

Unmasking the self on dating apps: Embracing Authenticity for a journey towards better well-being?

Discovering the relationship between self-presentation on dating apps and well-being

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ABSTRACT

Nowadays, dating applications have become highly popular among young people. Researchers in media and communication have studied dating apps from a variety of angles, nevertheless the users' well-being has been neglected. Therefore, it is essential to investigate the factors that may have a significant impact on the well-being of dating app users, as long-term poor well-being may contribute to mental and physical disorders. This thesis investigated how the self-presentation of dating app users affects their well-being. Furthermore, this thesis investigated whether relationship seeking as a motive for using a dating app moderates the relationship between self-presentation and well-being. In addition, the study examined whether self-esteem and the frequency of using dating apps were effective predictors of well-being. The thesis also explored the cultural differences that may exist between Western European and Chinese dating app users in terms of self-presentation styles and well-being. As Western European culture is characterized by individualism, Chinese culture has its roots in collectivism. A cross-sectional online survey was conducted, and 167 valid responses were gathered for data analyses and hypotheses testing. The results reveal that the self-presentation of dating app users has different associations with their well-being. Users of dating apps who present themselves authentically experience greater well-being, while those who present themselves deceptively experience poorer well-being. Furthermore, relationship seeking motive has a significant moderating effect on the relationship between deceptive self-presentation and negative affect, suggesting that users who use dating apps to find romantic partners are more likely to experience more negative well-being. In addition, self-esteem is a significant predictor of negative affect but not positive affect, whereas the frequency of use of dating apps is a strong predictor of positive affect but not negative affect. Last but not least, the results indicate that there is no significant difference between Western European and Chinese consumers of dating apps in terms of two types of self-presentation (authentic and deceptive). However, Chinese users of dating applications reported higher positive affect than their Western European counterparts. This thesis contributes to our understanding of the relationship between self-presentation and well-being. In addition, it demonstrates that dating applications may share many similarities with social media, particularly in terms of the relationship between user self-presentation and well-being. In terms of practical implications, users of dating apps should be aware that using them to discover romantic partners may result in more negative outcomes.

KEYWORDS: Dating apps, Self-presentation, Well-being, Self-esteem, relationship seeking motive, Frequency use of dating apps, Cultural differences, Individualism, Collectivism

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1. Introduction

Mobile dating platforms have become incredibly prevalent among young people (Sumter & Vandenbosch, 2019). Increasing numbers of Internet users describe online dating as "a good way to meet new people" (Smith & Anderson, 2015). Mobile dating suggests more flexible boundaries between online and offline, creating opportunities for the coexistence of two individuals in a physical and virtual space (Van De Wiele & Tong, 2014). This mechanism is fundamental to mobile dating applications such as Tinder and Grindr, which use the geographical distance between users as a determining factor for potential matches. Once users have specified their demographic preferences, the algorithm can locate potential partners within a short distance (David & Cambre, 2016; Duguay, 2017). This affords users of dating apps the opportunity to develop their online-to-offline relationships.

No matter what motivates people to use dating apps, they are required to create a self-presentation (Toma & Hancock, 2010), because self-presentation is the packaging and refining of the self during social interactions to create an impression desired by the audience (Baumeister & Hutton, 1987; Leary & Kowalski, 1990). Moreover, depending on their motivations, users of dating apps would consciously choose which information would be suitable to present about themselves in order to make the desired impression on their intended audience and meet the expectations of their audiences (Schlenker & Pontari, 2000; Toma et al., 2008). Several studies have previously investigated how users employ various self-presentation strategies to create a positive impression on others (Birnholtz et al., 2014; Chan, 2021; Ward, 2016; Zhao et al., 2022). However, it appears that little research has been conducted to determine whether the self-presentation that users construct is their authentic selves or their deceptive selves (Ranzini & Lutz, 2017; Toma et al., 2008; Toma & Hancock, 2010).

In addition, previous research has examined the problematic use, motivations, gender identities, and personality traits of dating app users (Coduto et al., 2020; Her & Timmermans, 2021; Sumter & Vandenbosch, 2019; Timmermans & Courtois, 2018; Timmermans & De Caluwé, 2017). Notably, however, the well-being of dating app users has been neglected in the existing literature. Despite the fact that some researchers have identified this gap and emphasized the significance of investigating the effects of dating apps on users' well-being, more research is needed. For instance, Her and Timmermans (2021) found that Tinder users' online success can have an impact on their well-being. It would still be essential to conduct additional research on the well-being of dating app users.

A number of social media studies have suggested that self-presentation has an important influence on well-being. For instance, social media users who engage in authentic self-presentation experience greater happiness, less stress, and greater social connectivity, whereas deceptive self-presentation may lead to poor well-being and lying behaviours may increase anxiety (Gil-Or et al., 2015; Michikyan et al., 2015; Wright et al., 2018). However, it is unclear whether it would be the same for consumers of dating apps. Despite the fact that dating platforms contain all social media features (Media, 2017), their affordances are distinct. For example, Tinder's swipe logic provides

users with a hook-up culture and a sense of causal relationships (Christensen, 2021). Therefore, it is necessary to investigate further the relationship between the self-presentation of dating app users and their well-being. Combining these factors, the research question is as follows:

RQ1: To what extent does dating app users' self-presentation affect their well-being?

According to Triandis (1989), culture is one of the most influential factors on self-presentation. Individualistic and collectivistic cultures can impact self-presentation types (Kim & Papacharissi, 2003). For instance, individualist cultures place a greater emphasis on individual thoughts and emotions, whereas collectivistic cultures encourage the expression of emotions that correlate with group cohesion and cooperation (Matsumoto & Wilson, 2022). In addition, Individualism and collectivism can indirectly influence intimacy through the intermediaries of responsiveness and self-disclosure. Individuals are typically more forthright, explicit in conveying themselves, and motivated to reveal themselves in an individualistic context (Gudykunst et al., 1996). Individuals are more reticent and covert in their self-expression in collectivistic settings (Argyle et al., 1986). As Western European countries are more engaged in individualistic culture and Chinese society is more engaged in collectivistic culture, dating app users from these two cultural backgrounds may present themselves differently, and the extent to which self-presentation affected their well-being may also vary. Therefore, a distinguish in self-presentation and well-being between Western European and Chinese was addressed in this paper. The second research question is formulated:

RQ2: To what extent do Western European and Chinese self-presentation types on dating apps and their well-being differ from one another?

Firstly, this paper focused on intercultural differences in self-presentation and well-being between Western Europeans and Chinese, which have been overlooked in the field of dating studies. Although there are relevant comparative studies in the field, they mostly focus on the differences between the U.S. and China. This paper would fill the gap left by comparing other Western European countries with individualistic cultures, such as the U.S. and China. Secondly, social media studies have identified that users' self-presentation on social media can influence their well-being. Mun and Kim (2021) indicated that false self-presentation can impact mental health and well-being. However, it remains unclear whether it would be the same for dating app users. Moreover, the study by Her and Timmermans (2021) demonstrates that research on the well-being of Tinder users is limited, and it has been demonstrated that the use of Tinder can impact users' well-being. This thesis would further investigate the relationship between self-presentation and well-being to fill out the gap. Therefore, this paper demonstrates strong scientific relevance.

Moreover, this paper shows strong societal relevance. As long-term poor well-being can lead to mental disorders and physical health (Huppert, 2009). If dating app users acknowledged that self-presentation might be one of the factors that impact their well-being, they would probably adjust their types of self-presentation by considering this paper's results. In addition, since this paper investigated

the moderation effect of the relationship-seeking motive on the association between self-presentation and well-being, dating app users can also know what kind of outcomes this motive leads to.

2. Theoretical framework

2.1 *Affordances of online dating apps*

In today's digital age, people often and socially accept using online dating apps to meet potential partners (Sumter & Vandenbosch, 2019). According to the study of Vogels and Mcclain (2023) for the Pew Research Center, the usage of dating applications has tripled among adults aged 18 to 24 since 2013, while it has doubled between the age groups of 55 and 64. In 2019, more than 50% of young adults in the United States under 30 reported having used dating sites or mobile dating apps (Vogels & Mcclain, 2023). Up until recently, there were over 300 million users of dating applications, and the number continues to rise (Hadji-Vasilev, 2023). Therefore, the statistics have proven that online dating is showing an upward trend.

With the spread of dating apps, online dating has changed the way people used to date because mobile dating apps provide users with distinct affordances compared to offline dating and online dating sites (JaeHwuen Jung et al., 2019; Ranzini & Lutz, 2017). Affordances in the context of online dating refer to the variety of potential actions that the tool's features can provide (Pruchniewska, 2020). The study of Ranzini and Lutz (2017) summarized the four main advantages of portability, availability, locatability, and multimediality that online dating apps offer to their users. In terms of portability, it allowed users to use dating apps in different locations, from private places to public places, such as swiping at home or at a café. Moreover, the availability affordance increases dating app users' spontaneity and their frequency of use. One of dating apps' most important features, the locatability affordance, facilitates matching, texting, and meeting with other users in close proximity. In addition, the multimediality affordance allows users to connect their Instagram profiles, creating for a more refined self-presentation. After they've been matched, they can continue the conversation via phone calls, video messaging, or other social media applications.

Timmermans and Courtois (2018) also referred to similar affordances, namely mobility, immediacy, proximity, and visual. First, mobility affordances make it possible for people to use online dating apps anywhere, regardless of where they are (Timmermans & Courtois, 2018). This therefore promotes spontaneity and frequency of use. Conversely, traditional online dating sites mostly require people to use a laptop, which restricts mobility (Ranzini & Lutz, 2017). Second, the notification system of dating apps sends new message or new match alerts even when the app is inactive, which increases immediacy and encourages more user interactions (Timmermans & Courtois, 2018). This affordance demands spontaneity and availability on the part of users, who must make quick decisions and demonstrate specific self-presentation skills (Ranzini & Lutz, 2017). Thirdly, the proximity affordance enables users to identify the location of potential matches. This filtering ability can therefore encourage and accelerate offline meetings (Timmermans & Courtois, 2018). Due to the swipe mechanism, visuality becomes one of the most essential affordances (Timmermans & Courtois, 2018). Users make decisions primarily based on the profile photograph because they frequently examine a profile for a few seconds before deciding whether to swipe right or

left. This rapid decision-making process requires users to make a strong initial impression (Valkenburg & Peter, 2011). Consequently, these affordances influence how users present themselves in online dating as they shape the ways that users construct their online self-presentation (Filice et al., 2022). Furthermore, these affordances make self-presentation strategic; for instance, visual dominance refers to the ability of a user to optimize their self-representation by combining both words and pictures in their profile. Therefore, how users organize text and select images for their profiles is crucial for presenting themselves to potential matches (Tanner, 2023).

2.2 Managing self-presentation in online dating

Brown (2014) defined self-presentation as the act of trying to build, change, or keep a certain image of oneself in front of an audience. Goffman (1979) has identified the goal of self-presentation as seeking approval from others for the images they claim for themselves. To achieve this objective, individuals must demonstrate their social roles and ensure that others evaluate them favorably. Thus, it is necessary to change their public images to meet the expectations of their audiences, and people need to select their information carefully in order to create a positive self-image for other responses. Moreover, Goffman (1990) also suggests that seeking approval and avoiding disapproval can have a positive impact on creating self-presentation, which can be divided into two styles: acquisitive and protective. The goal of acquisitive self-presentation is to seek approval; hence, presenters would show their desirable sides to construct an attractive self in front of their audiences. By contrast, the objective of protective self-presentation is to avoid disapproval; therefore, presenters would tend to show conformity and make neutral presentations about themselves to avoid negative feedback (Goffman, 1990).

In the online dating context, self-presentation on online dating profiles requires intentionally selecting information to present about oneself in order to create the desired impression on the intended audience (Schlenker & Pontari, 2000; Toma et al., 2008). Furthermore, dating app users play dual roles as presenters and observers while they are using dating apps because they need to encode their self-relevant information to construct their own profiles while decoding the information presented in the profiles of potential matches (Tong et al., 2020). Therefore, having a desirable self-presentation in a dating profile is essential to having more matches or finding potential partners (Jacobson et al., 2016; Li & Bowen, 2022). Moreover, because of the affordances that dating apps provide, the first impression that other users perceive from a dating profile is essential (Ranzini & Lutz, 2017; Valkenburg & Peter, 2011). The construction of a dating profile is of the utmost importance because it is the first and primary means of self-presentation in the early phases of communication and can thus close or open up relationship opportunities (Ward, 2017). Hence, whether you use dating apps to seek a relationship or for entertainment, the key is dependent on how your first impression is presented to others.

Following impression management, users can create an attractive self-presentation and a strong first impression on their online dating profile. As impression management can be seen as a

strategy for how people want others to see them (Ellison et al., 2006; Rosenberg & Egbert, 2011). According to Leary and Kowalski (1990), there are two processes in impression management: impression motivation and impression construction. The degree to which individuals are motivated to alter how others perceive them is referred to as their impression motivation. As online dating profiles are designed to attract and impress potential companions and are examined by a large audience of potential partners (Ellison et al., 2006), online daters should be generally motivated to control their self-presentation (Toma & Hancock, 2010). Conversely, impression construction takes place when individuals interact to express the impression they wish to transmit. Impression construction entails selecting the type of impression to create and determining how to create it (Leary & Kowalski, 1990; Toma & Hancock, 2010). Moreover, impression construction in an online dating context might be influenced by dating app users' intended impressions, or the way they wish others would come across, and their capacity to show their desired impression given the affordances dating apps offer for them to present themselves. Physical appearance would be one of the most important elements of self-presentation because the swipe mechanism heavily relies on visuality. In other words, physical attractiveness takes a vital place in mate selection (Toma & Hancock, 2010).

Because of this strategically driven impression management, several studies have highlighted that the tension between presenting an attractive self and an authentic self exists in all communication contexts; however, the motivation to appear attractive to others in the context of online dating may make this tension particularly apparent (Back et al., 2010; Whitty, 2008). Therefore, some studies in the dating field have identified that dating app users engage in multiple self-presentations and have focused on investigating the degrees of authenticity and deception of the selves they are presenting (Ranzini & Lutz, 2017; Toma et al., 2008; Toma & Hancock, 2010).

2.3 Different types of self-presentation in the online dating

Since impression management plays an important role in managing self-presentation, it allows users to present themselves strategically, which means dating app users may not be honest about the information posted. In online dating studies, researchers have identified two main types of self-presentation that may exist among dating app users: authentic self-presentation and deceptive self-presentation (Ranzini & Lutz, 2017; Toma et al., 2008; Toma & Hancock, 2010).

Authentic self-presentation is a presentation that aligns with the real characteristics of a person; it is also known as exhibiting their true selves or honest selves (Bij de Vaate et al., 2020). In different studies, authentic self-presentation can be referred to as presenting the true self, the authentic self, or the real self, which creates confusion among these terms. Since researchers often use these terms to denote the true self or the actual self (Michikyan et al., 2015; Ranzini & Lutz, 2017; Ward, 2017), it would be necessary to clearly explain the concept of the true self and which aspect would be used in this thesis. The true self is different than the actual self. The true self is understood to be the part of the self that individuals are currently expressing to others but are not entirely presenting in offline communication (Bargh et al., 2002). However, the actual self is defined as the self that

individuals express and that can be recognizable to others in social interaction (Higgins, 1987). The true self is an umbrella phrase that includes people's actual selves when they present their genuine selves; therefore, there is a little distinction between the true self and the actual selves (Bargh et al., 2002; Whitty, 2008). Online presentation of the true self is easier than face-to-face contact; hence, it allows for the complete expression of some inner attributes that are difficult to express in real life (Bargh et al., 2002). To conclude, the true self is concealed (or not readily expressed) in face-to-face communication, whereas the actual self is fully expressed (Hu et al., 2021). Thus, authentic self-presentation can be identified as true or real self-presentation and would be investigated in this thesis because dating apps are an online setting that allows users to fully express their true selves.

Online daters would present more credible images than deceptive images of themselves. First, according to Ning and Crossman (2007), honesty is highly valued in the mate selection process and is a particular priority in marital relationships. Even though individuals in dating prefer more desirable partners, the prospect of marriage reorients their preference toward more authentic partners (Swann Jr. et al., 1994). Consequently, over time, authenticity becomes the best course of action in romantic relationships, especially marriages. Second, when deception in online dating results in punishment, it threatens the ultimate objective of online dating: the development of an offline romantic relationship. After all, in face-to-face interactions, any misrepresentation in online dating profiles, particularly regarding physical attractiveness, will be readily detected and alienate potential partners (Ellison et al., 2012; Hancock and Toma, 2009). To appear more trustworthy than attractive, online daters tend to avoid deceptive self-presentation in their profiles.

Deceptive self-presentation is the presentation of a false self to others (Michikyan et al., 2015). Deceptive self-presentation is defined as feeling and acting in ways that are not authentic to the self, and it can arise in several forms, including deception (presenting information that may not be fully truthful), exploration (trying out different facets of the self), and compare/impress (conforming to perceived expectations) (Michikyan et al., 2015). However, in the study of Ranzini and Lutz (2017), two types of false self-presentation (exploration and compare/impress) were excluded from the study. As a result, it renamed false self-presentation to deceptive self-presentation. Thus, in this thesis, only deceptive self-presentation (false self-presentation—deception) was investigated; the other two types of false self-presentation will not be included given that false self (exploration) and false self (impression) are hard to differentiate and highly correlated (Michikyan et al., 2015).

Several studies found out that some online daters would give a false or unrealistic impression of themselves to others (Brym & Lenton, 2001; Ellison et al., 2006; Hitsch et al., 2010; Toma & Hancock, 2010). The main reason why they would present a false image is because they want to enhance different traits based on their needs and present an attractive image to others (Guadagno et al., 2012). For example, in the study of Hitsch et al. (2010), online daters exaggerate information about themselves, with males emphasizing their status and females their physical attractiveness. In another study of Toma and Hancock (2010), men would lie about their true height, whereas women

would be inauthentic about their weight. To sum up, online daters do present an untruthful portrayal of themselves, but they may attempt to strike a balance between being authentic and adhering to the boundaries imposed by the expectation of future contact (Guadagno et al., 2012).

Furthermore, some social media studies have proven that self-presentation can affect well-being, and different types of self-presentation can bring various outcomes (Bailey et al., 2020; Bij de Vaate et al., 2020; Kim & Lee, 2011; Wright et al., 2018). Authentic self-presentation, for instance, can increase people's well-being; however, deceptive self-presentation decreases people's well-being, as will be discussed in greater detail in the following section.

2.4 Well-being in online dating

The study by Lomanowska and Guitton (2016) demonstrates that intimate social interactions and relationships have a substantial impact on well-being, and that online interactions offer an alternative type of intimacy distinct from offline interactions. In addition, the study noted that research on the relationship between online intimacy and well-being is highly lacking (Lomanowska & Guitton, 2016). Therefore, it is crucial to understand how online dating may affect the well-being of dating app users.

Well-being, which is defined by Ryan and Deci (2001) as "optimal psychological experience and functioning," is a complex idea with many different definitions and ways to measure it. On an individual level, well-being has been described in different ways related to a person's emotional life, mental life, and psychological life (Harter et al., 1996). The notion of well-being can be divided into two dimensions: physiological well-being and subjective well-being (Chen et al., 2013). The psychological well-being perspective (PWB) emphasizes eudaimonic well-being, which is the manifestation of personal growth and a personal value. According to Diener et al. (1985), well-being stresses the hedonic aspect of well-being, or the pursuit of happiness and a happy life. It consists of worldwide evaluations of emotion and quality of life. Likewise, Diener et al. (2009) suggested that subjective well-being is comprised of two interconnected components: the cognitive evaluation and affective evaluation. Firstly, the cognitive aspect is about life satisfaction. Secondly, affective aspect is evaluated through positive affect and negative affect.

Since well-being is a subjective and relative concept rather than an absolute and objective one (McDowell, 2010), it can be hard to measure it accurately. Because of this, many ways to measure well-being have been suggested, and there are heated arguments about which is the best (Diener et al., 2009; McDowell, 2010). Previous studies in online dating have investigated that Tinder users mostly encounter positive and negative affect (Bareket-Bojmel & Shahar, 2011; Her & Timmermans, 2021; Ranney & Troop-Gordon, 2015). For example, the study of Her and Timmermans (2021) attempts to see the effect of Tinder compulsive use on users' subjective well-being. The study found out that Tinder users' who use Tinder compulsively may feel negative affect such as sadness, but also feel positive affect such as joviality afterwards.

Dodge et al. (2012) found that positive and negative affect are separate dimensions. Positive affect (PA) shows the extent to which a person feels passion, excitement, and happiness. A person with a high level of positive affect means he or she has high energy and satisfaction about life, whereas a person with a low level of positive affect means he or she is relatively upset and dissatisfied about life. By contrast, negative affect (NA) shows a general aspect of subjective sadness and dissatisfaction that includes various negative emotions, such as guilt and fear (Hao et al., 2014). As a result, consider both positive and negative affect are important to investigate dating app users' well-being.

2.5 Exploring the link between well-being and self-presentation

As previously discussed, online self-presentation can have an impact on users' well-being, and different styles of self-presentation can have varying outcomes. On the one hand, social media studies identified that social media users who presented themselves in an authentic way were more likely to report more positive mood and less negative mood (Bailey et al., 2020; Kim & Lee, 2011). Similarly, the study of Reinecke and Trepte (2014) discovered that those who portrayed their true selves on Facebook had a greater positive affect and a lower negative affect. Another study of Tanner (2023) observed that Facebook users who were more genuine enjoyed greater social connectivity and decreased stress. Additionally, Toma et al. (2018) discovered that individuals who presented themselves in an authentic manner on dating applications were more satisfied with their online dating experiences. Although the study did not explicitly demonstrate that dating app users' authentic self-presentation has a positive effect on their well-being, it did explain that users who present authentic images will have better dating experiences, which may contribute to better well-being.

On the other hand, multiple social media studies have shown that online false self-presentation is associated with negative outcomes (Gil-Or et al., 2015; Michikyan et al., 2015; Wright et al., 2018). It revealed that there are two different types of behaviors in presenting false self-presentation: lying behavior and liking behavior (Wright et al., 2018). Lying behavior is about being inauthentic of posted profile information, while liking behavior is about pretending to like the post by clicking likes. The study of Michikyan et al. (2015) explained that these deceptive self-behaviors may reflect the fears of young adults and may be motivated by the desire to receive comments that could improve their self-validation, which may lead to poor well-being. Moreover, the study indicated that deceptive self-presentation on Facebook increases anxiety levels over time, with lying and liking behaviours being associated with increased anxiety. (Wright et al., 2018). Similarly, individuals who engaged in deceptive self-presentation on dating apps reported reduced levels of trust in their relationships and dissatisfaction with their online dating experience (Hall et al., 2015). Therefore, deceptive self-presentation in online dating may ultimately result in feelings of guilt or anxiety when the truth is revealed.

Although dating applications are different than social media platforms, users may experience comparable outcomes. According to Orosz et al. (2016), Tinder and social networking site (SNS) use

may have similar psychological background mechanisms due to the similar negative impacts on users' well-being. Moreover, Tinder is one of the most popular dating apps, and similar mechanisms may apply to other dating apps as well. Therefore, considering all the aforementioned findings, the following hypotheses are proposed:

H1: Dating app users' authentic self-presentation is positively associated with positive affect.

H2: Dating app users' deceptive self-presentation is positively associated with negative affect.

2.6 Linking self-esteem to self-presentation

Self-esteem refers to a person's subjective evaluation of his or her own value. It is a subjective and internalized evaluation that reflects how a person perceives themselves, their abilities, and their overall worth as an individual (Konings et al., 2023). Self-esteem is connected closely to interpersonal experiences. For instance, self-esteem can be fluctuated by social approval or disapproval. On the one hand, people's self-esteem will increase when they are liked or approved by others. On the other hand, their self-esteem can be decreased when they are socially disliked by others (Michikyan, 2022). Moreover, self-esteem is considered a psychological monitor that assesses how worthy one is regarded as a relationship partner as well as warning oneself of any interpersonal risks such as social disapproval (Leary & Baumeister, 2000). Consequently, people's self-esteem can be increased or decreased depending on how they perceive themselves.

Self-esteem is associated with self-presentation because the degree of self-esteem can influence the style of self-presentation (Monacis et al., 2021; Wright et al., 2018). With a high level of self-esteem, people are more likely to self-enhance for more social approval from others. However, with low levels of self-esteem, people might tend to self-protect to avoid social disapproval (Leary & Baumeister, 2000). Acquisitive and protective self-presentation styles may be related to authentic and deceptive presentations. For example, people with high self-esteem probably engage in presenting their authentic selves to self-enhance (Kernis et al., 2005). Conversely, people with low self-esteem may tend to engage in presenting their deceptive selves to self-protect by hiding their authentic attributes (Gil-Or et al., 2015; Michikyan et al., 2015). Furthermore, self-esteem is related to the authenticity of self-presentation on social media (Gonzales & Hancock, 2011; Michikyan, 2022; Tazghini & Siedlecki, 2013). For example, it has been identified that there is a positive association between self-esteem and authentic self-presentation and a negative association between self-esteem and deceptive self-presentation on social media (Michikyan et al., 2014). This indicates that social media users with higher self-esteem would present themselves in a more authentic and truthful manner, whereas users with lower self-esteem would do the contrary.

More importantly, the findings of the Ranzini and Lutz (2017) Tinder study are consistent with research on social media. Self-esteem has a significant and positive impact on authentic self-presentation. Users with higher self-esteem portray themselves more honestly on Tinder (Ranzini & Lutz, 2017). While, on Tinder, respondents with lower self-esteem appear to present themselves in a more deceptive manner (Ranzini & Lutz, 2017).

2.7 The moderating role of dating app use motive: Relationship seeking

Despite dating apps' affordances and impression management, which influence how people are going to present themselves in online dating, motivations for using dating apps may still be more important when it comes to individuals' self-presentations (Ranzini & Lutz, 2017; Van De Wiele & Tong, 2014). Individuals' motivations for using dating apps vary depending on their goals; for example, some users may use dating apps to find a relationship, while others may use them to hook up. Therefore, motivations can influence the type of self-presentation.

According to the research by Ranzini and Lutz (2017), the relationship seeking motive has a positive influence on authentic self-presentation, while the self-validation motive has a negative influence. Furthermore, the relationship-seeking motive influences authentic self-presentation positively (Ranzini & Lutz, 2017). Due to their long-term perspective and the possibility that deceptive self-presentation could misfire, individuals who use Tinder for relationship-seeking may be more honest in their self-presentation (Ranzini & Lutz, 2017). Because deceptive self-presentation can result in feelings of guilt or anxiety upon the eventual revelation of the truth, engaging in deceptive self-presentation can also result in negative outcomes, such as decreased levels of trust in interpersonal relationships.

However, dating app users' relationship-seeking motivations might vary from their self-presentations. For instance, some dating app users are interested in finding short-term partners, while others are motivated to search for long-term relationships (Ranzini & Lutz, 2017). These various goals ought to have an impact on how users create their self-presentations (Ranzini & Lutz, 2017). Those looking for short-term engagements may be more likely to embellish their self-presentation in order to appeal to a greater number of potential partners. In contrast, those with long-term relational goals may be motivated to present themselves as realistically as possible, as deceptive profiles can seriously undermine relationship development (Whitty, 2007).

The use of dating applications for relationship-seeking purposes can have beneficial effects on the well-being of users. Sumter et al. (2017) discovered that users who reported a high level of relationship-seeking motives also reported increased life satisfaction and self-esteem. This suggests that dating applications can assist individuals in fulfilling their desire for a romantic relationship, leading to an increase in well-being only if it is successful. The study of Her and Timmermans (2021) found that Tinder users' well-being would be impacted more negatively than positively by relationship seeking motive because the joviality they felt after using Tinder may not enough to compensate the feeling of sadness. Thus, combining all these factors, the following hypotheses are developed:

H3: Relationship seeking motive moderated the association between authentic self-presentation and positive affect positively.

H4: Relationship seeking motive moderated the association between deceptive self-presentation and negative affect positively.

2.8 Self-presentation is varied by cultural differences

Culture is one of the key factors that influence self-presentation (Triandis, 1989). Kim and Papacharissi (2003) found that cross-cultural differences can also influence online self-presentation. Individualism and collectivism are the most frequently employed cultural dimensions in social science research on cultural differences (Kim & Papacharissi, 2003). They differ in how users present themselves, both offline and online. Individualism is "the degree to which a person acts as an individual rather than as a member of a group" (Hofstede, 1994, p.6). Collectivism, on the other hand, can be defined as "the degree to which individuals are integrated into groups" (Hofstede, 1984, p. 83). In addition, Hofstede's (1980) research demonstrates that western nations are more individualistic than non-western nations. Individualism in western nations has a tendency to respect individual entities more than group entities, whereas collectivism in non-western nations tends to do the opposite. Matsumoto and Wilson (2022) discovered similar results regarding the influence of individualism and collectivism on expressing emotions, and they argued that collectivist societies encourage the expression of emotions that align with group cohesion and cooperation, while individualist cultures place a greater emphasis on individual thoughts and emotions.

In addition, perspectives of the self, others, and the interdependence of the self and others are remarkably diverse across cultures (Markus & Kitayama, 1991). The study of Markus and Kitayama (1991) distinguished two perspectives on the self: independent and interdependent, anticipating the discovery of cultural differences between more individualistic Western societies and more collectivist non-Western societies. The perspective of independent self refers to an individual actor who construes himself or herself as a unique, limited self with his or her own thoughts, emotions, and actions as opposed to following the opinions, emotions, and actions of others (Markus & Kitayama, 1991). Nevertheless, the interdependent self is assigned to an individual actor who construes himself or herself as an interrelated and connected entity and recognizes that his or her behavior is largely determined, contingent on, and organized by the actor's perceptions of the thoughts, feelings, and actions of others in the relationship (Markus & Kitayama, 1991).

It has been determined that romantic partners in collectivistic countries experience fewer romantic relationships and intimacy due to the fact that they are typically satisfied through interdependent familial interactions (Dion & Dion, 1993). Individualism and collectivism influence intimacy indirectly through the intermediaries of responsiveness and self-disclosure. Multiple lines of evidence indicate that individualistic cultures value self-disclosure more than collectivistic cultures in order to promote closeness (Adams et al., 2004). For instance, in an individualistic context, individuals are typically more forthright, explicit in expressing themselves, and motivated to reveal themselves (Gudykunst et al., 1996). In collectivistic settings, however, individuals are more reticent and covert in their self-expression (Argyle et al., 1986). Moreover, hazardous self-disclosures may have fewer social repercussions in individualistic contexts than in collectivist contexts because individuals tend to belong to more in-groups in individualistic contexts (Triandis, 1989). In

collectivist environments, however, densely interconnected networks increase the likelihood that inappropriate disclosures will become material for rumor (Adams et al., 2004; Hastings, 2000).

The findings of Chan (2016) showed that numerous gay men on dating apps identified strongly with heterosexual masculinity and aligned "their individual desires with the national desire of heteronormativity." Most of homosexuals remain anonymity about their sexual orientation because it is detrimental to one's family and career to be associated with homosexuality. Moreover, the study of (Chan, 2016) found out that in China, dating app users are afraid that their friends, professional networks, and community would find out they use dating apps to meet people for casual sex. The findings were aligned with the collectivistic culture and showed that people are afraid and not willing to reveal their authentic selves even in an anonymous online setting because it is still considered as a risky and controversial act. Additionally, the influence of state censorship on Chinese dating applications may reflect collectivist values of social control (Liu, 2016). For instance, Momo, a popular dating app in China, has a function that allows users to hook up, which poses a threat to 'happy families' in Chinese society, causing widespread public concern since the app's release. In Chinese culture, the sexual essence of Momo remained controversial. As a result, Momo launched its sanitation initiative to make amends to society and to "desexualize" itself. The purpose of this campaign was to inform the public that Momo promotes a variety of social activities that exclude casual sexual activity.

However, compared to China, Western countries such as the United States appear to be more open and less controversial towards dating apps. The majority of students characterized dating apps as a way to find both sexual gratification and romantic partners, and hook-up culture is widely accepted as a part of the college experience in the United States (Lundquist & Curington, 2019). In addition, Carpenter and McEwan (2016) found that people use dating applications for entertainment purposes rather than for dating or sex. These two studies affirmed that users of dating apps can use them for a variety of purposes, not just hookups. Consequently, they continue to be receptive to the use of dating applications. Moreover, homosexual men using dating apps in the United States are open about their sexual orientation and do not fear posting photos on their profiles because it will not harm their reputations (Chan, 2016).

With these findings, it is possible that users of dating apps with individualistic cultural backgrounds are more likely to present their authentic selves, as it is their internal characteristics that demonstrate their uniqueness and attractiveness. However, dating app users who have grown up in a collectivist culture may tend to present their deceptive selves to conform to social norms and gain social approval. Moreover, users in a collectivistic setting might more easily experience negative affect, whereas users in an individualistic environment may experience more positive affect than users in a collectivistic environment. Therefore, the following hypotheses are formulated:

H5: Western European dating app users are more likely to present their authentic selves than Chinese users.

H6: Chinese dating app users are more likely to present their deceptive selves than Western European users.

3. Methodology

3.1 Survey and statistical methods

As pointed out previously, the purpose of this paper is to determine whether the self-presentations of dating app users influence their well-being and whether relationship seeking motivation moderates the relationship between self-presentation and well-being. Thus, a quantitative research approach is selected for this thesis because it is well-suited for identifying generalized patterns and connections between various factors (Babbie, 2011). The method of an online survey is utilized specifically in the data collection procedure. On the one hand, self-presentation and well-being are sensitive topics, so an anonymous online survey would be appropriate for collecting data (Bryman, 2016). Using anonymous survey research, on the other hand, enabled researchers to quickly reach a large number of respondents and capture original data (Babbie, 2011).

This online survey is designed to utilize the Qualtrics online questionnaire instrument. Accessing online dating communities and collecting data from dating app users was facilitated by an online survey (Wright et al., 2018). The online survey was also more practical because the majority of dating app users are accustomed to the online environment, and it could be completed at any time and location (Punch, 2003). The questionnaire was available in both English and Chinese versions. In order to reach more international and youthful participants, the English version was presented as the original. For the convenience of participants who cannot speak English adequately in Chinese communities, a second option in Chinese has been added to the survey. For the Chinese version of the questionnaire, the researcher first determined whether the scales had already been adapted and translated into Chinese. Second, the researcher had Chinese participants proofread the translated rest measures to ensure their clarity at the pre-test stage. Two versions of the questionnaire were required to examine whether intercultural differences exist between two major categories of participants: Western Europeans and Chinese.

The statistical software IBM SPSS Statistics 27 was used for analyzing the data (Field, 2013). Exploratory factor analysis and reliability analysis were first conducted to test the scales. After the data was prepared, in the preliminary analyses, assumptions were checked to determine if the data was normally distributed or not. Following, a correlation analysis was conducted to test the correlation between control variables, predictors, moderator, and outcome variables, and an independent t-test was conducted to discover the intercultural differences. Afterwards, hierarchical regression analyses and multiple regression analyses were used to examine the main effects and interaction effects of the hypotheses (Field, 2013).

3.2 Sampling and procedure

Users of dating apps who are between 18 and 65 years old were the units of analysis. The age restriction served as a precaution against any moral quandaries caused by the young participants' consent. No additional restrictions on gender or educational level were specified in the sample criteria

because the paper attempted to discover the overall pattern of dating app users' self-presentation's influence on well-being. However, there were specific requirements for ethnicity and nationality because one of the aims of this thesis was to discover the intercultural differences between Western Europeans and Chinese. Additionally, there were no limitations on the kind of dating apps one may use because the various genres of dating apps themselves may have played a significant role in the findings. The participants were given a summary of the study's goals. The online questionnaire's opening section included a consent form, informing respondents that their responses were entirely voluntary, anonymous, and confidential and would only be used for educational reasons. The survey would only move forward if they approved of the consent form (Nijhawan et al., 2013).

The data collection period started on the 3rd of May and ended on the 18th of May. To recruit participants, this study first adopted a snowball sampling method to recruit participants through WhatsApp groups, Instagram posts, WeChat groups, Reddit dating communities, and the Douban master's thesis survey group. Secondly, a purposive sampling method was used to reach a sufficient number of qualified respondents through the Prolific platform, which is a paid survey site for recruiting survey participants. On the platform, some criteria were primarily designed before publishing the survey. Therefore, only Western Europeans and Chinese participants who are using dating apps were eligible to fill out the survey. In total, 50 participants were recruited through Proteus, and each of them received an incentive of 1 euro on average after their answers were reviewed and approved by the researcher.

In total, 473 responses were recorded in the dataset. There was a pre-test conducted by 11 participants to test if there was any confusion about the study or the clarity of the Chinese version of the survey. The English version was clear for participants; however, the Chinese version was adjusted based on the participants' feedbacks from pre-test stage. After data cleaning, only 167 ($N = 167$) responses were valid. Within the 167 responses, there were four responses lacking answers to the nationality question and two responses lacking answers to the demographic questions. The missing answers to demographic questions were recoded into missing values. However, these six responses were still valid because their responses went through the filer questions of age, ethnicity, and dating app use successfully, and their responses are complete for all important scale questions.

3.3 Sample

The average age of the final sample is 27.1 ($SD = 6.93$), ranging from 18 to 57. 49.1% of the participants were female, and 43.1% were male. Only 3% of the participants identified themselves as non-binary. 71.3% of the participants identified themselves as heterosexual (straight), and 8.4% of them identified as homosexual (gay). Most of the participants had a high educational background, with a bachelor's degree (37.7%) and a graduate or professional degree (32.9%). Moreover, there is a variety of dating apps used among participants (Multiple choice was allowed); most of them used Tinder (68.3%), followed by Bumble (42.5%), Tantan (20.4%), Soul (17.4%), and Hinge (16.8%). The least used dating apps are Grindr (9.6%) and Momo (6%). The majority of participants used

dating apps occasionally (44.9%), whereas 31.7% used dating apps rarely and 20.4% of them used them often. Only 3% claimed to be always using dating apps. The differences between Western European and Chinese dating app use can be found in the table below.

Since this paper specifically aimed to pay attention to the intercultural difference between Western Europeans and Chinese, 106 respondents (63.5%) were Western European, and 61 respondents (36.5%) were Chinese. Among Western European participants, most of them are from The Netherlands (22.2%), followed by Germany (16.8%), France (12.6%), Austria (3%), and Switzerland (1.2%). A large percentage of participants are Chinese (40.7%). There was a difference between the percentage of Chinese ethnicity and Chinese nationality because 9 out of 37 Dutch respondents claimed to have a Chinese cultural heritage. Furthermore, 16 out of 68 Chinese respondents identified as belonging to Western European culture. Chinese nationality and ethnicity statistics are therefore distinct. Nationality-wise, the majority is Chinese, while ethnicity-wise, the majority is Western European. Although the final sample failed to reach the balance between Western European participants and Chinese participants, intercultural comparisons between these two cultural groups were still able to be conducted with reliable and valid results.

Table 1

Demographics per ethnicity (N = 167)

	Western European (N = 106)		Chinese (N = 61)	
	N	%	N	%
Gender				
Male	54	32.3	18	10.8
Female	46	27.5	36	21.6
Sexual Orientation				
Heterosexual	72	43.1	47	28.1
Homosexual	6	3.6	8	4.8
Dating app types				
Tinder	83	49.7	31	18.6
Bumble	42	25.1	29	17.4
Tantan	10	6	24	14.4
Soul	9	5.4	20	12
Hinge	13	7.8	15	9
Grindr	10	6	6	3.6
Momo	4	2.4	6	3.6

3.4 Measurements

Self-presentation. In this study, self-presentation is conceptualized as several facets of the self, using a scale initially developed for Facebook users by Babbie (2011). As the scale has already been adapted for the Tinder context in the research by Ranzini and Lutz (2017), it would also be appropriate to modify it for the context of general dating apps. Real self, ideal self, false self - deception, false self - compare/impress, and false self - exploration are the five subscales that the scale has separated self-presentation into. There were two subscales of self-presentation used in this paper: real-self and false self – deception. Participants were asked to rate how much they agree with each of the eight statements to identify what self they presented on dating apps on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

The 8 items of self-presentation were analyzed using factor analysis using the extraction method of principal components analysis with direct oblique rotation with a fixed number of factors ($= 2.00$), $KMO = .77$, $\chi^2 (N = 167, 36) = 428.30, p < .001$. The resultant model explained 55.2% of the variance in self-presentation. Factor loadings of individual items onto the three factors found are presented in Table 1. The factors found were:

Deceptive self-presentation. The first factor included 4 items linked to deceptive self-presentation such as "I post information about myself on dating apps that is not true." This scale has a good reliability ($M = 2.17, SD = 0.77, \alpha = .78$).

Authentic self-presentation. The second factor included 4 items linked to authentic self, for example, "Who I am on dating apps is similar to who I am offline." The reliability test has shown that if the item "I have a good sense of what I want in life and using dating apps is a way to express my views and beliefs" was deleted, the alpha could be increased from .70 to .71. However, the alpha only increased .01 and the original scale is a valid scale. Therefore, no item would be deleted. This scale remains good reliability ($M = 3.66, SD = 0.69, \alpha = .70$)

Table 2*Factor and reliability analyses for self-presentation scale (N = 167)*

Items	Deceptive self-presentation	Authentic self-presentation
I sometimes try to be someone other than my true self on dating apps.	.889	
I am a completely different person on dating apps than when I am not on dating apps.	.794	
I post information about myself on dating apps that is not true.	.757	
Sometimes I feel like I keep up a front on dating apps.	.443	(-.407)
Who I am on dating apps is similar to who I am offline.		.833
I have a good sense of what I want in life and using dating apps is a way to express my views and beliefs.		.729
The way I present myself on dating apps is how I am in real life.		.635
I like myself and I am proud of what I stand for and I show it on dating apps.	(-.431)	.435
Eigenvalues	3.48	1.24
Cronbach's alpha	.78	.70

Well-being. The dependent variable based on the research question was well-being because it is about the effect of the level of multiple facets of the self on dating app users' well-being after using dating apps. Well-being was measured by the scale of PANAS-X (Clark & Watson, 1994). The study of Howell et al. (2010) confirmed that this scale has a good validity, reliability and generalizability. Moreover, PA and NA are accountable for a majority of the variance in self-rated affect; using these two general dimensions together, it is able to investigate approximately one-half to three-quarters of the common variance in mood states (Watson et al., 1988; Watson & Tellegen, 1985). Besides, the PANAS-X framework was developed from the original PANAS framework, which is adapted in various social media studies. In addition, the study of Her and Timmermans (2021) already adapted this scale in the context of dating apps. Therefore, it is vital to include both positive and negative affect to investigate subjective well-being.

In this paper, two subscales were used, Positive affect (PA) and Negative affect (NA) and this includes 20 items in total and each of the subscales consisted of 10 items. All the items from NA scale were reversed coded. Participants were required to rate their feelings of PA and NA on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

The 20 items of PANAS-X were analyzed using factor analysis using the extraction method of principal components analysis with direct oblimin rotation with a fixed number of factors (2.00), $KMO = .84$, $\chi^2 (N = 167, 190) = 1376.18$, $p < .001$. The resultant model explained 53.9% of the variance in PANAS-X. Factor loadings of individual items onto the 2 factors found are presented in Table 2. The factors found were:

Negative affect. This factor consisted of 11 items related to negative emotions such as distress and ashamed. However, according to the original scale, the item of alertness belonged to positive affect scale. Therefore, the negative affect scale would only contain 10 items in the negative scale ($M = 2.41$, $SD = 0.72$, $\alpha = .80$) as it is a valid scale proven by previous studies and the item of alertness should be in the positive affect scale.

Positive affect. This factor consisted of 10 items related to positive emotions such as inspired and strong. As the original positive affect scale included the item of alert and the reliability test also showed a strong reliability if included the item of alert ($M = 3.05$, $SD = 0.62$, $\alpha = .84$). Therefore, the item of alert should be included in positive affect scale instead of negative affect scale and there are 10 items in total in the positive affect scale.

Table 3*Factor and reliability analyses for PANAS-X scale (N = 167)*

Items	Negative Affect	Positive Affect
Afraid	.759	
Scared	.753	
Guilty	.724	
Ashamed	.711	
Upset	.702	
Distressed	.665	
Jittery	.657	
Irritable	.613	
Nervous	.573	
Hostile	.562	
Alert	(-.511)	
Enthusiastic		.744
Inspired		.761
Strong		.735
Excited		.732
Proud		.730
Interested		.719
Active		.717
Determined		.651
Attentive		.488
Eigenvalues	5.22	4.32
Cronbach's alpha	.80	.84

Self-esteem. The Rosenberg self-esteem scale (Rosenberg et al., 1995) was used in this study to discover the level of self-esteem of the participants and its relationship to self-presentation and well-being. Self-esteem was used as the control variable for further analyses. The self-reporting RSE scale is a reliable and a valid measure of global self-worth that is widely known around the world (Gray-Little et al., 1997). This scale has 10 items in total, 5 items are positive, and the rest are negative. Therefore, 5 negative items were reversed coded. Participants were asked to rate each item based on a 4-point Likert scale from 1 = Strongly disagree to 4 = Strongly agree.

The 10 items of self-esteem were analyzed using factor analysis using the extraction method of principal components analysis with direct oblimin rotation with a fixed number of factors (1.00), $KMO = .904$, $\chi^2 (N = 167, 45) = 811.88, p < .001$. The resultant model explained 53.9% of the variance in self-esteem. Factor loadings of individual items onto the 1 factor found are presented in the below table. This scale has a good reliability ($M = 2.86, SD = 0.54, \alpha = .89$).

Table 4

Factor and reliability analyses for self-esteem scale (N = 167)

Items	Self-esteem
All in all, I am inclined to feel that I am a failure (R)	.824
I take a positive attitude toward myself	.804
On the whole, I am satisfied with myself	.803
I feel I do not have much to be proud of (R)	.792
I certainly feel useless at times (R)	.784
At times I think I am not good at all (R)	.748
I feel that I'm a person of worth, at least on an equal plane with others	.705
I am able to do things as well as most other people	.671
I feel that I have a number of good qualities	.670
I wish I could have more respect for myself (R)	.317
Eigenvalues	5.27
Cronbach's alpha	.89

Notes. Five items are reversed coded (R)

Relationship seeking motive. Relationship seeking motive was used as a moderator. This paper used relationship seeking subscale in the dating app motive scale of Timmermans and Alexopoulos in 2020, which is the adapted version of Timmermans and De Caluwé's Tinder Motive Scale (2017). There are a total of five items, which were measured using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

The 5 items of relationship seeking motive were analyzed using factor analysis using the extraction method of principal components analysis with direct oblimin rotation with a fixed number of factors (= 1.00), $KMO = .841$, $\chi^2 (N = 167, 10) = 481.27, p < .001$. The resultant model explained 67.9% of the variance in relationship seeking. Factor loadings of individual items onto the 1 factor found are presented in Table 4. This scale has a good reliability ($M = 4.72, SD = 1.43, \alpha = .88$).

Table 5

Factor and reliability analyses for relationship seeking scale (N = 167)

Items	Relationship seeking
Generally, I use dating apps to	
Find someone for a serious relationship	.930
Fall in love	.891
Meet a future husband or wife	.809
Build an emotional connection with someone	.768
Seek out someone to date	.701
Eigenvalues	3.39
Cronbach's alpha	.88

Ethnicity. Since one of the aims of this study was to discover the intercultural differences, participants were asked to fill out question related to their identified ethnicity with three options: Western European, Chinese and others. This variable was recorded as a dummy variable with two categories (Western European = 0; Chinese = 1), and "others" was reported as missing because the survey automatically terminated when respondents selected "others".

Dating app types and frequency of use. Participants were asked to fill out what types of dating apps they used (Multiple answers were allowed) and there are seven types of dating apps that most used in Europe and in China including Tinder, Bumble, Hinge, Grindr, Tantan, soul and Momo. Participants were also allowed to fill out answers about dating apps that they used but not included in the questionnaire. After that, Participants were asked to fill out the question of How often do they use dating apps based on a 5-point frequency scale from 1 = always to 5 = never (Mcleod, 2023). The frequency use of dating apps was reversed coded (from 5 = always to 1 = never) and used as a control variable.

Demographics. Participants were asked to fill out questions about their age, level of education, nationality, relationship status, gender, and sexual orientation. Gender and sexual orientation were recorded into dummy variables (male = 0; female = 1) (heterosexual = 0; homosexual = 1).

4. Preliminary analyses

4.1 Analytical strategy

Hierarchical regression analyses were used for hypothesis testing. In the regression model with positive affect as outcome variable, the control variables were ethnicity, age, self-esteem and frequency use of dating apps, ethnicity was recorded into dummy variable with two categories (Western European = 0; Chinese = 1). The main predictor was authentic self-presentation and one moderator: relationship seeking motive. The motive was included in the main regression model to test if it provides meaningful contribution to make the model's predictive value stronger (R^2). Similarly, in the regression model with negative affect as outcome variable, the control variables were the same as the model with positive affect. Ethnicity was also recorded into dummy variable as previous model. The main predictor was deceptive self-presentation and one moderator: relationship seeking motive. The relationship seeking motive was added to the model to test if it increases the model's statistical power.

To test the moderation effects between self-presentation and relationship seeking motive, interaction terms were added to the main regression models accordingly. The independent variables and the product terms were all standardized because when the regression model contain interaction term (Frost, 2017; Marquardt, 1980). Moreover, if variables were not standardized, the models would be at risk of producing misleading results (Frost, 2017; Marquardt, 1980).

In addition, in the pre-analyses, an independent t-test was conducted to investigate the differences between Western Europeans and Chinese. However, control variables could not be included in the independent t-test. As a result, multiple regression analyses were conducted to identify the cultural differences. The ethnicity variable was a dummy variable with two categories (Western European = 0; Chinese = 1), and additional control variables including age, self-esteem, and frequency of use of dating applications were added to the model.

4.2 Assumption check

To determine whether the regression analyses satisfied the prerequisites for hierarchical regression, a number of tests were examined and displayed in Table 6. First, the assumptions of linearity of the regression residuals were tested. The scatterplots demonstrated approximate linear models, and no influential outliers were spotted.

The assumption of normality of the regression residuals was also tested. The Shapiro-Wilk test for normality of negative affect ($SW = .962$, $df = 167$, $p < .001$) was significant and revealed that the residuals were not normally distributed. However, a visual inspection of the plot and histogram revealed that most of the residuals appear to be normally distributed. Additionally, the value of skewness was $-.665$, and the value of kurtosis was 1.366 . According to Byrne (2016) and Hair (2010), the data is normal if skewness is between -2 and $+2$, and kurtosis is from -7 to $+7$. Therefore, the assumption is largely held (Table 6).

Moreover, the Shapiro-Wilk test for normality of positive affect ($SW = .961, df = 167, p < .001$) was significant and reveals that the residuals are not normally distributed. However, the visual inspection of the plot and histogram revealed that most of the residuals appear to be normally distributed (Appendix 1). In addition, the value of skewness was $-.605$ and the value of kurtosis was $.618$. Therefore, the assumption is largely held.

Similarly, the Shapiro-Wilk test for normality of authentic self-presentation ($SW = .970, df = 167, p < .001$), deceptive self-presentation ($SW = .951, df = 167, p < .001$), and relationship seeking motive ($SW = .959, df = 167, p < .001$) were significant and revealed that the residuals were not normally distributed. However, the visual inspection of the plot and histogram revealed that most of the residuals appear to be normally distributed. Furthermore, the values of skewness were in the range from -2 to $+2$, and the values of kurtosis were also within the range from -7 to $+7$ (Byrne, 2016; Hair, 2010).

Furthermore, it is necessary to check the assumptions of multicollinearity between predictor variables and outcome variables because if multicollinearity exists, it will reduce the precision of the estimated coefficients, which will weaken the regression model. In other words, the statistics of the regression models would not be accurate. According to Hair et al. (2011), multicollinearity exists if the VIF value is greater than 5 and the tolerance value is below $.20$. The table showed that the levels of VIF were all below 1.007 and 1.003 and the statistics of intolerance were all above $.997$ and $.993$, indicating that there was no multicollinearity among predictors, moderator, and outcome variables. Thus, no assumptions were violated.

Table 6*Assumption check for regression models of the main effects*

Assumptions	NA	PA	Authentic	Deceptive	Relationship
	(N=167)	(N=167)	self-presentation (N=167)	self-presentation (N=167)	seeking motive (N=167)
<i>M</i>	3.05	2.41	3.67	2.17	4.72
<i>SD</i>	.62	.72	.69	.77	1.43
Cronbach's alpha	.80	.84	.70	.78	.88
Linearity (scatterplot)	Yes	Yes	Yes	Yes	Yes
Influential outliers (scatterplot)	No	No	No	No	No
Normality (histogram, Q-Q plot)	Good	Good	Good	Good	Good
Homoscedasticity (scatterplot)	Yes	Yes	Yes	Yes	Yes
Kurtosis	1.366	.618	.376	.791	-.661
Skewness	-.665	-.605	-.449	.755	-.446
Shapiro-Wilk's W test	.961***	.962***	.970***	.951***	.959***
Kolmogorov- Smirnov test	.104***	.114***	.114***	.124***	.098***
Multicollinearity (checked via VIF)	All below 1.007	All below 1.003	All below 1.007	All below 1.003	All below 1.007
Multicollinearity (checked via tolerance)	All above .997	All above .993	All above .993	All above .997	All above .997
<i>df</i>	167	167	167	167	167

Note. Significance level: * $p < .05$, ** $p < .01$, *** $p < .001$

4.3 Pre-analyses

A correlation analysis was conducted to test the correlation between control variables, predictors, moderator, and outcome variables. Age, ethnicity, sexual orientation, gender, self-esteem, and frequency of use of dating apps were used as control variables. Authentic and deceptive self-presentation were predictors. In terms of relationship-seeking motive, it was the moderator. Positive affect and negative affect were used as outcome variables. However, based on the correlation analysis results, sexual orientation and gender as control variables did not show any significant correlation with predictors, moderator, or outcome variables. This indicated that it may not contribute to the model; therefore, only age, ethnicity, self-esteem, and frequency of use of dating apps were kept as control variables. Moreover, authentic and deceptive self-presentation as predictor variables were strongly correlated with positive and negative affect as outcome variables. Relationship seeking motive also showed a strong correlation with the outcome variable negative affect.

Table 7*Correlation analysis between control variables, predictors, moderator, and outcome variables*

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Age	-										
2. Ethnicity	-.28**	-									
3. Sexual orientation	-.04	.10	-								
4. Gender	-.16	.23**	-.18*	-							
5. Self-esteem	.20*	.01	-.07	.07	-						
6. Frequency use of dating apps	.02	-.13	.04	-.16	-.04	-					
7. PA	.08	.10	-.06	.09	.22*	.28**	-				
8. NA	-.24**	-.003	.15	.06	-.39**	.09	-.02	-			
9. Authentic self-presentation	.17*	.00	-.01	.04	.42**	.22*	.35**	-.31**	-		
10. Deceptive self-presentation	.19*	.08	-.01	-.06	-.22*	-.01	-.12	.26**	-.50**	-	
11. Relationship seeking motive	.15	-.21*	.01	-.14	.04	.21*	.09	.15*	.11	-.14	-

Note. Dummies: Ethnicity (Western European = 0; Chinese = 1); Sexual orientation (heterosexual = 0; homosexual = 1); Gender (male = 0; female = 1)

*Significance levels: * $p < .05$ ** $p < .01$

Independent samples t-tests were conducted on self-presentation, well-being, self-esteem, and relationship seeking motive revealing the difference between Western European group and Chinese group as preliminary analyses. In terms of authentic self-presentation, the Western European group ($M = 3.68, SD = .77$) scored slightly higher than the Chinese group ($M = 3.62, SD = .61$), but the difference was not statistically significant, $t(165) = .54, p = .593$. Nevertheless, the results demonstrated a significant difference in deceptive self-presentation between the Western European ($M = 2.08, SD = .72$) and Chinese groups ($M = 2.32, SD = .84; t(165) = -2.01, p < .05$). Moreover, the effect size between these two groups, as measured by Cohen's d , was $d = .77$, indicating a medium effect. Which means the relationship between Western European and Chinese participants in presenting false image reached a medium practical significance (Cohen, 1988; Sullivan & Feinn, 2012). Consequently, based on the results, Chinese individuals are more likely than Western Europeans to present a false image of themselves on dating apps.

In terms of well-being, the Western European group ($M = 2.39, SD = .71$) had slightly lower scores in negative affect than the Chinese group ($M = 2.44, SD = .74$), $t(165) = -.42, p = .674$. In addition, the Western European group ($M = 3.01, SD = .69$) had slightly lower scores in positive affect than the Chinese group ($M = 3.14, SD = .64$), $t(165) = -.1.19, p = .237$. Moreover, the results indicated that the Western European group ($M = 2.78, SD = .48$) had marginally lower self-esteem scores than the Chinese group ($M = 2.80, SD = .34$), $t(158.656) = -.35, p = .724$.

In terms of using dating app motive, Western European group ($M = 4.93, SD = 1.44$) had significant higher relationship seeking scores than Chinese group ($M = 4.37, SD = 1.36$), $t(165) = 2.45, p < .05$. In addition, the effect size between these two groups, as measured by Cohen's d , was $d = 1.41$, indicating a large effect. Which means, the relationship between Western European and Chinese in using dating apps for relationship seeking reached a large practical significance (Cohen, 1988; Sullivan & Feinn, 2012). Consequently, in real life setting, Western Europeans are significantly more likely than Chinese to use dating applications for relationship seeking motive.

Table 8*Independent t-tests for cultural differences (N = 167)*

	Ethnicity		<i>t</i>	<i>p</i>	<i>d</i>			
	Western							
	European (<i>N</i> = 61)	Chinese (<i>N</i> = 106)						
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Authentic self-presentation	3.68	.77	3.62	.61	.54	.593	.72	
Deceptive self-presentation	2.08	.72	2.32	.84	-2.01	.046*	.77	
NA	2.39	.71	2.44	.74	-.42	.674	.72	
PA	3.01	.69	3.14	.64	-1.19	.237	.67	
Self-esteem	2.78	.48	2.80	.34	-.35	.724	.43	
Relationship seeking motive	4.93	1.44	4.37	1.36	2.45	.015*	1.41	

Note. Significance level: **p* < .05, ***p* < .01, ****p* < .001

5. Results

5.1 Impact of authentic self-presentation on positive affect

A hierarchical regression analysis was conducted with positive affect as the outcome variable to test hypothesis 1 and hypothesis 3. Age, ethnicity, self-esteem, and frequency use of dating apps were the control variables included in the first block. Authentic self-presentation, relationship seeking motive and the interaction term of authentic self-presentation and relationship seeking were added to the second block to test the moderation effect. The first regression model with control variables was significant, $F(5, 121) = 6.501, p < .001$, and 14% of variances was explained by this model ($R^2 = .14$). When adding authentic self-presentation and relationship seeking motive as independent variables and the interaction term to the second model, it also reached significance, $F(7, 159) = 5.841, p < .01$. The second model ($R^2 = .21$) was better than the first model, 21% of the variances was explained by the second model, which was higher than the first model (See table 9).

In the first model, ethnicity ($b^* = .17, p = .05$), self-esteem ($b^* = .19, p < .05$), and frequency use of dating applications ($b^* = .30, p < .001$) were found to be positively associated with positive affect. In the second model, self-esteem was no longer found to be significantly associated with positive affect, $b^* = .06, p = .451$. However, frequent use of dating applications was still significantly positively associated with positive affect ($b^* = .23, p < .01$). Consequently, it was determined that the more frequently dating applications are used, the more positive affect will be. Additionally, the results showed that ethnicity still had a positive relationship with positive affect ($b^* = .18, p < .05$). This indicated that Chinese users of dating apps experience more positive affect than Western European users.

In the second model, authentic self-presentation showed a significant positive relationship with positive affect, $b^* = .28, p < .001$. This indicated that authentic self-presentation would be beneficial for well-being. Nevertheless, relationship seeking motive did not show significant moderation effect on the relationship between authentic self-presentation and positive affect, $b^* = -.03, p = .714$. As a result, hypothesis 1 was confirmed while hypothesis 3 was not confirmed.

Table 9*Hierarchical regression model of the main effect and interaction effect – PA (N = 167)*

Variables	Model 1	Model 2
	b*	b*
Age	.02	-.002
Ethnicity	.17*	.18*
Self-esteem	.17*	.06
Frequency use of dating apps	.30***	.23**
Authentic self-presentation		.28***
Relationship seeking		.06
Authentic self-presentation*		-.03
Relationship seeking		
	$R^2 = .14$	$R^2 = .21$
	$F(4, 162) = 6.501$	$F(7, 159) = 5.841$

Note. Dummies: Ethnicity (Western European = 0; Chinese = 1)

*Significance level: * $p < .05$, ** $p < .01$, *** $p < .001$

5.2 Impact of deceptive self-presentation on negative affect

A hierarchical regression analysis was conducted with negative affect as the outcome variable to test H2 and H4. Age, ethnicity, self-esteem and frequency use of dating apps were the control variables included in the first block. Deceptive self-presentation, relationship seeking motive and the interaction term of deceptive self-presentation and relationship seeking were added to the second block to test the moderation effect. The first regression model with control variables was significant, $F(4, 162) = 10.985, p < .001, R^2 = .21$, and 21% of variances was explained by this model. When adding deceptive self-presentation and relationship seeking motive as independent variables and the interaction term to the second model, it remained significant, $F(3, 159) = 12.456, p < .001$. The second model was better than the first model, $R^2 = .35$, 35% of the variances was explained by the second model, which was higher than the first model (See table 10).

As shown in the table 10, in the first model, when age ($b^* = -.17, p < .05$) and self-esteem ($b^* = -.39, p < .001$) were used as single predictors. Both age and self-esteem showed significant negative relationship with negative affect. In the second model, age ($b^* = -.14, p < .05$) and self-esteem ($b^* = -.28, p < .001$) still showed significant negative relationships with negative affect. This indicated that younger people experience more negative affect than older people and the lower self-esteem level is, the poorer well-being will be. Moreover, deceptive self-presentation and relationship seeking motive were found to have a direct and significant association with negative affect. The table 10 showed that deceptive self-presentation has a positive relationship with negative affect, $b^* = .35, p < .001$. Relationship seeking motive also showed a positive relationship with negative affect, $b^* = .15, p < .05$. This thus indicated that both deceptive self-presentation and relationship seeking motive are harmful for well-being. Therefore, Hypothesis 2 was accepted.

Furthermore, relationship seeking motive was showed as a significant moderator, it moderated the association between deceptive self-presentation and negative affect, $b^* = .16, p < .05$. This indicated that users of dating applications who were seeking relationships while presenting a false image of themselves would experience a greater negative affect. As a result, Hypothesis 4 was confirmed.

Table 10*Hierarchical regression model of the main effect and interaction effect – NA (N = 167)*

Variables	Model 1	Model 2
	b*	b*
Age	-.17*	-.14*
Ethnicity	.02	-.02
Self-esteem	-.39***	-.28***
Frequency use of dating apps	.10	.08
Deceptive self-presentation		.35***
Relationship seeking		.15*
Deceptive self-presentation *		.16*
Relationship seeking		
	$R^2 = .21$	$R^2 = .35$
	$F (4, 162) = 10.985$	$F (3, 159) = 12.456$

Note. Dummies: Ethnicity (Western European = 0; Chinese = 1)*Significance level: * $p < .05$, ** $p < .01$, *** $p < .001$

5.3 The differences between Western European and Chinese

Multiple regression analyses were used to test H5 and H6 to discover the differences between Western Europeans and Chinese in presenting authentic self-presentation and deceptive self-presentation. As the table below shows, there was no significant difference in presenting authentic self-presentation between Western Europeans and Chinese ($b^* = .01, p = .88$). However, based on the independent t-test results on the preliminary analyses, it has shown that there was a significant difference in deceptive self-presentation between the Western European ($M = 2.08, SD = .72$) and Chinese groups ($M = 2.32, SD = .84, t(165) = -2.01, p < .05$). However, when adding other control variables to the multiple regression model, it was no longer significant ($b^* = .14, p = .07$). Therefore, the independent t-test showed a pseudo-effect, and there was no significant difference in presenting deceptive self-presentation between Western Europeans and Chinese. As a result, both H5 and H6 were rejected.

Based on the independent t-test results, positive affect did not differ significantly between Western Europeans ($M = 3.01, SD = .69$) and Chinese ($M = 3.14, SD = .64$), $t(165) = -.1.19, p = .237$. However, adding additional control variables to the regression model revealed a significant difference between Western Europeans and Chinese in positive affect ($b^* = .17, p < .05$). Moreover, this demonstrated a positive association, indicating that Chinese users of dating apps experienced more positive affect than Western European users.

Additionally, self-esteem has been shown to be a significant predictor of self-presentation. Self-esteem showed a positive relationship with authentic self-presentation ($b^* = .39, p < .001$), meaning that the higher the self-esteem level, the more authentic self-presentation would be shown. Whereas self-esteem had a negative relationship with deceptive self-presentation ($b^* = -.26, p < .001$). It explained that the lower the self-esteem level, the more deceptive one would be. Moreover, frequency of use of dating apps was also shown to be a significant predictor of authentic self-presentation, $b^* = -.25, p < .001$. It indicated that the less frequent use of dating apps, the more authentic self will be presented.

Table 11*Multiple regression models of control variables for self-presentation and well-being (N = 167)*

Control variables	Authentic self-	Deceptive self-	Positive	Negative affect
	presentation	presentation	affect	
	<i>b</i> *	<i>b</i> *	<i>b</i> *	<i>b</i> *
Ethnicity	.01	.14	.17*	.02
Age	.07	-.11	.02	-.17*
Frequency use of dating apps	-.25***	-.02	-.30***	-.10
Self-esteem	.39***	-.26***	.17*	-.39***
<i>R</i> ²	.23	.11	.14	.21

Note. Dummies: Ethnicity (Western European = 0; Chinese = 1)

*Significance level: **p* < .05, ***p* < .01, ****p* < .001**Table 12***Overview of the hypotheses*

Hypotheses	Result
<i>H1</i> : Dating app users' authentic self-presentation is positively associated with positive affect.	Accepted
<i>H2</i> : Dating app users' deceptive self-presentation is positively associated with negative affect.	Accepted
<i>H3</i> : Relationship seeking motive moderated the association between authentic self-presentation and positive affect positively.	Rejected
<i>H4</i> : Relationship seeking motive moderated the association between deceptive self-presentation and negative affect positively	Accepted
<i>H5</i> : Western European dating app users are more likely to present their authentic selves than Chinese dating app users	Rejected
<i>H6</i> : Chinese dating app users are more likely to present their deceptive selves than Western European dating app users	Rejected

6. Discussion

This thesis investigated the relationship between various types of self-presentation and well-being of dating app users. This study also explored the influence of self-esteem on the relationship between self-presentation and well-being. In addition, this thesis tested if the relationship seeking motivation has a moderation effect on the relationship between self-presentation of dating app users and their well-being. Another focus of this thesis is cultural differences between Western Europeans and Chinese in terms of self-presentation, well-being, and relationship-seeking motive.

First, although self-presentation theory has been widely adopted in the field of online dating, little research has focused on how different types of self-presentation can affect users' well-being status. In social media studies, authentic self-presentation is positively associated with positive outcomes such as happiness and enjoyment, while deceptive self-presentation is positively associated with negative outcomes such as anxiety and stress (Bailey et al., 2020; Gil-Or et al., 2015; J. Kim & Lee, 2011; Michikyan et al., 2014; Reinecke & Trepte, 2014; Wright et al., 2018). The results of this thesis are in line with social media studies: authentic self-presentation on dating apps was found to be positively associated with positive affect, whereas deceptive self-presentation was positively associated with negative affect. In other words, if dating app users presented themselves in a more authentic manner, they would experience greater well-being. In contrast, if the users of the dating app presented a falsified image of themselves, their well-being would be harmed. Thus, self-presentation is a strong predictor of well-being.

Second, self-esteem was negatively associated with deceptive self-presentation. Which means, respondents with lower self-esteem are more likely to present their false images on dating apps. Nevertheless, self-esteem was positively associated with authentic self-presentation, meaning that users with higher self-esteem would portray themselves in a more authentic way on dating apps. This result was identical with a previous online dating study (Ranzini & Lutz, 2017). It showed that self-esteem is a significant predictor of deceptive self-presentation. Moreover, this thesis found out that self-esteem is negatively associated with negative affect, meaning that lower self-esteem would experience poorer well-being. The results discovered that self-esteem thus associated negatively to both deceptive self-presentation and negative affect. However, in the multiple regression analysis and the first model of hierarchical regression of positive affect, self-esteem was found out significantly positively associated with positive affect. However, when added relationship seeking motive as a moderator into the second model, it was no longer significantly associated with positive affect. This might be due to the uncorrelation between relationship seeking motive and self-esteem. This result was not aligned yet with previous social media study of Jang et al. (2018), self-esteem is positively associated with self-reported happiness.

Thirdly, relationship seeking as a dating app use motive showed a significant interaction effect on the relationship between deceptive self-presentation and negative affect. This thus indicated that relationship seeking motive is a significant and positive moderator. This result showed that users

who use dating apps to find a romantic partner while presenting deceptive images will experience more negative effects than those who do not use dating apps to find a romantic partner. Moreover, both deceptive self-presentation and relationship-seeking motives are strongly associated with negative affect. This is consistent with previous research on online dating and social media (Her & Timmermans, 2021; Wright et al., 2018). However, relationship seeking as a dating app use motive did not reach significant interaction effect on the relationship between authentic self-presentation and positive affect. The study of Her and Timmermans in 2021 has showed that users who use Tinder for finding romantic partner would have a greater negative impact on well-being than a positive one, regardless of whether the user feels successful or not. This indicates that Tinder may not be optimal for those seeking a romantic partner. Therefore, relationship seeking did not show a direct and significant association with positive affect might be because relationship seeking motive is correlated more with negative affect than with positive affect. Moreover, Ranzini and Lutz (2017) demonstrated that relationship seeking motivation negatively influences deceptive self-presentation. Due to the long-term perspective and the possibility that deceptive self-presentation could backfire, Tinder users who are seeking romantic partners may present themselves more honestly. This may help to explain why relationship seeking motive can moderate the relationship between deceptive self-presentation and negative affect because if users present a false image of themselves on dating apps, they would be afraid of their matches discovering the false information that they have been presenting.

Fourthly, the respondents in our sample scored higher on authentic self-presentation than deceptive self-presentation, with an arithmetic mean of close to 4 (on a 1–5 Likert scale) for authentic self-presentation and of slightly above 2 for deceptive self-presentation. Thus, users report relatively authentic self-presentation on dating apps. The groups of Western European and Chinese participants scored similarly on authentic self-presentation, with an average score of 3.65. However, the group of Chinese participants scored higher on deceptive self-presentation. This thus means that Chinese participants tend to present themselves in a more deceptive manner than Western European participants. However, when adding other control variables such as age and self-esteem to test if Chinese participants scored higher on deceptive self-presentation than Western European participants, it did not show a significant difference. The result from the multiple regression thus indicated the result from the independent t-test was a pseudo effect. An explanation could be that other factors, such as users' self-esteem level, may play a more dominant role in self-presentation than cultural differences. It might also be due to the unequal amount between Western European participants and Chinese participants.

Concerning well-being, the participants in the sample scored higher on positive affect than negative affect, with an average score of 3 (on a 5-point Likert scale) for positive affect and below 2.5 for negative affect. Thus, users report relatively good well-being. Compared to Western European participants, Chinese participants had a higher score on positive affect. Thus, this means that Chinese participants experience better well-being than Western European participants. The reason might be

that Western European participants are more likely to use dating apps for relationship seeking than Chinese participants. According to Her and Timmermans (2021), relationship-seeking motives can lead to negative outcomes. Moreover, the results of this thesis showed relationship seeking motive has a direct and positive relationship with negative affect. This thus explained why Western European participants experienced less positive affect than Chinese participants. To sum up, there is not significant difference in self-presentation and negative affect between Western European and Chinese dating app users. However, Chinese dating app users experienced more positive affect than Western European users.

In addition, Western European participants scored higher than Chinese participants on the relationship-seeking motive. This indicated that Western Europeans are more likely than Chinese to use dating applications to find a romantic partner. Possibly due to cultural differences between these two groups. Western Europeans are raised in a more individualistic culture, whereas the Chinese are growing up in a more collectivist culture. Individualism, according to Hofstede (1980), emphasizes personal autonomy, independence, and self-expression. In contrast, collectivism places a premium on group cohesion, interdependence, and conformity with societal norms. These cultural orientations have a substantial effect on people's attitudes toward the use of dating apps. Moreover, Chinese culture is profoundly rooted in collectivist values, in which individuals prioritize the well-being of the group and social harmony over their own desires (Bond, 2010). This collectivist orientation influences the attitudes of Chinese individuals towards dating apps, as they may perceive using these platforms to find romantic partners as self-centered or contrary to societal norms. In addition, Collectivist cultures, such as China, place community approval and familial expectations at the forefront of decision-making processes (Triandis, 1995). When choosing romantic partners, Chinese individuals frequently seek the approval of their family and significant others (Epstein et al., 2005). This emphasis on group harmony and filial piety may discourage Chinese individuals from using dating apps, as they may be perceived as individualistic and indifferent to the influence of their family on partner choice. Therefore, the use of dating apps to find a romantic partner or begin a serious relationship may be common in Western European countries, whereas the use of dating apps remains controversial in Chinese society, as the majority of Chinese have been raised in a collectivist culture and remain conservative, preferring to find romantic partners through offline networks over using dating apps.

Intriguingly, it was discovered that the frequency of using dating applications was positively correlated with positive affect. This indicated that the increased use of dating applications would result in improved well-being. This result corresponded with this finding of Her and Timmermans (2021). The study found that compulsive Tinder use is not only positively associated with sadness and anxiety, but also with joviality (Her & Timmermans, 2021). It explained that compulsive Tinder use is positively associated with happiness because compulsive use is associated with longer Tinder use, which increases the likelihood of positive Tinder experiences (Her & Timmermans, 2021). In

addition, age is negatively associated with negative affect, so younger dating app users would experience greater negative affect than elder users. According to Gross et al. (1997), elder participants reported less negative emotional experiences and greater emotional control. Carstensen et al. (2011) also discovered that aging is associated with an increase in positive emotional well-being, emotional stability, and emotional complexity. Possibly because older people have more life experiences and are more mature than younger people, they are less susceptible to the influence of others and therefore experience fewer negative emotions.

Overall, the regression model of authentic self-presentation on positive affect can explain a variance of 21%, while the model of deceptive self-presentation on negative affect can explain a variance of 35%. Since neither variance is sufficiently explained by the models, it is possible to include additional variables in the future. In the study conducted by Ranzini and Lutz (2017), it was determined that personality traits can explain self-presentation more effectively, whereas the motivations for using Tinder were the most influential variables in explaining self-presentation. However, only one motive (relationship seeking) was included in this thesis, which may explain why the variance was not adequately explained by either model.

This thesis contributes additional insights into the relationship between self-presentation and well-being. Moreover, it demonstrates that dating apps may share many similarities with social media, particularly in terms of the relationship between users' self-presentation and their well-being, and the moderation effect of relationship seeking motive on the relationship between self-presentation and well-being. Furthermore, as long-term poor well-being can result in mental and physical disorders (Huppert, 2009), it is meaningful to discover other potential factors that may contribute to dating app users' better well-being or acknowledge about the consequences of different factors can produce to harm well-being. In terms of practical implication, dating app users should be aware of using dating apps to find a romantic partners might experience greater negative emotions.

6.1 Limitation and further research

The sampling procedure is the first limitation of this paper. For data collection, the snowball sampling technique was used. This sampling procedure has several drawbacks, including the potential of biased sampling data (Babbie, 2011). The second limitation is that data was self-reported. The nature of self-reported data may cause several problems, such as social desirability, memory bias, and response fatigue (Podsakoff et al., 2003). However, the self-reported data can still maintain satisfactory results (Weigold et al., 2013). Moreover, since one of the objectives of this paper is to examine intercultural differences, the sample size of each cultural group is crucial. However, there was a degree of inequity in the sample, as 63.5% of the participants were Western European and 36.5% were Chinese. Due to scheduling constraints, the researcher was unable to recruit more Chinese participants.

Another limitation of this thesis is that it only investigated relationship-seeking as a motive for using dating apps. Although relationship seeking was identified as a strong positive moderator of

the relationship between deceptive self-presentation and negative affect, the other motives for using dating apps remain unknown. Therefore, future research should include additional dating app usage motives. It would be interesting for future researchers to continue investigating intercultural differences with other nations, such as the United Kingdom and Korea. Since this thesis only covered two types of self-presentations, it would be fascinating to examine the relationship between ideal self-presentation and well-being. In addition, as previously mentioned, the inclusion of additional variables, such as other dating app use motives, may increase the variances of the models, since the current model explains limited variances.

6.2 Conclusion

To answer the first research question, the self-presentation of dating app users can have varying associations with their well-being. According to the results, dating app users who present themselves in an authentic manner experience greater well-being, whereas those who present themselves in a dishonest manner experience lower well-being. Moreover, relationship seeking motive has a strong moderating effect between deceptive self-presentation and negative affect, suggesting that users who use dating apps to find romantic partners are more likely to experience stronger negative well-being. To answer the second research question, there was no significant difference between Western European and Chinese dating app users regarding two categories of self-presentation (authentic and deceptive). However, there was significant difference in well-being between these two groups, with Chinese users of dating apps reporting greater well-being than their Western European users.

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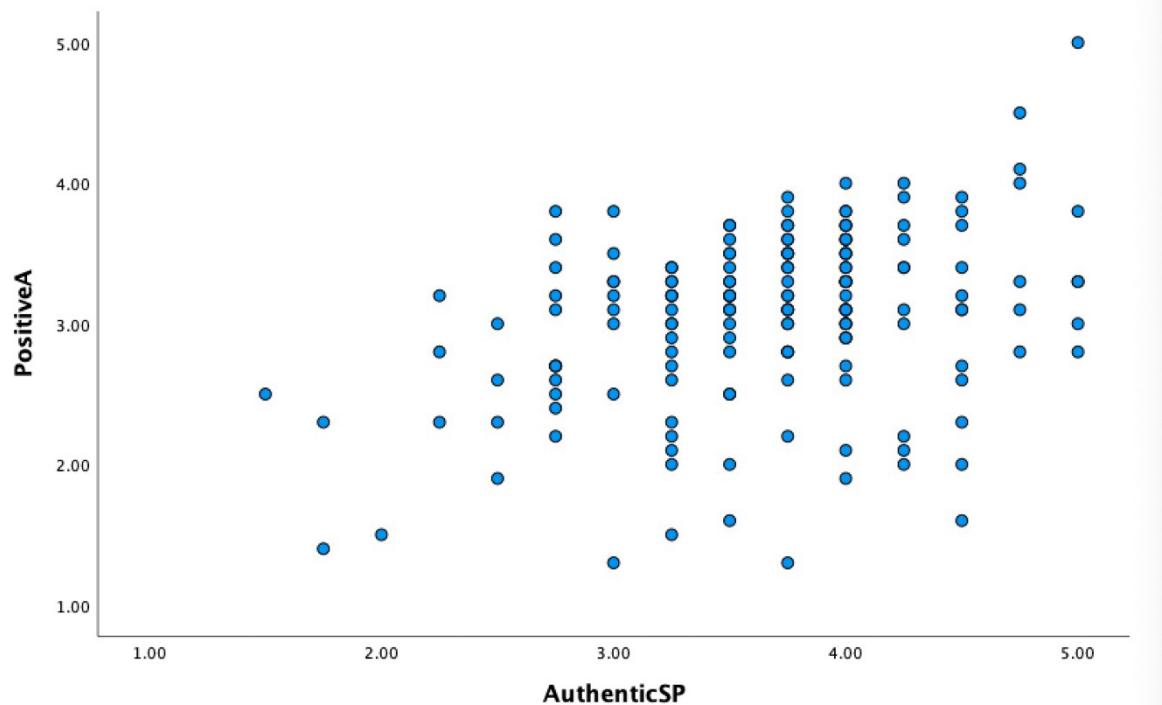
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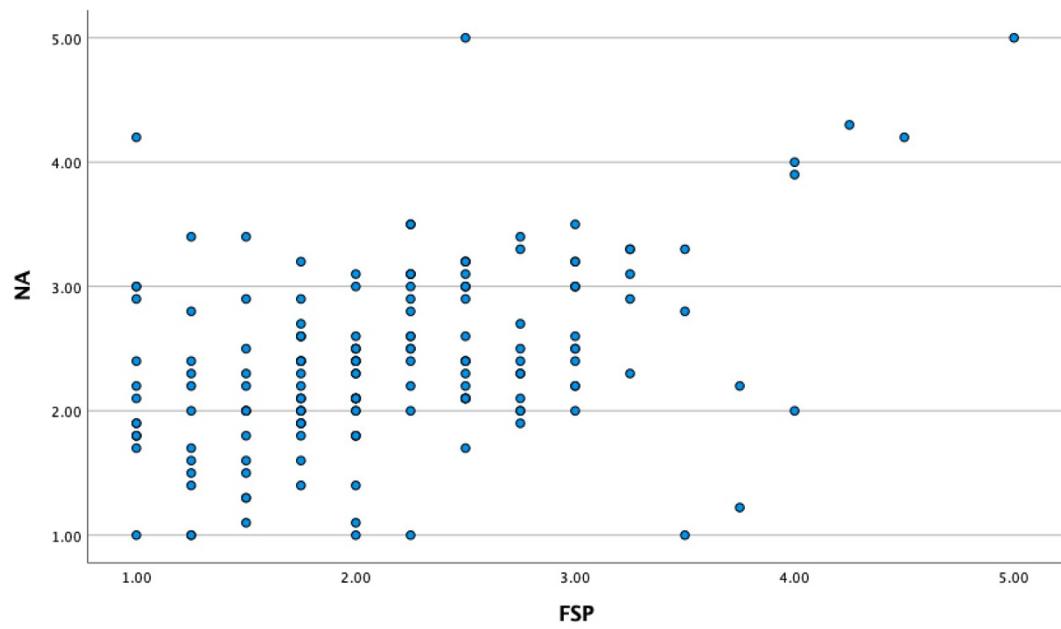
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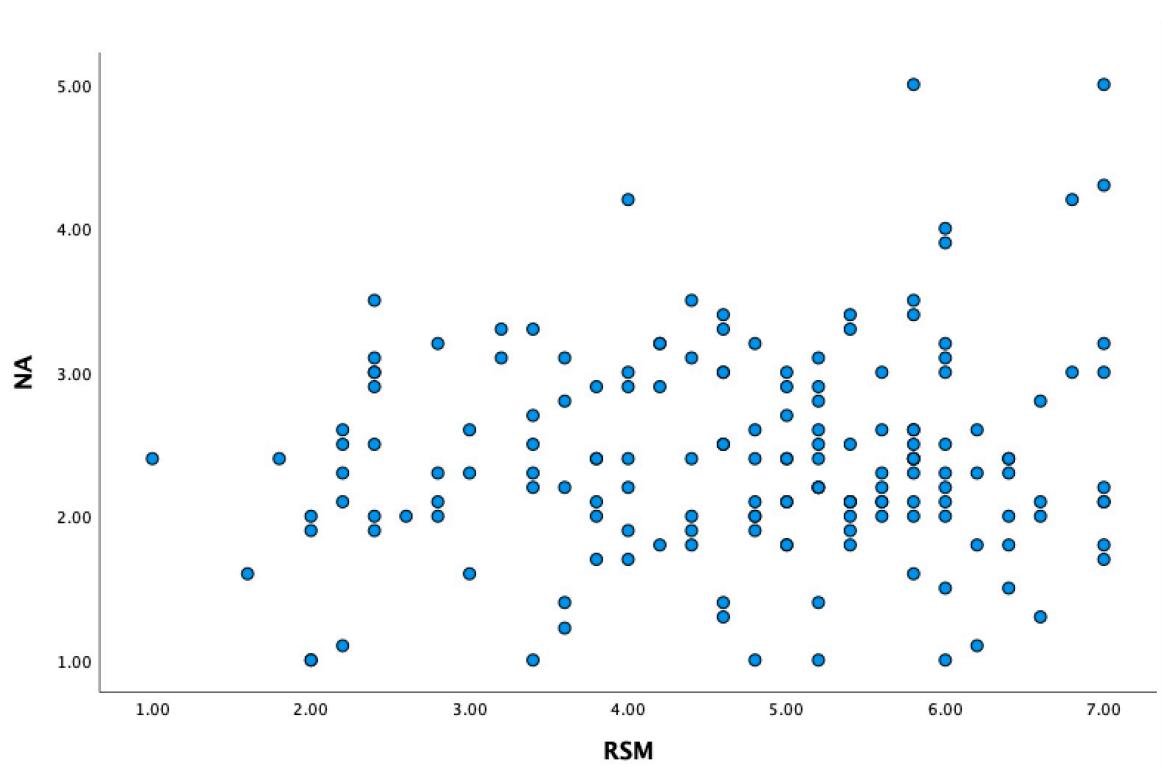
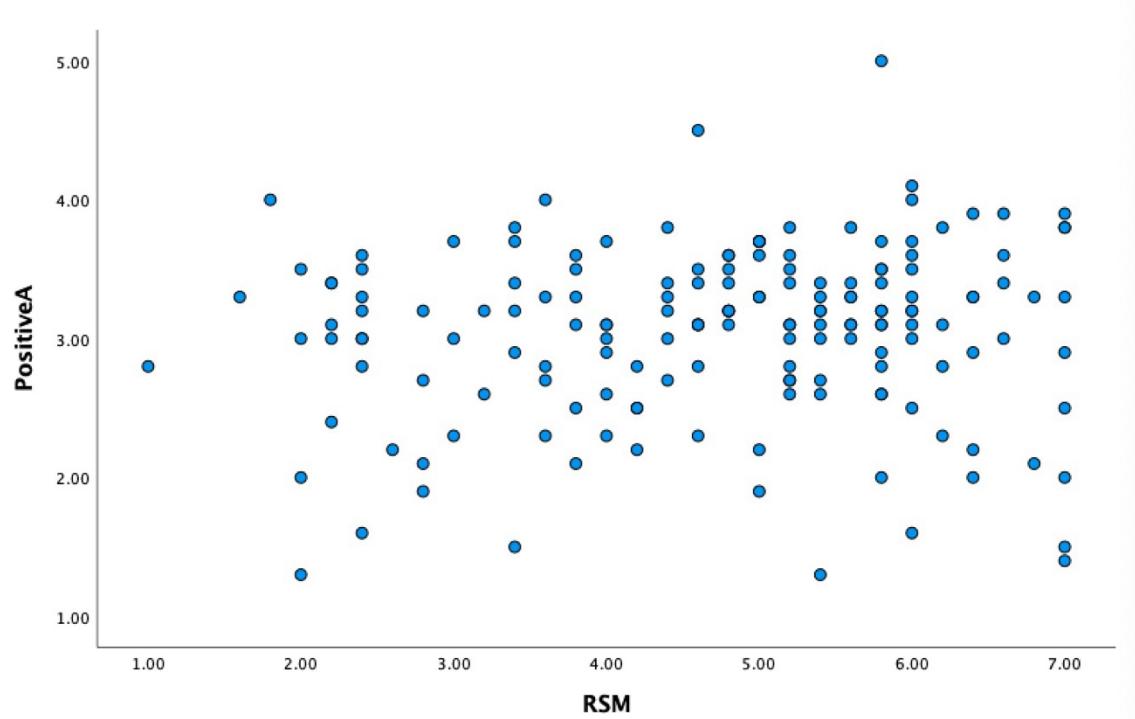
Appendix 1

Scatterplot

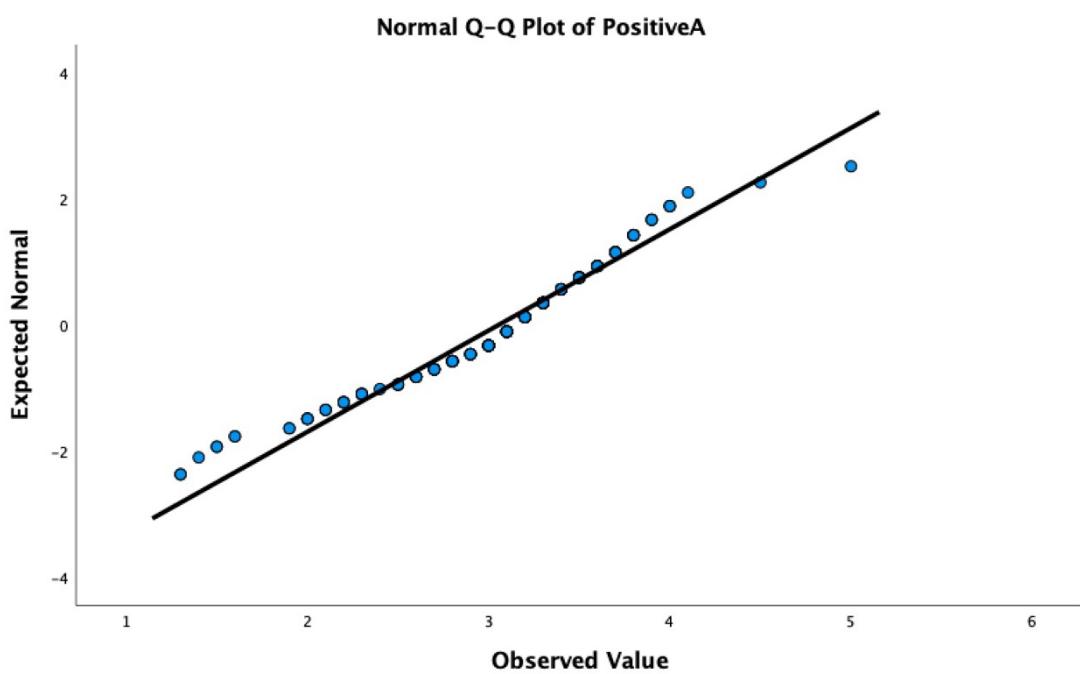
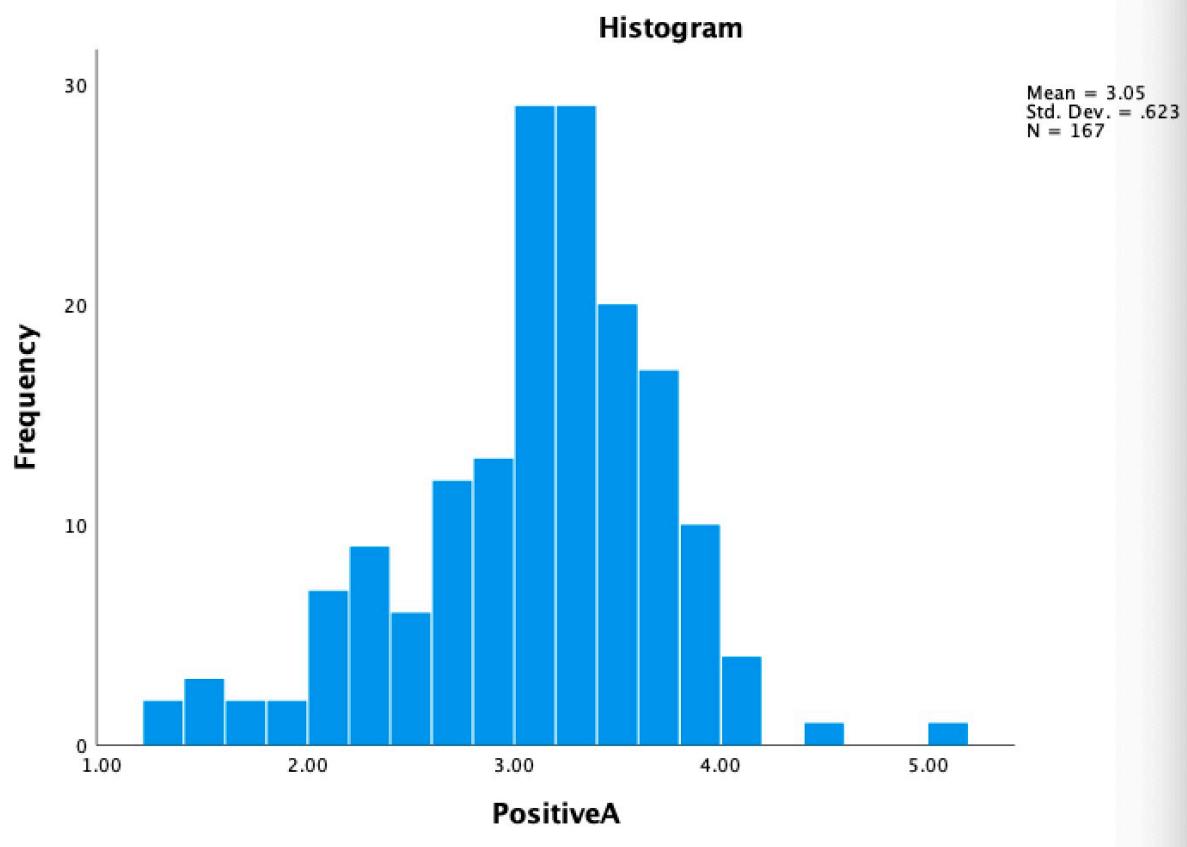


Graph

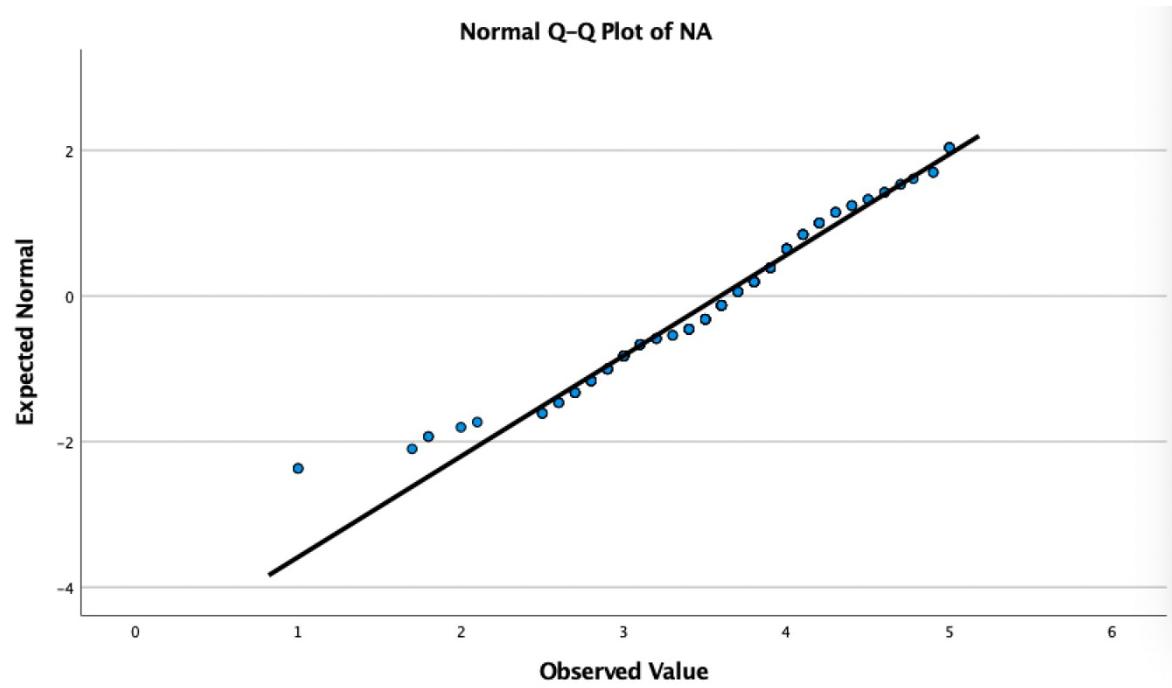
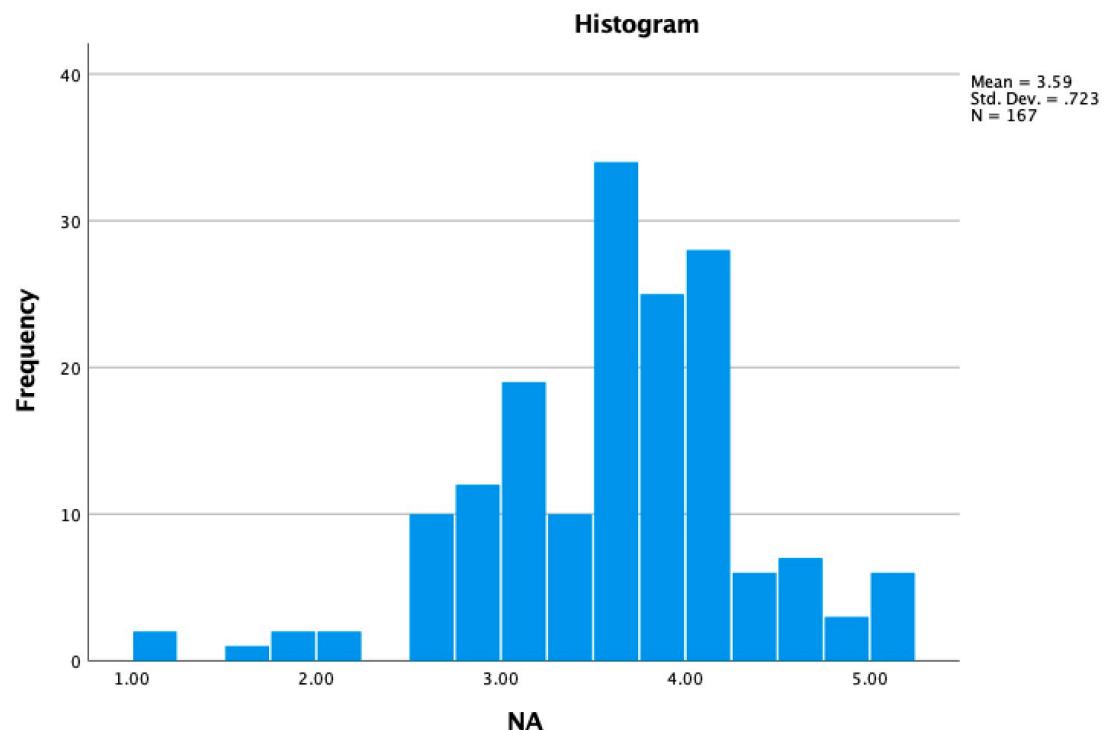


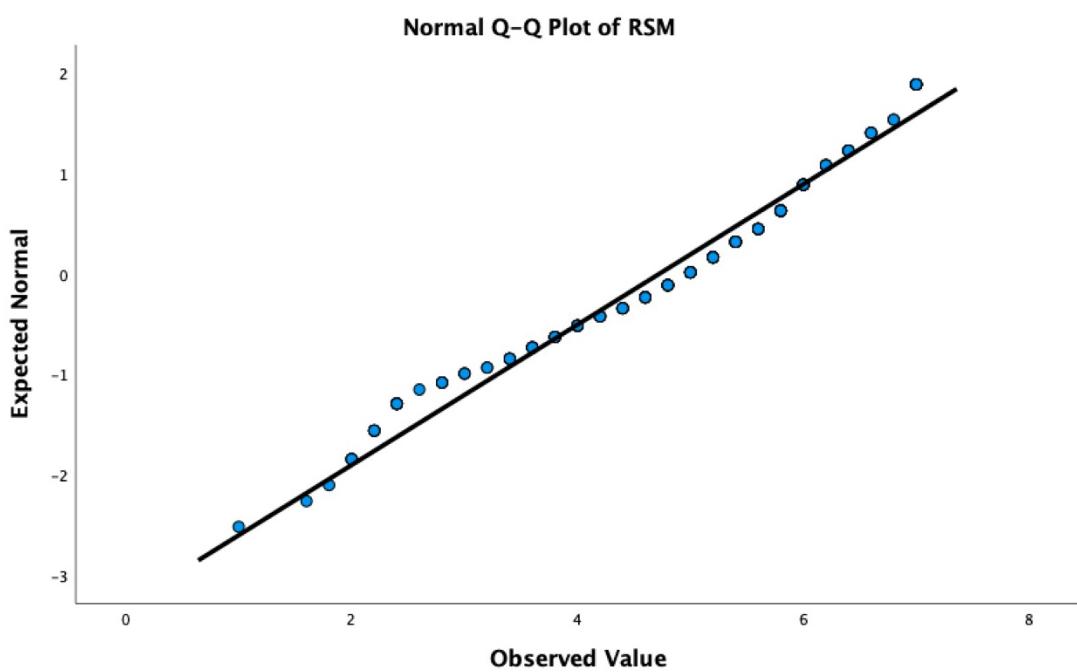
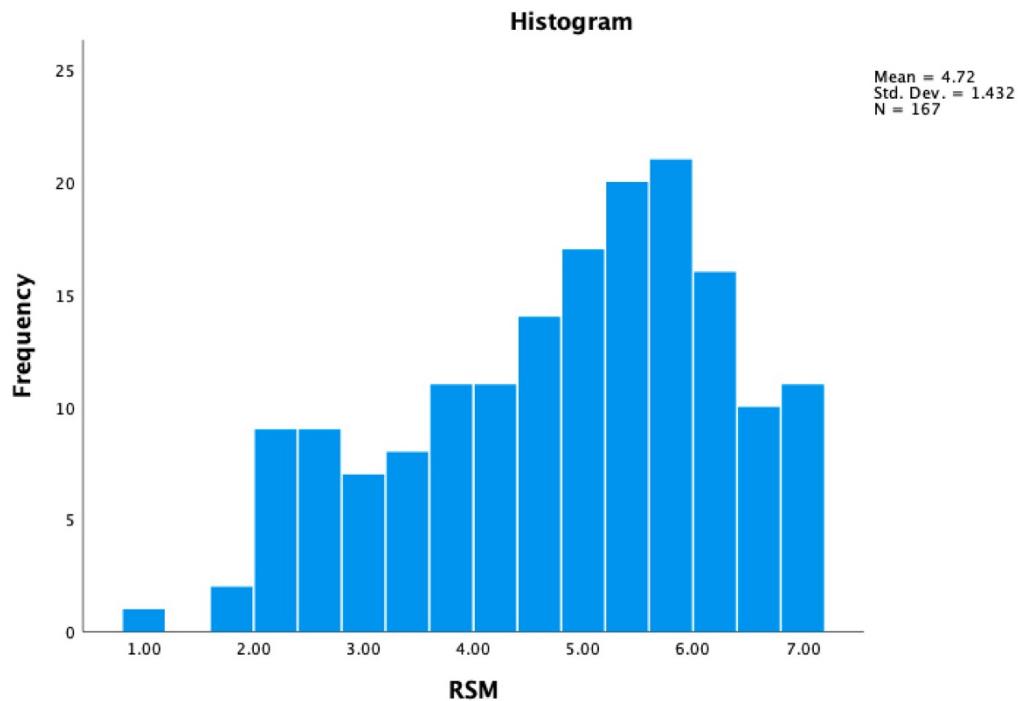


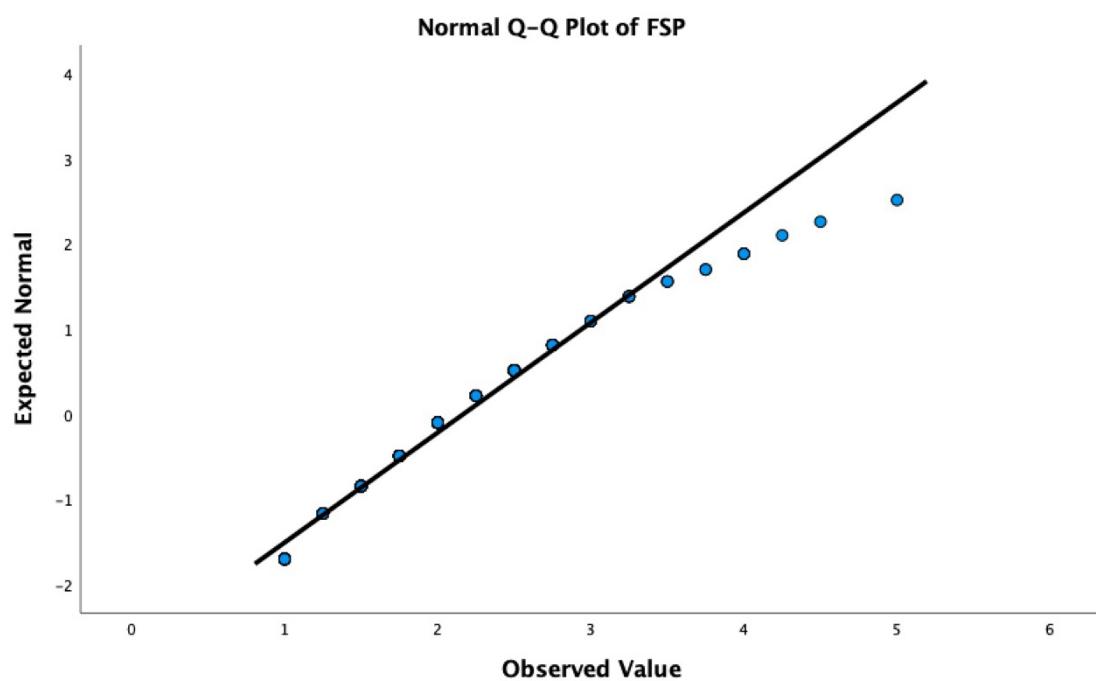
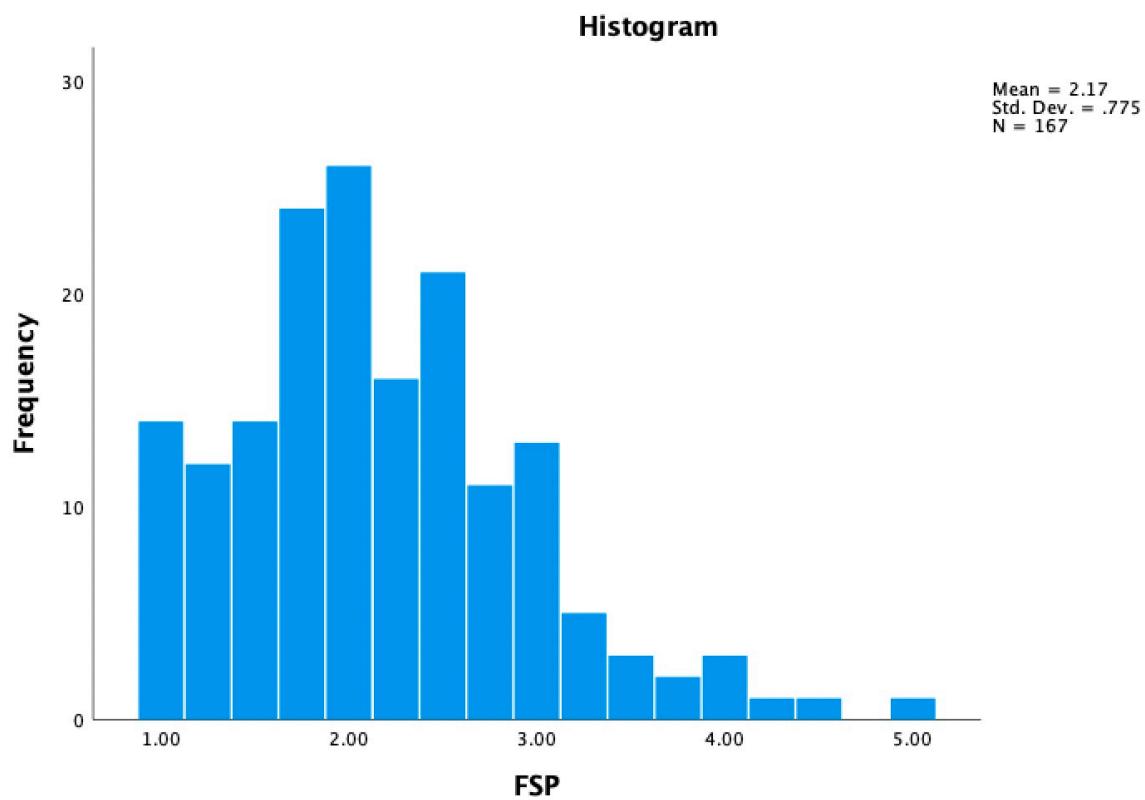
Histogram & Q-Q Plot

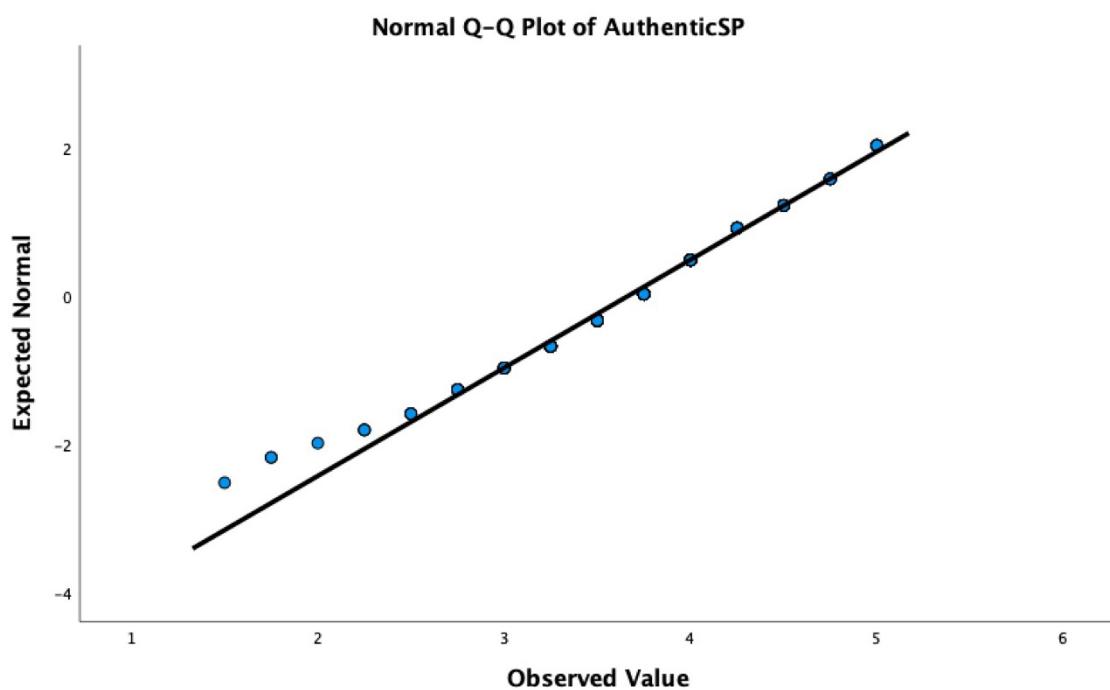
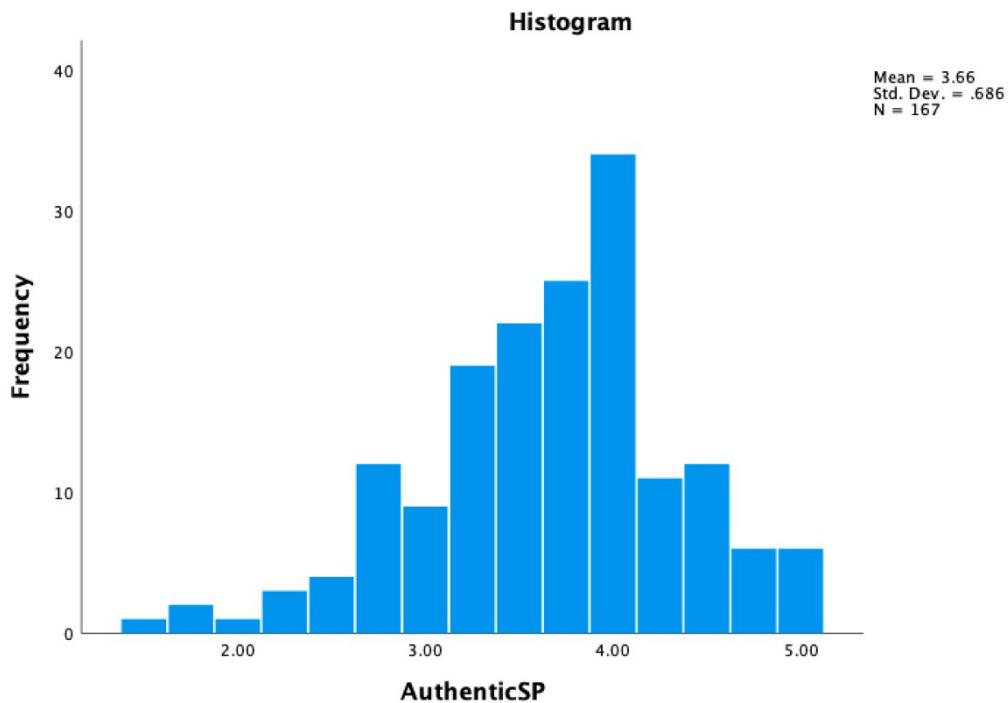


NA









Appendix 2

Questionnaire English

Start of Block: Welcome message and informed consent

Intro Dear respondent, Welcome! Thank you for your time and participation. My name is Wenqi Lai, and I am a student at Erasmus University Rotterdam pursuing my master in Media and Business. I am currently composing my master's thesis and would like to invite you to participate in my survey. The purpose of this study is to investigate the use of dating apps. In order to be eligible for this study, you need to be a dating app user. It will take approximately 8 to 10 minutes to complete the questionnaire. Please answer each query thoughtfully and truthfully; we are genuinely interested in your individual perspectives. There are no correct or incorrect answers.

CONFIDENTIALITY OF DATA

All research data are collected anonymously and are kept strictly confidential. We will be incapable of identifying you. There are no known hazards or discomforts associated with this research. If you choose not to partake in this research, it will have no effect on you. If you decide to stop cooperating while completing the questionnaire, this will not affect you in any way. You may terminate your cooperation without explanation.

ADDITIONAL INFORMATION

You can contact the researcher in charge of this study, Wenqi Lai, via email at 615139wl@eur.nl if you have any concerns about it, either in advance or afterward. If you understand the information above and freely consent to participate in this study, click on the "I agree" button below to start the questionnaire.

I agree (1)

I disagree (2)

Skip To: End of Survey If Dear respondent, Welcome! Thank you for your time and participation. My name is Wenqi Lai, and I... = I disagree

End of Block: Welcome message and informed consent

Start of Block: Dating app usage

Q17 What is your age?

Younger than 18 (1) ... Older than 65 (50)

Skip To: End of Survey If What is your age? = Younger than 18

Q26 Which ethnicity do you identify with?

- Western European (Austria, France, Germany, the Netherlands, and Switzerland) (1)
- Chinese (2)
- Others (3)

Skip To: End of Survey If Which ethnicity do you identify with? = Others

Q24 Do you use dating apps?

- Yes (1)
- No (2)

Skip To: End of Survey If Do you use dating apps? = No

Q22 What dating app(s) do you use? (Multiple answers are allowed)

- Tinder (1)
- Bumble (2)
- Hinge (3)
- Grindr (4)
- Tantan (探探) (5)
- Soul (6)
- Momo(陌陌) (7)
- Others (8) _____

Q23 How often do you use dating apps?

- Always (1)

- Often (2)
- Occasionally (3)
- Rarely (4)
- never (5)

Skip To: End of Survey If How often do you use dating apps? = never

End of Block: Dating app usage

Start of Block: Self-presentation

Please indicate to what extent the following statements match your situation the most, based on a scale from strongly disagree to strongly agree.

Strongly disagree (1)	Disagree (2)	Neither agree nor disagree	Agree (4)	Strongly agree (5)
		(3)		

Who I am on
dating apps is

similar to who

I am offline.

(1)

I have a good
sense of what I

want in life

and using

dating apps is

a way to

express my

views and

beliefs. (2)

The way I

present myself

on dating apps

is how I am in

real life. (3)

I like myself
and I am

proud of what
I stand for and
I show it on
dating apps.

(4)

I post things
on dating apps
to show
aspects of who
I want to be.

(5)

I sometimes
try to be
someone other
than my
authentic self
on dating
apps. (6)

I am a
completely
different
person on
dating apps
than when I
am not on
dating apps (7)

I post
information
about myself
on dating apps
that is not true.

(8)

Sometimes I
feel like I keep

up a front on
dating apps.

(9)

End of Block: Self-presentation

Start of Block: Self-esteem

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
On the whole, I am satisfied with myself. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I think I am no good at all. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I have a number of good qualities. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to do things as well as most other people. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I do not have much to be proud of. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I certainly feel useless at times. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I'm a person of worth, at least on an equal plane with others. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I could have more	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

respect for

myself. (8)

All in all, I am

inclined to feel

that I am a

failure. (9)

I take a positive

attitude toward

myself. (10)

End of Block: Self-esteem

Start of Block: Well-being

Please indicate to what extent the following statements match your situation the most, based on a scale from strongly disagree to strongly agree.

Generally, after using dating apps, I feel

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
--	--------------------------	--------------	--------------------------------------	-----------	-----------------------

afraid (1)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

scared (2)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

nervous (3)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

jittery (4)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

irritable (5)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

hostile (6)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

guilty (7)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

ashamed (8)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

upset (9)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

distressed (10)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

active (11)

<input type="radio"/>				
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

alert (12)	<input type="radio"/>				
attentive (13)	<input type="radio"/>				
determined					
(14)	<input type="radio"/>				
enthusiastic					
(15)	<input type="radio"/>				
excited (16)	<input type="radio"/>				
inspired (17)	<input type="radio"/>				
interested (18)	<input type="radio"/>				
proud (19)	<input type="radio"/>				
strong (20)	<input type="radio"/>				

End of Block: Well-being

Start of Block: Tinder motive

Relationship seeking

Please indicate the extent to which following statements match your situation the most.

Generally, I use dating apps to

Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
-----------------------------	-----------------	-----------------------------	--	-----------------------	--------------	--------------------------

find someone for a

serious relationship.

(1)

fall in love. (2)

meet a future

husband or wife.

(3)

build an emotional connection with someone. (4)

seek out someone to date. (5)

End of Block: Tinder motive

Start of Block: Demographics

Q21 What is your relationship status?

- Single (never married) (1)
- Married, or in a domestic partnership (2)
- Widowed (3)
- Divorced (4)
- Separated (5)
- In a relationship (6)

Q19 What is your gender?

- Male (1)
- Female (2)
- Non-binary / third gender (3)
- Prefer not to say (4)

Q20 What is your education level (the highest form of education for which you have obtained a degree)?

- Some high school or less (1)
- High school diploma (2)
- Some college, but no degree (3)

- Associates or technical degree (4)
- Bachelor's degree (5)
- Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS) (6)

Q22 Which one of the following best describes your sexual orientation?

- Heterosexual (straight) (1)
- Homosexual (gay) (2)
- Bi-sexual (3)
- Others (4)
- Prefer not to say (5)

Q16 What is your nationality?

- Austria (1) ... China (6)

End of Block: Demographics

Questionnaire Chinese

Start of Block: Welcome message and informed consent

亲爱的受访者，欢迎！感谢您的时间和参与。我叫赖雯琪，我是鹿特丹伊拉斯姆斯大学的一名学生，攻读媒体与商业硕士学位。我目前正在撰写我的硕士论文，想邀请您参与我的调查。本研究的目的是调查约会应用程序的使用情况，研究对象是使用约会交友软件的用户。如果您曾使用过或正在使用约会交友软件，诚挚邀请您参与到这项调查研究当中。完成问卷大约需要 8 到 10 分钟。请认真、如实地回答每一个问题；我们真诚地关心您的个人观点。没有正确或错误的答案。

数据保密

所有研究数据均以匿名方式收集并严格保密。我们将无法识别您的身份。没有与这项研究相关的已知危险或不适。如果您选择不参与这项研究，它对您没有任何影响。如果您决定在完成问卷时停止合作，这不会对您产生任何影响。您可以不加解释地终止合作。

附加信息如果您对此有任何疑问，可以提前或之后通过电子邮件 615139wl@eur.nl 联系负责这项研究的研究员赖雯琪。如果您了解以上信息并自愿同意参与本研究，请点击下方的“我同意”按钮开始问卷调查。

同意 (1)

不同意 (2)

Skip To: End of Survey If Dear respondent, Welcome! Thank you for your time and participation. My name is Wenqi Lai, and I... = I disagree

End of Block: Welcome message and informed consent

Start of Block: Dating app usage

Q17 请问你几岁？

小于 18 岁 (1) ... 65 岁以上 (50)

Skip To: End of Survey If What is your age? = Younger than 18

Q26 请问你认为你的文化认同（文化价值观）更属于以下哪个？

西欧(奥地利、法国、德国、荷兰和瑞士) (1)

中国 (2)

其他 (3)

Skip To: End of Survey If Which ethnicity do you identify with? = Others

Q24 请问您使用过交友软件吗？

用 (1)

不用 (2)

Skip To: End of Survey If Do you use dating apps? = No

Q22 你使用什么约会应用软件？ (允许多个答案)

Tinder (1)

Bumble (2)

Hinge (3)

Grindr (4)

Tantan (探探) (5)

Soul (6)

Momo(陌陌) (7)

其他 (8) _____

Q23 请问你使用交友软件的频率？

总是 (1)

经常 (2)

我喜欢我自己，我为我自己感到骄傲，我在约会软件上展示真实的自己。(4)	<input type="radio"/>				
我在约会交友软件上发布关于我的内容（文字，照片等）有些是经过美化	<input type="radio"/>				
在约会交友软件上，我不会展示真实的自己，会假装成他人的面貌。(6)	<input type="radio"/>				
我在约会交友软件上展示的自己与现实生活中	<input type="radio"/>				
的我完全不同。(7)	<input type="radio"/>				
我在交友软件上发布关	<input type="radio"/>				

于我虚假的

信息。 (8)

有些时候我

觉得我在约

会交友软件

上伪装自

己。 (9)

End of Block: Self-presentation

Start of Block: Self-esteem

以下是涉及你对自己的感受的陈述清单。请选择以下陈述在多大程度上与您的情况最符合。

强烈反对 (1) 反对 (2) 认同 (3) 强烈认同 (4)

总的来说，我对

自己很满意。

(1)

有时我认为自己

一点都不好。

(2)

我觉得我有一些

好的品质。 (3)

大部分其他人能

做得到的事，我

也可以做到。

(4)

我觉得我没有什

么值得骄傲的地

方。 (5)

我有时会觉得自

己一无是处。

(6)

我觉得我是一个
有价值的人，至
少是在与其他人
是一样的。 (7)

我希望我能够对
自己有更多的尊
重和欣赏，更爱
自己。 (8)

总而言之，我倾
向于觉得自己是
个失败者。 (9)

我对自己的一切
持有积极良好的
态度。 (10)

End of Block: Self-esteem

Start of Block: Well-being

请选择以下陈述在多大程度上与您的情况最符合。

一般情况下，使用交友约会软件后，我会感觉到

强烈反对 (1)	反对 (2)	不认同也不 反对 (3)	认同 (4)	强烈认同 (5)
----------	--------	-----------------	--------	----------

害怕 (1)

恐慌 (2)

紧张 (3)

焦躁不安 (4)

易怒 (5)

敌意 (6)

内疚 (7)

羞愧 (8)	<input type="radio"/>				
心烦意乱 (9)	<input type="radio"/>				
忧虑 (10)	<input type="radio"/>				
活跃 (11)	<input type="radio"/>				
警惕 (12)	<input type="radio"/>				
专注 (13)	<input type="radio"/>				
坚决 (14)	<input type="radio"/>				
热情 (15)	<input type="radio"/>				
兴奋 (16)	<input type="radio"/>				
受到鼓舞 (17)	<input type="radio"/>				
有趣 (18)	<input type="radio"/>				
骄傲 (19)	<input type="radio"/>				
强大 (20)	<input type="radio"/>				

End of Block: Well-being

Start of Block: Tinder motive

Relationship seeking

请选择以下陈述在多大程度上与您的情况最符合。一般情况下，我使用交友约会软件是为了

强烈反对	反对 (2)	有些反对	不认同也	认同 (5)	有些认同	强烈认同
(1)		(3)		(5)		(7)
			(4)			

寻找一段 真挚的恋 爱 (1)	<input type="radio"/>						
堕入爱河 (2)	<input type="radio"/>						

寻找结婚	<input type="radio"/>						
对象 (3)	<input type="radio"/>						
和别人建立感情共	<input type="radio"/>						
鸣 (寄托) (4)							
寻找对象	<input type="radio"/>						
约会 (5)	<input type="radio"/>						

End of Block: Tinder motive

Start of Block: Demographics

Q21 请问你目前的感情状况是 ?

单身 (1)

已婚 (2)

丧偶 (3)

离婚 (4)

分手 (5)

正在恋爱 (6)

Q19 请问你的性别是什么 ?

男性 (1)

女性 (2)

第三性别 (3)

不透露 (4)

Q20 请问你的教育程度 ?

- 高中及以下 (1)
- 高中毕业 (2)
- 高等技术职业学院 (3)
- 专科 (4)
- 本科 (5)
- 硕士及以上 (6)

Q22 请问你的性取向是 ?

- 异性恋 (1)
- 同性恋 (2)
- 双性恋 (3)
- 其他 (4)
- 倾向于不说 (5)

Q16 请问你的国籍是 ?

▼ 奥地利 (1) ... 中国 (6)

End of Block: Demographics