aspirations.
8. I feel restricted in showing the kind of person I'm capable of becoming.

*Note.* Either Facebook or Instagram was used, depending on the chapter.

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### Facebook movement towards the ideal self scale

For each of these domains, indicate whether you've changed as a result of your Facebook usage. Please use the following scale to record an answer for each domain listed below.

-3	-2	-1	0	1	2	3
I Have Moved Further From My Ideal Self			I Have No Change			I Have Moved Closer To My Ideal Self

- 1) Values/Identity goals (e.g., helps me live up to important values in my life, helps me identify/strengthen my identity concerns)
- 2) Relationship goals (e.g., have a good network of friends, meet a romantic partner, be a better parent)
- 3) Desired personal traits (e.g., become kinder to people, feel more attractive, become more assertive)
- 4) Hobbies and interests (e.g., sports, travel, music, art, politics, etc.)
- 5) Overall ideal self (i.e., all of the above combined)

*Note.* This scale was used in Chapter 2 only.

### Actual and ideal self closeness scale on Facebook/Instagram

Please think about your actual self (what you actually like) and your overall ideal self (the person you ideally aspire to be). Think about what you're like when you're on Facebook/ Instagram. The following set of circles portray how close your actual self is to your ideal self, where the circle on the left represents your actual self and the one on the right represents your ideal self. If your actual and ideal selves do not overlap at all, select the first set of circles (1); if your actual and ideal selves are the same, select the last set (9).

Please circle the picture that best represents what you are like when you are on Facebook/ Instagram.



| Actual/ideal |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1            | 2            | 3            | 4            | 5            | 6            | 7            | 8            | 9            |

*Note.* Either Facebook or Instagram was used, depending on the chapter.

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### Satisfaction With Life Scale (SWLS)

*Instruction used in Chapter 2.* How satisfied are you with your life in general at present?

Please use the following scale to record an answer for each statement listed below (1 = strongly disagree 7 = strongly agree).

*Instruction used in Chapter 4.* Please think about your Facebook behaviour during the past 24 hours and use the following scale to record an answer for each statement listed below (1 = strongly disagree 7 = strongly agree).

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

## Manipulation check questions used in Chapter 3 and 4

Before manipulation	After manipulation
To what extent do you typically, ... (1 = not at all 7 = always)	Please think about your Facebook behaviour during the past 24 hours and answer the following questions
1 edit profile picture	1 How many times did you edit your profile picture?
2 accept anyone as new friends on Facebook	2 How many times did you accept anyone as new friends on Facebook?
3 engage in friending someone on Facebook	3 How many times did you friend someone on Facebook?
4 send a message to your friends on Facebook	4 How many times did you send a message to your friends on Facebook?
5 chat (real time chat) with your friends on Facebook	5 To what extent did you chat (real time chat) with your friends on Facebook?
6 update your Facebook status about your latest activity	6 Did you tell your friends about the instructions you received for this experiment?
7 talk about your own feeling and opinion on Facebook	7 How many minutes did you log in your Facebook account?
8 comment on your friends' status and give them support	8 How many times did you update your Facebook status about your latest activity?
9 click like on your friends' status	9 How many times did you talk about your own feeling and opinion on Facebook?
10 share your friends' status	10 How many times did you comment your friends' status and give them support?
11 feel that your Facebook page and activities represent your own feeling, attitude, and identity	11 How many times did you click like on your friends' status?
12 feel that your Facebook page and activities show that you care about other people	12 How many times did you share your friends' status?
	13 To what extent did your Facebook page and activities represent your own feeling, attitude, and identity?
	14 To what extent did your Facebook page and activities show that you care about other people?
	15 To what extent did you follow the instruction that you received?
	16 How often did you communicate with your friends outside of Facebook (e.g., in person, SMS, email, phone, etc.)
	17 Would you say that your communication with your friends outside of Facebook was more or less than usual?
	18 Would you say that your communication with your friends using Facebook was more or less than usual?

*Note.* Items 1, 6, and 7 before manipulation questions and items 1, 8, and 9 after manipulation questions are self-focused activities. Activities in items 8, 9, and 10 before manipulation questions and items 10, 11, and 12 after manipulation questions are other-focused activities as instructed in the experiment.

## Additional scales used in Chapter 4

### **Rosenberg's Self-Esteem Scale (RSES)**

*Instruction used in Chapter 4.* Below is a list of statements dealing with your general feelings about yourself. Please think about your Facebook behaviour during the past 24 hours and indicate how strongly you agree or disagree with each statement (1 = strongly disagree 7 = strongly agree).

*Instruction used in Chapter 5.* Below is a list of statements dealing with your general feelings about yourself at the moment. Please indicate how strongly you agree or disagree with each statement (1 = strongly disagree 7 = strongly agree).

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

### **Narcissistic Grandiosity Scale (NGS)**

*Instruction used in Chapter 4.* This scale consists of a number of words and phrases that describe different personal qualities. Read each item and then circle the appropriate answer. Please think about your Facebook behaviour during the past 24 hours and indicate to what extent you feel this way during the past 24 hours. Use the following scale to record your answers. (1 = not at all 7 = extremely).

*Instruction used in Chapter 5.* This scale consists of a number of words and phrases that describe different personal qualities. Read each item and then circle the appropriate answer. Please indicate to what extent you feel this way at the moment. Use the following scale to record your answers. (1 = not at all 7 = extremely).

- |                  |                  |                 |               |
|------------------|------------------|-----------------|---------------|
| 1. Perfect       | 5. Omnipotent    | 9. Prestigious  | 13. Brilliant |
| 2. Extraordinary | 6. Unrivalled    | 10. Acclaimed   | 14. Dominant  |
| 3. Superior      | 7. Authoritative | 11. Prominent   | 15. Envied    |
| 4. Heroic        | 8. Glorious      | 12. High-Status | 16. Powerful  |

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### **Psychological Entitlement Scale (PES)**

*Instruction used in Chapter 4.* Please think about your Facebook behaviour during the past 24 hours and respond to the following items using the number that best reflects your own beliefs. Please use the following 7-point scale (1 = strong disagreement. 7 = strong agreement).

*Instruction used in Chapter 5.* Please respond to the following items using the number that best reflects your own beliefs at the moment. Please use the following 7-point scale (1 = strong disagreement 7 = strong agreement).

1. I honestly feel I'm just more deserving than others.
2. Great things should come to me.
3. If I were on the Titanic, I would deserve to be on the *first* lifeboat!
4. I demand the best because I'm worth it.
5. I do not necessarily deserve special treatment.
6. I deserve more things in my life.
7. People like me deserve an extra break now and then.
8. Things should go my way.
9. I feel entitled to more of everything.

### **Sense of Power Scale**

In rating each of the items below, please use the following scale (1 = strongly disagree 7 = strongly agree).

*Instruction used in Chapter 4.* Please think about your Facebook behaviour during the past 24 hours and indicate to what extent you feel this way during the past 24 hours.

#### When I am on Facebook/ Instagram...

- \_\_\_\_\_ 1. I can get him/her/them to listen to what I say.
- \_\_\_\_\_ 2. My wishes do not carry much weight.
- \_\_\_\_\_ 3. I can get him/her/them to do what I want.
- \_\_\_\_\_ 4. Even if I voice them, my views have little sway.
- \_\_\_\_\_ 5. I think I have a great deal of power.
- \_\_\_\_\_ 6. My ideas and opinions are often ignored.
- \_\_\_\_\_ 7. Even when I try, I am not able to get my way.
- \_\_\_\_\_ 8. If I want to, I get to make the decisions.

*Note.* Either Facebook or Instagram was used, depending on the chapter.

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#### Additional scales used in Chapter 5

### **Positive Affect and Negative Affect Schedule (PANAS)**

This scale consists of a number of words that describe different feelings and emotions.

Read each item and then list the number from the scale below next to each word.

Indicate to what extent you feel this way right now. (1 = not at all 7 = extremely)

- |               |                 |                |
|---------------|-----------------|----------------|
| 1. Interested | 8. Hostile      | 15. Nervous    |
| 2. Distressed | 9. Enthusiastic | 16. Determined |
| 3. Excited    | 10. Proud       | 17. Attentive  |
| 4. Upset      | 11. Irritable   | 18. Jittery    |
| 5. Strong     | 12. Alert       | 19. Active     |
| 6. Guilty     | 13. Ashamed     | 20. Afraid     |
| 7. Scared     | 14. Inspired    |                |
-

### **Instagram use questions**

Please think about your normal activities on Instagram and answer the questions below. (1 = not at all 7 = always).

To what extent do you typically, ...

1. post photos of yourself (without other people) on Instagram?
2. post photos of you and your friends (in the same photo) on Instagram?
3. post photos of your friends (without you) on Instagram?
4. post photos of other people (without you or your friends) on Instagram?
5. post photos of furniture (without people) on Instagram?
6. post photos of scenery, inanimate objects or pets (without people) on Instagram?
7. comment on your friends or other people's Instagram photos?
8. click/ like your friends or other people's Instagram photos?

## Appendix B

### Additional analysis in Chapter 4

Table 1

*Moderated mediation analysis without self-motives*

Moderated mediation of association	$\beta$	95% CI	S.E.	<i>t</i>
<i>Predicting Facebook affirmation:</i>				
<b>Moderating effect</b>				
NPI X condition -> Facebook affirmation	.00	[-0.14, 0.14]	0.09	-0.03
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NPI X condition -> Facebook affirmation -> Facebook movement towards ideal self	.00	[-0.04, 0.04]	0.02	-0.03
<b>Total effect</b>				
NPI X condition -> Facebook movement towards ideal self	.10	[-0.02, 0.23]	0.08	1.34
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NPI X condition -> Facebook affirmation -> SWLS	.00	[-0.05, 0.05]	0.03	-0.03
NPI X condition -> Facebook movement towards ideal self -> SWLS	.03	[-0.01, 0.07]	0.02	1.10
NPI X condition -> Facebook affirmation -> Facebook movement towards ideal self -> SWLS	.00	[-0.01, 0.01]	0.01	-0.03
<b>Total effect</b>				
NPI X condition -> SWLS	.19	[-0.01, 0.38]	0.11	1.72

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); SWLS = satisfaction with life scale; CI = confidence interval. S.E. = standard error.

Table 2  
*Moderated mediation analysis with self-esteem*

Moderated mediation of association	$\beta$	95%CI	S.E.	<i>t</i>
<i>Predicting self-esteem</i>				
<b>Moderating effect</b>				
NPI X condition -> RSES	.08	[-0.13, 0.29]	0.13	0.63
<i>Predicting Facebook affirmation:</i>				
<b>Indirect effect</b>				
NPI X condition -> RSES -> Facebook affirmation	.03	[-0.02, 0.09]	0.05	0.62
<b>Total effect</b>				
NPI X condition -> Facebook affirmation	.00	[-0.14, 0.14]	0.08	-0.40
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NPI X condition -> RSES -> Facebook movement towards ideal self	.00	[-0.02, 0.02]	0.01	0.10
<b>Total effect</b>				
NPI X condition -> Facebook movement towards ideal self	.10	[-0.02, 0.23]	0.08	1.34
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NPI X condition -> RSES-> SWLS	.03	[-0.05, 0.12]	0.05	0.61
<b>Total effect</b>				
NPI X condition -> SWLS	.19	[0.00, 0.38]	0.11	1.72

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); RSES = Rosenberg's self-esteem scale; SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error.

Table 3  
*Moderated mediation analysis with entitlement*

Moderated mediation of association	$\beta$	95%CI	S.E.	<i>t</i>
<i>Predicting entitlement:</i>				
<b>Moderating effect</b>				
NPI X condition -> PES	.04	[-0.11, 0.20]	0.09	0.44
<i>Predicting Facebook affirmation:</i>				
<b>Indirect effect</b>				
NPI X condition -> PES -> Facebook affirmation	.00	[-0.01, 0.01]	0.01	0.17
<b>Total effect</b>				
NPI X condition -> Facebook affirmation	-.00	[-0.14, 0.14]	0.09	-0.03
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NPI X condition -> PES -> Facebook movement towards ideal self	.00	[-0.01, 0.01]	.01	0.08
<b>Total effect</b>				
NPI X condition -> Facebook movement towards ideal self	.10	[-0.02, 0.23]	0.08	1.37
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NPI X condition -> PES -> SWLS	.00	[-0.02, 0.01]	0.01	0.20
<b>Total effect</b>				
NPI X condition -> SWLS	.19	[0.00, 0.38]	0.11	1.72

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); PES = psychological entitlement scale; SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error.

Table 4

*Moderated mediation analysis with grandiosity*

Moderated mediation of association	$\beta$	95%CI	S.E.	<i>t</i>
<i>Predicting grandiosity:</i>				
<b>Moderating effect</b>				
NPI X condition -> NGS	.14	[-0.03, 0.32]	0.11	1.34
<i>Predicting Facebook affirmation:</i>				
<b>Indirect effect</b>				
NPI X condition -> NGS -> Facebook affirmation	.04	[-0.02, 0.10]	0.04	1.14
<b>Total effect</b>				
NPI X condition -> Facebook affirmation	-.00	[-0.14, 0.14]	0.09	-0.02
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NPI X condition -> NGS -> Facebook movement towards ideal self	.02	[-0.02, 0.06]	0.02	0.83
<b>Total effect</b>				
NPI X condition -> Facebook movement towards ideal self	.10	[-0.02, 0.23]	0.08	1.35
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NPI X condition -> NGS -> SWLS	.03	[-0.02, 0.08]	0.03	1.15
<b>Total effect</b>				
NPI X condition -> SWLS	.19	[0.00, 0.38]	0.11	1.74

*Note.* Values in the table are standardised regression coefficients. NPI = narcissistic personality inventory; Condition = experimental condition (0 = self-focus, 1 = other-focus); NGS = narcissistic grandiosity scale; SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error.

Table 5  
*Moderated mediation analysis with power*

Moderated mediation of association	$\beta$	95%CI	S.E.	<i>t</i>
<i>Predicting power:</i>				
<b>Moderating effect</b>				
NPI X condition -> power	.03	[-0.13, 0.18]	0.10	0.29
<i>Predicting Facebook affirmation:</i>				
<b>Indirect effect</b>				
NPI X condition -> power -> Facebook affirmation	.01	[-0.04, 0.06]	0.03	0.29
<b>Total effect</b>				
NPI X condition -> Facebook affirmation	-.00	[-0.14, 0.14]	0.08	-0.02
<i>Predicting Facebook movement towards the ideal self:</i>				
<b>Indirect effect</b>				
NPI X condition -> power -> Facebook movement towards ideal self	.00	[-0.02, 0.01]	0.01	-0.17
<b>Total effect</b>				
NPI X condition -> Facebook movement towards ideal self	.10	[-0.02, 0.23]	0.08	1.35
<i>Predicting life satisfaction:</i>				
<b>Indirect effect</b>				
NPI X condition -> power -> SWLS	-.00	[-0.02, 0.02]	0.01	-0.11
<b>Total effect</b>				
NPI X condition -> SWLS	.19	[0.00, 0.38]	0.11	1.73

*Note.* Values in the table are standardised regression coefficients. NPI = agentic narcissism; Condition = experimental condition (0 = self-focus, 1 = other-focus); SWLS = satisfaction with life scale; CI = confidence interval; S.E. = standard error.

Additional analysis in Chapter 5

Table 6

*Correlation coefficients among predictors, mediators, and dependent variables in selfie condition after manipulation (n = 78)*

	1	2	3	4	5	6	7	8	9
1. Agentic narcissism									
2. Communal narcissism	.41**								
3. Instagram affirmation (post scores)	.27*	.24*							
4. Instagram movement towards the ideal self (post scores)	-.03	.11	.25*						
5. Self-esteem	.20	.21	.52**	.21					
6. Entitlement	.29*	.17	-.04	.23*	-.13				
7. Power	.28*	.24*	-.24*	-.05	-.25*	.39**			
8. Grandiosity	.46**	.48**	.20	.09	.35**	.46**	.30**		
9. Positive affect	.17	.36**	.34**	.27*	.37**	.24*	-.10	.51**	
10. Negative affect	.22	.09	-.33**	-.13	-.34**	.35**	.46**	.23*	-.04

\* $p < .05$ . \*\* $p < .01$ .

Table 7

*Correlation coefficients among predictors, mediators, and dependent variables in usie condition after manipulation (n = 106)*

	1	2	3	4	5	6	7	8	9
1. Agentic narcissism									
2. Communal narcissism	.28**								
3. Instagram affirmation (post scores)	.11	.29**							
4. Instagram movement towards the ideal self (post scores)	.01	.10	.39**						
5. Self-esteem	.16	.35**	.48**	.36**					
6. Entitlement	.34**	.17	.05	-.03	-.17				
7. Power	.25*	.10	-.36**	-.23*	-.33**	.48**			
8. Grandiosity	.48**	.42**	.26**	.37**	.54**	.05	.09		
9. Positive affect	-.04	.18	.21*	.24*	.35**	-.01	.05	.39**	
10. Negative affect	.17	.12	-.42**	-.24*	-.33**	.11	.35**	.04	-.22*

\* $p < .05$ . \*\* $p < .01$ .

Table 8

*Correlation coefficients among predictors, mediators, and dependent variables in control condition after manipulation (n = 90)*

	1	2	3	4	5	6	7	8	9
1. Agentic narcissism									
2. Communal narcissism	.43**								
3. Instagram affirmation (post scores)	.15	.32**							
4. Instagram movement towards the ideal self (post scores)	.20	.28**	.40**						
5. Self-esteem	.31**	.34**	.63**	.33**					
6. Entitlement	.25*	.13	-.06	.08	-.08				
7. Power	.13	-.10	-.35**	-.01	-.26*	.34**			
8. Grandiosity	.52**	.47**	.39**	.19	.41**	.41**	.16		
9. Positive affect	.26*	.47**	.51**	.29**	.49**	-.02	-.06	.39**	
10. Negative affect	.10	.00	-.39**	-.23*	-.51**	.13	.29**	-.05	-.20

\* $p < .05$ . \*\* $p < .01$ .