University of Reading

How does Valuing Happiness Predict Well-being?

Thesis submitted for the degree of Doctor of Philosophy

School of Psychology and Clinical Language Sciences

Hanxin Zhang

March 2023

Abstract

Although happiness is desired as an important goal worldwide, recent research has shown that putting a high value on happiness does not always lead to higher well-being and it sometimes impairs well-being. This paradox effect is influenced by culture, and it is highlighted that having a socially engaged definition of happiness can protect well-being from the negative impact of valuing happiness. The studies in this thesis aim to further understand how valuing happiness impacts well-being in different cultural backgrounds and different contexts. In chapter 2, we confirmed the protective role of having a socially engaged way of defining happiness in both eastern and western samples. We also proposed that the pursuit of happiness requires both a socially engaged and feasible approach to be successful. In chapter 3, we found negative stimuli cause the stronger distraction to people compared to neutral stimuli. However, we did not find evidence supporting the hypothesis that valuing happiness would lead to an impaired ability to control emotional attention in an experimental setting. In chapter 4, it was shown that people who react positively to activities with high levels of social engagement and feasibility tend to have higher well-being and personality traits. Furthermore, personality traits, how urgent people want to feel happy and their definition of happiness impacts preferences for positive events in day-to-day life. Altogether, pursuing happiness in ways that are social and feasible could lead to higher well-being.

Declaration

I confirm this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Hanxin Zhang

23rd March 2023

Acknowledgements

First of all, I would like to express my sincere gratitude towards my supervisors, Dr Julia Vogt and Prof Ciara McCabe. During my PhD years, they guided me with their wisdom and encouraged me with their kindness. It was an absolute precious experience working with them in these past years.

I would also like to thank all the lovely members of the Self-regulation, Emotion and Attention Lab. In our weekly lab meetings, I have gained a lot from their feedback and insights. These experiences helped me develop as a researcher and as a person. A special thanks to Dr Bahram Mahmoodi Kahriz, who provided countless times of help and encouragement for my research.

Last but (definitely) not least, Many thanks to my family, my partner, and my friends. Their support helped me through moments of stress, anxiety, and doubt. And it was always so much fun to talk about my research with them and hear about their interesting thoughts about happiness. I really enjoyed working on happiness for my PhD. One of the many reasons is that I could apply what I learnt from the field and my own research to inspire enjoyable conversations with different people. Hopefully, my findings can provide others with some novel insights into how to achieve happiness in life.

It has been an amazing journey, I feel lucky that I get to work with great supervisors, co-workers and on a research topic that I am so passionate about.

Table of Contents

Table of Figures and Tables

Chapter 1

General Introduction

Introduction

In the past decade, the research on happiness has been a rapidly developing area with over a 10,000 new publications per year (Diener et al., 2017; Diener et al.,2018). But what exactly is happiness? The earliest recorded attempt on understanding happiness in the western world tracks back to over 2,000 years ago, when the ancient Greek philosopher Democritus suggested that happiness is an individual's cast of mind rather than exclusively the positive product of fate or external circumstances (Tatarkiewicz, 1976, Kesebir & Diener, 2009). This focused the concept of happiness on an individual's perspective. For centuries, philosophers and psychologists have continued their interest on understanding happiness, and its definition has gradually grown from "good luck and fortunate" (cf. McMahon, 2008) to a state where one's desires are Satisfied and/or goals achieved (Oishi, 2018). To date, these variations are still reflected in people's lay definition of happiness on a cross-cultural level. For instance, Brailovskaia et al. (2022) used both qualitative and quantitative methods to investigate how people understand happiness across Chinese and German participants. The results revealed that both samples associate happiness with positive emotions, but the word "happiness" implied a state of fulfilment in Chinese while for Germans it represented more of an uncontrollable positivity.

The Definition of Happiness

In the context of scientific research, the term "happiness" is usually used to describe either a momentary emotional state of feeling happy (e.g., feeling happy about a specific event that is currently happening) or a relatively permanent positive emotional state (e.g., feeling good about one's life generally). These two concepts are not completely distinct from each other and sometimes can overlap or be related (Ford & Mauss, 2014). The former is frequently associated with the term "positive affect" which describes pleasant and desirable emotional feelings, and the latter is commonly defined with the term "subjective well-being"

which refers to a formal way to evaluate happiness in psychology research (cf. Diener et al., 2018).

Diener (1984) proposed subjective well-being as "people's evaluations of their lives and encompasses both cognitive judgments of satisfaction and affective appraisals of moods and emotions" (Kesebir & Diener,2009). Using this term, happiness is defined as a positive emotional and mental state with more positive than negative emotional experiences, and a generally satisfied life (Diener, 1984; Diener et al., 1999). More specifically, as summarized by Kesebir and Diener (2009), subjective well-being consists of positive affect, relatively low level of negative affect and satisfaction with general life and significant domains in life (e.g., marriage, career etc). Related scales were used to measure subjective happiness based on these components (e.g., Satisfaction with Life Scale, Diener et al., 1985; Positive and Negative Affects Schedule, Watson et al., 1988).

In addition to this, there are other well-known measurements of happiness that consider factors other than one's own feelings of being well. Namely, Ryff and Singer (1996) proposed the concept of Psychological Well-being to account for happiness. They defined a positive psychological functioning model that highlights the following six key dimensions: self-acceptance (i.e. positively acknowledge and accept oneself and past), positive relations with others (i.e. having good social relationships), autonomy (i.e. determination and ability to behave or evaluate regardless of the possible social pressure, environmental mastery (i.e. the capacity to take control in different environments), purpose in life (i.e. having goals and direction in life) and personal growth (i.e. the ability to continuously adapt and develop as a person). This model introduces a perspective that evaluates one's wellness systematically with happiness related elements. It suggests that happiness goes beyond what one thinks of their status and is also about the mental health status one has that can contribute to a happy life (e.g., having a clear purpose of life, having positive relations with others).

Taking a more comprehensive view, happiness and subjective well-being have both been considered to be a part of an umbrella concept of "well-being" which can include all the outcomes from different aspects (e.g., social, health) that represent how well a person generally is (Diener et al.,2003, also see Diener et al.,2018 for an overview of key definitions). For instance, well-being is defined and measured with five components: social well-being, psychological well-being, satisfaction with life, positive affect, and negative affect (Joshanloo, 2019).

The Benefits of Happiness

In recent years, numerous studies have investigated the relationship between happiness and well-being through the aspects of hedonism and eudemonism (Keyes, Shmotkin, & Ryff, 2002, Joshanloo & Jarden, 2016, Lin & Chan, 2020). Hedonism happiness focuses on short term positive emotional experiences (e.g., immediate pleasure) while eudemonism happiness focuses on long term positive outcomes (e.g., achieving potential). In relation to well-being, hedonic well-being is thought to be achieved by maximizing positive emotions and minimizing negative emotions (Ryan & Deci, 2001) whereas eudemonistic well-being is achieved by making effort towards development (Steger et al., 2008) and these two aspects are found to overlapping (e.g., Keyes et al.,2002, Disabato et al.,2016).

But does being happy mean higher well-being? The answer seems to be affirmative with ample empirical evidence. I will discuss the positive effect of happiness in the aspect of "how can happiness be beneficial" and "what are the benefits".

To understand the benefit of happiness, first we need to understand what does "being happy" mean. As previously mentioned, experiencing positive affect, such as pleasure, is an important component of happiness.

Evidence has shown that positive affect on its own has beneficial effects such as enhanced task performance (Diener & Seligman,2004). In her "broaden-and-build theory",

Frederickson (2004) explained the benefit of positive affect, that positive feelings broaden an individual's thought-action connection (e.g., interest promotes desire to explore) and consequently builds personal resources (e.g., knowledge, social relationships) over time. Diener et al. (1991) proposed that frequent positive affect is a symbolic predictor of happiness, and what being happy is about is the frequency and duration of experiencing positive affect in relative to negative affect. They argued that happy people do not necessarily experience high intensity of positive feelings frequently, instead, happy people tend to constantly feel mild to moderate positive feelings. This notion is accepted to be one of the important definitions of "happy people" in later research (e.g., Lyubomirsky et al., 2005, Boehm & Lyubomirsky, 2008).

Many may believe that happy people are happy because they are successful people. On contrary to what it seems, Lyubomirsky et al. (2005) found low correlation between happiness and demographic factors (e.g., income, social status). Rather, studies in the last two decades have shown the opposite tendency that happiness can be the foundation or even the cause of achieving success (cf. Lyubomirsky et al., 2005, Boehm & Lyubomirsky, 2008). More recently, Walsh et al. (2018) reviewed evidence from cross-sectional, longitudinal, and experimental studies and confirmed that happiness enhances performance in the workplace and in turn can lead to career success. The benefit of happiness extends to countless other aspects in life: happy people are found to have better social relationships (see Moore et al.,2018 for a review), better health (see Steptoe, 2019, for a review), more will power to apply self-control (Lyubomirsky et al., 2005) and more prosocial behaviours (e.g., Kushlev et al., 2021, also see Aknin et al., 2019 for a review).

Further to this, happiness is also found to have national benefits. In the review conducted by Tov and Diener (2007), it was highlighted that countries with higher levels happiness have higher levels of generalised trust, volunteerism, and democratic attitudes.

Henri DiMaria et al. (2020) also suggested that improved subjective well-being could lead to higher productivity and higher economic performances for countries.

In summary, happiness is an important source of general well-being via frequent positive effects, and it has various benefits on personal, interpersonal, and even national levels. Hence, it is understandable that happiness is considered a desirable goal for most people worldwide.

Valuing Happiness

When achieving happiness is viewed as an important goal, whether people actually achieve it seems to be related to how much value one puts on happiness. This is supported by both theoretical (Mischel et al., 1996, Custers & Aarts, 2010) and empirical evidence (Tamir et al., 2019). Based on these, it would seem that the higher level of value people put on happiness, the more likely they would attain it (Tamir & Milgram, 2017).

However, is this always the case? It has been shown that highly focusing on happiness could make the pursuit of happiness counterproductive. For instance, when listening to music, participants who were instructed to make themselves as happy as possible or constantly monitor their level of happiness enjoyed the music less than those who just simply listened to the music (Schooler et al., 2003).

To provide a more direct answer to this, Mauss et al. (2011) first proposed the term "Valuing happiness" to define and measure the level of how much people value and are motivated to pursue happiness. They pointed out that although most people view happiness as desirable, the extent to which they put value on it varies. While some people generally want to be happy, other people may value happiness to an extreme degree. In order to measure the varying degrees of valuing happiness, Mauss and colleagues designed the Valuing Happiness Scale with happiness defined as a positive hedonic state. With it, they were able to include

the potential excessive forms of valuing happiness (e.g., “To have a meaningful life, I need to feel happy most of the time.”). In their first study, the authors pre-screened and recruited female participants who experienced stressful life events within the last 6 months. The survey results showed that participants with relatively low life stress had lower level of well-being when they highly valued happiness, rather than those with high life stress. In the second experiment, participants who were instructed to put more value on happiness responded less positively to a happy movie clip comparing to those who were not instructed to do so. These findings first demonstrated that valuing happiness does not always lead to lead to greater well-being.

Further to this, later research has shown that valuing happiness obsessively may even lead to lower well-being (See Hansenne et al., 2021, for an overview). Mauss et al. (2012) measured participants’ level of loneliness along with level of valuing happiness, the results indicated that the more people value happiness, the lonelier they tend to be. The authors suggested that striving for more personal positive emotional feelings could potentially damage social connections and in turn make people lonely. In addition to loneliness, valuing happiness is also found to be associated with increased level of mental health problems such as depressive symptoms (Mauss et al., 2012; Ford et al., 2014; Gentzler et al., 2019; Mahmoodi Kahriz et al., 2020) and bipolar disorder (Ford et al., 2015).

What is the possible cause of this paradoxical effect of valuing happiness? Ford and Mauss (2014) summarized the mechanism of how valuing happiness could sometimes backfire with three factors: how the goal of happiness is set (“what”), how it is monitored (“how much”) and how it is pursued (“how”). Firstly, the standard of happiness reflects how happiness is set as a goal. When people highly value happiness, they tend to set a high standard of happiness that can be too ambitious or unrealistic (e.g., Tsai, 2010). Consequently, they are more likely to feel disappointed in the pursuit of happiness as they see

their emotional experiences more negatively due to their high standard (e.g., Mauss et al.,2011; Mauss et al., 2012). Secondly, people with high level of valuing happiness tend to actively monitor their emotional status to check whether they are attaining happiness in an experience. However, this process could on its own cause extra negative feeling for them (e.g., anxiety) and diminish the positive feeling they could potentially gain (Bailen et al.,2019). Thirdly, the way people pursue happiness also determines how well-being is impacted by valuing happiness. For example, when people pursue happiness with hedonic motives, they are more likely to engage in unethical behaviours (e.g., cheat in a test) which in turn would eventually lead to low well-being (Cui et al.,2021).

In addition, McGuirk et al. (2018) pointed out that overly valuing happiness on a societal level would cause social pressure on people to feel happy, and potentially diminish their happiness. Similarly, data from 40 countries collected by Dejonckheere et al. (2022) suggested that people tend to feel more social pressure to experience intensive positive emotions in countries with higher national happiness level, and this expectation of achieving happiness on its own could make people unhappy. These findings support the idea of the impact of valuing happiness on well-being and how it varies across different cultures. However, most of the previous studies on the topic of valuing happiness, is based on western data (e.g., US, Mauss et al.,2011, Mauss et al.,2012) and the data from non-Western countries is limited.

The Culture and Happiness

To extend the knowledge of how valuing happiness predicts well-being in different cultures, Ford et al. (2015) conducted a cross-cultural study across four geographic regions (East Asia, USA, Russia, and Germany). Participants' well-being was comprehensively assessed via a latent variable combining cognitive, psychological, hedonic well-being and

depressive symptoms. The results revealed that valuing happiness is associated with higher well-being in East Asian samples, lower well-being in the American sample and did not predict well-being in the German sample. Ford and colleagues highlighted the mediation effect of culture on the relationship between valuing happiness and well-being and suggested that cultural backgrounds could shape people's view on what defines happiness and how to pursue it in different ways. These differences could explain how valuing happiness leads to different outcomes of well-being in different countries.

Indeed, the environment one lives in could have significant cultural impact on people's values and goals regarding happiness and these as a result could influence well-being. To discuss this, this section will compare the cultural differences on happiness between collectivistic countries and individualistic countries based on the construct of individualism and collectivism proposed by Hofstede (1980). In individualistic countries, it is commonly believed that individuals are unique beings with personal differences and thrive to pursue personal achievements, while in collectivistic countries, it is commonly believed that individuals are members of a group (e.g., community/society/race) and group achievement is more valued than personal gain (Triandis,2018). Applying a framework similar to how Ford and Mauss (2014) explained the paradox effect of valuing happiness, the influence culture has in the pursuit of happiness can be summarized in three aspects:

Firstly, culture influences what happiness is like to people. A number of studies have found evidence that happiness takes different preferred forms between individualistic and collectivistic countries. For instance, Tsai et al. (2006) took interest into how people would like to feel positive emotions. In two studies, participants born in individualistic countries value high arousal positive affect (e.g., joy) while participants born in a collectivistic country value low arousal positive affect (e.g., calmness). One particularly interesting example relating to this difference is that in children's books, the characters generally display mild

smiles in Taiwan but generally display wide smiles in the US (Tsai et al.,2007). Lee et al. (2013) further highlighted the importance of peace of mind (i.e., a peaceful inner state that involves low arousal positive affects) as a component of happiness for people living in a collectivistic environment while less so for people living in an individualistic environment. These differences may be explained by philosophical or religious influences (e.g., Taoism, Buddhism, Confucianism; Joshanloo, 2014). For instance, Buddhism suggests that happiness does not come from material gains, it comes from one's own heart via spiritual training (Webb, 2012) which could lead to beliefs that happiness is associated with low arousal positive affects in collectivistic cultures. Evidence also shows that within both individualistic and collectivistic cultures, the more a person fits in the cultural emotional profile (i.e., displays or expresses emotions in a way similar with others around them), the higher well-being they have, in the context of social interactions.

Secondly, when people value happiness, the level of expected intensity of happiness varies across cultures. Despite being desired worldwide, people have different beliefs about how *much* happiness is needed to be good. In Islamic countries, happiness is viewed as a fragile state that is beyond control (Joshanloo et al., 2015). Similarly, when experiencing happiness, many Chinese would expect a bad thing to happen sometime after based on a saying by Chinese philosopher Laozi, "Good fortune follows upon disaster; disaster lurks within good fortune" (e.g., Ji et al.,2001). Due to this, people from collectivistic countries tend to feel fear in high intensity of happiness-related experiences or expect happiness to be fragile to a certain extent. Joshanloo et al. (2013) developed the Fear of Happiness Scale to measure and understand this in 14 nations (e.g., "I prefer not to be too joyful, because usually joy is followed by sadness"). Using this measurement, Joshanloo et al. (2014) confirmed that people from collectivistic cultures apply this belief far more than those from individualistic cultures. In a later cross-cultural study, the fear and fragility of happiness is found to be

linked with lower subjective well-being as it can be associated with pessimistic (Lambert et al., 2022). This tendency is also shown in people's impressions on "very happy people". Choi et al. (2017) asked participants from 45 nations to imagine overhearing someone expressing extreme level of happiness and then guess this imagined person's personality traits. The results showed that western participants tend to associate this imagined person with positive words such as warm, whereas eastern participants tend to associate them with negative words such as arrogant. The authors further pointed out that how positively people think of "very happy people" predicted the actual level of national well-being.

Thirdly, the socially promoted way of pursuing happiness differs between collectivistic and individualistic countries. As pointed out by Kitayama et al. (2000), individualistic cultures tend to associate happiness with personal positive feelings (e.g., feeling good about the self) whereas collectivistic cultures tend to associate happiness with interpersonal positive feelings (e.g., the feeling of respect/friendly). Under the influences of cultural background, people adapt and engage in activities that is viewed as culturally appropriate in the pursuit of happiness (Kitayama &Markus, 2000) as well-being is partly influenced by the ability to "fit in" the cultural environment (Sasaki et al.,2014). Thus, people from individualistic countries strive relatively more from maximizing personal positive affect (Sims et al., 2015) while people from collectivistic countries strive on positive interpersonal experiences (Joshanloo & Weijers, 2019). To be more specific, in individualistic countries, people tend to pursue individually oriented happiness via achieving personal goals (e.g., getting a promotion) by attempting to change and control the world, and in collectivistic countries, people tend to pursue socially oriented happiness via interpersonal activities (e.g., bonding with family) by aiming to adapt and fit with the environment (Yamaguchi & Sawaumi, 2019, Joshanloo et al.,2021).

Taken together, the cultural impact on how happiness is valued suggests that when evaluating the relationship between valuing happiness and well-being, we should take cultural factors into consideration. To our knowledge, the previous studies looking into the relationship between valuing happiness and well-being were mostly conducted in western countries (e.g., Ford et al.,2015; Mahmoodi Kahriz et al., 2020; Mauss et al.,2011) and data collected from eastern countries are relatively limited. Ford et al. (2015) first collected data from both western and eastern countries and found that valuing happiness predict higher well-being in eastern countries. Therefore, findings based on western samples should be treated with caution when discussed in eastern cultural contexts, and vice versa. Specifically, people view, value, and pursue happiness differently in different cultural backgrounds, and their way of pursuing happiness could lead to different levels of well-being as outcomes. In addition to this, the relationship between valuing happiness and well-being can be inconsistent in eastern countries (e.g., Wu, 2013; Zhao et al., 2020). Thus, in order to further confirm the cultural impact on how valuing happiness predict well-being, it would be beneficial to develop more cross-cultural studies to directly present and compare data from both eastern and western countries.

The Pursuit of Happiness

Being evidently good, happiness is recognized as an "ultimate goal" for human beings worldwide (Layard,2011), it is commonly believed that it can be achieved by personal effort such as putting in effort and practice (Cabanas & Illouz ,2019). Whether people would successfully attain happiness depends on the method they apply and the ways they pursue their goals (i.e., "happiness") including maladaptive methods and ineffective implementation of the strategies (Kaftan & Freund, 2018). Failing to achieve a goal that is highly valued by an individual, in this context, happiness, is linked with lower well-being. Thus, it is essential

to discuss what factors could contribute to the successful/failed pursuit of happiness, as this could reveal ways in which we can improve people's well-being.

The role of Social Engagement

Social engagement is proven in previous studies to be one of the most necessary predictors for well-being (Diener & Oishi, 2005) and positive social engagement is associated with higher well-being (e.g., Layous et al., 2012). For instance, researches collecting data from daily diaries, participants reported higher level of positive affect (i.e., being happier) on days they have more social interactions (Berry& Hansen, 1996, Clark & Watson, 1988) and feel more connected to others (Reis et al., 2000). Indeed, the need for social connections (i.e., affection and the feeling of belonging) is listed as one of the most important needs people have by Maslow (1943) only after the need for physiological and self-protection, and people engage in varies of social interactions to connect with others.

Firstly, people engage in social interactions to build and maintain social relationships. Previous researches have established that having good social relationships benefits well-being. In a meta-analysis conducted by Lyubomirsky et al. (2005), the association between social relationships and higher level of happiness was highlighted in varies kinds of relationships (e.g., marriage, close friends, marriage). Interestingly, the benefits of building/maintaining social relationships are not limited to close relationships only, it also extends to acquaintances. Sandstrom and Dunn (2014) investigated the effect of "weak ties" (e.g., neighbours, classmates) on well-being. The findings first showed that happiness is associated with the number of and the social interactions with weak ties in a broad range of American samples. Furthermore, it was also found that even interactions with strangers could increase well-being. Dunn et al. (2007) instructed participants to engage in social interactions with opposite sex strangers, and they reported to enjoy the interaction as much as they would with their romantic partner. This unexpected positive affect remains when they were

instructed to do self-presentation or get evaluated by strangers. Sandstrom and Dunn (2014) assigned participants to be more socially engaged with the barista (i.e., try to build genuine social connection in the conversation) reported higher level of positive affect and greater satisfaction with their shopping experience comparing to those who were assigned to keep the conversion as efficient as possible. Similarly, Epley and Schroeder (2014) instructed commuters on a train or bus to interact with strangers next to them, and they reported higher level of enjoyment than participants who were assigned to sit in solitude. Van Lange and Columbus (2021) systematically discussed how social interactions with weak ties or strangers could enhance well-being. They summarized three features of interactions with weak ties: low conflicts of interest, low-cost cooperation and high cost helping (in urgent need) and emphasized that even very subtle interactions produce short-term happiness.

Secondly, performing prosocial behaviours in social interactions could also be beneficial in the pursuit of happiness for both adults (e.g., Buchanan & Bardi, 2010), and adolescents (e.g., Son & Padilla-Walker, 2020, Yang et al.,2017). Specifically, engaging in prosocial behaviour could increase well-being (e.g., Layous et al., 2012) and physical health (e.g., Brown et al., 2015). Aknin et al. (2012) instructed participants to recall a purchase made for either others or themselves and asked them to choose whether to spend a windfall on either others or themselves. The results showed that prosocial spending is associated with higher level of happiness. Chancellor et al. (2018) randomly assigned employees in a cooperative workplace as givers, receivers, and controls. They instructed givers to practice acts of kindness for receivers over several weeks and found that these prosocial behaviours benefit both givers and receivers' well-being in both short-term and long-term. A recent meta-analysis has also shown a consistent association between prosocial behaviours and well-being in samples consist of almost 200,000 participants (Hui et al., 2020). Titova and Sheldon (2021) compared the strategies aiming to make oneself happy and to making others happy in

the pursuit of happiness in five studies, the results showed that trying to make others happy benefits more to well-being.

Further, Ford et al. (2015) highlighted that social engagement plays an important role in the pursuit of happiness across cultures. People from different cultures pursue happiness in ways that vary on the level of social engagement involved, and eventually achieve various levels of well-being. On the one hand, when highly motivated to pursue happiness in an individualistic country (i.e., US), pursuing happiness via self-focused ways could potentially decrease or even damage social relationships (Mauss et al.,2012) and in turn make people less happy. On the other hand, when highly motivated to pursue happiness in collectivistic countries (e.g., Japan), pursuing happiness with higher levels of social engagement could potentially build more positive social relationships and in turn bring more positive feelings.

Overall, Ford and colleagues proposed that the degree of collectivism shapes how valuing happiness predicts well-being, and a socially engaged way of pursuing happiness protects well-being from the negative effect of valuing happiness. A more recent study has further confirmed the positive association between a socially engaged definition of happiness and higher level of happiness across cultures (Shin et al., 2018). The authors instructed Korean and American participants to report three words that relate to happiness which immediately came to their minds. In both samples, participants who associated more social connections (e.g., family, friends, romantic partners) with happiness are found to be happier than the other participants. Relatedly, Shin et al. (2021) primed participants with collectivistic and individualistic cultural identity before instructing them to recall acts of kindness with closed ones, participants who activates collectivistic cultural identity (but not individualistic cultural identity) reported higher positive affect. This finding implies that people from collectivistic cultures may gain more positive emotional experiences from interactions with closed ones due to a more socially engaged definition of happiness.

Taken together, social engagement contributes to well-being in the contexts of different relationships (close ones/acquaintances/strangers), different forms of interactions (build connections/prosocial behaviours) and different cultures (individualistic/collectivistic). Although there is a great number of existing literature looking into the association between social engagement and well-being, few studies have directly taken motivation to pursue happiness into consideration. Ford et al. (2015) first established the mediation effect of socially engaged definition of happiness on how valuing happiness predict well-being. In order to further confirm and understand this finding, further studies are needed to explore how different levels/forms of social engagement could influence the relationship between valuing happiness and well-being.

The Role of Feasibility

Although there is a massive amount of past literature focusing on the relationship between social engagement and well-being, few have considered the element of feasibility in in the pursuit of happienss. Diener et al. (2007) reviewed the findings of studies relating to happiness and proposed the idea that happiness is not about the intensity of positive affect, it is rather about the frequency of positive affect (comparing to the negative affect). They argued that sometimes intensive positive affect can be rare, and they could have potential downside on happiness. Instead, frequent positive affect is both sufficient and necessary for happiness. By engaging in activities that can be easily achieved and happen on a daily basis, it would be reasonable to assume that one could achieve higher level of happiness. Therefore, in this thesis, I define the term “feasible” as conveniently accessible/achievable, the term “feasible activities” refers to activities that can happen on a regular basis or/and in foreseeable future, and I will now discuss how feasibility relates to the outcome of pursuit of happiness.

In the process of goal-pursuit, people might set inappropriate goals which results in having a lower, not higher well-being (Ordóñez et al.,2009). In the context of pursuing happiness, as pointed by Ford and Mauss (2014), sometimes people who highly value happiness would set up a goal that is not really feasible. For example, an individual who obsessively wanting to be happier may only target "major" things (e.g., traveling to an expensive location with family) in the pursuit of happiness. However, such things are unlikely to happen on a regular basis or may not be achieved at all, and people may overlook other opportunities to feel happy in day-to-day lives while "waiting" for the "major things" to happen. Relatedly, Oettingen et al. (2009) suggested that focusing more on reachable goals and less on the positive outcome itself (i.e., achieving happiness) positively influences well-being. Thus, it would be beneficial to put more focus on feasible activities in order to pursue happiness.

According to the meta-analysis conducted by Lyubomirsky et al. (2005), previous studies have established the association between higher well-being and specific kinds of simple social interactions (e.g., engaging in an intimate conversation, spending time with friends and family, engaging in hobbies). Researchers have also commonly used feasible activities to increase well-being in positive activity interventions in the past decades (Layous & Lyubomirsky,2014). For instance, as reviewed by Parks and Biawas-Diener (2013), findings from previous positive intervention studies showed that engaging in simple activities such as expressing gratitude could lead to an increased level of happiness. Curry et al. (2018) conducted a meta-analysis on 27 studies on using acts of kindness to effectively improve well-being. The acts of kindness listed in the review varies on forms, and most of them are accessible and can be performed regularly (e.g., prosocial spending, donating time or items). It is noteworthy that previous studies have found that solo simple activities could also increase positive affect in day-to-day lives (e.g., meditation, Fredrickson et al.,2008). This

implies that independent of social engagement, a positive activity could be effective to improve well-being because it is feasible.

Additionally, it is also important to note that engaging in varies forms of positive activities could increase well-being. For instance, to spend time with closed ones, one could either hangout with them in person or talk with them by phone or online. To engage in the hobby of getting exercise, one could either go to a gym or do workouts at home. Sheldon et al. (2012) compared participants' level of well-being after a 10-week period of engaging in acts of kindness. The results showed that participants who performed more varied kind acts gain higher level of well-being comparing to those who performed only one form of kind act during the intervention. Krasko et al. (2020) built the construct of happiness goal orientations with two dimensions: happiness-related strivings (i.e. actively making effort to pursue happiness) and happiness-related concerns (i.e., focusing on avoiding potential threats to happiness). The authors developed and used Happiness Goal Orientation Scale in four studies to test these two dimensions specifically in relation with well-being, and the results suggested that the key to successful pursuit of happiness is to pursue happiness through various activities in everyday life. Schellenberg and Bailis (2021) also highlighted that, to regularly pursue more than one activities with passion is linked with higher well-being comparing to people who only pursue one activity. Based on these findings, Krasko et al. (2022) addressed how people value and pursue happiness differently by testing their definition and way of pursuing happiness in parallel in two independent studies. The results revealed that pursuing happiness in multiple aspects of daily life (e.g., personal development, joy, belonging) is associated with higher well-being.

To shed light on how to successfully pursue happiness, Catalino et al. (2014) proposed the notion that prioritising positivity in daily life could improve hedonic well-being. That is, to actively engage in activities that could bring positive emotions when planning day-

to-day life. In their study, when participants prioritise positivity, they are found to have higher levels of well-being (higher satisfaction of life, lower level of depression and less negative emotions) due to more frequent experiences of positive emotions. This finding is later replicated in a longitudinal study (Datu and King, 2016). Further, Hansenne et al. (2021) tested the impact of valuing happiness and prioritizing positivity on well-being spontaneously and confirmed that valuing happiness could diminish well-being while prioritising positivity can potentially improve well-being. Indeed, whether the pursuit of happiness can success is impacted by what kinds of activities one engages in day-to-day life.

Overall, if we see positivity (positive feelings) as a resource similar to money, people who frequently collect it like small coins are likely to end up having more than people who only care about big wins. When actively seeking positivity via feasible activities in day-to-day lives, people are more likely to seize opportunities to feel happy and in turn achieve higher well-being (e.g., Catalino et al., 2014). Therefore, feasibility could impact on the pursuit of happiness same as social engagement. The existing literature has not investigated the impact of feasibility directly and mostly have focused on a single activity (Layous & Lyubomirsky, 2014). In this thesis, we would like to take feasibility into the consideration of our investigation and explore this in a boarder range of scenarios.

The Role of Emotional Attention Control and Emotional Regulation

While actively pursuing happiness, selecting preferred cognitive information also determines whether one could achieve happiness. Deci and Ryan (2008) defined achieving happiness as experiencing more positive affect and less or no negative affect. When happiness is set as an emotional goal, it would be reasonable to maximize positive emotional experiences and minimize negative emotional experiences. In order to do so, people would automatically select emotional information to either engage in or avoid.

A number of studies have highlighted the ability to focus or shift attention away from certain emotional stimuli (i.e., emotional attention control) and its impact on the level of well-being. For instance, Barry et al. (2013) measured participants' ability to control emotional attention in a questionnaire study. Participants who have more difficulties disengaging attention from negative thoughts or stimuli displayed higher levels of depression and anxiety. Booth et al. (2019) further tested the effect of weak emotional attentional control on well-being in two survey studies. In both British and Turkish samples, low capacity to control emotional attention is related to more bias to negative information. This tendency would cause increased level of negative affect along with depression and anxiety disorder.

In contrast to this, research has also found that higher engagement with positive information promotes happiness. The act of focusing on positive experience in order to maintain and prolong its positive affect is termed as "savouring" (Bryant & Veroff, 2017). People who are able to savour positive events more, reported a higher level of happiness (Gentzler et al.,2016). Mahmoodi Kahriz et al. (2020) looked into the relationship between valuing happiness and well-being by measuring the impact of both savouring and emotional attention control ability. The results from two studies conducted in the UK demonstrated that higher level of valuing happiness is associated with impaired emotional attention control and low level of savouring. Thus, people who highly value happiness can have more difficulties disengaging from negative stimuli as well as maintaining focus on positive stimuli and consequently tend to have higher level of depressive symptoms. These findings suggest that valuing happiness at a high level may especially lead to maladaptive responses to negative events. It is noteworthy that this tendency even extends to a national level: in countries that put high values on happiness, people are more likely to apply maladaptive strategies to negative emotional experiences (McGuirk et al.,2018). Therefore, it seems that to achieve high well-being, the pursuit of happiness could benefit from regulating emotional attention in

response to emotional events in daily life. However, the mentioned studies on the effect of emotional attention on well-being have mostly collected data via surveys. It remains unknown whether the findings could be replicated with an experimental method. In addition to this, the previous studies have mainly focused on the excessive side of valuing happiness (e.g., Mahmoodi Kahriz et al., 2020) and still lack understanding of how the adaptive side of valuing happiness (e.g., prioritising positivity, Catalino et al., 2014) could potentially impact emotional attention.

Summary

Although there has been a growing number of papers in recent years looking into how valuing happiness predicts well-being, there are still limitations. Overall, it is not clear whether (a) the previous findings on how valuing happiness predicts well-being can be replicated in other countries and how the factor of feasibility influence the pursuit of happiness; (b) the association between valuing happiness and emotional attention control could be found in an experimental setting and between different conditions on valuing happiness; (c) engaging in various activities/events affects well-being and its relationship with valuing happiness. Therefore, in this thesis, I aimed to test (a) how valuing happiness predicts well-being in samples from different cultures and on the dimension of social engagement and feasibility; (b) how does valuing happiness impact emotional attention in an experimental setting; (c) people's reactions to varies positive events in day-to-day lives affect well-being.

The Present Work

This thesis aims to investigate the relationship between valuing happiness and well-being using surveys, open ended questions, and experimental methods. Given that happiness is viewed as an important goal by many people, I take a goal-pursuit approach to design the

empirical studies presented in the following three chapters. By doing so, I aim to understand what effects does valuing happiness have on the pursuit of happiness, and how it leads to high/low well-being. Please find detailed outlines for the following chapters and an overview of the studies below (Table 1).

Chapter 2: How to be Happy from East to West: Social and Feasible Pursuit of Happiness Leads to Positive Effects of Valuing happiness on Well-being.

In chapter 2, we wanted to test the impact of valuing happiness on well-being in individualistic and collectivistic cultural backgrounds. This is based on previous findings (Ford et al.,2015) that revealed that valuing happiness predicted lower well-being in the US while predicted higher well-being in East Asian regions. The difference is explained by the level of collectivism which promotes pursuing happiness via socially engagements. It was suggested that a socially engaged way of valuing happiness could be a protective factor for the potential downside of valuing happiness. However, one cannot assume that these findings can be applied in all other eastern/western countries unconditionally. For example, China has been recognised as a highly collectivistic country (e.g., Oyserman et al., 2002) but with an increasing level of individualism in recent years (Steele and Lynch et al.,2013). Thus, apart from collecting data from western countries, we also plan to collect data from mainland China to investigate whether results from Ford et al. (2015)'s study could be replicated in these samples. We chose to collect a mainland Chinese sample as it was highlighted by Oyserman et al. (2002) that (mainland) Chinese is the only Asian group that showed a large effect of being more collective than Americans, so it would help us gain more insight on how valuing happiness predicts well-being in collectivistic cultures. Additionally, we want to explore to what extent do people know *how* they could pursue happiness (e.g., through pursuing positive affect and diminishing negative affects). By asking people to list happiness-related activities that they can come up with, we aimed to evaluate not only how socially

engaged but also how feasible they are, so that we could get more insight on the possible culture differences on how people pursue happiness. In addition to this, we also want to explore whether people can adapt to more feasible forms of socially engaged activities in the pursuit of happiness when they are blocked (e.g., by the lockdown related policies). Altogether, we hope to gain a more comprehensive understanding of how valuing happiness influences well-being in different cultural backgrounds.

Chapter 3: How does Valuing Happiness impact Emotional Attention?

It was found in a previous study (Mahmoodi Kahriz et al.,2020) that impaired ability to regulate emotional attention mediates the relation between valuing happiness and depression. However, to date, few studies have addressed the cognitive effect of valuing happiness on well-being or have directly associated valuing happiness and emotional attention control. In chapter 3, we attempt to fill this gap by testing this in an experimental setting. We will activate the emotional goal of "valuing happiness" by emphasizing the importance and benefits of having happiness in an experimental condition, so that we can compare participants' performance to those assigned to a control condition (no emphasis on valuing happiness) using an Emotional Stroop Task (Williams et al., 1996). Through assessing reaction times and error rates to emotional stimuli, we will be able to assess participants' emotional attention control (to disengage from the emotional meaning of the stimuli and focus on the colour of the stimuli) under the influence of induced valuing happiness. In a second study, we want to explore how different ways of valuing happiness may impact well-being by setting two experimental conditions (adaptive/maladaptive way of valuing happiness). Further, we also aim to replicate the mediation effect of impaired emotional attention control on valuing happiness relationship with well-being. Results from these studies could extend the understanding of what role emotional attention control plays in the pursuit of happiness and how it could influence the outcome.

Chapter 4: When Happiness Knocks on Your Door: how do People React to Positive Events in day-to-day lives?

In chapter 4, we are interested in people's reactions to positive events that can happen in their day-to-day lives. One of the main factors that contributes to the negative effect of valuing happiness on well-being is that people set unrealistically high standards for happiness, which can limit or even dimmish their emotional experience for positive events (cf. Ford & Mauss, 2014). This implies that people who excessively value happiness are likely to overlook ways to be happy as they cannot qualify "something that could bring happiness" to them. Although previous studies have looked into how positive experiences in daily life (e.g., engaging in activities that could bring or promote happiness) can impact actual happiness (see Gentzler et al., 2016, for a review), to our knowledge, the existing studies have not directly provided an in-depth explanation about *how* the way people react to positive events relate to their well-being. In this study, we aim to explore this by using a series of positive scenarios that vary on the level of social engagement and feasibility. By measuring how positively participants react to different categories of positive events, we will be able to test and explain how these reactions relate to the level of valuing happiness, well-being along with other individual differences that could possibly impact on their reactions (e.g., personality traits) on a structural level.

Overall, we aim to extend the understanding of how valuing happiness predicts well-being and how this might be mediated by culture, emotional attention control and events in daily life. These studies can help us interpret the paradox effect of valuing happiness on well-being, and more importantly, give more insight into how to achieve happiness.

The Present Work

This thesis aims to investigate the relationship between valuing happiness and well-being using surveys, open ended questions, and experimental methods. Given that happiness is viewed as an important goal by many people, I take a goal-pursuit approach to design the empirical studies presented in the following three chapters. By doing so, I aim to understand what effects does valuing happiness have on the pursuit of happiness, and how it leads to high/low well-being. Please find detailed outlines for the following chapters and an overview of the studies below (Table 1).

Chapter 2: How to be Happy from East to West: Social and Feasible Pursuit of Happiness Leads to Positive Effects of Valuing happiness on Well-being.

In chapter 2, we wanted to test the impact of valuing happiness on well-being in individualistic and collectivistic cultural backgrounds. This is based on previous findings (Ford et al.,2015) that revealed that valuing happiness predicted lower well-being in the US while predicted higher well-being in East Asian regions. The difference is explained by the level of collectivism which promotes pursuing happiness via socially engagements. It was suggested that a socially engaged way of valuing happiness could be a protective factor for the potential downside of valuing happiness. However, one cannot assume that these findings can be applied in all other eastern/western countries unconditionally. For example, China has been recognised as a highly collectivistic country (e.g., Oyserman et al., 2002) but with an increasing level of individualism in recent years (Steele and Lynch et al.,2013). Thus, apart from collecting data from western countries, we also plan to collect data from mainland China to investigate whether results from Ford et al. (2015)'s study could be replicated in these samples. We chose to collect a mainland Chinese sample as it was highlighted by Oyserman et al. (2002) that (mainland) Chinese is the only Asian group that showed a large effect of being more collective than Americans, so it would help us gain more insight on how valuing happiness predicts well-being in collectivistic cultures. Additionally, we want to

explore to what extent do people know *how* they could pursue happiness (e.g., through pursuing positive affect and diminishing negative affects). By asking people to list happiness-related activities that they can come up with, we aimed to evaluate not only how socially engaged but also how feasible they are, so that we could get more insight on the possible culture differences on how people pursue happiness. In addition to this, we also want to explore how flexible people are about socially engaged activities in the pursuit of happiness when they are blocked (e.g., by the lockdown related policies). Altogether, we hope to gain a more comprehensive understanding of how valuing happiness influences well-being in different cultural backgrounds.

Chapter 3: How does Valuing Happiness impact Emotional Attention?

It was found in a previous study (Mahmoodi Kahriz et al.,2020) that impaired ability to regulate emotional attention mediates the relation between valuing happiness and depression. However, to date, few studies have addressed the cognitive effect of valuing happiness on well-being or have directly associated valuing happiness and emotional attention control. In chapter 3, we attempt to fill this gap by testing this in an experimental setting. We will activate the emotional goal of "valuing happiness" by emphasizing the importance and benefits of having happiness in an experimental condition, so that we can compare participants' performance to those assigned to a control condition (no emphasis on valuing happiness) using an Emotional Stroop Task (Williams et al., 1996). Through assessing reaction times and error rates to emotional stimuli, we will be able to assess participants' emotional attention control (to disengage from the emotional meaning of the stimuli and focus on the colour of the stimuli) under the influence of induced valuing happiness. In a second study, we want to explore how different ways of valuing happiness may impact well-being by setting two experimental conditions (adaptive/maladaptive way of valuing happiness). Further, we also aim to replicate the mediation effect of impaired

emotional attention control on valuing happiness relationship with well-being. Results from these studies could extend the understanding of what role emotional attention control plays in the pursuit of happiness and how it could influence the outcome.

Chapter 4: When Happiness Knocks on Your Door: how do People React to Positive Events in day-to-day lives?

In chapter 4, we are interested in people's reactions to positive events that can happen in their day-to-day lives. One of the main factors that contributes to the negative effect of valuing happiness on well-being is that people set unrealistically high standards for happiness, which can limit or even dimmish their emotional experience for positive events (cf. Ford & Mauss, 2014). This implies that people who excessively value happiness are likely to overlook ways to be happy as they cannot qualify "something that could bring happiness" to them. Although previous studies have looked into how positive experiences in daily life (e.g., engaging in activities that could bring or promote happiness) can impact actual happiness (see Gentzler et al., 2016, for a review), to our knowledge, the existing studies have not directly provided an in-depth explanation about *how* the way people react to positive events relate to their well-being. In this study, we aim to explore this by using a series of positive scenarios that vary on the level of social engagement and feasibility. By measuring how positively participants react to different categories of positive events, we will be able to test and explain how these reactions relate to the level of valuing happiness, well-being along with other individual differences that could possibly impact on their reactions (e.g., personality traits) on a structural level.

Overall, we aim to extend the understanding of how valuing happiness predicts well-being and how this might be mediated by culture, emotional attention control and events in daily life. These studies can help us interpret the paradox effect of valuing happiness on well-being, and more importantly, give more insight into how to achieve happiness.

Table 1

Overview of the Empirical Studies

Chapter	Factor	Assessments	Aim
Chapter 2	Culture	Survey and open questions	Investigate how does valuing happiness predict well-being in eastern and western countries
Chapter 3	Emotional attention control	Performance in an Emotional Stroop task (Reaction time / Error rate)	Examine how the ability to control emotional attention is impacted by valuing happiness
Chapter 4	Reactions to positive events in day-to-day lives	Reaction scores to positive scenarios with high/low levels of social engagement and feasibility)	Explore people's preferences on positive events in daily life relate with valuing happiness and well-being

Chapter 2

How to be Happy from East to West:

Social and Feasible Pursuit of Happiness Leads to

Positive Effects of Valuing happiness on Well-being.

Abstract

Recent evidence suggests that valuing happiness to an extreme degree has a potential downside in Western but not in east Asian countries. We tested how valuing happiness relates to well-being in mainland China and western countries in two online survey studies. We predicted that pursuing happiness in a socially engaged yet flexible (i.e., feasible and achievable) way underlies a positive association between valuing happiness and well-being. Indeed, in study 1, a socially engaged definition of happiness mediated the relationship between valuing happiness and well-being in a Chinese (N = 413) sample. Specifically, increased valuing happiness was associated with a higher socially engaged definition of happiness, which in turn was related to higher well-being. Demonstrating the impact of flexibility in pursuing happiness, Chinese participants reported more items overall and more feasible items to achieve happiness, though not more social items than participants in the western sample (N = 164). In study 2, we repeated the study during the Covid-19 lockdown in Chinese (N = 308) and western (N =185) samples and also tested if participants were able to flexibly adapt a socially engaged pursuit of happiness mindset by adding a survey with social actions that were still feasible (e.g., a call instead of meeting in-person). We found the association holds in time of emotional stress and social restrictions in both samples, suggesting that people flexibly pursue social activities that relate to happiness. We propose that a socially engaged but also feasible way to pursue happiness leads to higher well-being.

Keywords: Happiness, Well-being, Emotion, Collectivism, Goal Pursuit

Introduction

Most people across cultures value happiness as an important goal (Barrett, 1996; Diener et al., 1998; Kesebir & Diener, 2008; Tamir & Ford, 2012; Diener et al., 2013). Happiness could refer either to a positive feeling that people experience, or to a state that represents a wider construct including being satisfied with life generally, being psychologically healthy and having high subjective well-being (Diener et al., 1999). These descriptions are not independent of each other, and they are often overlapping or related (Ford & Mauss, 2014). In this paper, we refer to the term "happiness" as a positive emotional state.

Experiencing happiness has countless positive outcomes, for instance, it is beneficial to psychological and physical health, and it improves people's social interactions (Folkman & Moskowitz, 2000; Seligman & Csikszentmihalyi, 2000; Lyubomirsky et al., 2005; Fredrickson et al., 2008; Myers & Diener, 2018). However, people vary in the extent to which they value happiness (Mauss et al., 2012). Some people aspire to experience happiness sometimes, whereas other people want to experience happiness to an extreme degree and very frequently; this tendency to desire positive emotion and prefer a positive hedonic status has been termed "valuing happiness" (Mauss et al., 2011). In the present paper, we investigate how valuing happiness and different approaches to pursuing it relate to well-being in (mainland) Chinese and Western participants.

The Paradox Effect of Valuing Happiness on Well-Being

Does valuing happiness mean achieving happiness? It may seem reasonable to assume valuing happiness should always lead to beneficial outcomes, for instance, because valuing an emotional state raises the likelihood to achieve it (e.g., Tamir et al., 2019). However, over the past decade, a growing number of studies have shown that this is not always the case. For instance, participants who were instructed to value happiness reported having a less positive

emotional experience while watching a happy movie clip than participants that were not instructed to value happiness (Mauss et al., 2011). Surprisingly, obsessive pursuit of happiness may even impair well-being (see Ford et al., 2014; Hansenne et al., 2021, for overviews). In western countries such as the US or the UK, higher levels of valuing happiness are associated with negative emotional outcomes such as depressive symptoms (Mauss et al., 2012; Ford et al., 2014; Mahmoodi Kahriz et al., 2020), increased loneliness (Mauss et al., 2012), and bipolar disorder (Ford et al., 2015).

What could be causing these paradoxical effects? Applying a goal framework could help us understand this, for example, happiness and its pursuit could be a goal-oriented state (e.g., Ford & Mauss, 2014; Hennecke & Brandstaetter, 2017; Yıldırım et al, 2021). Perhaps people differ in their standards for the pursuit of happiness (e.g., how often and how strong they expect to feel happy), how they guide actions towards achieving happiness (e.g., how they pursue it), and how they monitor their progress on gaining happiness (e.g., how quickly they might be concerned of an absence of happiness). Any of these factors can then lower happiness if pursued in a maladaptive way (cf. Ford & Mauss, 2014).

Firstly, people who highly value happiness appear to have high standards for happiness (cf. Ford & Mauss, 2014; e.g., Tsai et al., 2006). When the reality falls short of their unrealistic expectations (e.g., wanting to remain happy in all context or having an ideal emotional status), people feel disappointed (Gruber et al., 2011). As a result, people may "label" the emotional experience as more negative because it fails to meet their high standard. For instance, when participants were instructed to feel as happy as possible while listening to the music, they reported to be less happy than participants who were instructed to simply listen to the music (Schooler et al., 2002; see also Mauss et al., 2011). Similarly, and as mentioned above, after watching the same film clip on affiliation and intimacy, participants

who were instructed to value happiness reported greater loneliness than a control group (Mauss et al., 2012).

Secondly, people who highly value happiness to an extreme degree might also monitor their emotional state more which might then alter the hedonic experience itself (cf. Ford & Mauss, 2014). This is explained by the notion that when people constantly monitor their emotional status, any signal of failing to achieve happiness could cause negative emotions and impair the positive experience itself (e.g., van Bockstaele et al, 2020.; Bailen et al., 2019). This would lead to a decreased experience of happiness from the event. Relatedly, Mahmoodi Kahriz et al. (2020) used questionnaires to investigate how emotional attention control and emotion regulation impact on the relationship between valuing happiness and depression and found that highly valuing happiness is associated with depressive symptoms via poor ability to disengage attention from negative emotional information and lower level of savouring the positive event.

Lastly, people will also differ in the actions they perform to achieve happiness and certain actions are found to be counterproductive (e.g., spending money on themselves in pursuit of materialistic goals, Dunn et al., 2011; Cui et al., 2021). Interestingly, the actions people take seem to differ between cultures (e.g., Tkach & Lyubomirsky, 2006). To understand how the pursuit of happiness is related to well-being, previous studies have therefore also highlighted the impact of culture (see Ford et al., 2015; Uchida & Kitayama, 2016).

Culture and the Pursuit of Happiness

Culture impacts how people define and pursue happiness. For instance, people from European American cultures (i.e., individualistic cultures; cf. Hofstede, 1980) tend to view themselves as independent individuals separated from others and act on their own goals, while people from East Asian cultures (i.e., collectivistic cultures) tend to view themselves as

interdependent and motivated by not only themselves but also the needs of the others (Markus & Kitayama, 1991; Uchida & Kitayama, 2016).

Individualistic and collectivistic cultures differ in their definition of happiness. Kitayama et al. (2000) asked American and Japanese participants to report their experience of positive emotions and found that Americans associate general positive emotions such as happiness with positive emotions that do not involve social engagement like pride (i.e. focusing on oneself) whereas Japanese people tend to associate general positive emotions with social engagement like as friendly feelings (i.e., relevant to not only oneself but also others). Similarly, another study found that general positive feelings (e.g., happiness) are linked with non-social emotions in an American sample but with socially engaging emotions in Japanese samples (Kitayama et al, 2006). Relatedly, a study on American and Japanese participants' descriptions of happiness suggested that Americans relate happiness with personal achievements, whereas the Japanese describe it with social harmony (Uchida & Kitayama, 2009; Uchida and Ogihara, 2012). As a consequence, Asian people are highly motivated to pursue more socially engaged forms of happiness instead of personal happiness (Uchida et al., 2004).

Indeed, social connections are one among the most important factors that are strongly linked with well-being (Heliwell & Putnam, 2004), and social engagement is considered a necessary factor for happiness (Diener & Oishi, 2005). Further, a socially engaged way of pursuing happiness predicts increased life satisfaction (Rohrer et al., 2018). In Rohrer and colleagues' study (2018), participants were interviewed about their ideas for how to improve life satisfaction. After a year, individuals who reported socially engaged strategies reported a higher level of life satisfaction. Similarly, experts on happiness also suggested that one of the most effective strategies to improve well-being is engaging in interpersonal/prosocial activities such as investing in social networks (Buettner et al., 2020). In collectivistic cultures

that associate happiness with interpersonal experiences (e.g., Joshanloo & Weijers, 2019), people who highly value happiness tend to pursue happiness via ways that involve social engagements (e.g., chat with friends). Consequently, as suggested in Ford et al. (2015)'s study, people from collectivistic cultures are more likely to achieve higher well-being.

Building on these findings, Ford et al. (2015) predicted that the way people pursue happiness as a goal and the effect of valuing happiness on well-being might differ in individualistic and collectivistic cultures; specifically, they suggested that pursuing happiness in a social way may lead to positive association between valuing happiness and well-being. To investigate this hypotheses, Ford and colleagues investigated the relationship between valuing happiness and well-being across four regions that vary in their emphasis on social engagement (Varnum et al., 2010): United States, Germany, Russia, and East Asia. Indeed, in individualistic cultures, valuing happiness predicted lower well-being such as in the US sample, while it did not predict well-being in the German sample (which is relatively less individualistic, e.g., Koopmann-Holm & Matsumoto, 2011). In the collectivistic cultures, valuing happiness predicted higher well-being, and the positive effect was stronger in the East Asian samples (which are relatively more collectivistic than Russia) compared to the Russian sample. The authors concluded that culture moderates the link between valuing happiness and well-being, and pursuing happiness in a socially engaged way prevents the paradoxical effects of valuing happiness on well-being and instead leads to happiness.

However, it is important to investigate these relationships in various collectivistic cultures because collectivistic cultures are not all the same and may vary in how happiness is valued. For example, Mexicans value high activation positive affects (e.g., excitement) while East Asians value low activation positive affects (e.g., calmness; Ruby et al., 2012). Thus, although both cultures are considered collectivistic, participants might display opposite preferences in pursuing happiness. Therefore, more studies in various regions and cultures are

needed to further understand the relationship between valuing happiness and well-being. In the present study, we therefore used samples from mainland China and western countries to investigate the potential cultural difference in how people value and pursue happiness.

The Role of Feasibility

A closer look at the items mentioned in Ford's study (Ford et al., 2015) suggest that the social pursuit of happiness might also comprise a more flexible and consequently feasible way of pursuing happiness. For instance, "caring for others in need" could be considered very feasible. For instance, an individual could achieve this by donating to a charity for people in need, helping a friend or family member. Thus, such actions are controllable and achievable for the person, and could therefore occur regularly, making it potentially easy to pursue in day-to-day life. Furthermore, being able to adapt ways of pursuing happiness shows flexibility and could increase well-being. Especially when situations arise that block the normal pursuit of happiness, flexibility allows the pursuit to continue but in a feasible way. For example, during the lockdowns in the Covid19 pandemic, missing in-person social contact could be replaced with (video) calls. This is in keeping with theories of goal pursuit, that argue that goal pursuit requires persistence but also the adaptation of feasible plans in case activities are blocked (e.g., Fishbach & Ferguson, 2007; Marien et al., 2012).

Indeed, the successful pursuit of happiness is associated with social but also various feasible ways to pursue happiness (e.g., Krasko et al., 2020). Parks and Biawas-Diener (2013) reviewed the results from previous positive intervention research and revealed that engaging in pleasant activities in one's day-to-day life (e.g., expressing gratitude and helping others) increases happiness. Similarly, Catalino et al. (2014) suggested that prioritizing positivity by integrating several positive but very feasible activities (e.g., talking to their family in a local park, drinking tea while reading a newspaper) in daily life is an effective way to pursue happiness. They developed the prioritizing positivity scale (PPS) to measure to what level

participants aim to capture positive emotional experiences when structuring day-to-day life (e.g., “A priority for me is experiencing happiness in everyday life”). Supporting their reasoning, prioritizing positivity was linked with higher well-being while valuing happiness was linked with lower well-being (see also Hansene et al., 2021).

However, people who highly value happiness may not know what truly makes them happy (Ford & Mauss, 2014), which results in failing to achieve happiness. Indeed, knowing what makes oneself happy is beneficial in pursuing happiness (e.g., Wilson & Gilbert, 2005). Lacking an accurate understanding of what truly brings happiness, might lead to ineffective and counterproductive activities to enhance happiness (cf. Ford & Mauss, 2014). For instance, opposite to what many people may believe, people who spend money on themselves are reported to be less happy than those who spend money on others (Dunn et al., 2008; Dunn et al., 2011). In other words, their effort to become happier may make people less happy. In our studies, we, therefore, asked participants to spontaneously recall activities that they believe would make them happy or improve their emotional status.

Current Investigation

In the present study, we aim to replicate Ford et al.’s study (2015) but with a mainland Chinese sample. We used samples from mainland China because Ford’s (2015) study only used samples from Japan and Taiwan. Therefore, it remains unknown if valuing happiness predicts higher well-being in other Eastern Asian regions such as mainland China. Oyserman et al. (2002) evaluated the theoretical assumptions and meta-analyses on individualism and collectivism and suggested that (mainland) Chinese are the only Asian group that showed large effect of being more collectivistic and less individualistic than Americans. However, Steele and Lynch (2013) argued that the Chinese increasingly value individualist factors in assessing their own well-being and consider their society more individualistic. Based on these considerations, we chose Chinese as our sample from the collectivist culture and aimed to test

whether valuing happiness predicts higher well-being also in mainland China. We also recruited participants from the UK, US, and Canada as those having as higher individualism compared to other English-speaking countries (Oyserman et al., 2002; Mahmoodi Kahriz et al., 2020).

We also aimed to examine which activities people described for pursuing happiness by asking open questions. To our knowledge, there is no existing study on the topic of valuing happiness that has looked into the qualitative data, so the current research will help filling this gap. We believe that understanding more of people's spontaneous thoughts on activities in the pursuit of happiness could help us understand the paradox effect of valuing happiness in more depth. To be more specific, we are interested in knowing whether people differ in how social but also how feasible their activities are; for instance, we counted items to understand whether people are able to report a variety of items (cf. Krasko et al., 2020) and coded them for both how social (i.e. the level of social engagement involved in the activity, such as being connected with others, helping others or interacting with others) and feasible (i.e. how likely it can happen in the foreseeable future or happen regularly in people's day-to-day life) to understand whether people and cultures differ with regards to these dimensions. This will also allow us to see whether people indeed know how to pursue happiness instead of just responding to questions that might evoke demand effects. Further, based on the moderate effect found in the previous study (Ford et al.,2015), we would like to investigate whether this would also reflect in the qualitative data, that is, how the relationship between valuing happiness and participants' spontaneous thoughts on activities in the pursuit of happiness can be potentially moderated by culture (individualism/collectivism).

Taken together, in order to investigate how does valuing happiness predict well-being in different cultural backgrounds, we used a mixed-method design to collect both quantitative and qualitative data.

Our hypotheses are: (a) valuing happiness will predict higher well-being in the Chinese sample as found in the previous study with East Asian samples (Ford et al.,2015); (b) a socially engaged way of pursing happiness plays a protective role in the relationship between valuing happiness and well-being in both samples; (c) Compared to western participants, Chinese participants would report more social and feasible ways to pursue happiness and have more ideas for activities that can make them feel happy/improve their emotional status.

Study 1

Method

Participants

We ran a power analysis in G power (Faul et al., 2009) aiming to achieve a medium effect size ($f^2 = .29$) with a power of .95 and α of .05 based on the sample size of previous studies invest (Mauss et al., 2011; Ford et al., 2014; Ford et al., 2015). We aimed to recruit a minimum size of 187 participants and as many as possible within the data collection period. We did not analyse the data until the data collection was completed.

In total, 577 participants were recruited for this study. Four hundred and thirteen participants (362 females, mean age = 26.37 years, *SD* = 10.72) were recruited on the Chinese online platform "Wen Juan Xing". One hundred and sixty-four participants (80 females, mean age = 29.98, *SD* = 9.8) from the UK, US and Canada were recruited from the online platform Amazon Mturk. This study was approved by the School of Psychology and Clinical Language Sciences Research Ethics Committee at the University of Reading, UK.

Materials

Valuing Happiness Scale

We used a revised version of Valuing Happiness Scale (Mauss et al., 2011) to measure participants' motivation to pursue happiness. The original version consists of seven items that assess to what extent the participants are motivated to pursue happiness (e.g., "Happiness is extremely important to me"). In the current version, there are two newly added items "I get somewhat distressed if I don't feel happy" and "If I don't feel happy, I worry about it". Participants rated these items on a scale of 1 ("*strongly disagree*") to 7 ("*strongly agree*"). Their responses to these nine items are averaged to generate the final score for this scale. A higher score means a higher level of valuing happiness (Full sample: $\alpha = .78$; China: $\alpha = .73$; western countries: $\alpha = .80$).

Socially Engaged Definition of Happiness Scale

To measure how socially engaged participants' definitions of happiness are, we asked the participants to fill in the socially engaged definition of happiness scale (Ford et al., 2015), which consists of eight definition items (e.g., "spending time with friends and family") that all starts with the prompt "happiness means to me…". Participants were required to rate how much these definitions apply to them on a scale of 1 ("*strongly disagree*") to 5 ("*strongly agree*") (Full Sample: $\alpha = .83$; China: $\alpha = .84$; western countries: $\alpha = .82$).

Well-Being

Considering the concept of well-being may vary across cultures, we assessed participants' well-being using lower ill-being, cognitive, hedonic, and psychological measures in line with the study conducted by Ford et al. (2015).

Ryff Scales of Psychological Well-being

Psychological well-being was measured by Ryff Scales of Psychological Well-being (PWB; Ryff & Keyes, 1995), which consists of 18 items (e.g., "In general, I feel I am in charge of the situation in which I live"). Participants indicated how much do they agree with

the statement on a scale of 1 ("*strongly disagree*") to 5 ("*strongly agree*") (Full Sample: Cronbach's α = .90; China: α = .85; western countries: α = .75).

The Satisfaction with Life Scale

The Satisfaction with Life Scale (Diener et al., 1985) was used to measure cognitive well-being. It has five items that measure how much participants are satisfied with their lives (e.g., "In most ways my life is close to ideal"). Participants rate how much they agree with these items on a scale of 1 ("*strongly disagree*") to 7 ("*strongly agree*") (Full Sample: α = .90; China: α = .89; western countries: α = .91).

The Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to measure participants' hedonic well-being. It contains 10 positive emotions (e.g., "enthusiastic") and 10 negative emotions (e.g., "scared"). Participants were asked to rate to what extent they generally feel these emotions on a scale of 1 (*very slightly or not at all*) to 5 (*extremely*). Referring to the previous study (Ford et al., 2015), to measure the ratio of positive affect to negative affect, the final score of participants' hedonic well-being was created by dividing the mean score of positive emotions by the mean score of negative emotions (Full Sample: α = .82; China: α = .83; western countries: α = .79).

Beck's Depression Inventory

Ill-being was assessed by Beck's Depression Inventory (BDI-II; Beck et al., 1996). It includes 21 depression symptoms and participants answered them according to how severely they experienced these symptoms in the past two weeks ranging from zero (e.g., "I do not feel sad") to three (e.g., "I am so sad or unhappy that I cannot stand it"). A composite depressive symptoms score was created by summing up all the answers from the questionnaire. The score ranges from 0 to 13 indicates minimal depression, 14 to 19 indicates

mild depression, 20 to 28 indicates moderate depression, while 29 to 63 suggests severe depression symptoms (Full Sample: α = .91; China: α = .90; western countries: α = .92).

Temporal Experience of Pleasure Scale

In addition, the Temporal Experience of Pleasure scale (TEP; Gard et al., 2006) was used for an exploratory reason, that is, to understand whether valuing happiness also relates to the ability to anticipate and experience in the moment pleasure. This questionnaire listed 18 items of anticipatory pleasure and consummatory pleasure experiences, and participants were instructed to self-report how much do they agree with each statement range from 1 ("*very false for me*") to 6 ("*very true for me*") and the responses for anticipatory pleasure and consummatory pleasure were separately calculated into two scores (Full Sample: α = .85; China: α = .86; western countries: α = .83).

Open Questions

Lastly, to understand people's spontaneous thoughts about how to pursue happiness in general and when feeling down, participants were asked four open questions: "What do you normally do to make yourself happy?" "What do you normally do to cheer yourself up when you are in bad mood?" "What do you think most people do to make themselves happy?" and "What do you think most people do to cheer themselves up when they are in bad mood?". Participants were asked to write as much as they could and try not to use informal language such as internet slang.

Each sample was coded by two individuals that are fluent in Chinese and English who were trained at master's level in psychology but were blind to the hypotheses. The first author trained and checked the coding standard in several training sessions. In order to understand how much people tend to go for socially engaged activities in the pursuit of happiness and how feasible the activities were, the coders rated the answers on the dimension of how social and how feasible on a scale of 1-5; 1 implies not socially engaged/feasible at all and 5 means

very socially engaged/feasible. They also recorded how many items participants listed in each question. See Appendix for an example of participants' responses and how they were coded.

After an initial reading of all answers given by participants, we did not find sufficient information in responses to the second set of open questions (i.e., "What do you think most people do to make themselves happy?" and "What do you think most people do to cheer themselves up when they are in bad mood?"). These questions were included to see whether there is a difference between what people would personally do and what they believe the other people would do. Unfortunately, participants did not give much information in their answers. For instance, several participants responded to the second set of questions with vague answers such as "they would do what they like to do" or just wrote "same". Thus, only responses to "what do you generally do to make yourself happy?" and "what do you normally do to cheer yourself up when you are in bad mood?" were coded. Invalid answers such as "I don't know" were also removed from the database. In total, data from 410 participants in the Chinese sample and 152 participants from the Western sample were coded.

High degrees of reliability were found between coders in each sample. In the Western sample, the rating for social engagement for the question "what do you generally do to make yourself happy?" shows an interclass correlation (ICC) of .911 ($p < .001$) and the rating for feasibility for the same question shows an ICC of .83 ($p < .001$); rating for social engagement for the question "what do you normally do to cheer yourself up when you are in bad mood?" shows an ICC of .89 ($p < .001$) and the rating for feasibility shows an ICC of .78 ($p < .001$). In the Chinese sample, ratings for social engagement for the question "what do you generally do to make yourself happy?" shows ICC of .816 ($p < .001$) and rating for feasibility for the same question shows an ICC of .73 ($p < .001$); rating for social engagement for the question "what do you normally do to cheer yourself up when you are in

bad mood?" shows an ICC of .87 ($p < .001$) and the rating for feasibility shows an ICC of .8 ($p < .001$).

Translation

Considering Chinese participants in this study are all residents of mainland China, all scales were translated from their original traditional Chinese version from the previous research (Ford et al., 2015) into a simplified Chinese version for the Chinese sample. And due to the language differences between Mainland China and Taiwan, adjustments were made in the version we used in our study. The translation was completed by a researcher who is a native Chinese speaker with a master's degree in psychology and is familiar with both happiness and cross-cultural research. Then, in order to verify the accuracy (Brislin, 1970), the translated material was translated back to English by two research assistants fluent in both Chinese and English with bachelor's degrees in psychology. After discussion between the researchers and slight adjustments of the wording, a finalised version was confirmed for the current study.

Procedure

All questionnaires and scales were presented to participants using online platforms. Participants were given an information sheet and signed a consent form. Then, following the procedure of the previous study (Ford et al., 2015), they were instructed to fill in the scales that measure their level of valuing happiness, socially engaged definition of happiness and well-being (psychological well-being, hedonic well-being, depression, satisfaction with life, and ability to anticipate and experience pleasure). After that, participants were asked four open questions. They were instructed to come up with as many items as they could think of. Lastly, they were asked to fill in a demographic questionnaire about their age, gender,

employment status, education level, marital status, family income, and how many people are currently living in their household. Lastly, they were debriefed.

Results

Preliminary Analyses

Descriptive statistics and bivariate correlations for the Chinese and Western samples are analysed by SPSS version 25 and presented in Table 2. Opposite to the pattern found in the previous study (Ford et al.,2015), for Chinese participants, valuing happiness is negatively associated with psychological well-being, PANAS and positively associated with depression, but not associated with satisfaction with life. In addition, valuing happiness is positively associated with anticipatory pleasure and consummatory pleasure. For the western participants, valuing happiness is positively associated with depression, but not associated with all other well-being related factors. And valuing happiness is associated with higher socially engaged definition of happiness in Chinese but not in western sample. After Bonferroni correction for multiple comparisons (correcting for the seven correlations), all reported significant correlations survived apart from the positive association between valuing happiness and PANAS.

Table 2

Means, standard deviations, and correlations between valuing happiness and all other variables across Chinese (N=413) and western (N=164) participants

Variables	*M*	*SD*	Correlation
Valuing happiness	4.71(4.46)	0.9(1.02)	-
Socially Engaged Pursuit of happiness	4.05(4.14)	0.55(0.5)	.233*(.031)
Psychological Well-being	3.94(4.15)	0.64(0.6)	-.160**(-.036)

Satisfaction with Life	3.65(4.26)	1.21(1.5)	-.007(-.050)
Anticipatory Pleasure	4.2(4.13)	0.78(0.9)	.190**(-.032)
Consummatory Pleasure	4.43(4.41)	0.89(0.9)	.153**(-.121)
Hedonic Well-being	1.43(1.57)	0.61(0.8)	-.115*(-.040)
Depression	11.48(13.29)	9.17(10.19)	.160**(.170*)

Notes. Socially engaged pursuit of happiness represents score of socially engaged definition of happiness scale, Hedonic Well-being represents the ratio of positive/negative affect measured by PANAS, Anticipatory pleasure and Consummatory pleasure are scores from the sub-scales of TEP, Depression represents the score of BDI; Western sample values appear in parenthesis; * $p < .05$; ** $p < .01$.

Primary Analyses

To test whether there is difference between the two samples, we conducted independent T-tests to compare participants' responses to the measures. There was no significant difference on socially engaged definition of happiness, depression, anticipatory pleasure or consummatory pleasure between the two samples, *t*s $<$ -1.893, *p*s $>$ .06. Chinese participants are significantly less satisfied with their lives ($M = 3.65$, $SD = 1.21$) than western participants ($M = 4.26$, $SD = 1.21$), t (575) = -5.104, $p < .001$. Chinese participants also have a higher level of valuing happiness ($M = 4.71$, $SD = .90$) than western participants ($M = 4.46$, $SD = 1.02$), t (575) = 2.885, $p < .05$. Chinese participants' level of psychological well-being ($M = 3.94$, $SD = .64$) is significantly lower than western participants ($M = 4.15$, $SD = .65$), t (575) = -3.516, $p < .001$. And Chinese participants has a significant lower level of hedonic well-being ($M = 1.42$, $SD = .61$) than western participants ($M = 1.57$, $SD = .8$), t (575) = -2, $p < .05$.

We used Mplus version 8.4 to conduct mediation analyses on the relationship between valuing happiness and well-being (see Ford et al., 2015). We created a latent variable for well-being which consists of scores of PANAS, Satisfaction with Life, Psychological well-

being, and BDI (reverse coded), the loadings ranged from .64 to .86. TEP variables (anticipatory pleasure and consummatory pleasure) were not included in the latent variable due to poor loading estimates (Bs＜0.47). The model demonstrated an adequate model fit, χ^2 (8) = 33.84, $p < .001$, CFI = .97, RMSEA = .09, SRMR = .03 in the Chinese sample but not the western sample, $\chi 2$ (10) = 25.797, $p < .05$, CFI = .72, RMSEA = .10, SRMR = .08.

In the Chinese sample, the socially engaged definition of happiness mediated the relationship between valuing happiness and well-being (see Figure 1). The direct relationship between valuing happiness and well-being was initially significant (b = -.27, $p < .001$), and remained significant with the addition of the mediator (b = -.16, 95% CI [-.26, -.06], $p <$ .01). Analysis of the indirect pathway indicated that social engagement (b = .10, 95% CI [.06, .15], $p < .001$) partially mediated the effects of valuing happiness on wellbeing (see Figure 1). In other words, if valuing happiness is via social engaged ways, then this is related to higher well-being.

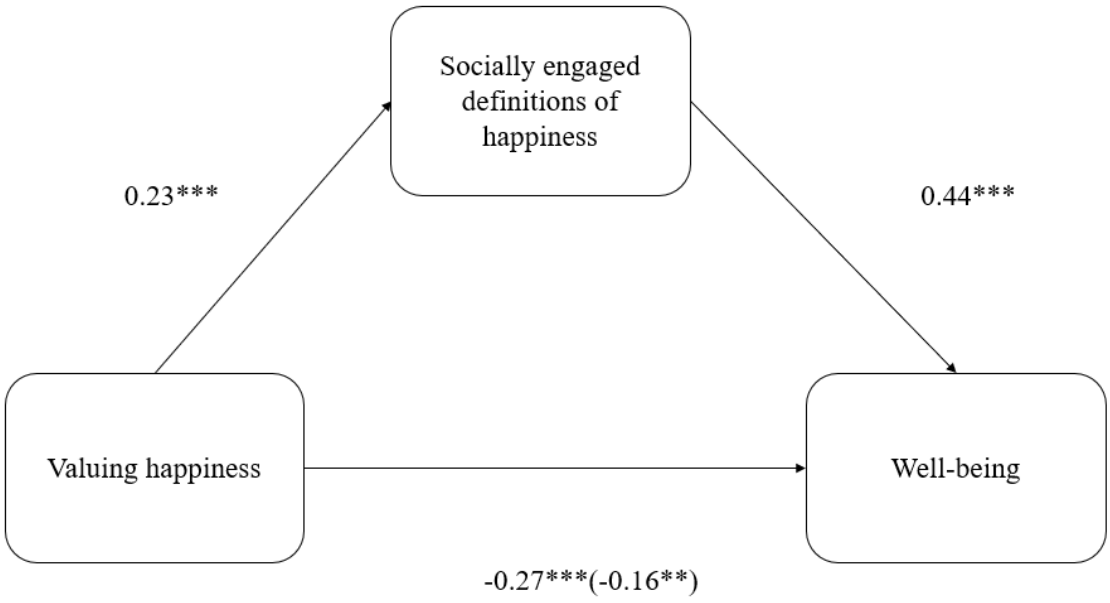


Figure 1. Mediation model based on previous study (Ford et al., 2015): socially engaged definition of happiness mediates the relationship between valuing happiness and well-being; *$p < .05$; **$p < .01$, ***$p < .001$. Numbers represent B coefficients, numbers in parentheses represent B coefficients controlling for the mediator.

Open Questions Results

Descriptive statistics of open questions are presented in Table 3.

Table 3

Descriptive statistics of open questions

	M (*SD*)					
Sample	Q1 Social	Q1 Feasible	Q2 Social	Q2 Feasible	Q1 Item	Q2 Item
Chinese	1.97(0.9)	4.73(0.48)	1.63(0.91)	4.82(0.47)	4.24(2.44)	2.41(1.64)
western	1.98(1.02)	3.77(0.94)	1.57(0.73)	4.39(0.54)	2.54(1.8)	3.07(1.98)

Notes. Q1 = "What do you generally do to make yourself happy", Q2 = "What do you normally do to cheer yourself up when you are in bad mood?", Social = rating for the level of social engagement, Feasible = rating for the level of feasibility, Item = number of items participants reported in each question.

Interestingly, participants from both Chinese and Western sample reported relatively less socially engaged items in both open questions, despite the high scores in the socially engaged definition of happiness scale in both Chinese ($M = 4.05$, $SD = .55$) and Western ($M = 4.15$, $SD = .56$) samples (see Table 2).

We also looked into Pearson's correlations between valuing happiness and the open questions results (See Table 2). For Chinese participants, the more they value happiness, the items they report are more socially engaged. Also, the more they value happiness, the bigger number of items they report in both questions. The correlations between valuing happiness

and other open question results are not significant. All reported significant correlation results survives the Bonferroni correction for multiple comparisons (correcting for the six correlations). For western participants, the more they value happiness, the more items they come up with in order to cheer themselves up when in bad mood. However, the result did not survive the Bonferroni correction for multiple comparisons (correcting for the six correlations). All other correlations between valuing happiness and open question results are not significant.

Table 4

Descriptive statistics and bivariate correlation of valuing happiness and open questions for Chinese (N=413) and western (N=164) participants.

Variables	*M*	*SD*	Correlation
Valuing happiness	4.71	0.91	-
	(4.63)	(0.94)	
Q1 social	1.97	0.9	.106*
	(1.98)	(1.02)	(.051)
Q1 feasible	4.73	0.48	.066
	(3.77)	(0.94)	(-.092)
Q2 social	1.63	0.91	.029
	(1.57)	(0.73)	(-.047)
Q2 feasible	4.82	0.47	-.085+
	(4.39)	(0.54)	(-.047)
Q1 items number	4.04	2.44	.107*
	(2.45)	(1.8)	(.030)
Q2 items number	2.41	1.64	.134**
	(3.07)	(1.98)	(.176*)

Notes. western sample values appear in parenthesis; Q1= "What do you generally do to make yourself happy", Q2 = "What do you normally do to cheer yourself up when you are in bad mood?", Social = rating for the level of social engagement, Feasible=rating for the level of feasibility, Item = number of items participants reported in each question. * $p < .1$.

To compare the spontaneous thoughts of pursuing happiness from the Chinese sample and western sample (See Table 4), independent sample T-tests were conducted. The results showed that the things Chinese participants report to make themselves happy (M = 4.73, SD = .48) are significantly more feasible than western participants (M = 3.77, SD = .94), t (560) = 15.68, $p < .001$. Chinese and western samples were not significantly different on the social rating scores for what would generally make them happy, t (560) = -.063, $p > .05$. In addition, the results showed that the things Chinese participants do to cheer themselves up (M = 4.82, SD = .47) are significantly more feasible (t [560] = 9.352, $p < .001$) than western participants' responses (M = 4.39, SD = .54). The social rating scores between the two sample for this question was also not significant, t (560) = .712, $p > .05$. Chinese participants also reported significantly more things to make themselves happy (t [560] = 7.321, $p < .001$) but fewer things that cheer themselves up (t [560] = -4.013, $p < .001$) than western participants.

We also predict that comparing to western participants, Chinese participants would tend to report more social, more feasible and a larger number of items under the moderating effect of culture (Ford et al.,2015). To examine the moderating role culture plays in the relationship between valuing happiness and participants' responses to the open questions in both samples, we used Process Macro for SPSS (Hayes, 2017; version 4.0) to conduct moderation analysis. The more the participants value happiness, they tend to report more feasible things that make them happy in the Chinese sample and less feasible things that make them happy in the Western sample, R^2 = .31, t (558) = -1.95, p =. 051 (See Figure 2). The more they value happiness, they tend to come up with fewer items that cheer themselves up in the Chinese sample and more items in the Western sample, R^2 = .50, t (558) = 3.51, $p < .001$ (See Figure 3). Moderation analyses involving social engagement scores for both questions, feasibility scores for "what do you normally do to cheer yourself up", number of

items for “What do you generally do to make yourself happy” were not significant, Rs^2 ＜.22， all *t*s between 0 and 1.55, *p*s>. 122.

Figure 2. Moderation effect of culture on valuing happiness and feasibility rating for “what do you normally do to make yourself happy?”

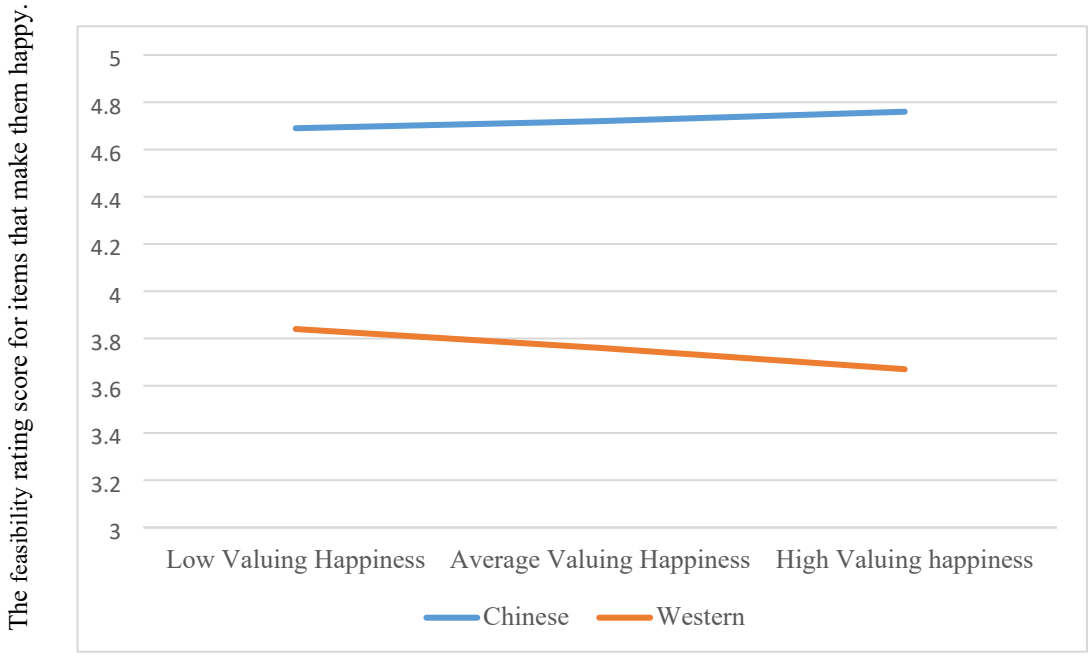
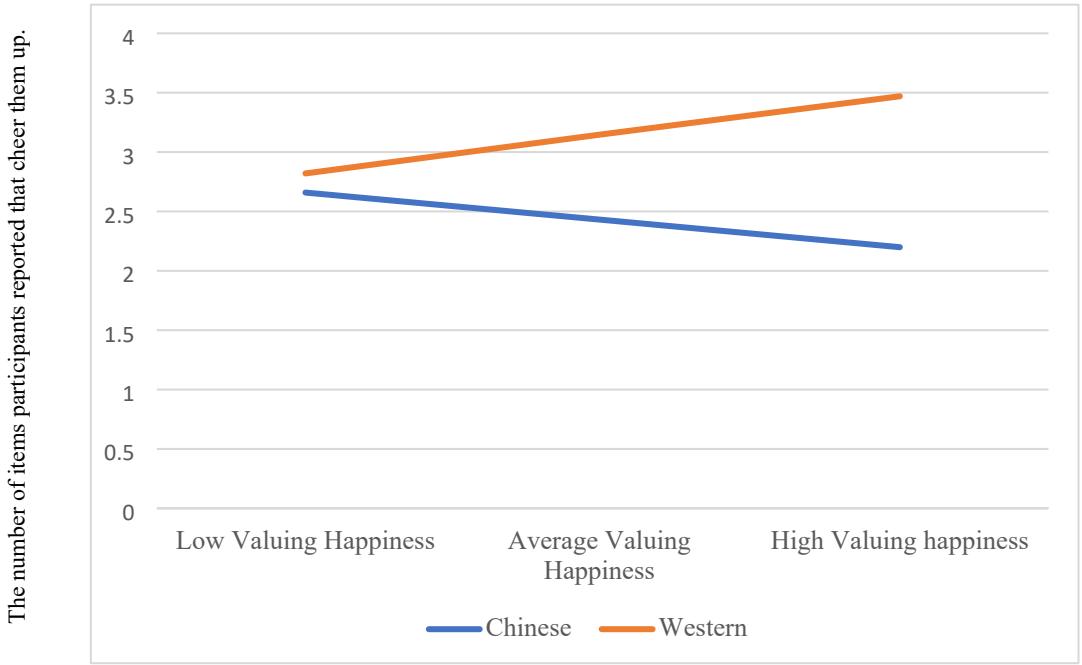


Figure 3. Moderation effect of culture on valuing happiness and number of Items for “What do you normally do to cheer yourself up when you are in bad mood?”



Study 2

Study 1 showed that higher level of valuing happiness leads to not higher, but lower well-being in a mainland Chinese sample. This is the opposite to the previous findings from east Asian samples (Ford et al., 2015). However, in line with what was suggested by Ford et al. (2015), our findings did demonstrate that a socially engaged way of defining happiness mediates the relationship between valuing happiness and could protect well-being from the negative effect of valuing happiness.

In study 2, we attempted to replicate what we found in Study 1 with samples from the same countries in May 2020, at the time of the Covid-19 pandemic. The Covid-19 pandemic started in December 2019 and was a global crisis affecting people worldwide (World Health Organization, 2020) and a significant number of studies highlighted its intense negative impact on mental health. For instance, Huang and Zhao (2020) reported that the Covid-19 pandemic caused 20.1% of participants to have major depressive symptoms and 35.1% generalised anxiety disorder. Thus, the Covid-19 pandemic posed a major threat to happiness. We were therefore interested to see whether we would find similar results in this background.

Additionally, to reduce the local infection rate in the Covid-19 pandemic, governments ordered restrictions, including lockdown and social distancing policies which significantly reduced social engagements (Rolandi et al., 2020). We were therefore interested to see whether the protective effect of a socially engaged way of pursuing happiness found in study 1 remains in this situation. Specifically, we aimed to explore the role of flexibility in the social pursuit of happiness further in study 2 (cf. Kashdan & Rottenberg, 2010). As in-person interactions were limited because of the social distancing rules and lockdowns during the Covid-19 pandemic, we created two versions of the socially engaged definition of happiness scales. In the first version, all items from the original socially engaged definition of the happiness scale were specified to be in person, for instance, “spending time with friends

and family in person". In the second version, all items were specified to be in a virtual form, for instance, "making the people I care about feel good when I speak with them online or on the phone". With these measures, we were able to investigate how flexible people are in the Covid-19 pandemic by comparing their responses to blocked social engagements (in-person) and non-blocked social engagements (virtual). It is noteworthy that at the time, the lockdown implemented in mainland China has officially finished (Zhong & Wang, 2020) whereas western countries such as US, UK and Canada were still in lockdown (Allen, 2022). Regarding to the flexibility, we predict that participants who are in lockdown tend to display more flexibility towards social engagement due to the limitations (i.e., associate both online and in-person version of social engagements with happiness, rather than only the in-person social engagements), and this would in turn lead to higher well-being.

We also added questionnaires measuring adaptive and maladaptive emotion regulation styles as we suspected that such flexibility in the socially engaged pursuit of happiness might only be possible if people are not completely emotionally overwhelmed by the pandemic (cf. Folkman et al., 1986).

Method

Participants

Based on prior studies (e.g., Ford et al., 2015; study 1), we conducted the power analysis in G power (Faul, 2009) aiming to determine a sample size that can achieve a medium effect size ($f^2 = .29$) with a power of .95 and α of .05. we aimed to recruit at least 100 participants from each sample (200 in total) but as many as possible during May 2020. Three hundred and ninety-two Chinese participants were recruited from "Wen Juan Xing", and two hundred and sixty-four western participants participated in this study via Amazon Mturk. Participants who failed to respond to the attention checker ("please select the third

option for this item") or took an extremely short amount of time to complete (3* *SD*s lower than sample *M*) were removed. After data cleansing, data from three hundred and eight Chinese participants (247 females, mean age = 28.33 years, *SD* = 12.46) and a hundred and eighty-five western participants (84 females, mean age = 40.19 years, *SD* = 13.16**)** were analysed.

Materials

We used the Valuing Happiness Scale (the same revised version as we used in study 1, Full Sample: α = .82; China: α = .78; western countries: α = .86), socially engaged definition of happiness scale blocked version (specifies virtual social engagements; full sample: α = .95; China: α = .86; western countries: α = .91), and non-blocked version (specifies in-person social engagements; full sample: α = .96; China: α = .90; western countries: α = .91), PANAS (Full Sample: α = .84; China: α = .83; western countries: α = .86), Satisfaction with life scale (Full Sample: α = .88; China: α = .88; western countries: α = .91), Ryff's psychological well-being scale (Full Sample: α = .92; China: α = .83; western countries: α = .80) and Beck's Depression Inventory (Full Sample: α = .96; China: α = .91; western countries: α = .94) from Study 1, and added two additional scales in the current study.

Difficulties in Emotion Regulation Scale

We used the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer 2004) to measure participants' ability to regulate emotions. It consists of 36 items linking to six dimensions: the nonacceptance of emotional responses, difficulty engaging in goal-directed behaviour when experiencing negative emotions, impulse control difficulties when experiencing negative emotions, lack of awareness of emotions, limited access to strategies for regulation, and lack of emotional clarity. Participants were instructed to rate how much these statements apply to them currently, from 1 ("*almost never*") to 5 ("*almost always*"). To

generate a final score for this scale, their responses were averaged. A higher score indicates more difficulties in regulating emotions (Full Sample, α = .92, China, α = .90, western countries, α = .94).

Cognitive Emotion Regulation Strategies Scale

We used the short version of the Cognitive emotion regulation strategies scale (CERQ-short; Garnefski et al., 2001) developed by Garnefeski and Kraaij (2006), which is an 18-item self-report scale that measures nine types of emotion regulation strategies. The subscales were sorted into two categories: adaptive strategies (Positive refocusing, Planning, Positive reappraisal, Putting into perspective and Acceptance) and maladaptive strategies (Self-blame, Other-blame, Rumination, Catastrophizing). Participants gave their responses on a scale of 1 ("*almost never*") to 5 ("*almost always*"). Responses in each category were summed to generate a final score for adaptive and maladaptive strategies (Full Sample, α = .73, China, α = .78, western countries, α = .80). For the subscales, the internal consistencies in both samples range from .04 to .07.

Considering the Covid-19 pandemic, we also added questions asking about how people are coping with the situation at the time: "I often engage myself with the COVID-19 related news", "I am worried because of the COVID-19 situation", " I have completely accepted the current COVID-19 situation", "I follow the social distancing/ isolation rules", " My health will be severely damaged if I contract COVID-19" and "COVID-19 has added extra caring work for me (such as caring for old people or children)". Participants selected their answers on a scale of 1 ("*not at all*") to 7 ("*very much so*").

Translation

All Chinese participants in Study 2 received the same simplified Chinese version of the scales measuring their motivation to pursue happiness and well-being. For the additional

CERQ-short and DERS, a similar translation procedure with Study 1 was completed by the research team.

Procedure

After giving informed consent, participants completed questionnaires anonymously via an online platform to measure their level of valuing happiness, the socially engaged definition of happiness, well-being, difficulties in regulating emotions and emotion regulation strategies. And lastly, their responses to Covid-19-related questions were recorded.

Results

Preliminary Analyses

Similar to study 1, independent T-tests were conducted to compare participants' responses to the measures between Chinese and Western sample. There was no significant difference on socially engaged definition of happiness (blocked version), satisfaction with life and depression, *t*s $<$ -1.125, *p*s $>$ .15. Chinese participants have a significantly higher level of valuing happiness (M = 4.75, SD = .95) than western participants (M = 4.4, SD = 1.13), t (491) = 3.732, $p <$. 001.For the non-blocked version of socially engaged definition scale, Chinese participants (M = 3.6, SD = .73) score significantly lower than western participants (M = 3.85 SD = .65), t (491) = -3.864, $p <$.001. Chinese participants also have more difficulties to regulate emotions (M = 2.71, SD = .61) than the western participants (M = 2.35, SD = .71), t (491) = 6.004, $p <$. 001.For emotion regulation strategies, Chinese participants apply adaptive emotional regulation strategies more often (M = 3.62, SD = .59) than western participants (M=2.4, SD=.77), t (491) = 19.787, $p <$.001. They also apply maladaptive emotion regulation strategies less often (M = 2.86, SD = .7) than western participants (M = 3.16, SD = .69), t (491) = -4.729, $p <$.001. Chinese participants have significantly lower

level of psychological well-being (M = 3.95, SD = .64) than western participants (M = 4.19, SD = .76), t (491) = -3.844, p ＜.001. And Chinese participants have significantly lower hedonic well-being (M = 1.38, SD = .57) than western participants (M = 2.18, SD = 1.16), t (491) = -10.226, p ＜.001.

See Table 5 for descriptive statistics and correlations between valuing happiness and all other questionnaire variables for the Chinese and western samples and see Table 6 for descriptive statistics for Covid-19-related questions. For both Chinese and western participants, valuing happiness is positively associated with socially engaged happiness (in both blocked and non-blocked version), and with difficulties to regulate emotions and depression. Valuing happiness is also negatively associated with psychological well-being, PANAS but did not correlate with satisfaction with life or adaptive emotion regulation. These results are in line with the results of study 1, valuing happiness is linked to lower well-being outcomes. In addition, for the emotion regulation strategies, valuing happiness is positively associated with maladaptive emotion regulation for Chinese participants and negatively associated with maladaptive emotion regulation for western participants. And valuing happiness is positively associated with adaptive emotion regulation for western participants. However, the correlation between valuing happiness and adaptive emotion regulation is not significant for Chinese participants. All reported significant results survived the Bonferroni correction for multiple comparisons (correcting for the nine correlations).

Table 5

Means, standard deviations, and correlations between valuing happiness and all other variables across Chinese (n=308) and western (n=185) participants.

Variables	*M*	*SD*	Correlation
Valuing Happiness	4.8(4.4)	1（1.1）	-

Socially Engaged Pursuit of Happiness（in person)	3.9(4)	0.6（0.6）	.249**（.300**）
Socially Engaged Pursuit of Happiness (online)	3.6(3.9)	0.7（0.7）	.222**（.330**）
Difficulties to Regulate Emotion	2.7(2.4)	0.6（0.7）	.256**（.613**）
Psychological Well-being	4(4.2)	0.6（0.8）	-.158**（-.322**）
Satisfaction with Life	3.6(3.3)	1.2（1.4）	.051（.129）
Hedonic Well-being	1.4(2.2)	0.6（1.2）	-.184**（-.222**）
Maladaptive Emotion Regulation	2.9(3.2)	0.7（0.7）	.223**（-.323**）
Adaptive Emotion Regulation	3.6(2.4)	0.6（0.8）	.01（.301**）
Depression	12(11.7)	9.7（11.3）	.177**（.362**）

Notes. Socially engaged pursuit of happiness represents score of blocked (in person) and non-blocked (online) versions of socially engaged definition of happiness scales, Hedonic Well-being represents the ratio of positive/negative affect measured by PANAS, Maladaptive emotion regulation and adaptive emotion regulation represent the scores of sub-scales of CERQ-short; Amounts of the Western sample appear in parenthesis; * $p < .05$; ** $p < .001$.

Table 6

Descriptive statistics for Covid-19 related questions for both samples.

Questions	*M*	*SD*
Extra caring work	4(3.9)	1.9(2.22)
News	4.4(4.84)	1.73(1.64)
Worried	3.9(4.76)	1.66(1.67)
Accept	5.25(4.96)	1.44(1.58)
Rules	5.74(5.89)	1.41(1.52)
Health Damaged	3.79(4.26)	2.45(1.82)

Notes. Extra caring work = “COVID-19 has added extra caring work for me”, News = “I often engage myself with the COVID-19 related news”, Worried = “I am worried because of the COVID-19 situation”, Accept = “I have completely accepted the current COVID-19 situation”, Rules = “I follow the social distancing/ isolation rules”, Health damaged = “ My health will be severely damaged if I contract COVID-19” ;Amounts of the Western sample appear in parenthesis.

We also conducted independent T-tests to compare the responses for blocked and non-blocked version of the socially engaged definition of happiness scales (See Table 5). In the Chinese sample, people got a significantly higher score of socially engaged definition of happiness in the blocked version than in the non-blocked version, t (614) = 6.21, $p < .001$, meaning that they associate the blocked (i.e., in-person) activities with happiness more comparing to non-blocked (i.e., virtual) activities. In the Western sample, the scores people got from both scales are not significantly different, t (368) = 1.43, $p > .05$.

Respective analyses could not be performed for CERQ-short due to poor internal consistency for subscales in both Chinese and Western samples. Thus, we decided not to include them in further discussions.

Primary Analyses

We used Mplus 8.4 to conduct mediation analyses on the relationship between valuing happiness and well-being. Similar to study 1, we created a latent variable for well-being which consists of PANAS, Psychological well-being, satisfaction with life and BDI (See Figure 4). To generate a final score for socially engaged definition of happiness scale, the scores for two versions were averaged which was justified by their high overlap (China: $\alpha = .78$; western countries: $\alpha = .89$).

The model for the Chinese sample indicated a decent model fit, $\chi 2$ (8) = 20.943, $p <$ .05, CFI = .97, RMSEA = .07, SRMR = .04. We built the same model for the western sample, the model fit was also good, $\chi 2$ (8) = 17.21, $p < .05$, CFI = .97, RMSEA = .08, SRMR = .04.

In the Chinese sample, the socially engaged definition of happiness mediated the relationship between valuing happiness and well-being. The direct relationship between valuing happiness and well-being was initially significant (b = -.27, $p < .005$), and remained significant with the addition of mediator (b = -.20, 95% CI [-.29, -.10], $p<.001$). Analysis of indirect pathway indicated that social engagement (b = .07, 95% CI [.04, .11], $p < .005$), partially mediated the effects of valuing happiness on wellbeing.

In the western sample, the socially engaged definition of happiness mediates the relationship between valuing happiness and well-being. The direct relationship between valuing happiness and well-being was initially significant (b = -.56, $p < .001$), and remained significant with the addition of mediator (b = -.43, 95% CI [-.51, -.32], $p < .001$). Analysis of indirect pathway indicated that social engagement (b = .13, 95% CI [.08, .21], $p < .005$), partially mediated the effects of valuing happiness on wellbeing. The results are consistent with what was found in Study 1, the socially engaged way of pursuing happiness still protects well-being during the pandemic.

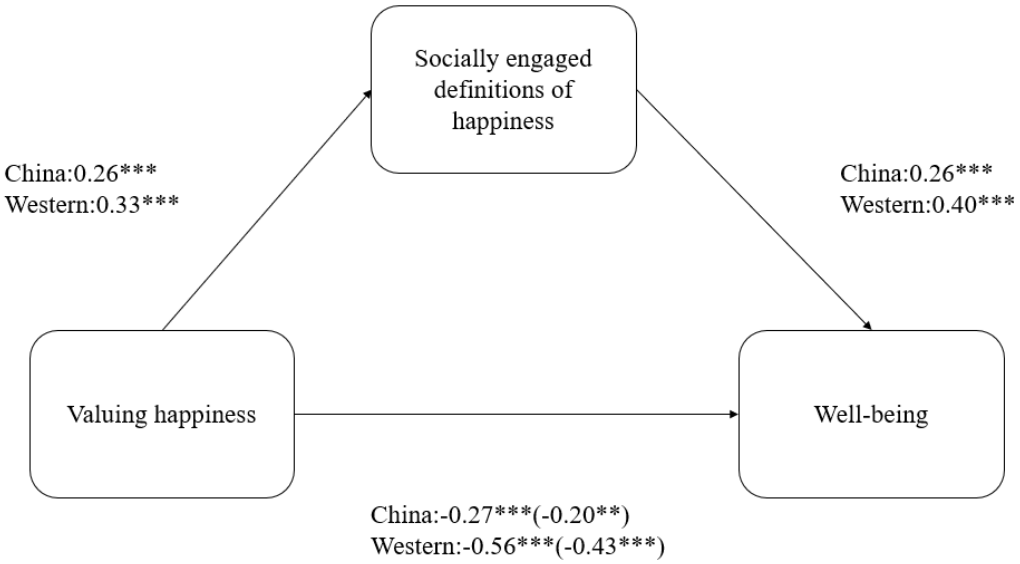


Figure 4. Mediation model based on previous study (Ford et al., 2015): socially engaged definition of happiness mediates the relationship between valuing happiness and well-being; *$p < .05$; **$p < .01$, *** $p < .001$. Numbers represent B coefficients, numbers in parentheses represent B coefficients controlling for the mediator.

Discussion

This study tested how valuing happiness predicts well-being in different cultural backgrounds with samples from both East Asian and European-American countries. Our results partially replicated Ford and colleagues' findings (2015). Valuing happiness showed a negative association with well-being in Western countries; however, we also found the same pattern in mainland China, in contrast to the positive association in Ford et al. (2015) found in their East Asian samples. Further to this, we replicated the protective effect of socially engaged way of defining happiness on well-being (Ford et al.,2015) in both studies. In open question responses, we found that in general, Chinese participants reported more feasible and a bigger number of items to make themselves happy than western participants. Additionally,

the more they value happiness, Chinese participants tend to report more feasible items to make themselves happy whereas western participants tend to report less feasible items. Taken together, our findings illustrate the protective role of a flexibility socially engaged way to pursue happiness in the link between valuing happiness and well-being, especially in times that challenge people such as the lockdowns.

Why did we find that valuing happiness showed a negative association with well-being in mainland China? Although considered a highly collectivistic culture (e.g., Oyserman et al., 2002), in the past years, the level of individualism has indeed increased in China (e.g., Steele & Lynch, 2013). If Chinese people are becoming more individualistic, they might be less happy as their way of pursuing happiness might conflict with the collectivistic cultural background. For instance, a recent study in Pakistan revealed that individualism has negative impact on well-being in a collectivistic culture (Farah & Siddiqui, 2019). Also, there are even within-culture differences regarding how valuing happiness predicts well-being. For instance, Wu (2013) induced valuing happiness in Chinese undergraduate participants and found a negative association between valuing happiness and actual happiness among Chinese undergraduate students in line with Mauss and colleagues (2011). Further, Wong et al. (2019) suggested that the impact of valuing happiness on well-being may differ among age groups in China, with older (but not younger) age groups showing a positive association between valuing happiness and subjective well-being. We suggest that the positive association between valuing happiness and well-being might not be unconditional in East Asia, and future studies should consider more factors beyond the individualism/collectivism dimension to explain the association.

Importantly, our study also confirmed the protective role of a socially engaged way of defining happiness on the relationship between valuing happiness and well-being found in the previous study (Ford et al.,2015). Specifically, valuing happiness is associated with a socially

engaged way of pursuing happiness in both Chinese samples and also in the Western sample in study 2. In Ford et al. (2015)' s study, this positive association was not found in their western (US and Germany) samples. This may be because we collected data for study 2 during the Covid-19 pandemic, and the challenging situation might influence western people's views on happiness. In other words, because the in-person activities were limited at the time, western people who highly value happiness might find themselves carving socially engaged activities (e.g., hanging out with friends) in order to attain happiness. Overall, we found that the socially engaged definition of happiness mediates the association between the valuing happiness and well-being. People who associate happiness with socially engaged activities appear to be protected from the lower well-being caused by a high level of valuing happiness, even in emotionally challenging times such as during the pandemic and the lockdowns. This highlights the importance and versatility of this approach to happiness for people for people from both Asian and Western cultures. For instance, these results suggest that interventions could promote simple forms of social interaction such as a text or call via the internet or phone (cf. Naidu et al., 2022), or even as simple as feature more information about positive social interactions (i.e., kindness) on social media (Buchanan et al., 2021), which is both feasible and socially engaged.

We also added open questions asking participants to spontaneously recall what generally makes them happy and what could improve their emotional status, and the results were rated regarding the level of social engagement and feasibility. First, we noticed there is a difference between participants' social tendency in their responses to open questions (relatively low) and their score on the socially engaged definition scale (relatively high). This highlighted the difference between given notions and personal thoughts in pursuing happiness. For instance, although few people would extremely disagree to that "being surrounded by good friends" makes people happy, this does not necessarily mean everyone

would know to apply this to day-to-day life in the pursuit of happiness. In other words, people may not be aware of what could bring them happiness. On the dimension of social engagement, the Chinese and Western samples showed no significant difference in the activities they reported in both questions. There are two possible explanations for this. Firstly, as the question was worded as asking about their personal experiences, it is likely that people would tend to associate it with solo activities. Because of this, people from both samples reported relatively low socially engaged activities. Secondly, people may not be aware of the importance of social engagement, but they would still take part in socially engaged activities (e.g., attending gatherings) due to social influence by friends and family, or cultural influence from collectivistic environment.

On the dimension of feasibility, Chinese participants reported more feasible activities that generally make them happy and cheer them up when in a bad mood. This supports our hypothesis that the successful pursuit of happiness might require a feasible approach to doing so (cf. Lyubomirsky et al., 2005). It could also map onto findings (Lee et al., 2013) showing that people in North American countries relate happiness with high arousal positive affect (e.g., enthusiasm) and people in East Asian countries relate happiness with low arousal positive affect (e.g., peacefulness). Achieving high arousal positive emotions is arguably less feasible (e.g., having a major success at work) whereas achieving low emotional arousal is mostly highly feasible (e.g., having a chat with a friend via text or in person). Further supporting this reasoning, Chinese participants have significantly more ideas about what generally makes them happy. This implies that the Chinese are relatively more flexible when finding ways to feel happy. However, Chinese participants had fewer ideas of what could cheer them up thus they might be less flexible to feasible approaches when needing to improve their emotional status. It is however important to note that while is adaptive to know several means to pursue happiness (e.g., Krasko et al.,2020) this is less clear when it comes to

emotion regulation. Importantly, future studies on the pursuit of happiness should investigate this difference in these two contexts. Additionally, considering the average number of items people reported is relatively low in both samples and both questions, it could suggest that people generally have limited ideas of how to pursue happiness.

The second study took place during the Covid-19 pandemic. Even with the limitations on face-to-face social engagements at the time, the protective effect of social engagement was replicated in both the Chinese and Western samples. The negative association between valuing happiness and well-being was relatively stronger in the Western sample. This is consistent with the previous studies that found the negative effect of valuing happiness on well-being tends to be stronger in countries that highly value personal happiness (e.g., Bastian et al., 2014, Ford et al., 2015). However, it is important to note that Chinese and Western people were not in the same stage in the pandemic when the data was collected. Interestingly, in both samples, participants' responses to the two versions of socially engaged definition scales (blocked & non blocked) were highly correlated suggesting that overall people adapted their approaches flexibly in the pandemic background in both mainland China and western countries. Furthermore, when comparing blocked and non-blocked social engagements, Chinese participants seemed less flexible than western participants and preferred face-to-face social interactions. This may be because they have lived longer in the pandemic, as Covid-19 was first reported in China (Page et al., 2021), and they were more eager to seek face-to-face social engagements.

There were a few limitations in the current study which need to be considered in future studies. Firstly, most of our findings were based on questionnaire data, and we hope that these could be tested in future studies with an experimental design. Secondly, we only explored people's ideas on how to pursue happiness in the aspects of social engagement and feasibility. However, the ideas people have does not always equal to the effort they would

actively take to pursue happiness. For instance, the idea of getting physical exercise might sound satisfying but it does not mean people would actually go for it in the pursuit of happiness. In addition, the ways of pursuing happiness that people spontaneously come up with are not necessarily suitable for them as the effort people take to pursue happiness can be counterproductive (cf. Ford & Mauss, 2014). Thus, future studies could benefit from investigating the details in this process to help understand the relationship between "wanting to be happy" and "actually achieving happiness". Thirdly, it would be interesting to conduct research assessing what people would do to pursue happiness in general and when in a negative mood separately.

Overall, the current research confirmed the positive effect of social engagement on the relationship between valuing happiness and well-being, and it was consistent during the Covid-19 pandemic. We also argue that the positive association between valuing happiness and well-being is not unconditional in East Asia. Further, we investigated the impact of flexibility and proposed that flexibility plays a positive role along with the socially engaged definition of happiness in the pursuit of happiness.

Appendix

An example of how open question results in Study 1 was coded:

Participant ID	Content	Social rating (coder 1)	Social rating (coder 2)	Feasibility rating (coder 1)	Feasibility rating (coder 2)
1	gaming and earning money so i can play more	1,3	1, 2	5,3	5, 3
2	help others and also remember all the good things	4,1	4, 1	3,4	2, 5
3	I think of the positives potentials I have in store for future events	1	1	5	5
4	music, positive thinking and self-reflection, spend time with friends	1,1,5	1, 1, 5	5,5,4	5, 5, 4
5	Spend time with my wife and daughter.	4	4	4	4

Chapter 3

How does Valuing Happiness Impact Emotional Attention?

Abstract

Recent evidence suggests that highly valuing happiness could be associated with depressive symptoms via poor ability to control emotional attention. It was found in a previous survey study that impaired ability to focus on/disengage attention on emotional stimuli mediates the relationship between valuing happiness and depression. We aimed to replicate this finding with an experimental approach and further look into the specific effect valuing happiness has on emotional attention, in an Emotional Stroop task. We tested if inducing a higher level of valuing happiness could influence the task performance (disengage attention from positive/negative emotional information and name the colour of the text) in two British samples (*N*study 1 = 104, and *N*study 2 = 138) by measuring reaction time and error rate in the task. In Study 1, we found that participants spent longer time disengaging from negative stimuli compared to neutral stimuli in both experimental and control conditions but there were no differences between the experimental and control group. In study 2, we attempted to improve the manipulation material and set two experimental conditions (maladaptive/adaptive valuing happiness). However, we also did not find significant difference in task performance. We discuss how this have been related to a failed manipulation of valuing happiness. And we did not replicate the mediation effect of emotional attention control on how valuing happiness influences depression. The possible explanations for these results are discussed along with the limitations.

Keywords: Valuing happiness, happiness, depression, goal pursuit, emotional attention

Introduction

It is commonly believed that happiness is valued by most people (e.g., Diener et al., 2013) as it benefits people both physically and psychologically, such as leading to longer longevity and improving social relationships (e.g., Lyubomirsky et al., 2005; Ramsey & Gentzler, 2015; Diener et al., 2017; Myers & Diener, 2018), thus it is believed to be an important goal for people who desire it.

Custers and Aarts (2010) reviewed the existing goal theories and highlighted that putting value on a goal is linked with successful goal pursuit. Applying this to the context of pursuing happiness, it appears that putting more value on happiness would lead to successful pursuit of happiness. Bastian et al. (2014) investigated the association between life satisfaction and the social level of happiness. They collected data from over 9000 college students from 47 countries. The authors found that people from countries with a higher value of happiness reported higher life satisfaction. However, their results also showed that this effect is not as strong for people who tend to frequently experience negative emotions. The authors suggested that these people "stand out" more in societies that highly value happiness, which may trigger further negative thoughts such as "how am I sad in such an environment that values happiness?". In turn, these enhanced negative emotional experiences could lead to lower well-being (see Watkins, 2008; McEvoy et al., 2013). Similarly, in a recent cross-national study, Dejonckheere et al. (2022) examined the relation between societal pressure to pursue happiness and well-being across 40 countries that vary on national happiness levels. In some countries with higher level of national happiness levels, participants who are socially expected to achieve personal happiness tend to experience less intense positive experience, have lower level of life satisfaction and higher level of depression/anxiety/stress-related symptoms. These findings suggest that putting high value on happiness does not necessarily lead to higher well-being (Dejonckheere et al. (2022).

Recent research has shown that valuing happiness could potentially make people unhappy. Mauss et al. (2011) demonstrated the negative effect of valuing happiness can have on well-being in two studies. In study 1, participants who highly value happiness reported to be less happy under a low life stress condition (but not high life stress condition). In study 2, participants had relatively less positive response to a happy movie clip when they were induced to put more value on happiness prior to the viewing. Taken together, Mauss and colleagues argued that valuing happiness sometimes can be self-defeating, and this effect is mediated by the disappointment at one's level of positive feeling because of high expectations for happiness in a positive context. Further to this, highly valuing happiness is linked with a higher level of loneliness (Mauss et al.,2012), bipolar disorder (Ford et al.,2015) and depressive symptoms (e.g., Ford et al., 2014; Mahmoodi Kahriz et al., 2020). These negative effects on well-being are linked with maladaptive ways of pursuing happiness such as monitoring emotional status to a higher extent, which leads into reduced positive emotional gain from the experience (cf. Ford et al., 2014; McGuirk et al. 2018; Hansenne et al., 2021). Bardeen and Fergus (2020) also highlighted that setting an unrealistic high emotional goal (of achieving happiness) could lead to depression due to impaired ability to regulate negative emotions.

People constantly receive and are exposed to a variety of emotional information in their life, and people automatically pay attention to certain emotional information in a selective way according to their emotional goal. Vogt et al. (2017) tested how attention prioritizes information in the context of avoiding danger. They used an attentional cueing paradigm that presents cues relating to threat and reaching safety. In three experiments, participants constantly showed more attentional engagement towards safety-related cues aiming to avoid danger. The same pattern was found in the context of pursuing happiness. When viewing a series of real-world pictures, participants who were motivated to focus on

emotion regulation tend to pay more attention to positive images, compared to those who were instructed to focus on information acquisition (Xing & Isaacowitz, 2006). However, when people intentionally wanted to shift or control attention in order to pursue their emotional goal, their attempt would sometimes be counterproductive due to dysfunctional attentional bias to negative information. In the experiment conducted by Vogt and De Houwer (2014), participants showed an enhanced level of attention to disgusting pictures presented along with a neutral picture when instructed to suppress disgust. When avoiding negativity (disgust) is set as a goal, failing to shift attention away from negative stimuli could potentially lead to negative outcomes in the pursuit of happiness. Lenaert et al. (2016) also suggested that lower emotional attention control is linked with impaired ability to disengage from psychological stressing information. Consequently, people who failed to control emotional attention according to their emotional goal tend to experience stronger negative feelings due to enhanced attention to negative stimuli (Van Bockstaele et al.,2014).

The impaired ability to control attention towards an emotional goal is also associated with mental health conditions. Barry et al. (2013) proposed a questionnaire to measure the ability to focus or shift attention away from certain emotional thoughts or stimuli that conflicts with one's emotional goal (i.e., emotional attention control). The results showed that lower capability in emotional attention control is associated with depressive symptoms. Anderson et al. (2014) also demonstrated in their findings that depressed people fail to capture valued stimuli compared to healthy individuals. This tendency is not limited to people who already have depressive symptoms. Joormann et al. (2007) found that after a negative emotion induction, female adolescents who are at risk of depression shift attention away from positive stimuli compared to females with no depression risk.

Mahmoodi Kahriz et al. (2020) examined how valuing happiness influences emotional attention and its relationship with depressive symptoms with a series of

questionnaires. The findings showed that impaired emotional attention control mediates the association between valuing happiness and depression. Specially, participants who value happiness to an excessive level tend to overlook positive emotional information and have more difficulties to disengage from negative emotional information, and this leads to higher level of depressive symptoms (Mahmoodi Kahriz et al., 2020).

Aiming to provide an extension to these findings, we chose to use an experimental design to test if valuing happiness impacts emotional attention and its relationship with depression. We used emotional Stroop task (Williams et al., 1996) to measure emotional attention. Emotional Stroop task is a frequently used method to measure emotional attention based on participants' reaction time and error rate responding to the neutral/emotional stimuli. It is developed based on the effect that processing emotional information hinders the effort to focus on non-emotional aspect of the material. With this reasoning, people are expected take longer to name the text colour of emotional stimuli comparing to neutral stimuli (Williams et al., 1996). Similarly, participants are expected to make more errors responding to emotional stimuli because they are more distracted by the emotional information. Therefore, we aim to examine participants' task performance (e.g., reaction time and error rate) when naming the colours of emotional and non-emotional words. We predict that participants would take a larger amount of time and make more errors reacting to emotional words (positive/negative) than neutral words in both experimental and control condition.

In the current study, participants were randomly assigned to two groups with and without the manipulation on valuing happiness level. In the experimental group, the goal of "happiness" was set by the experimenter emphasizing the importance of achieving happiness in the manipulation material to induce higher level of valuing happiness. In the control group, participants performed in the main emotional Stroop task without manipulation. Through this,

we were able to test and compare their performance in the emotional Stroop task with and without their value of happiness activated in mind. We used both positive and negative words in the emotional Stroop task. Recent evidence suggests that emotional attention tends to automatically shift to the stimuli that is relevant to the current goal when presented with more than one stimuli spontaneously (e.g., Lichtenstein-Vidne et al., 2012; Vogt et al., 2017). In the current study, we would like to test how the emotional attention is impacted by valuing happiness. We planned to use Valuing Happiness Scale (Mauss et al., 2011) to measure to what extent do people value happiness. Specifically, we are interested in how difficult it is for people to disengage from positive/negative stimuli in the Emotional Stroop task (i.e., naming the colour of the word regardless of the possible emotional meaning).

Based on the reviewed findings relating to valuing happiness (e.g., Ford & Mauss, 2014) and emotional attention (e.g., Mahmoodi Kahriz et al., 2020), we predict that comparing to the control group, participants in experimental condition (with induced higher level of valuing happiness) could take longer time reacting to negative words and make more errors to them as an increased level of valuing could lead to fixation on negative emotional information (Mahmoodi Kahriz et al., 2020). Due to similar reasoning, we also predict that participants in experimental condition could take shorter time reacting to positive words and make fewer error to them as people with high level of valuing happiness could have a high standard of happiness and therefore overlook the positivity in the positive stimuli (cf. Ford & Mauss, 2014).

In addition, aiming to test Mahmoodi Kahriz et al. (2020)'s finding of valuing happiness could lead to increased depressive symptoms via impaired ability to control emotional attention can be replicated in an experimental setting, we are also interested in whether emotional attention mediates how valuing happiness influences depression in the present study (i.e., in an experimental setting). Our hypothesis is that the results from the

previous study (Mahmoodi Kahriz et al., 2020) can be replicated in the experimental setting: the higher level of valuing happiness that participants generally have, the more impaired ability to control emotional attention they have (i.e., longer time they take and more errors they make to react to negative words / shorter time they take and fewer errors they make to react to positive words), the more depressed they tend to be.

Study 1

Method

Participants

To determine the sample size, we ran a power analysis via G power (Faul et al., 2009) based on a similar study (Martynova & Lyusin, 2022) looking into the effects of induced positive v negative emotion on emotional Stroop task performance（$N = 89$）, with power of .95, α of .05 and a medium effect size ($f^2 = .27$). We aimed to recruit as many participants as possible with a minimum amount of 38 participants. In total, we recruited 110 participants from University of Reading via SONA system. All participants gave consent after they were shown an information sheet about the study and given debrief information after completion. Each participant was rewarded with 0.5 SONA credits which contributes to the completion of their module. Ethics approval of this study was granted by the School of Psychology Ethics Committee of University of Reading. After data cleaning, 2 individuals were removed due to the failure of completing the main task, 1 individual was removed due to missing data, and 3 individuals with error rates higher than $M + 3*SD$ were removed. In the end, data from 104 participants (95 females, 9 males) with a mean age of 23.01 years old ($SD = 8.49$) were analysed based on reaction time and error rate. Forty-nine participants were assigned to the experimental group and fifty-five participants were assigned to the control group.

Materials and Apparatus

Words list

We used a series of emotional/neutral words that are associated with negative/neutral/positive emotional valence. All words were selected from a database which collected affective norms of valence, arousal, and dominance on a scale of 1 (happy [excited; controlled]) to 9 (unhappy [calm; in control]) for 13,915 English words (Warriner et al., 2013). We aimed to choose the words we used based on the following two criteria: Firstly, the word should have no more than ten letters and no fewer than five letters. Secondly, we chose neutral words with a rating score of valence and arousal as close to the middle point (i.e., the rating "5") as possible. With the emotional words, we selected positive words with valence rating as close to the side of "happy, pleased, satisfied, contented, hopeful" as possible while selected negative words are closer to the side of "unhappy, annoyed, unsatisfied, melancholic, despaired, or bored" as possible. We also selected both types of emotional words with an arousal score close to or higher than 6. After this, the authors and members of the research team evaluated the initial word list. Aiming to make sure participants could understand the words generally, the words that can be too academic or not frequently used in day-to-day lives were removed. In the end, we selected 10 positive words, 10 negative words and 20 neutral words for the experiment (See Appendix for the word list, related rating scores available on request).

Manipulation for Valuing Happiness

To induce a higher level of valuing happiness, we presented participants with a paragraph that emphasized how happiness can be beneficial in different aspects and instructed participants to write down a personal experience when happiness brings them positive outcomes. The material for the manipulation we used is adapted from a previous study looking into the effect of valuing happiness has on well-being and successfully

manipulated participants' level of valuing happiness (Mauss et al., 2011). We also added an additional paragraph adapted from a previous study that manipulated stress-mindset (Ben-Avi et al., 2018) to strengthen the manipulation.

Emotional Stroop Task

Adapted from the original Stroop task (Stroop, 1935), the main task of the present experiment is the emotional Stroop task (Williams et al., 1996). The main task consists of four sessions, and each session consists of thirty trials. In each trial, participants were first shown a fixation cross in the centre of a white screen for 250 milliseconds. Then, selected words in four colours were displayed one by one at the same spot on the screen. Below the word, participants were given reminders of which button represents which colour in their responses (See Figure 5). Participants were asked to name the colour of each word by pressing the buttons. When participants responded correctly, the screen automatically advanced to the next screen after 1000 milliseconds. When participants responded incorrectly or did not respond within 3000 milliseconds, a message of the text "error" was shown to them before advancing to the next screen. Participants' reaction time to the stimulus and error rate were recorded to assess their performance in the task.

Figure 5. An example of how a word was presented to participants in the task.

Questionnaires

Valuing Happiness Scale

To measure participants' level of valuing happiness, we used the revised version of Valuing Happiness Scale (Mauss et al., 2011). It has nine statements about attitudes towards happiness or pursuing happiness (e.g., "I value things in life only to the extent that they influence my personal happiness."). Participants gave their responses to these statements on a scale of 1 (*strongly disagree*) to 7(*strongly agree*), and these nine responses are averaged to be the final score, $\alpha = .82$.

Beck Depression Inventory

We assessed participants' depression level by using Beck Depression Inventory (BDI-II; Beck et al., 1996). It measures depressive symptoms with 21 items, each item has four options vary on the severity of a certain symptoms on a scale of 0 ("*I have not lost interest in other people*") to 3 ("*I have lost all of my interest in other people*"). Participants were instructed to give their responses based on their emotional status in the latest two weeks. Their responses were summed up as a final score for the scale, $\alpha = .91$.

In addition, we also added four happiness-related statements to serve as a manipulation check: "Happiness is very important in my life" "Happiness improves my behaviour or performance" "Happiness benefited my social relationships" "Happiness makes me feel healthier/more energetic". Participants in both conditions were instructed to respond to these statements on a scale of 1 ("*strongly disagree*") to 7("*strongly agree*").

Procedure

The present experiment was programmed and hosted on the online experiment builder Gorilla (www.gorilla.sc). After reading the information sheet and signing the consent form, participants first took a practice trial of the emotional Stroop task consisting of 10 neutral

words. Then, they were randomly assigned to one of the two groups (experimental/control). If it was the control group, which participants moved directly to the next step of the procedure. If it was the experimental group, they were shown the following material that is designed to induce the feeling of valuing happiness:

Research shows that happiness doesn't just feel good, it also has real benefits for people's well-being and health. For example, happiness makes people healthier and strengthens their relationships. Experiencing happiness is like taking vitamins. We all experience happiness sometimes. Happiness has a variety of effects on functioning, behaviours, thoughts, and social interactions.

After reading the material, participants were instructed to complete a simple writing task:

Try to recall a particular incident in which you experienced happiness and felt that the happiness you experienced was good for you. Common examples are situations in which happiness improved your performance, enhanced your energy level, benefited your social relationships, or in which being happy just felt good.

Please describe an incident in which your happiness was good for you in 5-7 sentences. Please be sure to include both the circumstances and the positive consequences of experiencing happiness.

Following this, participants were presented the four happiness-related statements and they gave their responses to these statements as the manipulation check.

Next, participants completed the main emotional Stroop task. Prior to the beginning of the task, Participants were presented with the following introduction:

You will take part in a colour naming task. You will always see a word. Your task is to ignore the meaning of the word displayed and respond with the colour of the text. The text could be either Red, Green, Yellow or Blue. Please press "Q" for Red, "W" for Green, "O" for Yellow and "P" for Blue. There will be reminders of what button to press for which colour. Please respond as quickly and accurately as possible.

In each of the four sessions, we presented participants with 30 words in total (10 positive words, 10 neutral words and 10 negative words, presented in random order). Each word was displayed in a different colour in each session. There was a break screen between each two sessions, and participants could choose to either continue or take a short break before the next session.

Lastly, participants were asked to fill in Valuing Happiness Scale and Beck Depression Inventory then answered demographic questions. See Figure 6 for the outline of the experiment procedure.

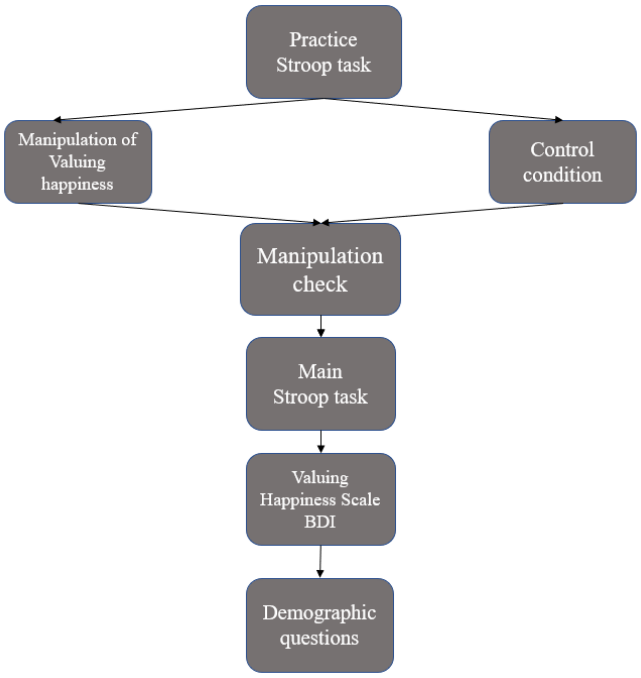


Figure. 6 Procedure outline

Data Analysis

Data was analysed using SPSS version 27. We used two types of behavioural data to assess participants' performance in the Emotional Stroop Task: reaction time and error rate. We aimed to compare participants' performance to neutral/positive/negative stimuli to check the overall differences in performance among neutral and positive/negative stimuli. Also, we aimed to examine whether induced valuing happiness impact on emotional attention by comparing participants' performance in two conditions (with manipulation/without manipulation). To do so, two mixed repeated measures ANOVAs were conducted respectively to examine whether participants' performance (reaction time or error rate) differ across three types of stimuli (negative/neutral/positive stimuli) and/or between two groups (experimental/control). Bonferroni correction was applied in the multiple comparison. In addition, we aimed to replicate the mediation effect of the ability to control emotional attention on the association between valuing happiness and depression from the previous study (Mahmoodi Kahriz et al., 2020). The questionnaire data of Valuing Happiness Scale (Mauss et al., 2011), Beck Depression Inventory (Beck et al., 1996) and the behavioural data of Emotional Stroop Task (Williams et al., 1996) performance were used in a mediation analysis via Process Macro version 4.0 (Hayes, 2017) with model 4.

Results

Questionnaire Data

Participants' level of valuing happiness was measured by Valuing Happiness Scale (Mauss et al., 2011), $M = 4.53$, $SD = 1$. They were also asked to fill in Beck Depression Inventory (BDI-II-; Beck et al., 1996), $M = 11.99$, $SD = 9.2$. Please also find the descriptive statistics for these two scales in Table 7.

Randomisation check

Participants were randomly assigned either experimental or control conditions. In order to check whether the two groups are not clinically different, an independent sample t-test was conducted to compare participants' scores on Beck Depression Inventory (BDI) as a randomisation check, t (102) = 4.498, p = .256. There was no significant difference in scores on Beck Depression Inventory between experimental condition and control condition, indicating participants' levels of depression were not significantly different between experimental and control conditions. This means the randomisation was a success.

Manipulation check

In order to check whether we successfully manipulated participants' level of valuing happiness in the experimental condition, we ran an independent sample t-test to compare participants' average score to the four happiness-related statement prior to the main task (e.g., "happiness is very important in my life") between the experimental condition (M = 6.4, SD = 0.72) and control condition (M = 6.31, SD = .7). Participants' responses to the manipulation statements are not significantly different, t (102) = .040, p = .530. We also conducted an independent sample T test to compare the score of Valuing Happiness Scale, t (102) = 1.839, p = .69. These results indicated that we failed to manipulate participants' level of valuing happiness in the experimental condition.

Behavioural Data

We used two types of behavioural data to evaluate participants' performance in the Emotional Stroop task: reaction time and error rate. In line with the previous studies assessing participants' emotional attention (e.g., Dresler et al.,2009, Vogt et al.,2013; Dodd et al.,2017), the reaction time data was median filtered (Ratcliff, 1993) after excluding all incorrect responses (2.14%) to be further analysed. See Table 7 for descriptive statistics and

bivariate Pearson's correlations between valuing happiness and all other variables. Valuing happiness is positively associated with depression, and it survived the Bonferroni correction for multiple comparisons (correcting for the seven correlations). However, valuing happiness is not associated with any of the performance variables (reaction time and error rate).

Table 7

Means, standard deviations, and correlations between valuing happiness and all other variables.

Variables	*M*	*SD*	Correlation
Valuing Happiness	4.53	1	-
Depression	11.99	9.2	.384**
RTnegative	665	175	.017
RTneutral	653	168	-.004
RTpositive	661	171	.009
ERnegative	1.96	2.93	.072
ERneutral	2.15	3.08	.057
ERpositive	2.3	2.94	.148

Note. RT represents Reaction time (milliseconds), ER represents Error Rate (%), negative represents negative stimuli, neutral represents neutral stimuli, positive represents positive stimuli; * $p < .05$; ** $p < .01$.

Reaction Time

A mixed repeated measures Analysis of Variance (ANOVA) was conducted to compare participants' reaction time to three types of emotional stimuli. Group (experimental/control) was the between-subjects factor, emotion (with three levels: negative/neutral/positive) was the within-subject factor.

The main effect of emotions was revealed, F (2,204) = 4.875, $p = .009$, *partial* $\eta^2 = .046$. This indicates that participants' reaction time to the different emotions was significantly different. Participants react slowest to negative stimuli ($M = 665$ms, $SD =$

175ms), second slowest to positive stimuli (*M* = 660ms, *SD* = 171ms) and quickest to neutral stimuli (M = 653ms, *SD* = 168ms). In the pairwise comparison test with Bonferroni adjustment, it was revealed that participants' reaction time to negative stimuli was statistically significantly longer than their reaction time to neutral stimuli, p =.013. However, opposite to what we expected, there was no significant difference between reaction time to negative stimuli and positive stimuli (p = .671) nor between reaction time to neutral stimuli and positive stimuli (p = .140). This suggests in the present study, participants overall were distracted by the emotional information in the emotional stimuli comparing to the neutral stimuli, and they reacted most strongly to negative stimuli.

Additionally, there was no interaction between emotion and group, F (2,204) = .802, p = .42, *partial* η^2 = .008, indicating that participants' reaction time to emotional stimuli did not differ between groups.

Furthermore, there main effect of the groups was not significant, participants' reaction time in the Emotional Stroop task did not differ between the two groups, F (1,102) = 2.023, p = .770, *partial* η^2 = .001.

Attempting to replicate the mediation effect found in the previous study (Mahmoodi Kahriz1 et al., 2020), a mediation analysis was conducted via Process Macro version 4.0 (Hayes, 2017). To test the mediation effect of emotional attention control on the relationship between valuing happiness and depression we used the score for Valuing Happiness Scale as the independent variable, score for Beck Depression Inventory was set as dependent variable and participants' reaction times to negative/positive stimuli was set as mediator(s) in two mediation analyses. However, the proposed model is not significant for either reaction times to positive stimuli (b = -.03, SE =.10, 95% CI [-.21, .23], p > .05) or negative stimuli (b = -.03, SE = .15, 95% CI [-.41, .23], p > .05). These results indicate that reaction time to

emotional stimuli did not mediate the association between valuing happiness and depression in the present study.

Error Rate

Similarly, we conducted a mixed repeated measures ANOVA to compare participants' error rate to three types of stimuli. The between-subject factor was group (experimental/control), and the within-subject factor was emotion (negative/neutral/positive). However, there was no main effects nor interactions, *p*s>.418.These results indicate that the error rate did not differ among emotions and the error rates between the two groups were not significantly different.

In addition, in order to test how emotional attention impacts on the relationship between valuing happiness and depression in the aspect of error rates, a mediation analysis was conducted with the error rates to (positive/negative) emotional words used as mediator. The error rate to neutral words is used as a baseline. However, the mediation effect of error rates for positive words (*b* = -.02, SE=.12, 95% CI [-.28, .23], *p*>.05) and negative words (*b* = -.02, SE=.15, 95% CI [-.34, .29], *p*>.05) was not significant. These results suggest that error rates to emotional stimuli did not mediate the association between valuing happiness and depression in the present study.

Due to the failed manipulation, we also ran linear regression analysis to test the relationship between valuing happiness and task performance (reaction time and error rate data for all three categories), none of the models was significant, $R^2 < .022$, *p*s > 134.

Study 2

With the failed manipulation of the level of valuing happiness, the experimental design of Study 1 did not successfully induce a higher level of valuing happiness, and we did not find the effects that we aimed to investigate. In addition to aiming to replicate the

findings of Study 1, we sought to improve the experimental design to address its shortcomings in Study 2. First of all, although valuing happiness may be counterproductive sometimes due to maladaptive perspectives (e.g., wanting to stay happy most of the time, Mass et al.,2011, also cf. Ford et al.,2014), recent studies have suggested that valuing happiness can also lead to actual happiness if an adaptive way of pursuing happiness is applied. Catalino et al. (2014) highlighted the role of prioritizing positivity and suggested that people may achieve happiness by engaging in simple positive activities in day-to-day life. Krasko et al. (2020) proposed the concept of happiness goal orientation in the pursuit of happiness and concluded that the successful pursuit of happiness is linked with various feasible positive activities in daily life. Zhang (2023) further tested this effect in both Chinese and Western samples and suggested that happiness could be successfully achieved via associating happiness with socially engaged and feasible activities (e.g., pursuing happiness via meeting with family or close friends for a meal on the weekends). Taken together, it is reasonable to assume that different ways (maladaptive/adaptive) of valuing happiness can lead to different behaviours in the pursuit of happiness. That is, people's emotional attention could potentially display different patterns to (positive/negative) emotional information.

Thus, in the current study, in addition to the control group, we examined two experimental groups, one that had an adaptive and the other a maladaptive perspective on pursuing happiness. For both groups, we emphasized the importance of achieving happiness in the manipulation material, but for each group different suggestions on how to pursue it were given. To induce a maladaptive perspective on valuing happiness, we described how lacking happiness could be bad in several aspects and reminded participants of how negative emotional events can have negative impact on them, in order to enhance their level of wanting to be happy and avoid unhappiness. For the second group, we described an adaptive way of valuing happiness. We suggested that happiness can be achieved by doing simple

things in day-to-day life and reminded them of how little things could bring them positive emotional outcomes, in order to shape a perspective that it is good to pursue happiness by feasible ways (e.g., Catalino et al.,2014). By doing so, we would be able to explore how different manipulations on valuing happiness (adaptively/maladaptively) effect emotional attention and its association with depression. Additionally, we presented participants with different words in each session, so that we may avoid them losing emotional arousal due to repetition. For study 2, we propose the following hypotheses:

We hypothesise that a maladaptive approach to valuing happiness will drive participants to have increased difficulty disengaging from negative stimuli and a lower level of attention to positive stimuli, therefore, comparing to the other two groups, participants in the maladaptive group would have a longer reaction time/higher error rate to negative words and shorter reaction time/lower error rate to positive words due to fixating on negative emotional information and overlooking positive emotional information. We expect the adaptive manipulation of valuing happiness would drive participants to have increased focus on positivity and avoidance for negativity, therefore, participants in adaptive group would tend to have shorter reaction time/lower error rate to negative words and longer reaction time/higher error rate to positive words. Same with in study 1, we also predict that the relationship between valuing happiness and depression is mediated by the ability to control emotional attention (reaction time/error rate to positive/negative stimuli), and higher level of valuing happiness leads to higher level of depressive symptoms via being less able to shift attention away from negative stimuli.

Method

Participants

To determine the sample size for the present study, a power analysis was conducted by G power (Faul.,2009) referring to the similar study (Martynova & Lyusin, 2022) and study 1, with a power of .95, α of .05 and a medium effect size of .25. Based on the estimated total sample size, we aimed to recruit as many participants as possible with a minimum number of 45. We recruited in total of 150 participants via SONA system of University of Reading. Each participant was rewarded with 0.5 SONA credits. This study obtained ethics approval from the School of Psychology Ethics Committee. Before the analysis began, 3 participants' data were removed due to failure to meet the writing task requirements (e.g., did not write about any incident or wrote "I cannot recall any incident that I don't feel happy enough"), 4 participants' data were removed due to straight lining (i.e., given the same response to all or the majority of the questions in scales). Additionally, there were 4 participants with error rates higher than $M + 3* 3SD$ were excluded and 1 participant was removed because they dropped out shortly after they started the main task. In total, 138 participants' performance data was analysed. Forty-one participants were assigned to the adaptive condition group, forty-eight participants were assigned to the maladaptive condition group and forty-nine participants were assigned to the control group.

Materials and Apparatus

We used the same questionnaires (Valuing Happiness Scale, α = .81, and Beck Depression Inventory, α = .92) as Study 1, and we also used the Emotional Stroop Task hosted on Gorilla as the main task. The words used in Study 2 were selected from the same database as Study 1 with the same criteria and discussion process. In Study 2, in total of 130 words were used (40 positive words, 50 neutral words and 40 negative words, see Appendix for the full list, related rating scores available on request). Additionally, by changing the keywords and adding additional sentences, we created two alternative versions of the manipulation material aiming to induce adaptive and maladaptive ways of valuing happiness

respectively. Lastly, in order to check whether participants understand the words in the main task the same way we intended (i.e., whether they view the positive/negative words as positive/negative, and whether they view some of the neutral words as emotional words), we added a word rating survey that measures how participants view the words presented in the main task. Participants were asked to rate all the words shown in the main task on a scale of 1 (*very negative*) to 7 (*very positive*).

Procedure

The experimental procedure is similar to Study 1 with the following three differences. Firstly, after the practice trial of Emotional Stroop Task at the beginning, participants were randomly assigned to either the control group (without any manipulation) or one of the two experimental conditions (adaptive/maladaptive valuing happiness manipulation).

In the adaptive condition, participants were shown the following manipulation material:

We all experience happiness sometimes. Happiness is not always about getting a promotion or buying a new house, it can also about little things such as getting hot drink in a cold morning or reading a nice book after a bath. Research shows that happiness is not only about accepting or coping with negative emotions, but also about being able to savour the positive events that happen in our day-to-day lives. For example, making sure that you do little things that make you happy, like getting in touch with somebody close to you, has real benefits for your well-being and health. Try to recall an incident in which savouring positive event or doing little things made you feel happy. It can be something really small such as catching up with friends, having your favourite food, or watching something nice on TV. You could write anything from your personal experience. Please describe this incident in 5-7 sentences. Please be sure to include both the circumstances and how it made you feel.

In the maladaptive condition, participants were shown the following manipulation material:

Research shows that not being happy enough doesn't just feel bad, it also has real disadvantages for people's well-being and health. For example, not being happy enough makes people less healthy and weakens their relationships. Not being happy enough is like lacking vitamins. We can all be not happy enough sometimes. Not being happy enough has a variety of effects on functioning, behaviour, thoughts, and social interactions. Try to recall a particular incident in which you are not being happy enough and felt that not being happy enough was bad for you. Common examples are situations in which not being happy enough worsened your performance, weakened your energy level, harmed your social relationships, or which not being happy enough just felt bad. Please describe an incident in which not being happy enough was bad for you in 5-7 sentences. Please be sure to include both the circumstances and the negative consequences of not being happy enough.

Secondly, after the manipulation, the Valuing Happiness scale (Mauss et al., 2011) was used as manipulation check. Lastly, after the main task, participants completed the word rating survey. See Figure 7 for an outline of experiment procedure.

Figure 7. Procedure outline

Data Analysis

The data analysis was conducted in the structure similar to Study 1 using SPSS version 27 and Process Macro version 4.0. In Study 2, we were particularly interested in whether different manipulation of valuing happiness (3 groups: without manipulation/with adaptive manipulation/with maladaptive manipulation) impact on task performance (reaction time and error rate), and if so, how are these effects differ across the three stimuli (positive/neutral/negative)? Two mixed repeated measures ANOVAs on reaction time/error rate were preformed separately to investigate this, and we employed Bonferroni correction in the multiple comparison. We also ran the mediation analysis same with we did in Study 1 to check whether there was a mediation effect of emotional attention on the association between valuing happiness and depression.

Result

Questionnaire Data

See Table 8 for the descriptive statistics for the questionnaires.

Table 8

Descriptive statistics for the questionnaire data

Condition	No. of participants	VH	BDI	Positive	Negative	Neutral
adaptive	41	4.1(0.88)	0.75(0.51)	5.92(0.53)	1.62(0.42)	3.85(0.28)
maladaptive	48	4.25(1.14)	0.56(0.5)	5.8(0.62)	1.67(0.43)	3.76(0.4)
control	49	4.13(0.96)	0.67(0.47)	5.86(0.45)	1.68(0.41)	3.82(0.29)

Note. VH represents score for Valuing Happiness Scale, BDI represents score for Beck Depression Inventory, positive/negative/neutral represent for rating scores for positive/negative/neutral stimuli; data in parenthesis represent for standard deviation.

Randomisation check

A one-way ANOVA with BDI score as dependent variable was performance to check whether participants had any clinical differences among the three groups, we found their score on depressive symptoms was not significantly different among the three groups, $F(2,135) = 1.776$, $p = .173$. We also performed a three one-way ANOVAs to test whether participants' understanding for the words differed among the three groups, the results showed that the rating scores for positive/neutral/negative was not statistically significant among the three groups, $F(2,137) = .554$, $p = .576$, *partial* $\eta^2 = .008$; $F(2,137) = .554$, $p = .436$, *partial* $\eta^2 = .012$; $F(2,137) = .229$, $p = .796$, *partial* $\eta^2 = .003$. These results indicate that the randomization has succeeded.

Manipulation check

In order to check whether we have successfully manipulated the level of valuing happiness in the experimental conditions, a one-way ANOVA was conducted to compare the score of Valuing Happiness Scale among the three groups. There was no significant difference on Valuing Happiness score among the three groups, F (2,135) = .279, p = .757. This indicates the manipulations of valuing happiness was not effective.

Behavioural Data

Similar to Study 1, we used the data of reaction time and error rate in the Emotional Stroop task to evaluate participants' performance. All reaction time data was median filtered after excluding the incorrect responses (2.01%). See Table 9 for the descriptive statistics of behaviour data for the three groups and see Table 10 for descriptive statistics and bivariate correlations between valuing happiness and all other variables for all participants. Valuing happiness is positively associated with depression, and it survives the Bonferroni correction for multiple comparisons (correcting for the seven correlations). However, valuing happiness is not associated with any of the performance variables (reaction time and error rate).

Table 9

Descriptive statistics: Reaction times for each group in each condition

Group	RTnegative	RTneutral	RTpositive	ERnegative	ERneutral	ERpositive
Adaptive	619.11(108.96)	612.46(107.18)	612.5(101.44)	1.8(2.99)	2.17(2.8)	1.9(2.81)
Maladaptive	626.11(112.03)	625.95(116.18)	621.31(113.58)	2.1(2.51)	1.75(2.27)	1.9(2.26)
Control	584.31(100.14)	586.53(112.46)	583.73(106.99)	2.76(3.11)	2.78(2.85)	2.35(2.91)

Note. RT represents for reaction times (milliseconds), ER represents for error rate (%), positive/negative/neutral represent for positive/negative/neutral stimuli; data in parenthesis represent for standard deviation.

Table 10

Means, standard deviations and bivariate correlations of valuing happiness and all other variables.

Variables	*M*	*SD*	Correlation
Valuing Happiness	4.16	1	-
Depression	13.15	9.93	.276**
RTnegative	608.7	108.48	.003
RTneutral	606.35	107.42	.02
RTpositive	603.96	107.97	.002
ERnegative	2.09	2.78	.013
ERneutral	2.04	2.55	.141
ERpositive	1.89	2.55	.033

Note. RT represents Reaction time (milliseconds), ER represents Error Rate (%), positive/negative/neutral represent for positive/negative/neutral stimuli. * $p < .05$; ** $p < .01$.

Reaction time

A mixed measures ANOVA was conducted on reaction times with groups (three levels: control/adaptive/maladaptive) as between-subject factor, and the emotion condition (with three levels negative/neutral/positive) as within-subjects factor. However, there was no main effect of emotion, F (2,270) = 1.736, p = .178, *partial* η^2=.013. The interaction between group and emotion was also not significant, F (4,270) = .642, p = .625, *partial* η^2 =. 009. Overall, participants' reaction time did not differ among the three groups, F (1,135) = 1.787, p = .171, *partial* η^2 =. 026.

Similar to Study 1, the mediation model of emotional attention control on the relation between valuing happiness and depression could not be built in the current study for both reaction time to positive stimuli (b = -.00, SE = .04, 95% CI [-.12, .01], p>.05) nor negative stimuli (b = -.01, SE = .01, 95% CI [-.03, .01], p>.05). These results indicate that emotional attention did not mediate the association between chronic valuing happiness and depression in Study 2 either.

Error rate

A mixed repeated measure ANOVA was conducted with condition as between-subjects factor and emotion as within-subjects factor. A mixed repeated measure ANOVA was conducted with groups (with three levels: control/adaptive/maladaptive) as between-subjects factor and emotion (with three conditions: negative/neutral/positive) as within-subjects factor. The main effect of emotion was not significant, F (2,270) = .296, p = .744, *partial* η^2 =.002. There was also no interaction between emotion and condition, F (4,270) = .375, p = .826, *partial* η^2 =. 006. Furthermore, participants' error rates did not differ among the three conditions, F (1,135) = 1.774, p = .174, *partial* η^2 =. 026.

We conducted mediation analysis to test whether error rates for emotional words mediates the relationship between level of valuing happiness in general and depression. Participants' error rate to neutral words was used as baseline. The results showed the mediation effect of error rates to both positive words (b = -.01, SE = .01, 95% CI [-.02, .01], p > .05) and negative words (b = -.00, SE = .01, 95% CI [-.03, .02], p > .05) are not significant.

For exploratory reasons, we also ran linear regression analysis to test the relationship between valuing happiness and task performance (reaction time and error rate data for all three categories) in study 2, none of the models was significant, $R^2 < .020$, $ps > 698$.

Discussion

This study was designed to investigate how valuing happiness impacts on emotional attention control in an experimental setting, and its association with depression. In two experiments, we aimed to manipulate participants' valuing happiness and measure the effects of this on performance in an emotional Stroop task (Williams et al., 1996). By comparing their reaction times and error rates to (positive/negative/neutral) emotional words and neutral stimuli, we aimed to test the predictions that high level of valuing happiness could lead to increased difficulties to disengage attention from negative stimuli and decreased attention to positive stimuli. Further, by using participants' performance on emotional stimuli (positive/negative) as mediators, we aimed to examine whether emotional attention mediates valuing happiness and depression in the present study. Overall, we found inconsistent results suggesting that it is relatively most difficult for people to disengage attention from negative stimuli comparing to neutral stimuli (but there was no significant difference with positive stimuli). However, we did not find evidence that valuing happiness impacts performance on emotional Stroop task in the aspects of reaction time or error rate, neither on different extents (higher level & control group, study 1) or different perspectives (adaptive/maladaptive, study 2). And we found no supporting evidence for the potential mediation effect emotional attention control could have on the link between valuing happiness and depression (Mahmoodi Kahriz et al., 2020) in the present study.

In Study 1, we found a main effect of emotion on reaction time. This is consistent with the emotional Stroop effect, that emotional stimuli create significantly more distraction for participants comparing to neutral stimuli (Algom et al., 2004). In line with our hypothesis, participants had a significantly longer reaction time to negative stimuli comparing to neutral

stimuli. Specifically, participants took longest time to react to negative stimuli, second longest time to positive stimuli and the shortest time to neutral words. This suggests that comparing to neutral information, people tend to display attentional bias to negative emotional information as they are associated with negative states such as danger (e.g., Vogt et al.,2017). As a result, people may tend to fixate on negative stimuli which in turn could lead to increased negative emotional feelings. Although, people did not display attentional bias to positive stimuli. This could be due to people overlook positive emotional information in life. In addition to this, the difference between reaction time to all three types of stimuli are relatively small (e.g., 12ms for negative stimuli to neutral stimuli in study 1). These results suggest that the emotional attention bias participants display is relatively weak and could only provide limited support to the hypothesis. Further, this difference on reaction time to different stimuli was not replicated in Study 2. The results for error rates were also not shown to be statistically different among the three emotional conditions in both studies. One possible explanation for these inconsistent findings is that emotional attention biases in such tasks may be solely driven by the arousal level rather than valence (e.g., Schimmack, 2005; Dresler et al., 2008), and it is likely that the words we used (especially in Study 2) have a low overall emotional-arousal level for participants. However, lacking the rating for emotional arousal to the selected words, this possibility could not be examined in the current study. Future studies could benefit from asking participants to rate the emotional stimuli on the dimensions of both valence and arousal, so that the researchers could measure whether participants were truly emotional aroused during the task.

Aiming to induce a higher level of valuing happiness in some of the groups examined, we then looked into how increased level of valuing happiness impacts on emotional attention. However, participants under the manipulation did not show significant performance differences to (positive/negative) emotional/neutral stimuli in both studies. Opposite to our

hypothesis, participants' performance (reaction time/error rate) did not differ between experimental and control groups. This is mainly due to ineffective manipulation of level of valuing happiness in both studies. We therefore concluded the following reasons why the manipulations have failed. With the material that emphasizes why happiness is important, we intended to remind participants of the value of happiness. In the additional material we added, we aimed to provide participants with more details of why happiness is good, encourage participants to associate the beneficial effect of happiness with their own life, and therefore activate the emotional goal of "valuing happiness" prior to the main task. However, this might backfire and actually distracted participants from the key point of "valuing happiness". Furthermore, the failed manipulation in both studies could imply that people's view on happiness is a value they generally have that is hard to be changed in a short amount of time and to a significant level. Therefore, the emotional goal of pursuing happiness was not truly activated for those who were assigned to an experimental condition. Also, when filling Valuing Happiness Scale (Mauss et al.,2011), participants might have given the responses affirmatively and do not actively view happiness the same way in their real life or when preforming in the task. Therefore, future research could develop better forms of measuring valuing happiness that can be used in an experiment setting to test the impact of valuing happiness more effectively.

Also, the manipulation checks in both studies might affected participants on its own. In study 1, the four manipulation check statements (e.g., "happiness benefited my social relationships") were generated from the key points of the manipulation material. We originally intended to check whether participants in experimental condition were influenced by (i.e., agreed to) the material. However, because these statements were also a brief summary of the manipulation material, and when participants in control condition read them, these questions might have similar impact with the manipulation material on them. Further to

this, after reading the material, participants in the experimental condition might responded to these statements after demand effect without necessarily agreeing to them genuinely. Taking a closer look at the statements and the relatively high score between the two conditions, one could also agree that few people would be likely to strongly disagree with them (e.g., "happiness is very important in my life") so it is likely a ceiling effect had occurred. As a result, we could not create a significant difference on level of valuing happiness between the two groups.

In study 2, aiming to induce an adaptive perspective on valuing happiness, we introduced the importance of savouring positivity in the pursuit of happiness. However, lacking a more detailed explanation of savouring, some participants may not truly understand the meaning of savouring. This flaw could limit the possibility of them applying an adaptive way of valuing happiness after reading the material. Another possible explanation for our failed attempt on inducing valuing happiness could be that the manipulation only enhanced the emotional reaction to few specific stimuli. This is supported by previous studies that suggest participants' reaction to a set goal is limited to the stimuli that is directly relevant to the goal (Veling & van Knippenberg, 2006; Veling & van Knippenberg, 2008). In the current study, even if the emotional goal of "happiness" was activated, participants may have only reacted to words that is directly relevant to happiness (e.g., "happiness" "joyful"). When seeing other positive words that is indirectly relevant to happiness, for instance, "cinema", the goal of "happiness" may not be truly activated because it was inhibited by participants' personal interpretation.

In our studies, we hypothesised that emotional attention (i.e., participants' performance in the emotional Stroop task towards the emotional stimuli) mediates the relationship between valuing happiness and depression as found in the previous study (Mahmoodi Kahriz et al., 2020). This finding was not replicated in the present two studies.

The current study used words as stimuli in the main emotional Stroop task and participants' behavioural data (reaction time/error rate to emotional stimuli in the main task) as the mediator. However, it remains unclear that to what extent does the performance in an emotional Stroop task accurately reflect the ability to control emotional attention. This link could be tested in future studies. Also, other forms of stimuli, such as images or movie clips may be able to create stronger emotional distractions and in turn provide more answers to how valuing happiness could impact emotional attention in an experimental setting.

Overall, our data only allowed very limited conclusion that, in the experimental setting of study 1, people tend to take longest time to disengage from negative emotional stimuli compared to neutral stimuli, and therefore they may have relatively most difficulty disengaging from negative emotional information. The question of what the effect of valuing happiness has on emotional attention to positive and negative stimuli is yet to be answered by future studies with improved experimental designs.

Appendix

Word list for Study 1

Practice trial: card, chair, rain, hand, water, phone, sky, pen, cup, apple.

Main task

Positive words: praise, cinema, joyous, lover, happy, comedy, succeed, exotic, tasty, talent.

Neutral words: time, recipe, stone, finger, list, area, computer, square, camera.

Negative words: breakup, bully, creepy, abuse, hateful, attack, bombing, scare, jealous, rampage.

Word list for Study 2

Practice trial: card, chair, rain, hand, water, phone, sky, pen, cup, apple.

Main task

Positive words: adore, comedy, genius, lover, succeed, amazing, delightful, fantastic, party, ravishing, bonus, excite, happy, passionate, victory, awesome, desire, generous, laugh, treasure, admired, cheerful, freebie, joyous, romance, adventure, thrill, exciting, incredible, pleasure, celebrate, fiesta, hilarious, payday, winnings, brilliant, energetic, happiness, passion, lively.

Neutral words: belly, cabbage, database, drawer, hanger, lever, office, peddle, schedule, weatherman, binary, cement, decade, flake, jumper, machinery, overview, presume, specimen, wiper, average, bucket, comma, division, hallway, lactose, minivan, passenger, redirect, turnip, blank, chimney, district, hairline, kneecap, meantime, panel, ratio, tenant, yeast.

Negative words: arrest, breakup, fatal, invasion, poisoning, thief, aggressor, gunpoint, panic, kidnapper, assault, crisis, hijack, irritable, rapist, threaten, burglary, suicide, cannibal, famine, abuse, bombing, execution, injustice, murderer, terrorism, violent, disaster, chaos, furious, attack, dangerous, homicide, massacre, sociopath, vicious, destroyer, tragedy, rabid, hostility.

Chapter 4

When Happiness Knocks on Your Door: How do People React to Positive Events in Day-to-day Lives?

Abstract

Valuing happiness can lead to lower well-being due to less varied, socially engaged, and feasible ways of pursuing happiness. Being able to recognise means to be happy in day-to-day lives and savour positive experiences protects people from the negative impact of valuing happiness. To explore how people respond to different positive events and how this relates to individual differences and well-being, we conducted two studies presenting participants with positive scenarios. We designed the scenarios on the dimensions of (high/low) social engagement and (high/low) feasibility to test how positively they would react to them. The scores for their motivation of engagement, for wanting the scenario to happen often and the level of happiness they feel, were averaged for the analysis, with higher scores meaning more positive reactions. We also measured participants' well-being, views on happiness and personality traits. In study 1, Chinese participants (N=278) preferred scenarios with low social engagement and feasibility. These findings were replicated in study 2 with a British sample (N=141). More specifically, preference for high (vs. Low) social scenarios was negatively associated with neuroticism and openness to new experience. Extraversion and a socially engaged way of defining happiness were found to be positively associated with preference for high (vs. low) social and high (vs. low) feasible scenarios. Also, reacting more positively to highly social and highly feasible scenarios is linked with higher well-being in both studies. The present paper provides further evidence of the importance of pursuing happiness in both a social and feasible way to achieve higher well-being.

Keywords: Happiness, positive events, emotions, goal pursuit, positive emotions

Introduction

Most people assume happiness is desired because of its numerous benefits in physical, social, and psychological aspects (e.g., Myers & Diener, 2018; Steptoe, 2018). The United States Declaration of Independence (Jefferson, 1776) highlighted the value of the pursuit of happiness as an "inalienable right". However, pursuing happiness does not always lead to achieving happiness. Recent evidence has revealed that sometimes the effort to feel happy can potentially make people unhappy. Mauss et al. (2011) proposed that valuing happiness could be self-defeating as people may feel easily feel disappointed. They found that female participants who highly value happiness reported being less happy under a low (vs High) life stress condition. They also found that participants who were induced to value happiness (vs the control group) reacted less positively to a happy movie clip. Mauss et al. (2011) suggested that highly valuing happiness may make people unhappy, especially when happiness is within reach, as they tend to be disappointed at their own emotional experiences in the pursuit of happiness and consequently fail to achieve happiness.

The potential negative impact of valuing happiness is not limited to personal feelings. For instance, Mauss et al. (2012) suggested that valuing happiness can also damage people's connections with others in western cultures, making people lonely. Participants who highly value happiness reported being lonelier in 2-week diaries and when experimentally induced to put more value on happiness. Following this, valuing happiness was further associated with mental health problems in Western samples, such as depressive symptoms (Mauss et al., 2012; Ford et al., 2014; Mahmoodi Kahriz et al., 2020) and bipolar disorder (Ford et al., 2015). Ford and Mauss (2014) summarized in a review that the downside of valuing happiness is due to pursuing happiness in maladaptive ways: (a) having overly high standards in the pursuit of happiness (e.g., Tsai et al., 2006); (b) monitoring one's feelings constantly which could cause negative emotions or decrease the positive emotional experiences (e.g.,

Bailen et al., 2019; van Bockstaele et al., 2020); (c) taking counterproductive actions to pursue happiness (e.g., Cui et al., 2021).

However, this does not mean that valuing happiness will always lead to lower well-being. For instance, Ford et al. (2015) investigated how valuing happiness predicts well-being in different cultural backgrounds. They used a series of questionnaires to measure participants' attitudes towards happiness, their definition of happiness in socially engaged ways and well-being from four geological regions. The results revealed that valuing happiness predicted higher well-being in the East Asian sample while predicting lower well-being in the US sample and did not predict well-being in the German sample. The authors suggested that this difference is caused by cultural differences on whether the (individualistic/collectivistic) country promotes pursuing happiness via socially engaged ways (i.e., helping and connecting with others) and a socially engaged way protects well-being from the negative impact of valuing happiness. This also highlights the importance of feasible means in the pursuit of happiness because social engagements are often easy to initiate and are flexible to possible changes (Ford et al., 2015; Zhang., 2023). For example, "spending time with friends and family" could happen regularly in daily life and can be achieved in various ways, from in-person to virtual forms. When people pursue a desired goal (e.g., happiness), it is important to adopt realistic plans (e.g., Marien et al., 2012; Parks & Biawas-Diener, 2013). Instead of aiming for "major things" that can be unrealistic or ambitious (e.g., getting a big promotion at work), focusing on "little things" might get people closer to happiness. Parks and Biawas-Diener (2013) suggested in a review of positive interventions that simple positive activities (e.g., engaging in an act of kindness) increase happiness. Similarly, based on the integrative model of sustainable happiness (Lyubomirsky et al., 2005), Catalino et al. (2014) proposed that taking part in pleasant activities in day-to-day life may be the most effective way of gaining happiness. This is supported by the model

of sustainable happiness by Lyubomirsky et al. (2005), which suggested that engaging in positive activities can increase happiness effectively. In other words, the successful pursuit of happiness is related to positivity on a daily basis. Later studies have also stressed that simple positive events in everyday life increase happiness (e.g., Layous et al., 2014). For instance, data from four studies conducted by Krasko et al. (2020) highlighted the positive association between Happiness-related striving (i.e., actively working towards the desired level of happiness) and higher well-being. The authors suggest that striving to endorse and pursue a board range of happiness definitions (i.e., engaging in varies positive things) in everyday life contributes to the achieving happiness. Based on these findings, it would be beneficial to look into how people react to activities in day-to-day life that vary on the level of feasibility (i.e., "major things" versus "little things").

Aiming to further investigate the key to a successful pursuit of happiness, the current study focuses on not only social but also the feasibility dimensions via designing a series of positive scenarios (i.e., scenarios that could potentially induce positive emotional experiences, such as joy, relaxed, excitement).

Experiencing positive events is one of the most important sources of happiness (Gentzler et al., 2016). People all experience positive events in life; however, not everyone is able to actually gain happiness from these experiences (Mauss et al.,2011). In the pursuit of happiness, success depends on identifying and "seeing" stimuli that will help achieve the goal (e.g., Cole & Balcetis, 2021; Vogt et al., 2019). Similarly, people who pursue happiness may fail to achieve happiness if they lack the ability to recognize the means to be happy. People experience all kinds of positive events every day, from having a nice chat with a friend to getting a pay rise at work, and these events can all potentially bring people happiness. However, people are not always able to seize the opportunity to feel happy as they may fail to identify them. On the other hand, if people actively seek to capture positivity in their daily

lives, they tend to be more likely to achieve happiness. This is termed by Catalino et al. (2014) as “prioritising positivity”, and it is found to be positively associated with the successful pursuit of happiness. Catalino et al. (2014) developed the prioritizing positivity scale (PPS) to measure participants’ level of prioritising positivity and found that participants who actively seek positivity in their daily lives reported a higher well-being, including positive emotions and lower depressive symptoms. The longitudinal study by Datu and King (2016) supported this finding showing that prioritising positivity predicted higher level of positive emotions. Prioritising positively was also found to increase positive emotions and decrease negative emotions in a later life-span study (Littman-Ovadia & Russo-Netzer, 2018). Hansene et al. (2021) confirmed this association in a replication study and further addressed that prioritising positivity contributes to the successful pursuit of happiness.

Indeed, achieving happiness depends on how much positivity people are able to gain from their daily lives. Catalino and Fredrickson (2011) proposed that processing simple routine activities (e.g., interacting with others, playing, learning) could promote an optimal mental health state called flourishing, and this can be promoted by engaging and thriving in pleasant daily events (e.g., interacting with others, playing) that cause positive emotional experiences. They tested this hypothesis on a pre-screened adult sample. They instructed participants to report their activity and emotions on a typical weekday and measure their well-being. The results showed that people who generally process and react to pleasant day-to-day events more positively tend to have higher well-being compared to people who do not or are depressed. On the other hand, having an impaired ability to enjoy positive events could potentially lead to increased depressive symptoms (Mahmoodi Kahriz et al., 2020).

Although the existing studies have addressed responses to positively in life plays an important role in the pursuit of happiness, more evidence is needed to understand this in more depth. To date, several survey studies have looked into people’s reactions to positive events

and how they link with well-being. As reviewed by Gentzler et al. (2016), the previous studies have not discussed the positive events specifically (e.g., Feldman et al., 2008) or have only asked participants to react to a limited range of positive events (e.g., Gentzler et al., 2010). In the current study, based on previous studies (Wood et al., 2003), we plan to investigate people's reactions to different positive events by presenting various positive scenarios. However, in Wood et al.'s (2003) study, participants were instructed to only think of one scenario in each condition as the main focus of the study was to examine savouring strategies. To expand the understanding of how people respond to positive events, a wider range of positive scenarios would benefit the exploration. Nelis et al. (2011) measured participants' responses to various scenarios to understand their emotion regulation. The scenarios listed in their material were each associated with one specific positive or negative emotion, and participants were asked to select their reactions from eight options, which limited the potential for a general discussion of responses to positive events. In the current study, we aim to measure and discuss how people react to different positive events. Similarly, Gentzler et al. (2016) investigated various types of responses to positive events. They presented participants with scenarios that evoked moderate-to-high levels of happiness and provided insight into how savouring positivity impacts well-being. However, they only categorised the scenarios as relationship/achievement/random events and did not build a more dimensional structure for them. Attempting to structurally explain how people react to positive events related to well-being, we aim to design the materials on the dimensions of social engagement and feasibility.

Additionally, recent studies have also found that responses to positive events are associated with certain individual differences. Sin et al. (2011) suggested that individuals with moderated levels of depression tend to benefit more from simple positive activities compared to reflective positive practices. Relatedly, highly extroverted people and the ones

who are open to new experiences tend to benefit more from positive activities (Senf & Liau, 2013). In the current study, we would also like to explore what kind of people would fail/ succeed in identifying means to be happy.

In summary, in the current study, we aim to investigate how people react to social and feasible scenarios.

Firstly, we would like to look into people's preferences on positive scenarios on the dimensions of social engagement and feasibility. We predict that people would overall react more positively to high (vs low) social scenarios and low (vs. high) feasible scenarios.

We would also like to investigate whether personality traits (e.g., extraversion, openness to new experiences) and attitudes towards happiness (valuing happiness, social definition of happiness) impact participants' reactions to positive scenarios.

We hypothesise that extroversion and openness to new experiences will be positively related to the preference for social scenarios. Moreover, Neuroticism will negatively be related to the preference for social scenarios. We also would like to investigate how other personality traits such as consciousness, honesty-humility and agreeableness are related to the preference of social and feasible scenarios social.

We also hypothesise that attitudes towards happiness (valuing happiness, social definition of happiness) are related to participants' reactions to positive scenarios.

In particular, we predict that valuing happiness positively relates to participants' maladaptive reactions to positive scenarios (i.e., react relatively less positively to positive scenarios). We also assume that the social definition of happiness positively relates to participants' adaptive reactions to positive scenarios (i.e., react relatively more positively to positive scenarios).

Furthermore, we will investigate how urgency and level of wanting to be happy are related to participants' reactions to positive scenarios. We predict that high urgency in wanting to be happy relates to participants' maladaptive reactions to positive scenarios. We also predict that high levels of wanting to be happy relate to participants' maladaptive reactions to positive scenarios.

Finally, we would like to investigate whether people who react positively to high social and highly feasible scenarios (i.e., tend to pursue happiness in a social and feasible way) have more increased well-being (i.e., higher subjective happiness and lower level of depression).

Study 1

Pilot studies

Two pilot studies were conducted to rate and evaluate the materials. Before being rated by participants, two research assistants who had a bachelor's degree in psychology and were familiar with the research topic, generated a series of positive events that can happen in people's daily lives. To allow participants to relate to them freely, we aimed to design positive scenarios that generally evoke happiness without giving too much detail to limit their imagination. Each of the scenarios was described briefly in one or two sentences and was categorized based on the level of social engagement and feasibility: High social and high feasibility (e.g., "Meeting your family or close friends for dinner on the weekend."), low social and high feasibility (e.g., "You are in your bedroom, watching your choice of TV programme alone."), high social and low feasibility (e.g., "You are aware that there are some elderly neighbours that who are living alone and with health conditions, so you volunteer to visit them daily to provide help and support."), and low social and low feasibility (e.g., "You got a pretty substantial pay rise recently."). The factors of culture and gender were also

considered, and some scenarios were removed or re-worded in this process. Then, the first pilot study was conducted on a Chinese online platform (N = 89). Participants were shown 40 scenarios in total and were asked to rate how social/feasible they think the scenario is and how happy they would be if the scenario happened (i.e., the rating for positivity) on a scale of 1 ("not at all") to 7 ("very much so"). They were also asked, "have you experienced something like the scenario in your own life" ("YES" or "NO"). After a discussion among the authors and research assistants, the wording for scenarios was adjusted according to the results prior to the second pilot study. To test whether the material could be used in different samples from different cultural backgrounds, participants were recruited from Chinese (N = 39) and Western (N = 32) online platforms. The procedure was the same as in the first Pilot study. More items were removed due to the cultural difference factor.

In the end, the scenarios with the rating scores that best matched the assigned category were selected. For instance, we selected scenarios with high rating scores on both dimensions (social and feasibility) for the high social high scenario category. In order to evoke moderate-to-high levels of positivity, all selected scenarios had rating score for positivity that match the moderate-to-high level (Chinese sample: M = 5.66, SD = .38, western sample: M = 5.54, SD = .57). In total, we used twenty-eight scenarios (seven for each category) in the current study (see the complete list in the Appendix).

Method

Participants

Data collection was completed in July 2021. We performed a power analysis with G power (Faul et al., 2009) with a power of .95, $\alpha = .05$, with a medium sample size of $f^2 = 0.25$. Based on the result, we aimed to recruit as many participants as possible, with a

minimum amount of 36. Three hundred and fifty-one Chinese participants were recruited using the online platform Wen juan xing. Participants who responded incorrectly to the attention checker item ("please select the second option for this item") and were under 18 years old were excluded from the data. Finally, data from 278 participants (17 males, mean age = 23.5 years old, *SD* = 4.9) remained for analyses.

Materials

All questionnaires and scales used in the present study were in the mandarin version. The translation was completed by the authors and members of their research team, fluent in English and Chinese.

Valuing Happiness Scale

To measure participants' motivation to pursue happiness, we used valuing happiness scale (Mauss et al., 2011). The scale consists of nine items (e.g., "I want to be happier than I generally am") that measure their tendency to value happiness. Participants gave their responses on a scale of 1 (*"strongly disagree"*) to 7 (*"strongly agree"*), α =.82.

Socially Engaged Definition of Happiness Scale

Participants' definitions of happiness were measured by the socially engaged definition of the happiness scale (Ford et al., 2015). The scale has eight items (e.g., "*keeping in touch with friend and/or family*") that follow the statement "happiness means to me…" and participants rate how much they agree with the definition on a scale of 1 ("*strongly disagree*") to 5 ("*strongly agree*"), α = .81.

Subjective Happiness Scale

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) was used to measure participants' overall subjective happiness. It consists of four items asking participants to rate how happy/unhappy they are based on themselves generally and relative to others on a scale

of 1 to 7 (e.g., "*In general, I consider myself….1 means 'not a very happy person', 7 means 'a very happy person'*"), α = .88.

Beck Depression Inventory

Participants' level of depression was assessed with the Beck Depression Inventory – second edition (BDI-II; Beck et al., 1996), which includes 21 items that measure participants' severity of depressive symptoms on a scale from 0 (e.g., "*I do not cry any more than usual*") to 3 (e.g., "*I used to be able to cry, but now I can't cry even though I want to*"), α = .91.

The Mini IPIP6

We used the Mini International Personality Items Pool (IPIP) 6 (Sibley et al., 2011) to measure participants' personality traits. It has 24 items that measure personality on six dimensions: extraversion ("engagement in social endeavours"), agreeableness ("ingroup cooperation and tolerance"), conscientiousness ("engagement in task-related endeavours"), openness to new experiences ("engagement in idea-related endeavours"), neuroticism ("low emotional stability") and honest-humility ("Reciprocal altruism"). Participants were instructed to select how accurately each item describes them on a scale of 1 ("*very inaccurate*") to 7 ("*very accurate*"). The score for each trait was averaged to generate a final score for that personality trait: Extraversion (α =.73), Agreeableness (α = .70), Conscientiousness (α = .64), Openness to new Experience (α = .82), Neuroticism (α = .80) and Honesty-Humility (α =.72).

For exploratory reasons, we also added the following items to the survey and participants were instructed to respond to the following items based on how much they agree to them on a scale of 1 ("*extremely disagree*") to 7 ("*extremely agree*"). To measure the urgency of feeling happiness, participants responded to "Based on my current emotional status, I need to feel happy as soon as possible.", "Based on my current emotional status, it is

urgent for me to feel happy." and "It is currently critical for me to improve my happiness" (α = .92). In addition, to measure the level of wanting to achieve happiness, participants responded to "I want to be as happy as possible.", "I want to stay happy all the time if I can.", "I always want to be happier than I already am." and "I want to be happier than most people." (α = .91).

Additionally, to understand how they view each scenarios, we asked participants to rate how socially engaged and how feasible the presented scenarios are on a scale of 1 to 7. However, due to an error in the survey program, data for the social ratings was not successfully collected and therefore could not be analysed.

Procedure

Referring to a previous study which investigated how poor people process day-to-day money-related events using a series of scenarios with the following question set (Shah et al., 2018), we designed our procedure in a similar structure. Firstly, participants were presented with the following instruction: *"Please read each scenario carefully and response to the questions following them. When you read the scenarios, please feel free to fill in the details when you imagine them. When it comes to scenarios that could be limited in the current covid-19 pandemic, please imagine it happens generally, and there are no right or wrong answers."* Then they were presented with all selected scenarios in random order. After reading each scenario, participants were presented with two following items: "I would like this to happen often" and "I want to engage in this activity". Hereafter, they were asked to rate how likely they would have these thoughts in the scenario on a scale of 1 ("not at all") to 7 ("very much"). Additionally, they were asked to rate how much this scenario would make them happy ("this will make me happy") on a scale of 1 ("not at all") to 7 ("very much"). Then, participants were asked to fill in Valuing Happiness scale, BDI, Socially Engaged

Definition of Happiness scale, Subjective Happiness scale, The mini IPIP 6, demographic form and respond to the exploratory items.

Lastly, participants were presented with the same scenarios once again and asked to rate these scenarios with the following questions: How social do you think this scenario is? (1 = not social at all, 7 = very much social) and how feasible do you think this scenario is? (1 = not feasible at all, 7 = very much feasible).

Results

Table 11 presents descriptive statistics and correlations for all variables including exploratory questions.

Table 11

Descriptive Statistics and Correlations for All Variables including Exploratory Questions (N=278)

Variables	M(SD)	1	2	3	4	5	6	7	8	9	10	11	12
1.Valuing Happiness	4.53(1.15)	-											
2.Socially Engaged Definition of Happiness	4(0.63)	.267**	-										
3. Depression	13.98(10.2)	.299**	.190**	-									
4. Subjective Happiness	3.83(1.44)	-.186**	.274**	-.670**	-								
5.Extraversion	2.94(1.26)	-.000	.253**	-.184**	.253**	-							
6.Agreeableness	4.37(1.08)	.041	.353**	-.082	.084	.351**	-						
7.Conscientiousness	4.15(1.24)	.196**	.051	-.212**	.178**	.056	.009	-					
8.Neuroticism	4.58 (1.34)	.236**	-.112	.646**	-.734**	-.121*	.101	-.240**	-				
9.Openness to new experiences	5.26 (1.13)	-.289**	.085	-.111	.028	.150*	.250**	.070	.021	-			
10.Honesty-Humility	4 (1.33)	-.228**	-.225**	.102	-.084	-.247**	-.071	-.018	.051	-.085	-		
11.Urgent	4.44 (1.59)	.573**	.078	.493**	-.475**	-.022	.084	-.178**	.499**	-.133*	-.196**	-	
12.Level	4.58 (1.64)	.636**	.271**	.162**	-.049	.048	.055	-.084	.110	-.199**	-.360**	.562**	-

Note. Depression represents the score of BDI, extraversion/agreeableness/conscientiousness/neuroticism/openness to new experiences/honesty-humility represent scores for sub-scales of Mini IPIP-6, "urgent" means how urgently participants need to feel happy, "level" means the level of happiness participants want to feel, *$p < .05$; **$p < .01$.

To investigate whether participants understand each category the way we intended (e.g., whether they see a scenario from the "high feasible" category as an activity with high feasibility), we conducted independent sample *t*-tests to compare their ratings for the scenarios. The feasibility ratings for low feasible scenarios ($M = 3.1$, $SD = 1.2$) were significantly lower than high feasible scenarios ($M = 5$, $SD = 1$), $t\ (554) = -20.6$, $p < .001$. However, the *t*-test for the social ratings could not be conducted due to the failed attempt to collect social rating scores in the survey. Thus, we can only partially confirm that the scenarios worked for participants as we intended.

To understand how participants react to the scenarios, an overall reaction score was generated by averaging participants' responses to the three questions after each scenario ("I would like this to happen often", "I want to engage in this activity", and "this would make me happy"), $\alpha = .93$. The higher the score is, the more positively participants responded to a certain category of scenarios.

To address the research question of how people generally react to different positive events, a 2 (high social/low social) x 2 (high feasibility/ low feasibility) repeated measures analysis of variance (ANOVA) was performed to compare people's responses in different scenario categories. The main effect of social was found, $F\ (1, 277) = 432.24$, $p < .001$, *partial* $\eta^2 = .069$. Responses were significantly higher for low social scenarios (M=5.9, SD=0.7) than high social ($M = 4.9$, $SD = 1$). This is different from what we expected in our hypothesis. A main effect of feasibility was also found, $F\ (1,277) = 19.91$, $p < .001$, *partial* η^2=.067. Consistent with what we predicted, responses are significantly higher for low feasible scenarios ($M = 5.5$, $SD = 0.8$) than high feasible ($M = 5.3$, $SD = .8$). There was no significant interaction between social and feasibility, $F = .091$, p =.763, *partial* η^2=000.

To reflect participants' preferences on the social and feasibility dimension, we used participants' responses to high social (feasible) scenarios minus low social (feasible) scenarios to calculate their preferences for social engagement/feasibility. The higher the score is, the more they prefer high social/feasible scenarios.

To address the research question of what individual differences impact people's reactions to positive events, we conducted multiple linear regression with the enter method. The scores of participants' preferences for high social scenarios and highly feasible scenarios were used as dependent variables (see Table 12).

Table 12

Multiple linear regressions of the predictors' impact on preferences for scenarios

Preference	Predictor	*β*	*t*	*p*	R square
High social scenarios	Valuing happiness	-.131	-1.913	.057+	.402**
	Socially engaged definition of happiness	.229	4.088	<.001**	
	Extraversion	.251	4.729	<.001**	
	Agreeableness	.287	5.107	<.001**	
	Conscientiousness	-.104	-2.109	.036*	
	Neuroticism	-.127	-2.154	.032*	
	Openness	-.297	-5.561	<.001**	
	Honesty-Humility	-.066	-1.229	.220	
	Urgent	.089	1.255	.211	
	Level	.059	.852	.395	
High feasible scenarios	Valuing happiness	.133	1.612	.108	.136**
	Socially engaged definition of happiness	.280	4.164	<.001**	
	Extraversion	.140	2.198	.029*	
	Agreeableness	-.104	-1.547	.123	
	Conscientiousness	.054	.907	.365	
	Neuroticism	.134	1.892	.060+	
	Openness	-.038	-.600	.549	
	Honesty-Humility	.176	2.736	.007*	
	Urgent	-.197	-2.319	.021*	
	Level	.009	.106	.915	

Notes. β = Standardized Coefficients beta, Urgent = how urgent they want to be happy, Level= the level of happiness participants would like to achieve, **$p < .01$, *$p < .05$, +$p < .01$.

The model with a preference for high social scenarios is significant, R^2=.402, $p <$ .001.The more socially engaged they define happiness, the more they prefer high social scenarios, β =.229, t = 4.088, $p <$ .001. The higher they score on extraversion, the more they prefer high social scenarios, β =.251, t = 4.729, $p <$ .001. The higher they score on agreeableness, the more they prefer high social scenarios, β = .287, t = 5.107, $p <$ .001. The lower they score on conscientiousness, the more they prefer high social scenarios, β = -.104, t= -2.109, $p <$ .05. The less they are open to new experiences, the more they prefer high social scenarios, β = -.297, t = -5.561, $p <$ .001. The lower they score on neuroticism, the more they prefer high social scenarios, β = -.127, t = -2.154, $p <$ .05. The regressions for other predictors are not significant, ps >.057.

The model with a preference for highly feasible scenarios is significant, R^2 = .136, $p <$. 001.The more socially engaged they define happiness, the more they prefer highly feasible scenarios, β =.280, t = 4.164, $p <$ .001. The higher they score on extraversion, the more they prefer high feasible scenarios, β = .140, t = 2.198, $p <$ .05. The higher they score on honesty-humility, the more they prefer high feasible scenarios, β =.179, t = 2.773, $p <$ .05. The higher they score on agreeableness, the more they prefer highly feasible scenarios, β = .286, t = 5.093, $p <$ .001. The more urgently they want to achieve happiness, they less they prefer high feasible scenarios, β = -.197, t = -2.319, $p <$ .05. The regressions for other predictors are not significant, ps >.108.

To address the research question of how people's way of reacting to positive scenarios relates to actual well-being, we also ran two multiple linear regressions on their reactions to the four categories of positive events and well-being (See Table 13).

Table 13

Multiple linear regressions of how participants' reactions to positive scenarios impact on well-being

Well-being	Predictor	*β*	*t*	*p*	R square
Subjective Happiness	High social high feasible	.340	4.207	<.001**	.107**
	High social low feasible	.013	0.145	.885	
	Low social high feasible	.000	-.002	.998	
	Low social low feasible	-.057	-.719	.473	
Depression	High social high feasible	-.288	-3.484	<.001**	.068**
	High social low feasible	.010	.107	.915	
	Low social high feasible	.133	1.766	.078+	
	Low social low feasible	.005	.061	.952	

Notes. β = Standardized Coefficients beta, each predictor represents participants' reaction to each category of scenarios, **$p < .01$, *$p < .05$, +$p < .01$.

The model with subjective happiness is significant, $R^2 = .105$, $p < .001$. The more positively they react to high social high feasible scenarios, the higher subjective happiness they have, $\beta = .340$, $t = 4.207$, $p < .001$. The regressions of the subjective happiness and responses to the other three categories are not significant, ps >.473.

The model with depression is also significant, $R^2 = .068$, $p < .001$. The more positively they react to high social high feasible scenarios, the less depressed they are, $\beta = -.288$, $t = -3.484$, $p < .001$. The regressions of the subjective happiness and responses to the other two categories are not significant, ps >.078.

Study 2

Aiming to replicate the results in a different sample and to improve the experimental design to overcome the potential shortcomings of study 1, we conducted study 2 in May 2022. Based on our initial hypotheses and findings in study 1, we predict that participants overall tend to react more positively to low social scenarios over high social scenarios and react more positively to low feasible scenarios over high feasible scenarios. We also predict that the more extraverted participants are, the more they tend to prefer high social scenarios and high feasible scenarios. The higher they score on openness to new experiences, the less positively they tend to react to high social scenarios. And the higher they score on neuroticism, the less positively they tend to react to high social scenarios. Furthermore, we predict that the more socially engaged participants define happiness, the more positively they tend to react to high social and high feasible scenarios, and valuing happiness could predict less positive reaction to high social and high feasible scenarios.

Method

Participants

Based on the previous power analysis and the sample size in study 1, we decided to recruit as many participants as possible with a minimum number of 100 during May 2022. One hundred seventy participants were recruited for Study 2 via the SONA system (17 males, mean age = 20 years old, *SD* = 2.5). All participants were undergraduate students from the University of Reading and reported average mood on the day of participation (*M* = 4.43, *SD* = 1.53) and in the last two weeks (*M* = 4.05, *SD* = 1.56). Participants who failed to respond correctly to the attention checker item (“please select the second option for this item”) were excluded. The final sample consists of 141 participants.

Materials

We used the original English versions of materials from Study 1 (Valuing Happiness Scale, α =.81, Socially Engaged Definition Scale, α =.85, Subjective Happiness Scale, α =.77, Beck Depression Inventory, α = .90, Mini IPIP 6: Extraversion, α = .78, Agreeableness, α = .56, Conscientiousness, α = .61, Openness to new Experience, α = .63, Neuroticism, α = .50, Honesty-Humility, α = .63) with the following adjustments. Firstly, after reading each scenario, the statement "this would make me happy" was changed to "how much happiness would you experience in this situation?". Lastly, participants were also asked to rate their emotional status for the day they took the survey and in the last two weeks on a scale of 1 ("extremely negative") to 7 ("extremely positive"). In addition, responses for exploratory items were categorised and averaged into two variables the same way as we did in study 1: Urgent (how urgently do participants want to achieve happiness, α=.88) and Level (what level of happiness participants would like to achieve, α = .71)

Results

Table 14 presents descriptive statistics and correlations for all questionnaire variables and exploratory questions.

Table 14

Descriptive Statistics and Correlations for All Variables including Exploratory Questions (N=141)

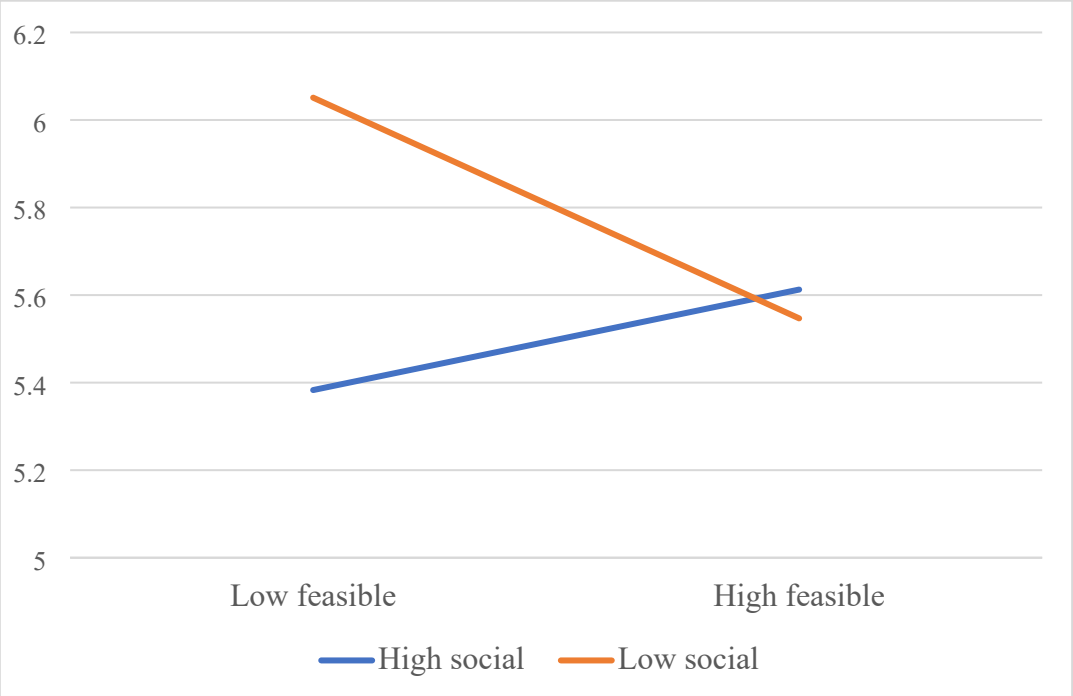
Variables	M(SD)	1	2	3	4	5	6	7	8	9	10	11	12
1.Valuing Happiness	4.34(1)	-											
2.socially Engaged Definition of Happiness	4.38(0.49)	.172*	-										
3. Depression	14.45(9.56)	.471**	-.016	-									
4. Subjective Happiness	4.07(0.88)	-.071	.131	-.467**	-								
5.Extraversion	4.38(0.96)	.093	.167*	-.169*	.272**	-							
6.Agreeableness	5.54(0.79)	.012	.444**	-.006	.030	.241**	-						
7.Conscientiousness	4.32(1)	-.192*	-.071	-.225**	.050	-.353**	-.191*	-					
8.Neuroticism	4.46(1.03)	.369**	.067	.543**	-.423**	-.110	.058	-.157	-				
9.Openness	5(0.96)	-.094	.051	-.081	.001	.096	.174*	.069	.059	-			
10.Honesty-Humility	4.8(0.92)	-.208*	.123	-.072	-.088	-.128	.135	.007	.005	-.012	-		
11.Urgent	3.87(1.42)	.553**	.003	.462**	-.144	.025	-.078	-.191*	.335**	-.049	-.158	-	
12.Level	4.78(1.16)	.480**	.123	.215**	.181	.200*	-.065	-.163	.143	.006	-.335**	.415**	-

Note. Depression represents the score of BDI, extraversion/agreeableness/conscientiousness/neuroticism/openness to new experiences/honesty-humility represent scores for sub-scales of Mini IPIP-6, "urgent" means how urgently participants need to feel happy, "level" means the level of happiness participants want to feel, *$p < .05$; **$p < .01$.

Similar to study 1, we conducted an independent *t*-test to check whether participants viewed the scenarios the way we intended. The social ratings for low social scenarios (*M*=2.6, *SD* =1.2) were significantly lower than high social scenarios (*M*=5.8, *SD* =.8), *t* (562) = -37.768, $p < .001$. The feasibility ratings for low feasible scenarios (*M* = 3.6, *SD* = 1.2) were also significantly lower than high feasible scenarios (*M* = 5.4, *SD* = 1), *t* (562) = -19.194, $p < .001$. These results suggest that participants' understanding of the scenarios matches our designed directions. An overall reaction score was also averaged to reflect how positively participants reacted to the positive scenarios, $\alpha = .95$.

A 2 (high social/low social) x 2 (high feasibility/ low feasibility) repeated measures ANOVA was performed to compare people's responses in different scenario categories. A main effect of social was found, *F* (1, 140) = 46, $p < .001$, *partial* $\eta^2 = .247$. Responses were significantly higher for low social scenarios (*M* = 5.8, *SD* = .7) than high social (*M* = 5.5, *SD* = .83). The main effect of feasibility was also found, *F* (1,140) = 11.61, *p* = .001, *partial* $\eta^2 = .077$. Responses were significantly higher for low feasible scenarios (*M* = 5.7, *SD* = .7) than high feasible (*M* = 5.6, *SD* = .8). There was an interaction between social and feasibility, *F* = 94.61, $p < .001$, *partial* $\eta^2 = .407$ (See Figure 8). Overall, participants respond the most to low social low feasible scenarios (*M* = 6.1, *SD* = .7), then high social high feasible scenarios (*M* = 5.6, *SD* = 0.9) and low social high feasible ones (*M* = 5.6, *SD* = .9), they respond the least to high social low feasible ones (*M* = 5.4, *SD* = .9).

Figure 8. Interaction of social and feasibility



Similar to Study 1, we calculated preference scores for social and feasibility and conducted multiple linear regression to test what variables predict participants' reactions to the positive scenarios with the enter method. However, the regression model for preference for highly feasible scenarios is not significant, F =.689, p =. 733.See Table 15 for the model of preference on high social scenarios.

Table 15

Multiple linear regressions of the predictors' impact on preferences for scenarios

Preference	Predictor	β	t	p	R square
High social scenarios	Valuing happiness	-.008	-.083	.934	.259**
	Socially engaged definition of happiness	.283	3.219	.002*	
	Extraversion	.241	2.78	.006*	
	Agreeableness	.083	.929	.354	
	Conscientiousness	.027	.312	.755	
	Neuroticism	-.219	-2.557	.012*	
	Openness	.057	.726	.469	

Honesty-Humility	.096	1.164	.247
Urgent	.215	2.246	.026*
Level	-.115	-1.115	.225

Notes. β = Standardized Coefficients beta, Urgent = how urgently participants want to be happy, Level= the level of happiness participants would like to achieve, **$p < .01$, *$p < .05$.

The model with a preference for high social scenarios is significant, R^2=.139, $p <$ .001. The more socially engaged they define happiness, the more they prefer high social scenarios, β =.283, t = 3.219, $p <$ .05. The higher they score on extraversion, the more they prefer high social scenarios, β = .241, t = 2.78, $p <$ .05. They lower they score on neuroticism, the more they prefer high social scenarios, β = -.219, t = -2.557, $p <$ .05. The more urgently they want to achieve happiness, the more they prefer high social scenarios, β = .215, t = 2.246, $p <$ .05. The regressions for other predictors are not significant, ps >.225.

To understand how responses to positive events relate to actual well-being, we also ran multiple linear regression on their reactions to different positive events and well-being. The model with depression was not significant, F = 1.688, p = .156. The model with subjective happiness was significant, R^2 = .070, $p <$ .05 (See Table 16).

Table 16

Multiple linear regressions of how participants' reactions to positive scenarios impact on well-being

Well-being	Predictor	β	t	*p*	R square
Subjective Happiness	High social high feasible	.401	2.685	.008*	.070*
	High social low feasible	-.219	-1.897	.060+	
	Low social high feasible	-.153	-1.111	.269	

Low social low feasible	.062	0.506	.614

Notes. β = Standardized Coefficients beta, each predictor represents participants' reaction to each category of scenarios, $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .01$.

The more positively they react to high social high feasible scenarios, the higher subjective happiness they have, $\beta = .401$, $t = 2.685$, $p < .05$. The regressions of the subjective happiness and responses to the other three categories are not significant, *p*s >.060.

Discussion

We all experience positive events in day-to-day things, from little things to major things. When happiness knocks on our door, will we recognize the opportunity or let it slip away? The present study investigated the relationships between how people process positive events and individual differences and well-being. To measure the way people process positive events, their reaction to different positive scenarios was examined.

Building on previous studies on the pursuit of happiness (Ford et al., 2015; Krasko et al., 2020; Zhang., 2023), we structured the scenarios on both social engagement and feasibility dimensions. As we predicted, participants in both samples preferred low feasible scenarios over high feasible scenarios. This implies that people generally tend to react more positively to "major things" over "little things". In study 2, the difference between high/low feasible scenarios is relatively small (0.1), however, it is important to note that this main effect has a high significance level ($p < .001$) and with an adequate effect size (*partial* $\eta^2 = .407$). Therefore, this finding has still provided some insight into how the factor of feasibility impact western people's reaction to positive events, and we suggest that this should be further tested with western sample in future studies.

In contrast to what we expected, participants preferred low-social scenarios over high-social scenarios in both samples. This could be explained in two aspects. In both categories of low feasible categories, scenarios like “getting a substantial pay rise” are more focused on the experience that directly benefits oneself, while the potential positive impact of scenarios like “reaching the donation target” would be more indirect, although it can also be also viewed as an achievement. In both categories of highly feasible scenarios, scenarios like “taking a hot shower after work” requires less effort and are under less influence of external factors, while scenarios like “hanging out with friends on a day off” are more likely to change due to factors that one finds hard to control and requires more energy in the process of maintaining social relationships.

Furthermore, our findings revealed that the key to further understanding the successful pursuit of happiness seems to be highly social and highly feasible scenarios (e.g., “Imagine that it’s your day off, you spend a whole day hanging out with your friends.”). In Study 1, the more positively participants respond to high social high feasible scenarios, the higher their level of subjective happiness. This finding was replicated in Study 2. This is in line with the previous findings that engaging in simple positive activities leads to higher well-being (Catalino & Fredrickson, 2011; Parks & Biawas-Diener, 2013; Layous et al., 2014), and our study extended this by confirming the effect with a wider range of scenarios and in a more systematic way. However, participants react most positively to low social low feasible scenarios in both samples. One explanation that can be presumed reasonable is that taking a closer look at the low social low feasible scenarios we selected, they are mostly linked with personal achievements (e.g., “You got a pretty substantial pay rise recently.”) or fortune (e.g., “In the past, you decided to buy a lottery ticket, and today is the day that the numbers are drawn. You checked your ticket and found out that you have won some money.”) while most of the scenarios in other categories are mainly experiences (e.g., “You really enjoy work done

by a certain celebrity, and one day you finally get to meet them in person. You have a pleasant conversation, albeit brief, and you also get their autograph.") and activities (e.g., "It's a Saturday morning, and you are out having a walk in your neighbourhood. The sun is rising, and you can smell the freshly cut grass."). Thus, people tend to find the low social low feasible scenarios more desirable compared to the other scenarios. Interestingly, although both samples reacted most positively to low social low feasible scenarios, results in Study 2 revealed an interaction between social and feasibility, displaying a different reaction pattern to the positive scenarios. Ruby et al. (2012) suggested that people in Eastern Asian countries tend to associate happiness with low arousal positive affect (e.g., peacefulness). This implies that people from east and western cultures could prefer different forms of activities in the pursuit of happiness, so cultural factor should be taken into consideration in future studies.

We also looked into how individual differences could influence how people react to positive events. To be more specific, we wanted to test what individual differences could be driving participants' preference for positive scenarios on the dimension of social engagement and feasibility.

In the aspect of preference for high social scenarios, we found that extraversion was positively linked with a preference for high social scenarios in both samples. Lee et al. (2008) highlighted that a unique construct of extraversion is social connectedness. In high social scenarios, people are more likely to gain socially connected experiences than in low social scenarios. Thus, extroverted people tend to react more positively to high social scenarios.

Additionally, in study 1, we found a negative association between a preference for high social scenarios and openness to new experience. This could be because people who are low on openness to new experiences tend to "follow the group" and find it more comfortable when engaging in high social activities while people who are high on openness to new

experiences may find solo activities more flexible and allow them to explore more new experiences. Similarly, in study 1, conscientiousness is found to be negatively linked with a preference for high social scenarios. One explanation for this could be that people high on conscientiousness could potentially find it more stressful in highly socially engaged activities, as more interpersonal interactions may come with responsibility. On the other hand, agreeableness is found to have a positive association with a preference for high social scenarios. This can be explained by previous research demonstrating that agreeableness and extraversion predict higher satisfaction with social relationships as a high level of agreeableness is linked with less frequent negative social interactions (Tov et al., 2014).

We also found a negative association between a preference for high social scenarios and neuroticism in both studies. It was found in previous studies that higher neuroticism predicts increased depressive symptoms (e.g., Vittengl, 2017) and depression is linked with social impairments (e.g., impaired social communications, impaired social perception; see Kupferberg et al.,2016 for an overview). As a result, people high on neuroticism may face more difficulties in high social scenarios or find high social scenarios less pleasant compared to low social scenarios.

Although valuing happiness was not significantly associated with preference for high social scenarios in both samples, in study 2, the more urgently participants would want to be happy, the more they preferred high social scenarios. This suggests that when people desperately need to feel happy, they tend to pursue them in a socially engaged way (i.e., engaging in high social scenarios instead of being alone). Importantly, in both studies, defining happiness in a socially engaged way is found to be positively associated with the preference for high social scenarios. This means that when people report defining happiness in a socially engaged way, it will reflect in day-to-day life where they would actually prefer highly socially engaged activities.

In the aspect of preference for highly feasible scenarios, it was found to be positively linked with extraversion (i.e., engagement in social activities or connections) and socially engaged ways of defining happiness while negatively linked with urgently wanting to be happy. This suggests that when people urgently wanting to be happy, they would tend to go for intensive means (i.e., engaging in low feasible activities). This is partially in line with the framework proposed by Ford and Mauss (2014), highlighting that people who are highly motivated to pursue happiness may have a high standard of "successfully gaining happiness"; in turn, they tend to go for the activities that cannot happen regularly (e.g., travelling to an expensive location with family or friends) attempting to attain an intensive boost of positive affect. Results in the current study could also provide evidence on how a socially engaged way of defining happiness could protect well-being in the pursuit of happiness (e.g., Ford et al., 2015; Zhang, 2023) and successful pursuit of happiness is associated with pursuing happiness via various of (feasible) positive activities (e.g., Krasko et al.,2020). Further, based on these results, one could argue that a highly extroverted person is likely to pursue happiness via highly social and feasible activities. In addition, preference for highly feasible scenarios is also positively associated with honesty-humility. When individuals score relatively high on honesty-humility, they will tend not to pursue "ambitious" or "high-key" activities and react more positively to highly feasible scenarios. However, in study 2, none of these results was replicated.

Altogether, the inconsistent results between the two studies implied that one should interpret these findings with caution and more evidence is needed in future studies to understand the link between personality traits and people's preference for positive events.

There are certainly some limitations in the current study that need to be considered. Firstly, due to participants react similarly to the three items following each scenario ("I want to engage in this", "I would like this to happen often" and "This would make me happy / how

much happiness would you gain from this experience?"), the potential to compare participants' responses to establish any possible difference in detail is limited. For instance, people may feel extremely happy to see the northern light after a long drive; however, people may not necessarily want to do this frequently. Secondly, we present participants with positive events in designed scenarios. However, compared to reading about positive scenarios in an online survey, people may react differently to the positive events in their daily lives. For instance, meeting a celebrity may be a great experience in the imagination, but meeting a celebrity may cause negative experiences such as feeling disappointed or overly nervous. Therefore, people's reactions may be less positive than expected. Thus, testing people's responses to positive events in an experimental setting may help build a complete understanding of how people process different positive events. Further, reacting positively to a scenario does not necessarily mean they would actually go for it in real life. For instance, building one's ideal body shape may sound impressive; however, people may not actively make an effort for it, such as going to the gym regularly. Our work has mainly focused on people's responses to positive scenarios. Future research could extend on this and test how people process positive events relates to actual actions regarding pursuing happiness.

In addition, we suggest serval future research directions based on our findings in the current study. Firstly, participants' preferences towards positive events differ between the two studies, which might be explained from a cultural angle. Uchida et al. (2004) highlighted in a review that Asian people are motivated to pursue happiness in more social ways. However, in Study 1, it was to our surprise that our Chinese participants reacted least positively to high social high feasible scenarios. Thus, it would help to interpret this by conducting cross-cultural studies to directly compare how people from different cultural backgrounds react to day-to-day positive events.

Other than personality traits, there are undoubtedly more factors that could impact people's processing of positive events. Demographic factors such as family income may affect how people process positive events. The idea of low feasible activities such as travelling aboard may be relatively more abstract to poor people as they may never experience it. In contrast, richer people may be able to do it every year. These factors could potentially impact how they feel about different positive events, and future studies could take them into account so that researchers can provide a more accurate explanation of the difference in people's responses to positive events.

Finally, recent studies have shown that scarcity of resources draws attention to cues of the resource they lack (Shah et al.,2012; Shah et al., 2018). With similar reasoning, if we consider happiness as a form of mental resource, it would be reasonable to assume that unhappy people would be more attentive to possible means to bring them happiness (i.e., positive events). In the current study, our samples consist of relatively healthy participants). It would be interesting to investigate how clinically depressed people react to different positive events in such a structure.

In conclusion, the current studies further confirmed the importance of social engagement and feasibility in the pursuit of happiness with specifically designed positive scenarios. Participants from China and UK generally preferred low social scenarios over high social scenarios and low feasible scenarios over high feasible scenarios. Extraversion and socially engaged ways of defining happiness played an important role in their preferences. Also, the more positively people react to high social high feasible scenarios, the higher subjective well-being they tend to have. Altogether, our findings suggest that the key to successfully attaining happiness in day-to-day life is pursuing happiness via activities that are both social and feasible.

Appendix

High social/ high feasibility

1.Catching up with your friends to chat about your day virtually or in person.

2.Meeting your family or close friends for dinner on the weekend.

3.You really care about the welfare of a group (such as elderlies with cancers, war orphans etc) that is close to your heart, so you donate money/item/time to this charity that aims to help them. With your help, the charity can complete work.

4.Imagine that it's your day off, you spend a whole day hanging out with your friends.

5.Imagine you are going to an interesting place (e.g., a popular amusement park or a historic sight) as a part of a group.

6.Imagine you have just finished work, and you decide to have a drink with colleagues to relax.

7.Imagine you are sitting at a table with some snacks, playing a board game with others.

Low social/ high feasibility

1.It's a rainy afternoon. You are alone in your room reading a book, while listening to the sound of rain gently hitting the window.

2. Imagine being at home of an evening, on the sofa watching a movie.

3. It's a Saturday morning, and you are out having a walk in your neighbourhood. The sun is rising, and you can smell the freshly cut grass.

4.Imagine listening to your playlist.

5.Imagine you have had a long day and now you have time for a hot shower.

6.It's midday, you go and buy yourself a beverage during your work break.

7.Imagine it's a weekend morning. You take your time to have a breakfast of your choice.

High social / low feasibility

1.Suppose you're going on holiday to an expensive destination, and you are travelling abroad with your family/good friends. You and your family/friends visit all the places recommended and stay at a luxurious hotel.

2.You deeply care about the welfare of a charitable group, so you decide to take action to help. You share relevant information and a donation link on social media. Your post gets a lot of attention, and results in a successfully reached yet very ambitious donation target.

3.You are going with a group of friends to a concert that you've been looking forward to for quite a while. You managed to get very good tickets so you will be seated close to the stage.

4.You really enjoy work done by a certain celebrity, and one day you finally get to meet them in person. You have a pleasant conversation, albeit brief, and you also get their autograph.

5.You care deeply about people who share a certain mental health issue. So you decide to start a support group for these people, creating and organising the group by yourself. This takes up many hours per week but results in your support group successfully helping others with their concerns.

6.You are aware that there are some elderly neighbours that who are living alone and with health conditions, so you volunteer to visit them daily to provide help and support.

7.There's a big sports event going on, so you go to a pub to watch the game. In the end, the team you like wins the championship so you celebrate and cheer with the other fans.

Low social and low feasibility

1.In the past, you decided to buy a lottery ticket, and today is the day that the numbers are drawn. You checked your ticket and found out that you have won some money.

2.Recently, you have become more aware of your body shape. After a period of time of exercising and dieting, you find that you have lost the weight you wanted to.

3.You travel a long way to a popular place to view the northern lights. At nightfall you get to see them.

4.You have enough money to buy a new house/new car that you want.

5.You got a pretty substantial pay rise recently.

6.After many months of hard work you have created a piece of art for an exhibition or publication (such as a book, a painting, or a song).

7.For a subject in school/university you find really difficult you manage to get a high grade.

Chapter 5

General Discussion

Summary

Happiness is a topic that scientists have been exploring and discussing for decades across different fields including psychology, sociology, health science and various other areas of research (Diener et al., 2018). It can be viewed as either a mood of feeling happy, or a long-term positive emotional state. The two concepts can sometimes overlap or connect with each other (Ford & Mauss, 2014), and they both contribute to a boarder concept of "well-being" which evaluates the overall state of one's life from a comprehensive perspective (cf. Diener et al., 2018). Happiness promotes better social relationships, better physical health, and better psychological well-being (Myers & Diener, 2018). Thus, it has been viewed as an important resource of well-being worldwide, and people generally pursue happiness as an important goal (Diener et al., 2013). When people are motivated to pursue happiness, it is likely that they would attain happiness and have higher well-being because putting value on an emotional status would make it more likely for an individual to attain it (e.g., Tamir et al., 2019). However, more recent studies have shown that this is not always the case. Putting high value on happiness does not guarantee actually achieving happiness, it has a surprising downside on well-being (Mauss et al., 2011). In western countries, a number of studies have found evidence that valuing happiness are associated with lower well-being, such as depression (e.g., Ford et al., 2014), bipolar disorder (Ford et al., 2015) and increased loneliness (Mauss et al., 2012). More evidence was also found in eastern countries showing the negative effect of valuing happiness on well-being (e.g., Wu,2013).

To understand this paradox effect, Ford and Mauss (2014) proposed that the negative impact of valuing happiness on well-being is caused by unrealistic standards of happiness, frequent monitoring the emotional experience and counterproductive ways of pursuing happiness. Further, Ford et al. (2015) argued that the relationship between valuing happiness

and well-being is mediated by culture, and how one values happiness varies from western to eastern countries.

Building on previous studies (see Hansenne et al., 2021 for an overview) and the framework of "valuing happiness" as a goal-oriented state (cf. Ford & Mauss, 2014), we designed three studies investigating the effect of valuing happiness on well-being. The results from these studies have provided some insight into further understanding the role valuing happiness plays in the pursuit of happiness and in day-to-day life. Along with the importance of social engagement (e.g., Ford et al.,2015), this thesis has found some supporting evidence that pursuing happiness varies, and that finding feasible ways to achieve happiness is key to success at attaining happiness. In addition, this thesis shows some evidence that individual differences such as personality traits influence how people react to different positive events in daily life which consequently influences their happiness. The current studies have also highlighted that how valuing happiness impacts on emotional attention control should be examined further in experimental settings. A table that summaries the aims and key findings can be found below (Table 17).

In this chapter, I will first review the aims of each study, then summarize the findings with detailed discussion. Lastly, I will discuss the implications and limitations of all our studies and conclude this thesis with recommendations for future studies.

Table 17

Overview of the Empirical Studies

Chapter	Aim	Findings
Chapter 2	Investigate how does valuing happiness predict well-being in	Higher level of valuing happiness predicts lower well-being in both Western and East Asian regions; When highly value happiness, pursuing happiness via a

	Eastern and Western countries	socially engaged and feasible way contribute to achieving higher well-being
Chapter 3	Examine how the ability to control emotional attention is impacted by valuing happiness	Negative stimuli cause stronger distraction to people comparing to neutral stimuli; there was no significant difference on task performance between the experimental group (s) and control group
Chapter 4	Explore people's preferences on positive events in daily life relate with valuing happiness and well-being	Pursuing happiness via high social high feasible activities could contribute to higher well-being; The preference people have on positive events in daily life is impacted by personality traits, urgency to feel happy and how socially engaged do they define happiness

Aims of the Research

As mentioned above, the overall aim of the research was to examine how does valuing happiness impact well-being. In three chapters, we investigated this in both surveys and with experimental methods. In all the studies included in this thesis, "valuing happiness" is defined as the extent people value and are motivated to pursue happiness. It is measured by the Valuing Happiness Scale (Mauss et al., 2011), highlighting not only how important happiness is to an individual (e.g.," Feeling happy is extremely important to me."), but also an excessive perspective of viewing happiness (e.g., "I value things in life only to the extent that they influence my personal happiness."). We aimed to further understand the factors that impact or were impacted by valuing happiness, and most importantly, how does valuing happiness associate with actual well-being. In addition to this, we aimed to test the findings of previous studies focusing on valuing happiness (e.g., Ford et al.,2015; Mahmoodi Kahriz et al., 2020). To do so, we conducted studies on the effect of valuing happiness in samples from different cultures.

In chapter 2, we aimed to extend the findings from a previous study suggesting culture shapes how valuing happiness predicts well-being and a "socially engaged" method of

achieving happiness could potentially protect well-being from the negative effect of valuing happiness (Ford et al., 2015). We aimed to test whether these findings could also be found in another Western sample consisting of participants from UK, US, Canada, and an Eastern Asian sample consists of (mainland) Chinese participants. Additionally, we wanted to measure what activities people spontaneously come up with when asked about pursuing happiness and whether it differed between different cultures.

In chapter 3, we aimed to replicate the mediation effect emotional attention control has on the relationship between valuing happiness and well-being (Mahmoodi Kahriz et al., 2020) in an experimental setting with an Emotional Stroop task (Williams et al,1996). More specifically, we wanted to test how does valuing happiness impact on emotional attention control and how it may potentially link with depressive symptoms. In order to understand the impact of valuing happiness in more depth, we also wanted to test whether different perspectives on valuing happiness (maladaptive/adaptive) would have different impact on participants' ability to control emotional attention. To do so, we measured participants' reaction time and error rate in the Emotional Stroop task to evaluate their performance responding to negative/neutral/positive stimuli presented to them.

In chapter 4, we aimed to investigate the methods people use to process positive events in day-to-day life in regards social engagement (high/low) and feasibility (high/low). Further to this, we wanted to explore what individual differences (personality traits, attitude towards happiness) could impact on participants' reactions to different positive events. We also aimed to investigate how do people's reactions to different positive events link with their actual well-being.

Overview of the Findings and Implications

The Cultural Perspective and the Role of Feasibility

In chapter 2, in addition to the original survey from the previous study (Ford et al., 2015), we added the Temporal Experience of Pleasure scale (TEPS, Gard et al.,2006) to look into the potential influence of anhedonia as this is a symptom that is decreased interest and pleasure in life and may be directly related to happiness. We built a latent variable for well-being, but the TEPS could not fit into the model due to poor loading. In the end, the latent variable of well-being consists of satisfaction with life (Diener et al., 1985), hedonic well-being (Watson et al., 1988), psychological well-being (Ryff & Keyes, 1995) and depression (Beck et al., 1996).

In study 1, we found that higher level of valuing happiness predicts lower well-being in the Chinese sample, but the model could not be built for the western sample due to poor model fit. However, we did find a negative association between valuing happiness and well-being in the Western sample in study 2, the more people value happiness, the lower well-being they tend to have. This replicated the previous finding of higher valuing happiness predicts lower well-being in US samples (Ford et al., 2015). In contrast to the previous findings with the Eastern Asian samples (Ford et al., 2015), our finding suggests that the positive association between high level of valuing happiness and higher well-being (Ford et al., 2015) is not unconditional in East Asia. In other words, one cannot conclude that higher level of valuing happiness would predict higher well-being in all East Asian regions. This could be explained by the increased level of individualism in China (e.g., Steele & Lynch, 2013), suggesting that people's relatively individualistic perspectives on pursuing happiness may conflict with the collectivistic cultural background. This is in line with a recent study conducted in another collectivistic culture (Pakistan) showing individualistic perspective could negatively impact on well-being (Farah & Siddiqui, 2019). Also, previous studies conducted in China have also found inconsistent results within-culture on valuing happiness and well-being in China (e.g., Wu, 2013; Wong et al., 2019; Zhao et al., 2020).

Importantly, defining happiness in a socially engaged way could protect people from the negative effect of valuing happiness on well-being. That is, when participants highly value happiness, if they define happiness in a socially engaged way (and presumably tend to pursue happiness via socially engaged activities), they are more likely to achieve higher well-being rather than lower well-being. This aligns with Ford et al. (2015) who found that increased valuing happiness and increased well-being is mediated by socially engaged pursuits of happiness. These results were later replicated in study 2 in both Chinese and Western samples during the Covid-19 pandemic. This could be due to study 2 being conducted during the Covid-19 pandemic, the limited social engagement caused by the situation such as lockdowns promoted western people's motivation to engage in socially engaged activities (e.g., hanging `out with friends in person) in order to pursue happiness especially when they highly value happiness. In turn, this tendency to seek for social engagement in the pursuit of happiness could lead to higher well-being, suggesting that people who highly value happiness are protected from its negative impact if they define happiness in a socially engaged way. This highlighted the importance of social engagement as a predictor of higher well-being (e,g., Layous et al.,2012, Shin et al., 2018) as higher level of defining happiness in a socially engaged way (e.g., strongly agrees to the statement "happiness means being surrounded by good friends") could contribute to building/maintaining good social relationships or performing more prosocial behaviours and in turn leads to happiness (e.g., Aknin et al.,2019).

Importantly, in chapter 2, our results provided evidence that feasibility is also an important factor in the pursuit of happiness. The idea of pursuing happiness via varies, simple activities was highlighted in previous studies (e.g., Catalino et al.,2014; Krasko et al., 2022), and it is also supported by more recent findings. For instance, Regan et al. (2023) instructed participants to express their gratitude via different types (social/non-social) and format (long-

form letters/shorter lists) and measured how much their well-being is boosted comparing to the control group. Surprisingly, participants who were instructed to write social gratitude lists (i.e., to freely write people they are grateful for) did not have a significantly greater boost comparing to those who were instructed to write non-social gratitude lists (i.e., to freely write about things they are grateful for). This could suggest that social engagement may not be the sole factor that contributes to the improvement of well-being. Additionally, participants who wrote long-form gratitude letters (relatively less feasible) to people they are grateful for showed not only greater positive affect but also stronger feeling of indebtedness which could potentially dampen the well-being. However, participants who wrote unconstrained lists of people or things that they are grateful for (relatively more feasible) showed greater well-being boosts comparing to the control group. This could imply that a feasible approach to pursue increased levels of happiness could contribute more to well-being. To our knowledge, studies in Chapter 2 are the first to explore the role of feasibility in the context of how valuing happiness can predict well-being.

In study 1, we asked open questions about what participants would generally do to make themselves happy or cheer themselves up. We recorded the activities participants reported in response to the open questions ("what do you generally do to make yourself happy?" "What do you normally do to cheer yourself up when you are in a bad mood?) and counted the number of activities they came up with. In both samples, participants reported a relatively low number of activities to both questions, suggesting that it is possible that people generally have limited ideas of how to pursue happiness in their own lives. However, the more they value happiness, the fewer ideas Chinese participants have to cheer themselves up when in bad mood while western participants tend to have more ideas. This could imply potential difference in the context of generally pursuing happiness and wanting to improve emotional status.

Attempting to understand the pursuit of happiness in more depth, we coded the responses on the dimension of social (i.e., how socially engaged the activity is) and feasibility (i.e., how feasible the activity is).

On the social dimension, the first thing worth noting is the discrepancy between the activities people reported (low levels of social engagement) and the way they defined happiness (as highly socially engaged) on a self-report scale. This suggests that there is likely to be a gap between a person's actions/methods and their ideas of how they think happiness is achieved. Secondly, there was no significant difference on the level of social engagement between responses given by Chinese and Western participants. and they all reported relatively low social activities. This may be because the wording of the questions focuses on their personal perspective (i.e., asking their personally preference on what to do to enhance mood) which makes them associate the question more with solo activities, and people may still engage in social activities under the influence of closed ones or cultural background.

On the dimension of feasibility, comparing to the western participants, when highly value happiness, Chinese participants reported more feasible activities and have more ideas about what to do to make themselves happy. This could provide more insight on how to interpret the positive association between valuing happiness and well-being in past studies (e.g., Ford et al., 2015; Zhao et al., 2020) and could be linked with people's different preferences on high/low arousal activities in the pursuit of happiness in North America and East Asia (Lee et al., 2013). Based on such preferences, Western people may be more likely to pursue happiness via relatively less feasible activities (e.g., going to a concert of one's favourite singer) and East Asian people may be more likely to pursue happiness via relatively highly feasible activities (e.g., having a bath while listening to one's playlist).

Further to this, the role of feasibility in the pursuit of happiness is also highlighted in study 2. By connecting with people via social and feasible ways (e.g., texting, contacting others on social medias) well-being is protected from the downside of valuing happiness, even during the Covid-19 pandemic. This aligns with a recent study conducted by Walsh et al. (2022) that compared the effect of expressing gratitude by instructing young college students to give their thanks privately without sharing, one-to-one via texts or publicly via posting on social media. The results revealed that any forms of digital gratitude expression improved well-being comparing to the control group. Interestingly, among all the conditions, participants assigned to express their gratitude via texts (involving one-to-one social interaction) experienced biggest well-being boosts including social connectedness and support. Findings from this study further supported our idea that social engagement and feasibility both impact on the outcome of pursuing happiness.

In summary, the findings in Chapter 2 suggest that factors beyond the eastern/western (collectivistic/individualistic) dimension should be taken into consideration when trying to understand valuing happiness and well-being. More importantly, the results from our studies imply that successful pursuit of happiness requires not only a social engaged but also feasible approach.

The Effect on Emotional Attention

The two studies in Chapter 3 were designed to test the impact of valuing happiness on emotional attention in an experimental setting. To manipulate the level and the perspective of valuing happiness (maladaptive/adaptive), participants were instructed to read materials and complete a follow-up writing task relating to the importance of happiness. And we measured their performance in an emotional Stroop task (Williams et al., 1996) to evaluate participants' emotional attention control.

Firstly, we found in study 1 that people spent longer disengaging attention from emotional stimuli comparing to neutral stimuli, supporting the Emotional Stroop effect (Williams et al., 1996). More specifically, as expected, we found that participants took longer to react to negative words in an Emotional Stroop task compared to neutral words, in line with the previous finding that suggest people tend to give strong bias to negative stimuli (e.g., Vogt et al., 2017). This may be because negative words are linked with potential threats/danger which leads to increased emotional attention bias (e.g., Vogt et al.,2017) and consequently increased negative emotions (Van Bockstaele et al.,2014). However, the main effect of emotional stimuli (vs. neural stimuli) was not found in the error rate data nor replicated in study 2. This inconsistency could be explained by the possibility that the words we chose to be the emotional stimuli used in the task did not trigger a significant emotional arousal overall, and it was argued that emotional attention bias in task performance is solely driven by arousal, not valence (e,g,, Dresler et al., 2008). Consequently, the effects of the stimuli on participants' emotional attention were not significantly different among the three types of stimuli (negative/neural/positive).

Although it was our intention to investigate how does an increased level of valuing happiness and different ways of valuing happiness (maladaptive/adaptive) influence participants' performance in the Emotional Stroop task, our manipulation was ineffective in both studies. This could be because it is relatively difficult to actually influence people's value of happiness in a relatively short amount of time by reading written materials. Therefore the emotional goal of "valuing happiness" was not truly activated in the Emotional Stroop task. Another possibility is that participants in control group were influenced by the manipulation check items as they included the key information of the manipulation material. Even the Valuing Happiness Scale (Mauss et al., 2011) could have activated the value of happiness for the control group as the items reminded participants the importance of

happiness (e.g., “happiness is extremely important to me”). Thus, we could not create a difference in level of valuing happiness between experimental group and control group. Also, the material may have only activated an increased attention to stimuli directly relevant to happiness. This is supported by previous studies suggesting that people’s attention to a set goal is limited to stimuli that is directly relevant to the goal (e.g., Veling & van Knippenberg, 2008).

In Chapter 3, we also did not find evidence supporting the previously established mediation effect of emotional attention control on the relationship between valuing happiness and depression (Mahmoodi Kahriz et al., 2020). However, it remains questionable whether our result could accurately reflect participants’ ability to control their emotional attention. First of all, we did not have participants’ rating on the stimuli in study 1 and only had their rating on valence but not level of emotional arousal in study 2. This has limited the possibility for us to check how much emotional reaction our emotional stimuli have on participants and consequently cannot further investigate the reasons behind these unexpected results.

Altogether, due to the failed manipulation, our results in Chapter 3 have only allowed limited conclusion that people have most difficulties shifting attention away from negative emotional information in the experimental setting.

The Day-to-day Life Positive Scenarios

In chapter 4, to investigate how people react to positive scenarios in daily life, we designed four categories of positive scenarios that could happen in real life on the dimension of (high/low) social engagement and (high/low feasibility). After presented with each positive scenario, participants’ responses were measured by three questions focusing on their motivation of engaging/how much would they like the scenario to happen often/how much

happiness they would gain from the experience. The responses were averaged to generate a final score with higher score meaning a more positive reaction to the scenario. In addition, participants' attitudes towards happiness, personality traits and well-being were also recorded.

In both studies, participants responded most positively to low social low feasible scenarios (e.g., "seeing the northern light after a long drive"). On the dimension of social engagement, participants preferred low social scenarios over high social scenarios. This could be due to low social scenarios benefit directly to the individual, requires less effort and are under less influence of external factors. On the dimension of feasibility, participants preferred low feasible scenarios over high feasible scenarios. These results were consistent in two studies with samples from China and UK. Although previous studies have shown that Eastern Asian people tend to pursue happiness via activities inducing low arousal positive affect (e.g., Calmness, Ruby et al., 2012) which are more likely to be feasible (e.g., having a morning walk in the park), Chinese participants in our study preferred low feasible scenarios that are associated with high arousal positive affect (e.g., enthusiasm) which can be relatively less feasible (e.g., reaching a significant donation target on social media). This implies that people across cultures may have an overall preference for low feasible activities (e.g., "traveling aboard to an expensive location with family or friends") over "little things".

However, it was revealed that the key to successful pursuit of happiness seem to be associated with high social high feasible scenarios. In other words, a more positive reaction to high social high feasible scenarios (e.g., "meeting up with family or friends on the weekend for a meal") is linked with higher well-being (i.e., higher subjective well-being, lower depression). This aligns with our finding in Chapter 2 that higher level of both social engagement and feasibility in the pursuit of happiness could predict higher well-being.

We also looked into how individual differences can impact on people's reactions to different positive scenarios. Surprisingly, we did not find association between valuing happiness and people's preference for any category of the positive scenarios. However, we found that how urgently participants want to feel happy predicts preference for high social scenarios and low feasible scenarios. This suggests that when desperately wanting to attain happiness, people could potentially go for intensive means that could significantly boost their emotional experience via higher level of social engagement and/or higher intensity of emotional arousal caused by a relatively rare event. Interestingly, a socially engaged way of defining happiness was found to be linked with preference for high social scenarios and high feasible scenarios in both studies. This could imply that people who define happiness in a socially engaged way may actually go for simple activities in life involving social engagement, for instance, spending time with friends and family.

Regards personality traits, extraversion was linked with preference for high social scenarios and high feasible scenarios. This is in line with its established connection with social connectedness (Lee et al., 2008) and higher level of social activeness (Lucas & Diener, 2001), but not consistent with the previous finding (Tamir, 2009) showing that extraverts do not show difference on preference for effortless activities (e.g., watching TV). Further, we found that neuroticism is negatively linked with preference for high social scenarios. It could be due to its association with depression (Vittengl, 2017), which in turn is linked to more difficulties in social engagement (see Kupferberg et al.,2016 for a review). In regard to the hypothesis about openness to new experiences, we found the surprising result that it is negatively associated with preference for high social scenarios in study 1. This could be because when people are low on openness to new experiences, they tend to "follow the group" and find it more comfortable engaging in high social activities while those who are high on openness to new experiences tend to prefer solo activities which might allow more

space of freedom for them to engage in new experiences. We also found possible associations between preferences for positive events that can happen in daily lives and other personality traits, however, considering that these results are inconsistent between the two studies, they need to be interpreted with caution and tested in future studies.

In summary, I used the methods of surveys, open questions, and task-based experiments to explore how valuing happiness predicts well-being in relation to culture, emotional attention control and day-to-day life. The overall findings of this thesis make a notable contribution to understanding the effect of valuing happiness on well-being. Firstly, in chapter 2, we argue that the previously found positive association between valuing happiness and well-being (Ford et al., 2015) may not extend to all East Asian regions (e.g., mainland China) and this would help forming a more accurate understanding of how culture shapes the relationship between valuing happiness and well-being. Secondly, more evidence supported how social engagement could lead to higher well-being in both Eastern and Western samples, we propose that pursuing happiness in feasible ways also benefits one's well-being based on the results from Chapter 2 and Chapter 4. Generated from people's spontaneous thoughts and responses to positive scenarios, our findings suggest that along with engaging in social activities, people should also develop or maintain a certain level of flexibility in their means of pursuing happiness and not overlook the little things in daily life (i.e., not only fixating on the major events) in order to attain happiness. Thirdly, with our attempt to manipulate the level/perspective of valuing happiness in an experiment, we have provided some insight into how the concept of valuing happiness could be applied in experimental settings. I will discuss this in more detail in the next section. Although the results regarding our main hypothesis was limited, we still provided some evidence that people possibly tend to experience more difficulty disengaging from negative emotional information then neutral information and are not distracted by positive stimuli as much.

Therefore, people could tend to overlook positive emotional information and even miss the opportunities to gain happiness in daily lives. This is also linked with the aim of studies in Chapter 4, which we suggest that people may not react positively to certain positive events in life because they could overlook the little positive things in life that may not cause high emotional arousal. Also, the inconsistent results in Chapter 3 also suggest that the importance of looking into the level of emotional arousal as well as emotional valence in experiments.

With one of the key points raised in this thesis being how engaging in feasible activities can be beneficial for well-being, one might argue that pursuing happiness via highly feasibility activities may not always be effective. According to the hedonic treadmill model proposed and developed in the last decades (see Diener et al., 2009 for a review), people only react to positive and negative events briefly before returning to a neutral state, and they always continue to go for the next goal in pursuit of happiness. Applying this reasoning, just like how people move on from negative events such as a breakup or an unemployment, the positive affect caused by the positive events also tend to wear off over time. Namely, it could be assumed that the increased level of happiness achieved by highly feasible activities could be particularly short-lived.

Fortunately for the happiness seekers, to counter this barrier, Lyubomirsky (2011) proposed the hedonic adaptation prevention model based on the idea of people have the ability to modify their adaptation to emotional events. Lyubomirsky pointed out that there are strategies to forestall hedonic adaptation in order to maintain a longer-term effect of happiness boost. Firstly, it was highlighted that the prevention of hedonic adaptation can be achieved via feasible approaches (e.g., savouring, expressing gratitude, positive thinking) and one should be aware of and appreciate the positive events, no matter how “minor” they are. In the same year, Lyubomirsky et al. (2011) provided empirical evidence by conducting an

eight-months long study. They tested the short and long-term effect of engaging in feasible activities (expressing optimism and gratitude) and found that these activities are most effective when participants are aware of and commit to them. These align with our point in Chapter 4 that people should recognize (feasible) means to be happy in day-to-day lives. Specifically, participants who react positively to high social high feasible scenarios (i.e., appreciating "little" positive social interactions) are associated with higher subjective happiness.

Another factor that was highlighted is the variety of the positive events. Lyubomirsky (2011) argues that by increasing the variety of positive activities one engages in, more frequent positive effects would be produced and therefore boost well-being in long term. This supports our results from Chapter 2 that pursuing happiness via simple, varies positive activities contributes to higher well-being. However, it is important to note that evidence regarding how variety of positive activities influences well-being in later empirical studies seem to be mixed. On the one hand, Schellenberg and Bailis (2021) found that pursuing varies positive activities (comparing to those who only focus on one positive activity) reported higher well-being. On the other hand, Okabe-Miyamoto et al. (2021) measured variety in prediction of well-being boost along with other factors in a sample of 200,000 participants and the results suggest that engaging in a wider range of positive activities predicts smaller boost of well-being. In addition to this, the results also showed that people who tend to go for more varied positive activities tend to select activities with lower level of effectiveness. Together with our findings in Chapter 2 and Chapter 4, we argue that engaging in varies simple activities contributes to higher well-being as this could mean an adaptive approach to pursue happiness and could also imply that people have clearer ideas of how to make themselves happy.

Apart from the theoretical aspect, our findings in this thesis could also provide insight into the development of future positive interventions. First, in general, people should be encouraged to pursue happiness via varies simple positive social interactions. Second, people could be guided to intentionally build appreciation to varies feasible things in order to maximize the positive affects gained from day-to-day lives. In addition, our results across eastern and western samples suggest that researchers should consider adjusting the positive interventions according to the specific cultural background. In chapter 2, we found a positive association between valuing happiness and lower well-being in China while previous study found the opposite in other Eastern Asian regions (Ford et al.,2015). Relatedly, Shin et al. (2020) also found unexpected results that US participants (not Asian participants) reported higher boost of well-being after expressing gratitude and suggest that expressing gratitude is a less effective activity to promote happiness in collectivistic countries. In a more recent study, Shin et al. (2020) instructed US and Korean participants to read articles framing kind acts as self-focus or others-focus before performing them throughout a week. Comparing to the control group, US participants (but not the Korean participants) who read the kind acts are good for themselves reported greater increase of well-being. These findings suggest that when it comes to the pursuit of happiness and the well-being outcome, conclusions should not be extended to other countries solely based on either it is collectivistic or individualistic. In chapter 4, participants from China and UK displayed different reaction pattern to the same series of positive scenarios. These findings could imply that the factor of cultural background, independent of social engagement or feasibility, should be considered when designing and applying positive interventions. This fits with the study conducted by Layous et al. (2013), when instructing US participants and Korean participants to perform the same two kinds of high social high feasible activities (expressing gratitude and perform kind acts), Korean participants experienced less boost of happiness comparing to US participants.

Therefore, it should be recommended to develop positive interventions that are more culture-specific to promote higher well-being.

Altogether, the effect of valuing happiness has on well-being may vary from culture to culture, findings across the three studies suggest that social engagement and feasibility are two important elements of successful pursuit of happiness in the contexts of abstract ideas (self-reported scales and open questions, chapter 2) or specific positive events in real life (scenarios, chapter 4). Although we did not effectively manipulate valuing happiness in an experimental setting, we still found some evidence supporting that negative stimuli cause more difficulties for participants to shift attention away from them comparing to neutral stimuli (chapter 3). Overall, our findings paint a more comprehensive picture of how valuing happiness predicts well-being and demonstrates how social engagement and feasibility could impact on this in different contexts. In the following section, I will discuss suggestions for the future studies along with the existing limitations for our studies.

Limitations and Future Studies

The first issue I would like to address is the inconsistent results across the studies. In chapter 2, the inconsistency was mainly caused by poor data quality for the Western samples collected via Amazon Mturk and relatively smaller sample size in both western samples. Due to this, we could not fully confirm the negative association between valuing happiness and well-being in western cultures in our studies. In chapter 4, participants from study 1 and study 2 were from different countries (i.e., China and UK), so their views on the scenarios might differ because of cultural backgrounds or language difference. Thus, we suggest that the future studies could benefit from collecting more data in both eastern and western countries so that the researcher could directly look into the possible cultural factor that impacts their responses to positive scenarios.

Secondly, another limitation regards the methods and experimental design. In chapter 2 and 4, we mainly used self-report method to measure participants' responses. However, it would be worth to test whether participants would react the same way if asked about real-life situations during real-life. So, future studies could benefit from collecting data by using methods like interview or asking participants to keep a diary of positive events in their lives. Or this could be tested in an experimental setting by focusing on one or few positive scenarios and measure participants reactions. Also, to gain a more in-depth understanding of people's spontaneous thoughts on pursuing happiness, researchers could consider conducting qualitative studies on this topic. One of the most significant shortcomings of our studies is our failed attempt to manipulate valuing happiness in our experiments in Chapter 3. More specifically, we address the flaws on our experimental design and manipulation material. As a result, we did not create a significant difference on valuing happiness level between the experimental group(s) and the control group so we could not truly test our main hypothesis in two studies. The effect of valuing happiness on emotional attention in experimental settings remains unclear. We suggest that future studies could try to develop a more suitable measurement of valuing happiness in experimental settings and manipulation materials that could have a stronger effect on valuing happiness level. The latter could include a more engaging writing task, material with a form other than texts or a longer text with better wording to enhance participants' value on happiness. We would also recommend adding the rating for emotional arousal in the procedure and potentially the emotional attention control scale (Barry et al. 2013) to test whether there could be a difference between self-reported ability to control emotional attention and performance in an emotional Stroop task.

Also, it could be argued that valuing happiness may not always maladaptive (i.e. being excessive or be linked with maladaptive ways to pursue happiness), and people could value happiness via adaptive perspectives. For chapter 3, we intended to separate the

influence of valuing happiness on well-being via different perspectives to address this, but the manipulation was not effective. We could also argue that another explanation for this is that most items on Valuing Happiness Scale (Mauss et al., 2011) focused on the excessive side of valuing happiness (e.g., "I am concerned about my happiness even when I feel happy."), so even if there was an adaptive perspective on valuing happiness induced, it may not have been detected. However, we did manage to look into the specific effect of valuing happiness.

In chapter 2, we collected data on people's ways of pursuing happiness. There could be more potential in assessing people's ideas on how to pursue happiness on the dimension of effectiveness in future studies. Further, future studies could investigate how does valuing happiness impact well-being in the specific context of either "generally wanting to feel happy" or "wanting to cheer oneself up" as the former focuses more on generally pursuing happiness while the latter also relates to the emotion regulation side of pursuing happiness.

In chapter 4, we looked into whether people overall have high standards of happiness in the context of positive scenarios. Although we added exploratory questions assessing the level of urgency and the level of happiness participants would like to achieve, future studies could also add more items or scales to cover the adaptive side of valuing happiness. For instance, the prioritizing positively scale proposed by Catalino et al. (2014) would help understand participants' tendency to savour simple positivity in life, which also plays a role in how they tend to react to different positive events.

Lastly, there are undeniably other factors that were not fully addressed in our studies. For instance, most of our participants across studies are females. It would be interesting to test the results in more gender-balanced samples. Also, the average ages of our participants are relatively young. However, it was found that age could influence the effect of valuing happiness on well-being in a Chinese sample (Wong et al., 2019). Therefore, future studies

could test our findings in older age groups. Furthermore, future studies could also benefit from controlling other demographic factors such as geographic locations (e.g., urban vs. suburban), education level and income level.

Conclusion

In this thesis, I explored the effect valuing happiness has on well-being with different methods and in different samples. The findings confirmed the protective effect of social engagement in the pursuit of happiness in both eastern and western cultures and argued that a conclusion could not yet to be drawn about whether valuing happiness always predicts higher well-being in east Asia. We suggest that the discussion of cultural impact on the relationship between valuing happiness and well-being could go beyond the simple division of individualism and collectivism cultures. Studies should also focus on socially engaged definitions of happiness and preferences for social events in day-to-day life. Our findings also highlighted the importance of feasibility, suggesting that pursuing happiness via engaging in and appreciating more feasible activities is linked to higher well-being. Although our results of how valuing happiness impacts emotional attention in an experimental setting has very limited findings, we still believe it would be worth looking into this effect with improved methods in future studies.

Overall, the paradox effect of valuing happiness on well-being is influenced by various factors across cultures. This thesis suggests that a key to a successful pursuit of happiness is to pursue happiness in ways that are both socially engaged and feasible.

References

Aknin, L. B., Dunn, E. W., & Norton, M. I. (2012). Happiness runs in a circular motion: Evidence for a positive feedback loop between prosocial spending and happiness. *Journal of happiness studies, 13*(2), 347-355.

Aknin, L. B., Whillans, A. V., Norton, M. I., & Dunn, E. W. (2019). Happiness and prosocial behavior: An evaluation of the evidence. *World Happiness Report 2019*, 67-86.

Algom, D., Chajut, E., & Lev, S. (2004). A rational look at the emotional stroop phenomenon: a generic slowdown, not a stroop effect. *Journal of experimental psychology: General, 133*(3), 323.

Anderson, B. A., Leal, S. L., Hall, M. G., Yassa, M. A., & Yantis, S. (2014). The attribution of value-based attentional priority in individuals with depressive symptoms. *Cognitive, Affective, & Behavioral Neuroscience*, *14*(4), 1221-1227.

Bailen, N. H., Wu, H., & Thompson, R. J. (2019). Meta-emotions in daily life: Associations with emotional awareness and depression. *Emotion, 19*(5), 776.

Bardeen, J. R., & Fergus, T. A. (2020). Emotion regulation self-efficacy mediates the relation between happiness emotion goals and depressive symptoms: A cross-lagged panel design. *Emotion*, *20*(5), 910.

Bastian, B., Kuppens, P., De Roover, K., & Diener, E. (2014). Is valuing positive emotion associated with life satisfaction?. *Emotion*, *14*(4), 639.

Barry, T. J., Hermans, D., Lenaert, B., Debeer, E., & Griffith, J. W. (2013). The eACS: Attentional control in the presence of emotion. *Personality and Individual Differences, 55*(7), 777-782.

Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck depression inventory–II. *Psychological assessment*.

Becker, D. V., Anderson, U. S., Mortensen, C. R., Neufeld, S. L., & Neel, R. (2011). The face in the crowd effect unconfounded: happy faces, not angry faces, are more efficiently detected in single-and multiple-target visual search tasks. *Journal of Experimental Psychology: General*, *140*(4), 637.

Ben-Avi, N., Toker, S., & Heller, D. (2018). "If stress is good for me, it's probably good for you too": Stress mindset and judgment of others' strain. *Journal of Experimental Social Psychology*, *74*, 98-110.

Berry, D. S., & Hansen, J. S. (1996). Positive affect, negative affect, and social interaction. *Journal of personality and social psychology, 71*(4), 796.

Booth, R. W., Sharma, D., Dawood, F., Doğan, M., Emam, H. M., Gönenç, S. S., ... & Shahzad, A. U. R. (2019). A relationship between weak attentional control and cognitive distortions, explained by negative affect. *Plos one, 14*(4), e0215399.

Brailovskaia, J., Lin, M., Scholten, S., Zhu, M., Fu, Y., Shao, M., ... & Margraf, J. (2022). A Qualitative Cross-Cultural Comparison of Well-Being Constructs: the Meaning of Happiness, Life Satisfaction, and Social Support for German and Chinese Students. *Journal of Happiness Studies, 23*(4), 1379-1402.

Brown, S. L., & Brown, R. M. (2015). Connecting prosocial behavior to improved physical health: Contributions from the neurobiology of parenting. *Neuroscience & Biobehavioral Reviews*, 55, 1-17.

Bryant, F. B. (2003). Savoring beliefs inventory (SBI): A scale for measuring beliefs about savoring. *Journal of Mental Health, 12*, 175–196.

Bryant, F. B., & Veroff, J. (2017). *Savoring: A new model of positive experience*. Psychology Press.

Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success?. *Journal of career assessment, 16*(1), 101-116.

Buchanan, K. E., & Bardi, A. (2010). Acts of kindness and acts of novelty affect life satisfaction. *The Journal of Social Psychology, 150*(3), 235–237. https ://doi.org/10.1080/00224 54090 33655 54.

Cabanas, E., & Illouz, E. (2019). *Manufacturing happy citizens: How the science and industry of happiness control our lives*. John Wiley & Sons.

Catalino, L. I., Algoe, S. B., & Fredrickson, B. L. (2014). Prioritizing positivity: An effective approach to pursuing happiness?. *Emotion*, *14*(6), 1155.

Catalino, L. I., & Fredrickson, B. L. (2011). A Tuesday in the life of a flourisher: the role of positive emotional reactivity in optimal mental health. *Emotion*, *11*(4), 938.

Chancellor, J., Margolis, S., Jacobs Bao, K., & Lyubomirsky, S. (2018). Everyday prosociality in the workplace: The reinforcing benefits of giving, getting, and glimpsing. *Emotion, 18*(4), 507.

Choi, J., Catapano, R., & Choi, I. (2017). Taking stock of happiness and meaning in everyday life: An experience sampling approach. *Social Psychological and Personality Science, 8*(6), 641–651.

Cui, P., Shen, Y., Hommey, C., & Ma, J. (2021). The dark side of the pursuit of happiness comes from the pursuit of hedonia: The mediation of materialism and the moderation of self-control. *Current Psychology*, 1-11.

Curry, O. S., Rowland, L. A., Van Lissa, C. J., Zlotowitz, S., McAlaney, J., & Whitehouse, H. (2018). Happy to help? A systematic review and meta-analysis of the effects of performing acts of kindness on the well-being of the actor. *Journal of Experimental Social Psychology*, 76, 320-329.5.

Cohen, J. (1992). Quantitative methods in psychology: A power primer. In *Psychological bulletin.*

Clark, L. A., & Watson, D. (1988). Mood and the mundane: relations between daily life events and self-reported mood. *Journal of personality and social psychology, 54*(2), 296.

Cole, S., & Balcetis, E. (2021). Motivated perception for self-regulation: How visual experience serves and is served by goals. In *Advances in Experimental Social Psychology* (Vol. 64, pp. 129-186). Academic Press.

Custers, R., & Aarts, H. (2010). The unconscious will: How the pursuit of goals operates outside of conscious awareness. *Science, 329*(5987), 47-50.

Datu, J. A. D., & King, R. B. (2016). Prioritizing positivity optimizes positive emotions and life satisfaction: A three-wave longitudinal study. *Personality and Individual Differences, 96*, 111-114.

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of happiness studies, 9*, 1-11.

Dejonckheere, E., Rhee, J. J., Baguma, P. K., Barry, O., Becker, M., Bilewicz, M., ... & Bastian, B. (2022). Perceiving societal pressure to be happy is linked to poor well-being, especially in happy nations. *Scientific reports, 12*(1), 1-14.

DiMaria, C. H., Peroni, C., & Sarracino, F. (2020). Happiness matters: Productivity gains from subjective well-being. *Journal of Happiness Studies, 21*(1), 139-160.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542–575.

Diener, E., Diener, C., Choi, H., & Oishi, S. (2018). Revisiting "Most People Are Happy"—and discovering when they are not. *Perspectives on Psychological Science, 13*(2), 166-170.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment, 49*(1), 71-75.

Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2017). Findings all psychologists should know from the new science on subjective well-being. *Canadian Psychology/psychologie canadienne, 58*(2), 87.

Diener, E., Lucas, R. E., & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra: Psychology, 4*(1).

Diener, E., Lucas, R. E., & Scollon, C. N. (2009). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *The science of well-being: The collected works of Ed Diener*, 103-118.

Diener, E., Sandvik, E., & Pavot, W. (2009). Happiness is the frequency, not the intensity, of positive versus negative affect. *Assessing well-being: The collected works of Ed Diener*, 213-231.

Diener, E., Sandvik, E., Pavot, W., & Gallagher, D. (1991). Response artifacts in the measurement of subjective well-being. *Social Indicators Research, 24*(1), 35-56.

Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276–302.

Diener, E., & Seligman, M. E. (2004). Beyond money: Toward an economy of well-being. *Psychological science in the public interest, 5*(1), 1-31.

Diener, E., & Tov, W. (2007). Subjective well-being and peace. *Journal of Social Issues, 63*(2), 421-440.

Diener, E., & Oishi, S. (2005). The nonobvious social psychology of happiness. *Psychological Inquiry, 16*(4), 162-167.

Diener, E., Oishi, S., & Ryan, K. L. (2013). Universals and cultural differences in the causes and structure of happiness: A multilevel review. *Mental well-being*, 153-176.

Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour, 2*(4), 253-260.

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual review of psychology, 54*(1), 403-425.

Disabato, D. J., Goodman, F. R., Kashdan, T. B., Short, J. L., & Jarden, A. (2016). Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological assessment, 28*(5), 471.

Dodd, H. F., Vogt, J., Turkileri, N., & Notebaert, L. (2017). Task relevance of emotional information affects anxiety-linked attention bias in visual search. *Biological psychology*, *122*, 13-20.

Dresler, T., Mériau, K., Heekeren, H. R., & van der Meer, E. (2009). Emotional Stroop task: effect of word arousal and subject anxiety on emotional interference. *Psychological Research PRPF, 73*(3), 364-371.

Dunn, E. W., Biesanz, J. C., Human, L. J., & Finn, S. (2007). Misunderstanding the affective consequences of everyday social interactions: The hidden benefits of putting one's best face forward. *Journal of personality and social psychology, 92*(6), 990.

Epley, N., & Schroeder, J. (2014). Mistakenly seeking solitude. *Journal of Experimental Psychology: General, 143*(5), 1980.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods*, *41*(4), 1149-1160.

Farah, A., & Siddiqui, D. A. (2019). In Pursuit of Employees Well being: The Role of Happiness and Culture. *Available at SSRN 3510640.*

Feldman, G. C., Joormann, J., & Johnson, S. L. (2008). Responses to positive affect: A self-report measure of rumination and dampening. *Cognitive therapy and research*, *32*(4), 507-525.

Ford, B. Q., Dmitrieva, J. O., Heller, D., Chentsova-Dutton, Y., Grossmann, I., Tamir, M., ... & Mauss, I. B. (2015). Culture shapes whether the pursuit of happiness predicts higher or lower well-being. *Journal of Experimental Psychology: General, 144*(6), 1053.

Ford, B., & Mauss, I. (2014). The paradoxical effects of pursuing positive emotion. *Positive emotion: Integrating the light sides and dark sides*, 363-382.

Ford, B. Q., Mauss, I. B., & Gruber, J. (2015). Valuing happiness is associated with bipolar disorder. *Emotion, 15*(2), 211.

Ford, B. Q., Shallcross, A. J., Mauss, I. B., Floerke, V. A., & Gruber, J. (2014). Desperately seeking happiness: Valuing happiness is associated with symptoms and diagnosis of depression. *Journal of social and clinical psychology*, *33*(10), 890.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist, 56*(3), 218.

Fredrickson, B. L. (2004). The broaden–and–build theory of positive emotions. *Philosophical transactions of the royal society of London. Series B: Biological Sciences, 359*(1449), 1367-1377.

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of personality and social psychology, 95*(5), 1045.

Gard, D. E., Gard, M. G., Kring, A. M., & John, O. P. (2006). Anticipatory and consummatory components of the experience of pleasure: a scale development study. *Journal of research in personality, 40*(6), 1086-1102.

Gentzler, A. L., Kerns, K. A., & Keener, E. (2010). Emotional reactions and regulatory responses to negative and positive events: Associations with attachment and gender. *Motivation and emotion*, *34*(1), 78-92.

Gentzler, A. L., Palmer, C. A., & Ramsey, M. A. (2016). Savoring with intent: Investigating types of and motives for responses to positive events. *Journal of Happiness Studies, 17*, 937–958.

Gruber, J., Mauss, I. B., & Tamir, M. (2011). A dark side of happiness? How, when, and why happiness is not always good. *Perspectives on psychological science*, *6*(3), 222-233.

Gentzler, A. L., Palmer, C. A., Ford, B. Q., Moran, K. M., & Mauss, I. B. (2019). Valuing happiness in youth: Associations with depressive symptoms and well-being. *Journal of applied developmental psychology, 62*, 220-230.

Hansenne, M. (2021). Valuing Happiness is Not a Good Way of Pursuing Happiness, but Prioritizing Positivity is: A Replication Study. *Psychologica Belgica, 61*(1), 306.

Hofstede, G. (1980). Culture and organizations. *International studies of management & organization, 10*(4), 15-41.

Hui, B. P., Ng, J. C., Berzaghi, E., Cunningham-Amos, L. A., & Kogan, A. (2020). Rewards of kindness? A meta-analysis of the link between prosociality and well-being. *Psychological Bulletin, 146*(12), 1084.

Jefferson, T. (1776). The declaration of independence.

Ji, L. J., Nisbett, R. E., & Su, Y. (2001). Culture, change, and prediction. *Psychological Science, 12*(6), 450–456.

Joormann, J., Talbot, L., & Gotlib, I. H. (2007). Biased processing of emotional information in girls at risk for depression. *Journal of abnormal psychology*, *116*(1), 135.

Joshanloo, M. (2014). Eastern conceptualizations of happiness: Fundamental differences with western views. *Journal of happiness studies, 15*(2), 475-493.

Joshanloo, M. (2019). Lay conceptions of happiness: Associations with reported well-being, personality traits, and materialism. *Frontiers in psychology, 10*, 2377.

Joshanloo, M. (2013). The influence of fear of happiness beliefs on responses to the satisfaction with life scale. *Personality and Individual Differences, 54*, 647-651.

Joshanloo, M., & Daemi, F. (2015). Self-esteem mediates the relationship between spirituality and subjective well-being in Iran. *International Journal of Psychology, 50*(2), 115-120.

Joshanloo, M., & Jarden, A. (2016). Individualism as the moderator of the relationship between hedonism and happiness: A study in 19 nations. *Personality and Individual Differences, 94,* 149-152.

Joshanloo, M., Vliert, E. V. D., & Jose, P. E. (2021). Four fundamental distinctions in conceptions of wellbeing across cultures. In *The Palgrave Handbook of Positive Education* (pp. 675-703). Palgrave Macmillan, Cham.

Joshanloo, M., & Weijers, D. (2019). A two-dimensional conceptual framework for understanding mental well-being. *PloS one, 14*(3), e0214045.

Kaftan, O. J., Freund, A. M., Diener, E., Oishi, S., & Tay, L. (2018). The way is the goal: The role of goal focus for successful goal pursuit and subjective well-being.

Keyes, C. L., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: the empirical encounter of two traditions. *Journal of personality and social psychology, 82*(6), 1007.

Kesebir, P., & Diener, E. (2009). In pursuit of happiness: Empirical answers to philosophical questions. In *The science of well-being* (pp. 59-74). Springer, Dordrecht.

Khanna, M. M., Badura-Brack, A. S., McDermott, T. J., Embury, C. M., Wiesman, A. I., Shepherd, A., ... & Wilson, T. W. (2017). Veterans with post-traumatic stress disorder exhibit altered emotional processing and attentional control during an emotional Stroop task. *Psychological medicine, 47*(11).

Kitayama, S., & Markus, H. R. (2000). The pursuit of happiness and the realization of sympathy: Cultural patterns of self, social relations, and well-being. *Culture and subjective well-being, 1,* 113-161.

Kitayama, S., Markus, H. R., & Kurokawa, M. (2000). Culture, emotion, and well-being: Good feelings in Japan and the United States. *Cognition & Emotion, 14*(1), 93-124.

Krasko, J., Intelisano, S., & Luhmann, M. (2022). When Happiness is Both Joy and Purpose: The Complexity of the Pursuit of Happiness and Well-Being is Related to Actual Well-Being. *Journal of Happiness Studies, 23*(7), 3233-3261.

Krasko, J., Schweitzer, V. M., & Luhmann, M. (2020). Happiness goal orientations and their associations with well-being. *Journal of Well-Being Assessment*, *4*(2), 121-162.

Kupferberg, A., Bicks, L., & Hasler, G. (2016). Social functioning in major depressive disorder. *Neuroscience & Biobehavioral Reviews, 69*, 313-332.

Kushlev, K., Radosic, N., & Diener, E. (2022). Subjective well-being and prosociality around the globe: Happy people give more of their time and money to others. *Social Psychological and Personality Science, 13*(4), 849-861.

Lambert, L., Draper, Z. A., Warren, M. A., Joshanloo, M., Chiao, E. L., Schwam, A., & Arora, T. (2022). Conceptions of happiness matter: Relationships between fear and fragility of happiness and mental and physical wellbeing. *Journal of Happiness Studies, 23*(2), 535-560.

Layard, R. (2011). *Happiness: Lessons from a new science*. New York: Penguin.

Layous, K., Chancellor, J., & Lyubomirsky, S. (2014). Positive activities as protective factors against mental health conditions. *Journal of Abnormal Psychology*, *123*(1), 3.

Layous, K., Nelson, S. K., Oberle, E., Schonert-Reichl, K. A., & Lyubomirsky, S. (2012). Kindness counts: Prompting prosocial behavior in preadolescents boosts peer acceptance and well-being. *PloS one, 7*(12), e51380.

Lee, R. M., Dean, B. L., & Jung, K. R. (2008). Social connectedness, extraversion, and subjective well-being: Testing a mediation model. *Personality and Individual Differences, 45*(5), 414-419.

Lee, Y. C., Lin, Y. C., Huang, C. L., & Fredrickson, B. L. (2013). The construct and measurement of peace of mind. *Journal of Happiness studies, 14*(2), 571-590.

Lenaert, B., Barry, T. J., Schruers, K., Vervliet, B., & Hermans, D. (2016). Emotional attentional control predicts changes in diurnal cortisol secretion following exposure to a prolonged psychosocial stressor. *Psychoneuroendocrinology*, *63*, 291-295.

Lichtenstein-Vidne, L., Henik, A., & Safadi, Z. (2012). Task relevance modulates processing of distracting emotional stimuli. *Cognition & Emotion*, *26*(1), 42-52.

Lin, L., & Chan, H. W. (2020). The associations between happiness motives and well-being in China: The mediating role of psychological need satisfaction and frustration. *Frontiers in psychology, 11*, 2198.

Littman-Ovadia, H., & Russo-Netzer, P. (2019). Prioritizing positivity across the adult lifespan: Initial evidence for differential associations with positive and negative emotions. *Quality of Life Research*, *28*(2), 411-420.

Lucas, R. E., & Diener, E. (2001). Understanding extraverts' enjoyment of social situations: the importance of pleasantness. *Journal of personality and social psychology, 81*(2), 343.

Lyubomirsky, S. (2011). *Hedonic adaptation to positive and negative experiences*. Oxford University Press.

Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2011). Becoming happier takes both a will and a proper way: an experimental longitudinal intervention to boost well-being. *Emotion, 11*(2), 391.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological bulletin, 131*(6), 803.

Mahmoodi Kahriz, B., Bower, J. L., Glover, F. M., & Vogt, J. (2020). Wanting to be happy but not knowing how: poor attentional control and emotion-regulation abilities mediate the association between valuing happiness and depression. *Journal of Happiness Studies, 21*(7), 2583-2601.

Marien, H., Aarts, H., & Custers, R. (2012). Being flexible or rigid in goal-directed behavior: When positive affect implicitly motivates the pursuit of goals or means. *Journal of Experimental Social Psychology*, *48*(1), 277-283.

Maslow, A. H. (1943). A theory of human motivation. *Psychological review, 50*(4), 370.

Martynova, E., & Lyusin, D. (2022). The Influence Of Happiness And Anxiety On Emotional Stroop Effect. *Higher School of Economics Research Paper No. WP BRP, 131.*

Mauss, I. B., Savino, N. S., Anderson, C. L., Weisbuch, M., Tamir, M., & Laudenslager, M. L. (2012). The pursuit of happiness can be lonely. *Emotion, 12*(5), 908.

Mauss, I. B., Tamir, M., Anderson, C. L., & Savino, N. S. (2011). Can seeking happiness make people unhappy? Paradoxical effects of valuing happiness. *Emotion, 11*(4), 807.

McEvoy, P. M., Watson, H., Watkins, E. R., & Nathan, P. (2013). The relationship between worry, rumination, and comorbidity: Evidence for repetitive negative thinking as a transdiagnostic construct. *Journal of affective disorders*, *151*(1), 313-320.

McGuirk, L., Kuppens, P., Kingston, R., & Bastian, B. (2018). Does a culture of happiness increase rumination over failure?. *Emotion, 18*(5), 755.

McMahon, D. M. (2008). The pursuit of happiness in history. *The science of subjective well-being*, 80-93.

Mischel, W. (1996). From good intentions to willpower. *The psychology of action: Linking cognition and motivation to behavior, 197,* 218.

Myers, D. G., & Diener, E. (2018). The scientific pursuit of happiness. *Perspectives on Psychological Science*, *13*(2), 218-225.

Moore, S., Diener, E., & Tan, L. (2018). Using multiple methods to more fully understand causal relations: Positive affect enhances social relationships. In: Diener, E., Oishi, S., & Tay, L. (Eds.), *E-Handbook of subjective well-being*. Noba Scholar.

Nelis, D., Quoidbach, J., Hansenne, M., & Mikolajczak, M. (2011). Measuring individual differences in emotion regulation: The Emotion Regulation Profile-Revised (ERP-R). *Psychologica belgica*, *51*(1).

Nelson, S. K., Della Porta, M. D., Jacobs Bao, K., Lee, H. C., Choi, I., & Lyubomirsky, S. (2015). 'It's up to you': Experimentally manipulated autonomy support for prosocial behavior improves well-being in two cultures over six weeks. *The Journal of Positive Psychology, 10*(5), 463–476.

Oettingen, G., Mayer, D., Timur Sevincer, A., Stephens, E. J., Pak, H., & Hagenah, M. (2009). Mental contrasting and goal commitment: The mediating role of energization. *Personality and Social Psychology Bulletin, 35,* 608–622.

Öhman, A., Lundqvist, D., & Esteves, F. (2001). The face in the crowd effect: An anger superiority effect with schematic stimuli. *Journal of Personality and Social Psychology*, *80*(3), 381-396.

Oishi, S. (2018). Culture and subjective well-being: Conceptual and measurement issues. *Handbook of well-being. Salt Lake City, UT: DEF Publishers.*

Okabe-Miyamoto, K., Margolis, S., & Lyubomirsky, S. (2021). Is variety the spice of happiness? More variety is associated with lower efficacy of positive activity interventions in a sample of over 200,000 happiness seekers. *The Journal of Positive Psychology*, 1-12.

Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *The Academy of Management Perspectives, 23,* 6–16. https://doi.org/10.5465/AMP.2009.37007999

Ortiz-Ospina, E., & Roser, M. (2020). Loneliness and social connections. *Our World in Data*.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological bulletin, 128*(1), 3.

Parks, A. C., & Biswas-Diener, R. (2013). Positive interventions: Past, present and future. *Mindfulness, acceptance, and positive psychology: The seven foundations of well-being*, 140-165.

Ramsey, M. A., & Gentzler, A. L. (2015). An upward spiral: Bidirectional associations between positive affect and positive aspects of close relationships across the life span. *Developmental review*, *36*, 58-104.

Ratcliff, R. (1993). Methods for dealing with reaction time outliers. *Psychological bulletin*, *114*(3), 510.

Reis, H.T., & Gable, S.L. (2003). Toward a positive psychology of relationships. In C.L. Keyes & J. Haidt (Eds.), *Flourishing: The positive person and the good life* (pp. 129–159). Washington, DC: American Psychological Association.

Regan, A., Walsh, L. C., & Lyubomirsky, S. (2023). Are some ways of expressing gratitude more beneficial than others? Results from a randomized controlled experiment. *Affective Science, 4*(1), 72-81.

Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and social psychology bulletin, 26*(4), 419-435.

Rohrer, J. M., Richter, D., Brümmer, M., Wagner, G. G., & Schmukle, S. C. (2018). Successfully striving for happiness: Socially engaged pursuits predict increases in life satisfaction. *Psychological science, 29*(8), 1291-1298.

Ruby, M. B., Falk, C. F., Heine, S. J., Villa, C., & Silberstein, O. (2012). Not all collectivisms are equal: opposing preferences for ideal affect between East Asians and Mexicans. *Emotion, 12*(6), 1206.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual review of psychology, 52*(1), 141-166.

Ryff, C. D., & Singer, B. (1996). Psychological well-being: Meaning, measurement, and implications for psychotherapy research. *Psychotherapy and psychosomatics, 65*(1), 14-23.

Sandstrom, G. M., & Dunn, E. W. (2014). Is efficiency overrated? Minimal social interactions lead to belonging and positive affect. *Social Psychological and Personality Science, 5*(4), 437-442.

Sandstrom, G. M., & Dunn, E. W. (2014). Social interactions and well-being: The surprising power of weak ties. *Personality and Social Psychology Bulletin, 40*(7), 910-922.

Sasaki, J. Y., Ko, D., & Kim, H. S. (2014). Culture and self-worth: Implications for social comparison processes and coping with threats to self-worth. *Communal functions of social comparison*, 230-252.

Schellenberg, B., & Bailis, D. (2021). More questions about multiple passions: Who has them, how many do people have, and the relationship between polyamorous passion and well-being. *Journal of Happiness Studies*, 1-22.

Schimmack, U., & Derryberry, D. E. (2005). Attentional interference effects of emotional pictures: threat, negativity, or arousal?. *Emotion*, *5*(1), 55.

Schooler, J. W., Ariely, D., & Loewenstein, G. (2003). Happiness can be self-defeating. *The psychology of economic decisions, 1,* 41-70.

Senf, K., & Liau, A. K. (2013). The effects of positive interventions on happiness and depressive symptoms, with an examination of personality as a moderator. *Journal of Happiness Studies, 14*, 591-612.

Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science, 338*(6107), 682-685.

Shah, A. K., Zhao, J., Mullainathan, S., & Shafir, E. (2018). Money in the mental lives of the poor. *Social Cognition*, *36*(1), 4-19.

Sheldon, K. M., & Lyubomirsky, S. (2012). The challenge of staying happier: Testing the hedonic adaptation prevention model. *Personality and Social Psychology Bulletin, 38*(5),670–680.

Shin, L. J., Armenta, C. N., Kamble, S. V., Chang, S. L., Wu, H. Y., & Lyubomirsky, S. (2020). Gratitude in collectivist and individualist cultures. *The Journal of Positive Psychology, 15*(5), 598-604.

Shin, L. J., Layous, K., Choi, I., Na, S., & Lyubomirsky, S. (2020). Good for self or good for others? The well-being benefits of kindness in two cultures depend on how the kindness is framed. *The Journal of Positive Psychology, 15*(6), 795-805.

Shin, J. E., Suh, E. M., Eom, K., & Kim, H. S. (2018). What does "happiness" prompt in your mind? Culture, word choice, and experienced happiness. *Journal of Happiness Studies, 19,* 649-662.

Sibley, C. G., Luyten, N., Purnomo, M., Mobberley, A., Wootton, L. W., Hammond, M. D., ... & Robertson, A. (2011). The Mini-IPIP6: Validation and extension of a short measure of the Big-Six factors of personality in New Zealand. *New Zealand Journal of Psychology, 40*(3).

Sims, T., Tsai, J. L., Jiang, D., Wang, Y., Fung, H. H., & Zhang, X. (2015). Wanting to maximize the positive and minimize the negative: implications for mixed affective experience in American and Chinese contexts. *Journal of personality and social psychology, 109*(2), 292.

Sin, N. L., Della Porta, M. D., & Lyubomirsky, S. O. N. J. A. (2011). Tailoring positive psychology interventions to treat depressed individuals. *Applied positive psychology: Improving everyday life, health, schools, work, and society*, *79*, 96.

Son, D., & Padilla-Walker, L. M. (2020). Happy helpers: A multidimensional and mixed-method approach to prosocial behavior and its effects on friendship quality, mental health, and well-being during adolescence. *Journal of Happiness Studies, 21*(5), 1705-1723.

Steele, L. G., & Lynch, S. M. (2013). The pursuit of happiness in China: Individualism, collectivism, and subjective well-being during China's economic and social transformation. *Social indicators research, 114*(2), 441-451.

Steger, M. F., Kashdan, T. B., & Oishi, S. (2008). Being good by doing good: Daily eudaimonic activity and well-being. *Journal of research in personality, 42*(1), 22-42.

Steptoe, A. (2019). Happiness and health. *Annu Rev Public Health, 40*(1), 339-359.

Stroop, J. R. (1935). Studies of interference in serial verbal reactions. *Journal of experimental psychology, 18*(6), 643.

Tamir, M. (2009). Differential preferences for happiness: Extraversion and trait-consistent emotion regulation. *Journal of personality, 77*(2), 447-470.

Tamir, M., Halperin, E., Porat, R., Bigman, Y. E., & Hasson, Y. (2019). When there's a will, there's a way: Disentangling the effects of goals and means in emotion regulation. *Journal of Personality and Social Psychology, 116*(5), 795–816. https://doi.org/10.1037/pspp0000232

Tamir, M., & Millgram, Y. (2017). Motivated emotion regulation: Principles, lessons, and implications of a motivational analysis of emotion regulation. In *Advances in motivation science* (Vol. 4, pp. 207-247). Elsevier.

Tatarkiewicz, W. (1976). Analysis of happiness. Warsaw: Polish Scientific Publishers.

Titova, L., & Sheldon, K. M. (2022). Happiness comes from trying to make others feel good, rather than oneself. *The Journal of Positive Psychology, 17*(3), 341-355.

Tov, W., Nai, Z. L., & Lee, H. W. (2016). Extraversion and agreeableness: Divergent routes to daily satisfaction with social relationships. *Journal of Personality, 84*(1), 121-134.

Triandis, H. C. (2018). *Individualism and collectivism*. Routledge.

Tsai, J. L. (2007). Ideal affect: Cultural causes and behavioral consequences. *Perspectives on Psychological Science, 2*(3), 242-259.

Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology, 90,* 288–307.

Tsai, J. L., Louie, J. Y., Chen, E. E., & Uchida, Y. (2007). Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin, 33*(1), 17-30.

Van Bockstaele, B., Atticciati, L., Hiekkaranta, A. P., Larsen, H., & Verschuere, B. (2020). Choose change: Situation modification, distraction, and reappraisal in mild versus intense negative situations. *Motivation and Emotion*, *44*(4), 583-596.

Van Bockstaele, B., Verschuere, B., Tibboel, H., De Houwer, J., Crombez, G., & Koster, E. H. (2014). A review of current evidence for the causal impact of attentional bias on fear and anxiety. *Psychological bulletin, 140*(3), 682.

Van Lange, P. A., & Columbus, S. (2021). Vitamin S: Why is social contact, even with strangers, so important to well-being?. *Current Directions in Psychological Science, 30*(3), 267-273.

Van Tongeren, D. R., Green, J. D., Davis, D. E., Hook, J. N., & Hulsey, T. L. (2016). Prosociality enhances meaning in life. *The Journal of Positive Psychology, 11*(3), 225–236.

Veling, H., & Van Knippenberg, A. (2008). Intention formation induces episodic inhibition of distracting stimuli. *Acta Psychologica*, *128*(1), 45-55.

Veling, H., & Van Knippenberg, A. (2006). Shielding intentions from distraction: Forming an intention induces inhibition of distracting stimuli. *Social Cognition*, *24*(4), 409-425.

Vittengl, J. R. (2017). Who pays the price for high neuroticism? Moderators of longitudinal risks for depression and anxiety. *Psychological Medicine, 47*(10), 1794-1805.

Vogt, J., Bajandouh, Y., & Alzubaidi, U. (2020). Beyond negativity: Motivational relevance as cause of attentional bias to positive stimuli. In *Cognitive Biases in Health and Psychiatric Disorders* (pp. 1-18). Academic Press.

Vogt, J., & De Houwer, J. (2014). Emotion regulation meets emotional attention: The influence of emotion suppression on emotional attention depends on the nature of the distracters. *Emotion*, *14*(5), 840.

Vogt, J., De Houwer, J., Crombez, G., & Van Damme, S. (2013). Competing for attentional priority: temporary goals versus threats. *Emotion, 13*(3), 587.

Vogt, J., Koster, E. H., & De Houwer, J. (2017). Safety first: Instrumentality for reaching safety determines attention allocation under threat. *Emotion*, *17*(3), 528.

Walsh, L. C., Boehm, J. K., & Lyubomirsky, S. (2018). Does happiness promote career success? Revisiting the evidence. *Journal of Career Assessment, 26*(2), 199-219.

Walsh, L. C., Regan, A., Twenge, J. M., & Lyubomirsky, S. (2022). What is the optimal way to give thanks? Comparing the effects of gratitude expressed privately, one-to-one via text, or publicly on social media. *Affective Science*, 1-10.

Warriner, A. B., Kuperman, V., & Brysbaert, M. (2013). Norms of valence, arousal, and dominance for 13,915 English lemmas. *Behavior research methods, 45*, 1191-1207.

Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of personality and social psychology, 64*(4), 678.

Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological bulletin*, *134*(2), 163.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology, 54*(6), 1063.

Webb, D. (2012). Happiness on the Tibetan plateau. *Happiness across cultures: Views of happiness and quality of life in non-Western cultures*, 27-41.

Williams, J. M. G., Mathews, A., & MacLeod, C. (1996). The emotional Stroop task and psychopathology. *Psychological bulletin, 120*(1), 3.

Wong, N., Gong, X., & Fung, H. H. (2020). Does valuing happiness enhance subjective well-being? The age-differential effect of interdependence. *Journal of Happiness Studies, 21*(1), 1-14.

Wood, J. V., Heimpel, S. A., & Michela, J. L. (2003). Savoring versus dampening: self-esteem differences in regulating positive affect. *Journal of personality and social psychology*, *85*(3), 566.

Wu, S. L. (2013). *The moderating effect of self-monitoring in the relationship between valuing happiness and the feeling of happiness.* (Doctoral thesis). Capital Normal University, Beijing, China.

Yamaguchi, S., & Sawaumi, T. (2019). Control orientations in the East and West.

Yang, Y., Li, P., Fu, X., & Kou, Y. (2017). Orientations to happiness and subjective well-being in Chinese adolescents: The roles of prosocial behavior and internet addictive behavior. *Journal of Happiness Studies, 18*(6), 1747–1762.

Xing, C., & Isaacowitz, D. M. (2006). Aiming at happiness: How motivation affects attention to and memory for emotional images. *Motivation and emotion*, *30*(3), 243-250.

Zhang, H. (2023). *How does valuing happiness predict well-being?* (Doctoral dissertation). University of Reading. DOI 10.17605/OSF.IO/UHG93.

Zhao, Y., Wang, Q., & Wang, J. (2020). Valuing happiness predicts higher well-being: The moderating role of acceptance. *PsyCh Journal, 9*(1), 132-143.