

The Role of Emotion Crafting in the Relation Between Personality and Basic Psychological Needs



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Bachelor Thesis in Psychology: Emotion Crafting – How to increase one's daily positive feelings

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Preface

This bachelor thesis is a culminated product of my three years at the bachelor program in psychology at NTNU, Trondheim. My initial motivation for undergoing this specific project is a profound interest in knowledge of one's emotional world. Luckily, the programme contained other variables, which I also value highly. Self-Determination Theory is particularly interesting due to its focus on human development and motivation. Understanding what induces motivation towards growth is an interest of mine. As such, examining differences between individuals in how one experiences one's surroundings was an obvious choice.

The thesis was formed and written independently, although with guidance from my supervisor. I would like to express an immense gratitude to my supervisor, Jolene Van der Kaap-Deeder, who supported my research question, responded to my numerous questions in clear fashion and provided valuable feedback on my writing. If not for her, and the other assistants (Gulsen Guldeste and Jo Fosby), the structure of the thesis, the plan of analysis and results acquired would most likely be vastly different. I am also grateful for the work they have done, which enabled the students working on this project to work independently. Their preparation of data made the analysis more feasible and understandable. I would not have the knowledge of statistical analysis, in conducting research, and confidence in my work if it were not for them. A sincere gratitude should also be aimed towards my friends and family this last semester. I owe a huge thank you to them, who has throughout the project listened to my worries, frustrations, and annoyances. Even though the last month was particularly eventful, their support has been a pillar for my well-being and as a consequence, my work towards this project and the product derived from said work.

Abstract

Personality has been found to relate to an individual's satisfaction and frustration of basic psychological needs. The present study aimed to extrapolate on previous work by examining the role of emotion crafting between two facets of personality (openness to experience and conscientiousness) and basic psychological needs. In the first part of the study a total of 116 participants completed a baseline survey, where personality was assessed. In the second part, participants responded two times a day (morning and evening) over seven days, where emotion crafting and basic psychological needs were assessed. A total of 115 participants completed the daily surveys. Emotion crafting showed a mediating effect for the relation between openness to experience and basic psychological needs, with no significant direct effect between them. Conversely, the relation between conscientiousness and basic psychological needs was implicated, however, with no mediating effect of emotion crafting. Most importantly, the results implicated the role of emotional tendencies in openness to experience, and possibly the lack of it in conscientiousness. As such, further research to uncover other plausible mediators were suggested. Emotion crafting proved to be significantly related to basic psychological needs in all models, possibly illustrating its broad usefulness.

Keywords: Basic psychological needs, Emotion crafting, Individual differences, Openness to experience, Conscientiousness

Individual differences in personality have long been of interest to psychologists. A key assumption in this field is that people choose, affect, and experience their environments in different ways, due to their differences. As such, it is by no surprise that personality differences have shown to be related to the experience of the three basic psychological needs, known as autonomy, competence, and relatedness (Nishimura & Suzuki, 2016; Philippe et al., 2011; Waterschoot et al., 2019). Additionally, the frustration of these needs has indicated greater personality maladjustment (Meyer et al., 2007). The Five-Factor Model (FFM) is one of the more robust models that aim to describe how people differ and in what ways they differ (Simsek & Koydemir, 2013). Differences in these traits, can serve as an inclination to experience one's surroundings as either need satisfactory or frustrating (Vansteenkiste et al., 2020). A high score in conscientiousness can, for instance, be assumed to lead an individual to be more persistent or deliberative when solving a problem. This persistence can further be an important factor in solving said problem, thus leading the individual to experience satisfaction of one of the three needs (need for competence). Even though the different traits of FFM have shown to correlate with basic psychological needs, less is understood about how this relation is upheld, i.e., the mechanisms that underlie it. Emotions, being a large part of one's personality, could therefore be thought to work as a mechanism which affects the satisfaction/frustration of the needs. For instance, an individual scoring high in openness to experience, could approach emotional experiences with curiosity and apply the knowledge derived from curiosity to act and react in ways that satisfy the basic needs. This approach to emotional experiences can thus be a strategy in which the individual applies the positive aspects of an experience that otherwise would induce, for instance, stress. Even though emotions are viewed as universal in nature, the tendency to experience specific emotions and how one processes them, are not. Emotion regulation is known as the process that individuals employ to monitor, evaluate, and modify their emotions (Gross, 1999). The field of emotion regulation has shown to be crucial in predicting individuals' well-being, as well as being important for psychopathology (Joormann & Stanton, 2016; Van der Kaap-Deeder et al., 2021). However, research in the field of emotion regulation has mostly focused on the regulation of negative emotions as opposed to positive emotions. A possible reason for this could be the obvious relevance of coping with negative emotions in psychopathology of an emotional nature, e.g., depression and anxiety. Positive emotion regulation has, of course been studied as well, showing the relevancy of specific patterns of thought and behaviour in dealing with positive emotions (see Quoidbach et al., 2010; Vanderlind et al., 2020).

However, the aspect of positive emotion regulation has been somewhat undervalued and overlooked. Additionally, research in the field of emotion regulation as a whole, has mostly focused on how people experience and react to emotional situations as they erupt, as opposed to proactively attempt to create specific emotions.

Emotion crafting is a new concept which mainly revolves around proactive behaviour aimed at maintaining and increasing positive emotions (Van der Kaap-Deeder et al., 2022). The concept can be viewed as a proactive emotion regulation strategy, which focuses on positive emotions. Since it is relatively new as a concept, there is a lack of research overall. Hence, there are considerable gaps regarding implications of the different precursors and outcomes of emotion crafting in general.

Differences in personality have also been related to different emotion regulation strategies (e.g., Baranczuk, 2019), and therefore it is of importance to assess whether this is upheld for emotion crafting as well. Also, it is likely that the satisfaction or frustration of the basic psychological needs are related to the experience of different emotions. For instance, an individual who experiences shame and guilt would likely be more apt to experience frustration of the basic psychological needs. Additionally, an individual who experiences an environment which suppresses his/her needs, could be thought to experience negative emotions, i.e., there is possibly a bidirectional relationship. The aforementioned relationship between differences in personality and the basic psychological needs could thus be mediated by emotion crafting. Furthermore, knowledge on individual differences in the basic psychological needs, and potential underlying mechanisms is of relevance. This would enable one to better distinguish between different susceptibilities and resiliencies in individuals, and hence, enable the environment to better align with an individual's specific need tendencies. The assumption that frustration of the basic psychological needs is viewed as a mechanism behind symptoms of psychopathology, makes research on the relationship between personality, emotion crafting and the basic psychological needs all the more relevant. Following this, satisfaction of the needs (i.e., need satisfaction) have been associated with higher levels of well-being, a general purpose in life and psychological growth (Meyer et al., 2007). Thus, it also becomes relevant, in the sense that one not only removes the bad but creates the good. Understanding what induces need satisfaction, as opposed to need frustration, not only makes one less susceptible to psychopathological symptoms, but also increases one's general well-being (Meyer et al., 2007).

Self-Determination Theory: The Importance of Basic Psychological Needs

Self-Determination theory (SDT) is a metatheory that seeks to explain how individuals become inspired and motivated in their lives (Ryan & Deci, 2000). The theory highlights the importance of one's inner resources in personality development and behavioural self-regulation. It assumes that the natural inclination of humans is towards growth and internalization, and that humans change, and are changed by the environment which in different ways facilitate or hinder this growth (Van den Broeck et al., 2016). The theory focuses on motivation for this progression, and distinguishes between different types of motivation, e.g., intrinsic (emanating from within) or extrinsic (externally conditioned). Since SDT is a metatheory, several sub theories have sprung out from it. Relevant for the present study is the basic psychological needs theory, which argues that individuals have a limited set of psychological needs which are viewed as important for flourishing, well-being, and motivation (Vansteenkiste et al., 2020). The three needs are recognized as the need for autonomy, competence, and relatedness.

The need for autonomy relates to experiences of volition, and self-endorsements of one's activity (Vansteenkiste & Ryan, 2013). This especially entails having a sense of choice in one's daily activities. Autonomy is viewed as an important contributor to internalization of regulative behaviour (Ryan & Deci, 2000). The need for competence involves individuals' need to view themselves as competent, and successful in their areas of interest. This need is important in eliciting intrinsic motivation in an individual. The need for relatedness revolves around feeling close and connected with friends and family, i.e., the individual need to feel connected and feel that one is being cared for, as well as caring for others. Altogether, satisfaction of the basic psychological needs is vital for motivating, as well as facilitating the well-being of the individual. For instance, fulfilment of the basic psychological needs has shown correlates to both hedonic and eudemonic well-being, as well as mindfulness and life satisfaction (Chang et al., 2015; Meyer et al., 2007; Nishimura & Suzuki, 2016).

In its early days, the basic psychological needs theory mainly revolved around the satisfaction of the needs, as SDT is predominantly aimed at describing the components relevant for personal growth and development (Nishimura & Suzuki, 2016). During the last decade or so, the measurement of both need satisfaction and frustration became more prevalent. This has enabled researchers to illuminate how the lack of need satisfaction is relevant, in addition to being similar, but not identical to the negative outcomes related to the presence of need frustration. A distinction between low satisfaction and high need frustration

can be exemplified by their outcomes. The former indicates the lack of human growth and development, while the latter indicates the inducement of ill-being and psychopathological symptoms (Kormas et al., 2014; Nishimura & Suzuki, 2016; Vandenberg et al., 2019; Van der Kaap-Deeder et al., 2021; Wei et al., 2004). As such, it is therefore relevant to assess not only the degree to which one experiences the environment as satisfactory, but also the presence, or lack of, need frustration.

It is necessary to mention the fact that SDT recognizes differences in susceptibility and resiliency towards experiencing different amounts of need satisfaction and frustration (Ryan et al., 2018). Although the basic psychological needs are viewed as inherent, i.e., that every individual wishes to satisfy these needs, there is not a one-size fits all as to whether people experience satisfaction in a specific situation. The concept of functional significance, which means the individual's appraisal of the context to be either growth-promoting or threatening, is thought to be affected by individual differences (Ryan et al., 2018). Differences in personality can be viewed as a relevant contributor to specific resiliencies and susceptibilities, given their effect on thought- and emotional processes as well as behavioural patterns. This has previously been observed in other studies, where both openness to experience and conscientiousness was positively related to need satisfaction, and negatively related to need frustration (Nishimura & Suzuki, 2016; Philippe et al., 2011).

Five-Factor Model (FFM): Openness to Experience and Conscientiousness

The Five-Factor Model of personality is a theory aimed at describing and differentiating people across five separate trait dimensions. The traits are assumed to engulf individual differences with respect to thoughts, feelings, and behavioural patterns, which are viewed as relatively lasting and stable over time and across contexts (McCrae & Costa, 1997; 2003). The five traits, namely extraversion, agreeableness, neuroticism, openness to experience and conscientiousness, are separate facets composed of many personality-descriptive adjectives. It is robust, and one of the well-established among models, made for understanding and assessing personality (Simsek & Koydemir, 2013). High scores in extraversion refers to greater need for stimulation, meaning they often enjoy being socially engaged (Baranczuk, 2019). These individuals report greater activity and tend to experience more positive emotions in general. The trait agreeableness refers to the degree of modesty, trust and altruistic behaviour shown in an individual, where individuals with a higher score are viewed as more compliant and tender minded. A high score in neuroticism refers to characteristics such as being more susceptible to stress, self-conscious and impulsive

compared to individuals who score low. The traits that are being used in this present study are openness to experience and conscientiousness.

Openness to experience is characterized by the individual's disposition for greater openness towards emotions and imagination, as well as appreciation for aesthetics, adventurousness, and liberalism (McCrae & John, 1992). Taking the individual's level of openness to emotions into account, one can assume that the trait could be related to different types of emotion regulation strategies, for instance mindfulness. Baranczuk (2019) found that the trait shows a modest positive relationship with respect to several emotion regulation strategies, e.g., reappraisal, problem solving, mindfulness and worry. Since higher scores in this trait lead to an individual being more aware of one's emotions, one can suggest that this trait is important for emotion crafting. For instance, the individual could be more likely to engage in thought processes and behavioural patterns related to awareness of one's emotions, e.g., "Why do I work out? Does it make me feel good? If not, why do I do it?". This awareness of emotions can consequently enable the individual to act in a more planned manner to create positive emotions. Although being aware of what makes one happy does not necessitate that one acts on the knowledge, it at least gives the individual the opportunity to act more accurately.

Conscientiousness is recognized as an individual eliciting competence and orderliness (McCrae & John, 1992). The individual is also highly achievement-oriented and dutiful, expressing self-discipline and deliberation. Given the individual's tendencies in goal-oriented behaviour and discipline, one could suggest that the trait is related to different emotion regulation strategies, for instance cognitive reappraisal. This has previously been implicated, i.e., there has been found a positive relationship between conscientiousness and problem solving, cognitive reappraisal, mindfulness, and acceptance (Baranczuk, 2019). It could therefore be suggested that this trait is important for emotion crafting as well. Where openness to experience was deemed relevant due to its ability to raise awareness of emotions, conscientiousness is deemed relevant for its ability to reconstrue the situation. Due to the individual's ability to behave in a goal-oriented and deliberative manner, the behaviour itself could be construed as eliciting positive emotions even if the activity in and of itself is not engaging. Following the prior example, working out will not necessarily be viewed as satisfactory. The conscientious individual, however, could reconstrue the unpleasantness of working out as something one does to improve and achieve a goal. Thus, the act could be satisfactory in a long-term sense, although the present moment does not induce any positive

emotions. After several sessions of working out, the individual could then gain positive emotions during and after a workout because it aligns with the individual's goal.

The two traits chosen for this study (openness to experience and conscientiousness), could be viewed as some of the less emotional traits of the five. Neuroticism and extraversion for instance, is emotional in their own definitions (i.e., showing higher susceptibility to warmth or anxiety). As described previously, the traits can potentially show some qualities in the act of creating specific emotions. Being aware of one's own emotions (openness to experience) and being goal oriented (conscientiousness) could therefore elicit or construe actions (or thought patterns for that matter) in a way that induces one to increase the experience of positive emotions.

Emotion Regulation and Crafting: Regulation of Negative and Positive Emotions

Emotion regulation (ER) refers to the activity of monitoring, evaluating, and modifying experiences of an emotional nature (Gross, 1999). This entails activities where an individual modifies what emotions they have, when they have them and how they are expressed (Baranczuk, 2019). Examples of ER can be a poker player that deliberately chooses to hide his excitement when he has the best hand, or a spouse who tries to calm down in a verbal fight. As previously mentioned, much of the research regarding ER has focused on dealing, or coping with, negative emotions. Still, the regulation of positive emotions should be deemed of importance. Positive emotions are rarely viewed as something to be regulated. However, the way in which an individual responds to the elicitation of positive emotions could impact the duration and strength of the given emotion which in turn can lead to different outcomes. For instance, focusing attention on the present moment when experiencing positive emotions has shown to be related to higher levels of positive affect (Quoidbach et al., 2010). Sharing positive experiences and talking about them have also shown to increase life satisfaction. Furthermore, positive ER has shown to play a role in depression as well (Vanderlind et al., 2020). Depression has been suggested to negatively affect the preference for positive emotions, which in turn may increase the employment of strategies which down-regulate positive emotions (Vanderlind et al., 2020).

Emotion crafting is revolved around proactive behaviour aimed at maintaining or increasing positive emotions. The concept involves two separate areas of crafting, namely awareness of what increases or maintains positive emotions (awareness) and performing the activity assumed to increase or maintain one's positive emotions (activity). Although emotion crafting is a type of emotion regulation, it separates itself from other regulation strategies.

This is apparent when pointing out that emotion crafting focuses on the proactive attempt to create or increase positive emotions, as opposed to change emotional experiences. Emotion crafting aim to act in a manner thought to elicit positive emotions. It is not only relevant for its hedonistic qualities, but also because positive affect and emotions are important for psychological health. For instance, Garland et al. (2010) found that positive affect often counteracts the negative emotion experiences related to psychopathological symptoms. Since negative emotions often are symptoms of psychopathology, regulation is often viewed as the process in which one consciously or non-consciously reconstrue negative emotions into something positive. The regulation of negative emotions is obviously of importance, but positive emotions should be equally relevant. This is apparent when considering that positive emotion regulation strategies (such as rumination and telling others about the experience) are important for life satisfaction, and the reduction in preference for positive emotions is related to depression. Thus, the active attempt of increasing and maintaining positive emotional experiences should viewed as just as important as the attempt of modifying negative emotional experiences.

Present Study

The overall aim of this study is to examine the relation between personality (i.e., openness to experience and conscientiousness) and the basic psychological needs, while also examining the mediating role of emotion crafting. Differences in personality entails different ways of behaving, feeling, and thinking. These differences could subsequently entail selecting different environments and experiencing the same environment differently (i.e., differences in need satisfaction/frustration). A possible mechanism behind this relationship could thus be emotion crafting. This is because the experience of need satisfaction/frustration often entails emotional experiences as well. The degree to which an individual seeks to proactively increase or maintain positive emotions is assumed to be relevant to the experience of need satisfaction/frustration. First, it is expected that openness to experience and conscientiousness are positively related to need satisfaction, and negatively related to need frustration (Hypothesis 1; direct relation). Second, it is hypothesized that emotion crafting will mediate these relations (Hypothesis 2; indirect relation). To extrapolate, emotion crafting is expected to be positively related to both personality traits and to need satisfaction, and negatively related to need frustration.

Method

Participants

A total of 128 participants initially agreed to partake in the study, but six participants were excluded from data analysis due to lacking data both the baseline and daily assessments. Additionally, six participants were excluded from analysis due to lacking data in the baseline assessment, $N = 116$, while one participant was excluded due to lacking data in the daily assessments, $N = 115$. During the seven days of daily assessments, a total of 671 responses were collected from a total of 115 participants. In total, there were 71 females (61%) and 45 males (39%), and the age of the participants ranged from 18 to 62, $M = 29.41$, $SD = 11.87$. Educational levels varied from elementary school (including middle school) to having completed a master's degree, where two of the participants (2%) completed elementary school and 57 (49%) completed high school. Additionally, 42 participants (36%) had completed a bachelor's degree while 15 (13%) had completed a master's degree. There were 47 (40%) unmarried and single participants, and 25 (22%) in a committed relationship. Finally, 42 (36%) had a cohabitant/spouse and two (2%) were divorced.

Procedure

From mid-January till late February, students undergoing a bachelor project were tasked with recruiting different participants. The students were instructed to recruit approximately 14 participants each through their own social network. The participants had to be between 18 and 65 years of age, and the study required access to internet at least twice a day. Individuals with psychiatric, developmental or substance use disorders, as well as visual or hearing impairments, were to be excluded. During a home visit the participants were informed about the aim and procedure of the study. They were also provided with contact information and were asked to sign a letter of informed consent. An application letter was sent to NSD, which was approved on February 21st (Reference number: 334714).

The study consisted of two parts: a baseline assessment (March 12th, 2022), and daily measures lasting seven days (March 14th, 2022 – March 21st, 2022).

The baseline assessment began approximately at noon (March 12th), where the participants responded to the baseline survey, which consisted of many instruments that for instance measured personality traits, emotional intelligence, need satisfaction/frustration, etc. The baseline assessment took about 40-50 minutes to finish.

The daily assessments began the following Monday, (March 14th). This segment contained daily measures, morning, and evening, of several instruments. For instance, the

morning assessment measured variables such as planned emotion crafting, while the evening assessment measured variables such as actual emotion crafting.

Both the baseline and the daily assessments were sent to the participants via e-mail, which included a hyperlink to Nettskjema. For the daily assessments, e-mails were sent out approximately around 08:00 in the morning, which the participants had to complete within 11:00 (three hours later). If a participant were to fill out the questionnaire after 11:00, the data would be excluded from analysis. The evening measures were sent out at approximately 20:30 in the evening, and the deadline to respond was similar to the morning measures (three hours). If a participant missed one of the morning or evening measures, the rest of their data were not immediately excluded from data analysis. However, if the data missing from a participant were of significant amounts, they were excluded. Both surveys took approximately 5 minutes to complete.

To obtain a more reliable assessment of both emotion crafting and need frustration/satisfaction, the daily assessments were employed. The reasoning behind this decision is that this data was an aggregate of the participants responses over seven days. This means that an individual's total amount of responses across the seven days were averaged to a single value. As opposed to the baseline survey, which occurs only once, the daily assessments are more robust in the sense that the data will be more evened out. Thus, they are less susceptible to change due to a single event (e.g., unusual occurrences of an emotionally significant nature).

Instruments

As previously mentioned, the baseline survey and the morning/evening assessments consisted of numerous instruments. However, only three of these were employed in the present study, i.e., the Big Five Inventory (BFI), the evening assessment of the Emotion Crafting Scale, referred to as Actual Emotion Crafting Scale (AECS), and the evening assessment of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS).

Personality: The Big Five Inventory

The BFI (John et al., 1991) was employed in this study to measure the participants' personality, thereby distinguishing between the traits in accordance with the Five-Factor Model (Soto et al., 2008): Openness to experience (e.g., "have a vivid imagination"), conscientiousness (e.g., "does not give in until the task is finished"), extraversion (e.g., "is outgoing and social"), agreeableness (e.g., "usually trust other people"), and neuroticism (e.g., "is relaxed and handles stress well"). The questionnaire consists of 46 items, all of

which are simple phrases meant to assess one of the five traits. The BFI had a 5-item Likert Scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Previous research indicated the BFI to have a clear factor structure and high levels of internal consistency and retest reliability (John et al., 1991; Soto et al., 2008). In the present study, both openness to experience and conscientiousness showed acceptable levels of reliability, $\alpha = .75$, 10 items and $\alpha = .78$, 10 items, respectively.

Emotion Crafting

The ECS (Van der Kaap-Deeder et al., 2022) was used in this study to assess the participants degree of emotion crafting, with respect to the different aspects of emotion crafting: awareness (e.g., “I am fully aware of the activities that make me feel good”), savouring (e.g., “When I feel good, I try to hold on to the feeling for as long as possible”) and action (e.g., “I seek out situations that make me feel good”). There was three different points in time where emotion crafting was assessed (baseline, morning, evening). The evening assessment separates itself from the morning version, in that the former corresponds to actual emotion crafting on said day, i.e., the actual level of activity, whereas the latter has a larger focus on the planned emotion crafting. The questionnaire consists of 12 items related to three different aspects, and was reliable in the present study, $\alpha = .92$. First, it measures the awareness of what makes the individual feel good. Second, the tendency to savour positive feelings when experiencing them. Finally, the degree to which the individual performs actions that makes him/her feel good. The scale contained a 5-item Likert Scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Basic Psychological Needs: Need satisfaction and need frustration

The BPNSFS was implemented to measure the individuals’ experiences of satisfaction and frustration of the BPN (Chen et al., 2015): autonomy satisfaction (e.g., “Today, I felt a sense of choice and freedom in the things I undertook”), competence frustration (e.g., “Today, I felt insecure about my abilities”). Two distinct subscales emerge from this questionnaire, need satisfaction, and need frustration, respectively. Both scales were reliable, $\alpha = .83$ and $\alpha = .79$. The original version of BPNSFS (see Chen et al., 2015) is a 24-item scale. However, the daily assessment version of BPNSFS consists of 12 items. Both versions consist of a 5-item Likert Scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

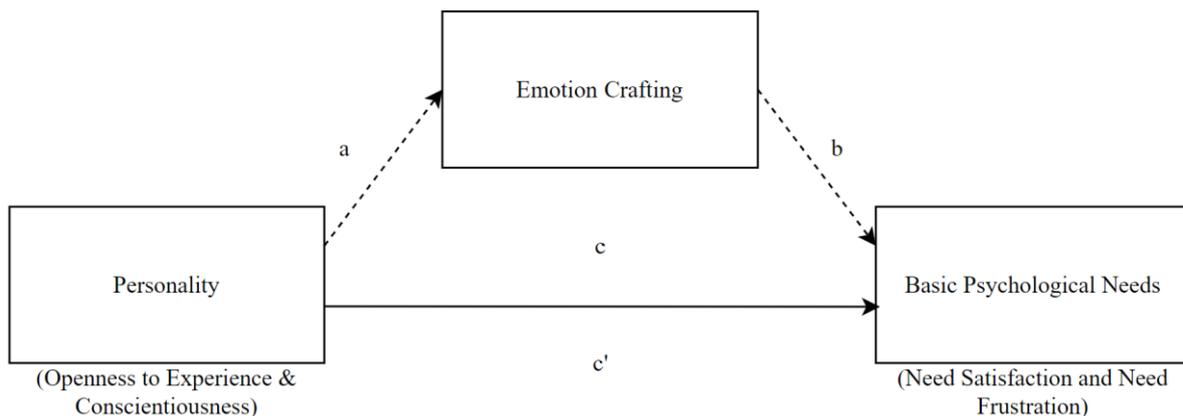
Statistical Analysis

All analyses were performed in IBM SPSS Statistics (Version 27). The primary analysis used in the present study was the Hayes PROCESS Model 4 mediation. Preliminary

analyses were performed to assess the reliability and relations of the study and background variables. First, the Cronbach's Alpha of the different study variables was apprehended to account for their reliabilities. Second, a descriptive and a correlational analysis was performed to examine their relations. Additionally, a MANOVA was performed to account for possible relations between background characteristics and the study variables. Third, PROCESS was used to test for 1) the relationship between personality (i.e., openness to experience and conscientiousness) and need satisfaction and frustration, and 2) the mediative role of emotion crafting between these variables. In this instance, the personality traits are the independent variables (X), while need satisfaction and frustration are the dependent variables, or outcome variables (Y), and emotion crafting is the mediator (M).

Figure 1

Mediation model used in the present study



Note. The various paths of the mediation analysis are depicted, with the different variables that were employed. Personality was assumed to be directly related to basic psychological needs. Additionally, personality was assumed to be indirectly related to basic psychological needs through emotion crafting.

Results

Preliminary Analyses

Descriptive statistics and bivariate correlations among the measured variables are presented in Table 1. Several of the variables showed relations with each other. First, openness to experience, had a positive relationship with emotion crafting, while conscientiousness correlated positively with emotion crafting, need satisfaction and negatively with need frustration. Second, emotion crafting correlated positively with need

satisfaction, and negatively with need frustration. Finally, need satisfaction correlated negatively with need frustration.

Table 1

Descriptive Statistics of and Bivariate Correlations Between the Study Variables

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.
1. Openness to experience	116	3.53	0.54	-	-.07	.24*	.12	.03
2. Conscientiousness	116	3.61	0.59		-	.19*	.36**	-.31**
3. Emotion crafting	115	3.48	0.66			-	.64**	-.36**
4. Need satisfaction	115	3.63	0.58				-	-.70**
5. Need frustration	115	1.90	0.61					-

Note. * $p < .05$, ** $p < .01$

Next, a multivariate analysis of covariates (MANCOVA) was performed to assess the relation of the background variables, i.e., gender, marital status (as fixed factors) and age and education (as covariates), with the study variables. The results indicated a significant effect of gender on the study variables, $F(3, 106) = 2.80, p = .04$, Wilks' $\Lambda = 0.93$, partial $\eta^2 = .07$. More specifically, women scored significantly higher than men with respect to emotion crafting, $F(1, 108) = 7.27, p = .008, \eta^2 = .06$. As such, gender was controlled for in all of the following main analyses.

Primary Analyses

All analyses were performed with PROCESS Model 4 mediation. Table 2 shows the results for openness to experience and need satisfaction and frustration, while Table 3 shows the results for conscientiousness and need satisfaction and frustration. Additional figures are also included to illustrate the different pathways.

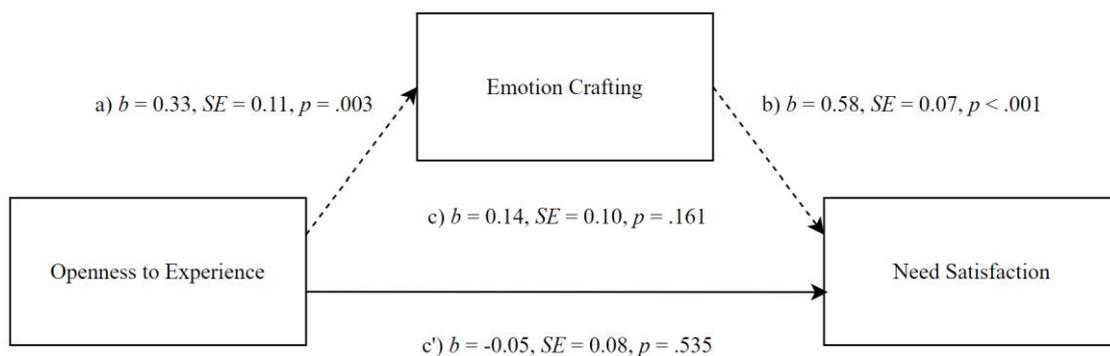
Openness to Experience

As displayed in Figure 2 and Table 2, the results indicated that openness to experience showed no significant direct relation to need satisfaction, $t(111) = -0.62$. However, path-a showed a significant positive relation between openness to experience and emotion crafting, $t(112) = 3.06$. Path-b indicated that emotion crafting was significantly and positively related to need satisfaction, $t(111) = -8.48$. The total effect between openness to experience and need satisfaction, when accounting for emotion crafting and gender, was non-significant, $t(112) =$

1.42. The positive indirect effect of openness to experience on need satisfaction, via emotion crafting was statistically significant. Gender was significantly related to emotion crafting, $b = -0.36$, 95% CI [-0.60, -0.13], $t(112) = -3.03$, $p = .003$. In all other cases, gender was not significant.

Figure 2

Mediation paths for openness to experience and need satisfaction

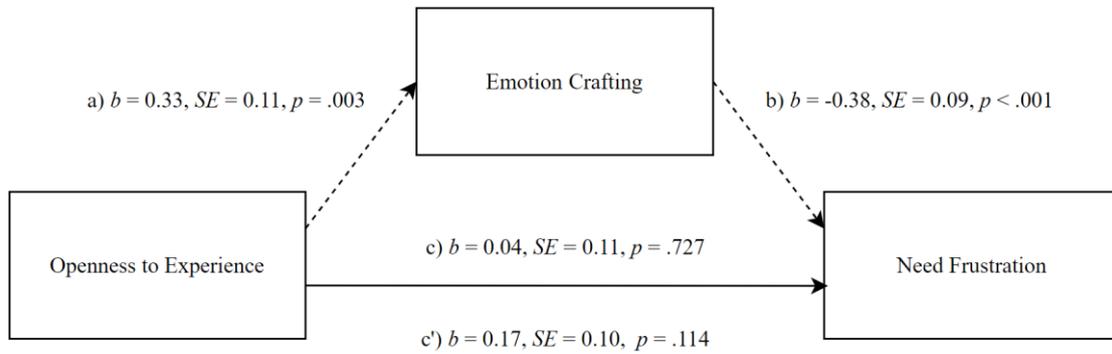


Note. *Unstandardized coefficients are displayed with corresponding standard errors and p-values.*

The mediation model for openness to experience and need frustration is shown in Figure 3, and Table 2, and the results indicated no significant direct effect, $t(111) = 1.59$. Path-a is identical for both analyses with openness to experience, and thus they have identical results. Path-b showed a significant negative relation between emotion crafting and need frustration, $t(111) = -4.43$, and a non-significant relation between gender and need frustration, $b = -0.16$, 95% CI [-0.38, 0.07], $t(111) = -1.37$, $p = .173$. The total effect for openness to experience on need frustration when taking emotion crafting, as well as gender, into account was statistically non-significant, $t(112) = 1.59$. However, the indirect effect was statistically significant. Gender was not significant in any of the paths, apart from path-a.

Figure 3

Mediation model for openness to experience and need frustration



Note. *Unstandardized coefficients are displayed with corresponding standard errors and p-values.*

Table 2*Mediating Role of Emotion Crafting in the Relations Between Openness to Experience and Need Satisfaction or Need Frustration*

Outcome	c-path		c'-path		a-path		b-path		ab-path	
	<i>b</i> (SE)	95% CI	<i>b</i> (SE)	95% CI	<i>b</i> (SE)	95% CI	<i>b</i> (SE)	95% CI	<i>b</i> (SE)	95% CI
NS	0.14 (0.10)	-0.06, 0.34	-0.05 (0.08)	-0.21, 0.11	0.33 (0.11)**	0.12, 0.55	0.58 (0.07)***	0.45, 0.72	0.19 (0.07)***	0.07, 0.33
NF	0.04 (0.11)	-0.18, 0.25	0.17 (0.10)	-0.04, 0.37	0.33 (0.11)**	0.12, 0.55	-0.38 (0.09)***	-0.55, -0.21	-0.13 (0.06)***	-0.27, -0.03

Note. NS = Need satisfaction, NF = Need frustration CI = Confidence interval. Coefficients shown are unstandardized path coefficients (*b*) with standard errors (*SE*) reported between brackets. The a-path is the relation between openness to experience and emotion crafting; the b-path is the relation between emotion crafting and need satisfaction and need frustration, while controlling for openness to experience; the c'-path is the initial relation between openness to experience and need satisfaction and need frustration; and the c-path is the relation between openness to experience and need satisfaction and need frustration, when the path-b is taken into account.

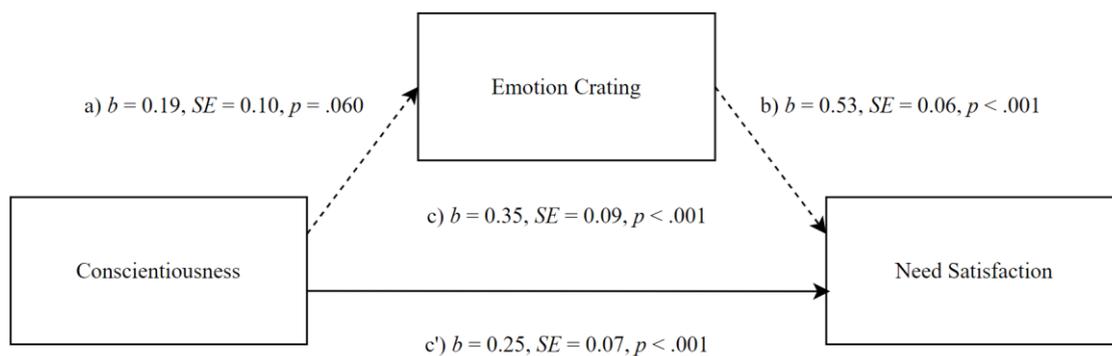
** $p < .01$, *** $p < .001$

Conscientiousness

As shown in Figure 4 and Table 3, the model for conscientiousness and need satisfaction resulted in a significant and positive direct relation, $t(111) = 3.52$. The relation between conscientiousness and emotion crafting was non-significant, $t(112) = 1.90$. Additionally, the positive relation between emotion crafting and need satisfaction was statistically significant, $t(111) = 8.34$. The total effect for conscientiousness on need satisfaction, when including emotion crafting was significant, $t(112) = 3.99$. The indirect effect was not significant. Gender was significantly related to emotion crafting, $b = -0.29$, 95% CI [-0.54, 0.50], $t(112) = -2.39$, $p = .020$, but not significant in any other paths.

Figure 4

Mediation model for conscientiousness and need satisfaction

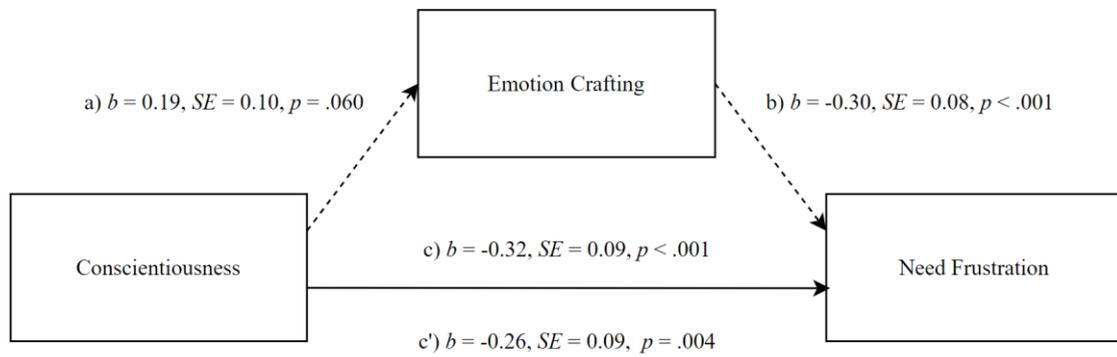


Note. Unstandardized coefficients are displayed with corresponding standard errors and p-values.

The mediation model for conscientiousness and need frustration is displayed in Figure 5 and Table 3, which indicated a significant and negative direct relation, $t(111) = -2.93$. while gender was non-significant. Path-a is identical in both mediation analyses for conscientiousness. Emotion crafting and need frustration showed a negative and significant relation, $t(111) = 3.680$. The total effect of conscientiousness on need frustration, when taking both emotion crafting and gender into account was statistically significant, $t(112) = -3.45$, while the indirect effect, was not statistically significant. Gender was not significant in any of the paths, apart from in the total effect.

Figure 5

Mediation model for conscientiousness and need frustration



Note. Unstandardized coefficients are displayed with corresponding standard errors and p-values.

Table 3*Mediating Role of Emotion Crafting in the Relations Between Conscientiousness and Need Satisfaction or Need Frustration*

Outcome	c-path		c'-path		a-path		b-path		ab-path	
	<i>b</i> (<i>SE</i>)	95% CI	<i>b</i> (<i>SE</i>)	95% CI	<i>b</i> (<i>SE</i>)	95% CI	<i>b</i> (<i>SE</i>)	95% CI	<i>b</i> (<i>SE</i>)	95% CI
NS	0.35 (0.09)***	0.18, 0.52	0.25 (0.07)***	0.11, 0.38	0.19 (0.10)	-0.01, 0.40	0.53 (0.06)***	0.41, 0.66	0.10 (0.06)	-0.01, 0.24
NF	-0.32 (0.09)***	-0.51, -0.14	-0.26 (0.09)**	-0.44, -0.09	0.19 (0.10)	-0.01, 0.40	-0.30 (0.08)***	-0.46, -0.14	-0.06 (0.05)	-0.17, 0.01

Note. NS = Need satisfaction, NF = Need frustration CI = Confidence interval. Coefficients shown are unstandardized path coefficients (*b*) with standard errors (*SE*) reported between brackets. The a-path is the relation between openness to experience and emotion crafting; the b-path is the relation between emotion crafting and need satisfaction and need frustration, while controlling for openness to experience; the c'-path is the initial relation between openness to experience and need satisfaction and need frustration; and the c-path is the relation between openness to experience and need satisfaction and need frustration, when the path-b is taken into account.

$p < .01$ **, $p < .001$ ***

Discussion

This study aimed to examine whether the relation between two facets of personality (i.e., openness to experience and conscientiousness) and the satisfaction and frustration of the basic psychological needs were mediated by emotion crafting. Previous research has implicated the relation between these traits and basic psychological needs, however, less is known about the underlying mechanisms (Nishimura & Suzuki, 2016; Philippe et al., 2011). In the present study, emotion crafting proved to be a mediator for openness to experience and need satisfaction and frustration, with the lack of a direct relation them. Whereas for conscientiousness, there was a direct relation with both need satisfaction and frustration, with a lack of a mediating effect from emotion crafting. Interestingly, the relation between emotion crafting and the basic psychological needs was significant in all models.

Openness to Experience: The Importance of Emotion Crafting in Basic Psychological Needs

Openness to experience was found to not be directly related to the basic psychological needs. H1, which proposed a positive and negative relation to need satisfaction and frustration, respectively, was not supported. This is inconsistent with previous research which has indicated a positive and negative relation between openness to experience and need satisfaction and frustration (see Nishimura & Suzuki, 2016; Philippe et al., 2011). However, the proposition that emotion crafting would mediate the relation (H2), was confirmed in the findings. Meaning that, 1) a positive relation between openness to experience and emotion crafting, and 2) a positive and negative relation between need satisfaction and frustration, was found. This is in line with the notion that there are individual differences in viewing experiences and environments as satisfactory or frustrating (Vansteenkiste et al., 2020). Exactly how openness to experience relates to the proactive behaviour aimed towards increasing positive emotions is not completely understood. However, the characteristics of openness to experience involves a disposition towards openness to emotions and imagination (McCrae & John, 1992). Hence, the results might shed light on possible ripple-effects from openness to experience. From a theoretical perspective, it is possible that the high scores in openness to experience grants the individual knowledge of one's emotional tendencies, enabling the individual to act in ways that more precisely increases positive emotions.

It is of importance that emotion crafting displayed an inverse relationship between need satisfaction and frustration (positive and negative, respectively). Mostly, this is because it shows that emotion crafting not only bolsters the experience of need satisfaction, but also

negates the experience of need frustration. This is similar to previous findings which indicate that positive affect often counteracts the negative symptoms of psychopathology (Garland et al., 2010). Therefore, findings from the present study might shed light on an area in emotion regulation that often is overlooked. Typically, the field of emotion regulation has had a keen focus on the coping of negative emotions as they erupt. While still important, the mediating role of emotion crafting indicates that positive emotions should not be wanted simply for pleasure's sake, but also because it is related to the needs which are important for human development. Furthermore, psychopathology has been related to the increase of negative emotions, as well as the lack of preference towards positive emotions (Vanderlind et al., 2020). Based on the results from the present study, the importance of proactive creation of positive emotions is apparent with respect to the basic psychological needs.

Conscientiousness: A Direct Relation to Basic Psychological Needs

Conscientiousness was found to be directly related to the basic psychological needs. A positive relation to need satisfaction, and a negative relation to need frustration was postulated in H1, which was supported in the present study. This is consistent with previous research which has yielded similar results (Nishimura & Suzuki, 2016; Philippe et al., 2011). Conscientiousness was, however, not significantly related to emotion crafting. While emotion crafting, on the other hand, was positively and negatively related to need satisfaction and frustration, respectively. H2 assumed a mediating role of emotion crafting, which as a whole, turned out to be insignificant. The direct relation furthers the notion of individual differences in basic psychological needs.

As mentioned, emotion crafting displayed no mediating role in the relation between conscientiousness and basic psychological needs. However, conscientiousness has shown to be related to several types of emotion regulation strategies (Baranczuk, 2019). Therefore, the lack of a relation between conscientiousness and emotion crafting was somewhat unexpected. It is possible that this is because conscientiousness does not tap into emotion regulation strategies of a proactive type. Conscientiousness is recognized as the individual's exhibition of competence, dutifulness, orderliness, and goal-oriented behaviour (McCrae & John, 1992). When a person high in conscientiousness experiences negative emotions, the trait could enable the individual to view them as a problem which needs to be solved, in contrast to becoming debilitated. This line of reasoning receives support from previous research, which has found that conscientiousness is related to greater recovery from negative emotion (Javaras et al., 2012). Conscientiousness could therefore be more apparent in reactive, as opposed to

proactive strategies, as well as more effective in the regulation of negative emotions, than positive. Although emotion crafting showed no significant relation to conscientiousness, it is necessary to mention that it still was positively and negative related to need satisfaction and frustration. This implies that emotion crafting should be viewed as relevant, in its relation to the basic psychological needs, but not in its relation to conscientiousness.

The direct relation between conscientiousness and basic psychological needs was still upheld. This is in line with previous findings and furthers the idea of functional significance (Nishimura & Suzuki, 2016; Philippe et al., 2011; Ryan et al., 2018). Similar to conscientiousness' relation to emotion regulation strategies, its typical characteristics might enable the individual to act, or rather react, in a manner that facilitates the satisfaction of the needs. However, since no mediation was established, underlying mechanisms between these concepts are unknown. Still, it would be naïve to assume that there is only a direct relation between the variables. Other concepts, psychological or otherwise, which are more in line with the characteristics of conscientiousness could very well be mediating the relation. Examples of such concepts are other emotion regulation strategies, that are reactive, or academic performance. All of which has shown to relate to conscientiousness in previous research (Baranczuk, 2019; Poropat, 2009). Most likely, there is a combination of underlying mechanisms and a direct relation.

Strengths and Limitations

Even though the findings show promise in explaining underlying mechanisms, between personality and the basic psychological needs, there are some limitations. Most apparent, only associations between variables can be claimed from the use of a cross sectional design. Since the variables occurred simultaneously, one cannot claim that change in X causes change in Y. Personality is usually something viewed as stable across one's life span. However, some studies have shown that there is within-individual variation with respect to the five-factor model (Judge et al., 2014). Additionally, self-reports of the five-factor model have shown to vary widely when in an autonomy supportive environment (Lynch et al., 2009). With this in mind, it is entirely possible that the results obtained in this present study could 1) be because personality relates to individual differences in the subjective experience of need satisfaction or frustration, 2) that need satisfactory or frustrating environments relates to changes in one's perception of oneself, i.e., personality, or 3) a combination of both alternatives.

With respect to the sample, some factors could contribute to it being homogenous. Participants were recruited by the students working on the bachelor project. Since they were to meet with the participants in person, this could lead to them to recruit from their main social circles. This suspicion is somewhat strengthened when a total of 99 participants had either completed high school or a bachelor's degree, and 80 of the participants were between 18 and 26 years of age. Furthermore, the recruitment strategy could also pose some limitations, with respect to those who chose to participate. Since there were no rewards for participation, those who freely accepted to use their time on this study may be different from those who declined. Additionally, it is possible that those who chose to participate also shared some similar views or characteristics.

The baseline survey took approximately between 40 and 60 minutes to complete. Since the survey contained numerous instruments, many of the instruments overlapped with respect to their content. For instance, both the Big Five Inventory and the EAS Temperament Survey both aim to assess personality, and as a consequence, many of the items overlapped considerably. The repetitive nature of the of the survey could induce tiredness or a lack of focus in the participants. Thus, there is a possibility that some of the participants did not properly read the questions and responded on "autopilot". The repetitive nature of the survey is even more apparent in the daily assessments. Although they were fairly short, the requirement to respond to the same questions every morning and evening for 7 days could affect their seriousness in responding, inducing even more "autopiloting". Originally, the instruments were created in English. The translation from English to Norwegian could serve as an interrupting factor when interpreting the underlying meaning of the items. The Norwegian language is not as nuanced as English, i.e., a term in Norwegian can be translated to several terms in English, depending on the context. Hence, Norwegian relies more on contextual assistance to interpret a phrase or term precisely. Lacking these, the participants may have interpreted the meaning of questions in different ways, leading to different responses. Nevertheless, the instruments show strength, when considering their use in previous studies, in which they have displayed acceptable levels of reliability and validity (Chen et al., 2015; Soto et al., 2008; Van der Kaap-Deeder et al., 2020). Furthermore, emotion crafting and the basic psychological needs were computed as aggregates, making them less susceptible to unusual occurrences and responses. Additionally, the instruments rests on strong theoretical foundations, which have been well examined in research.

The participants were anonymous, which likely reduced the risk of responses being affected by social desirability and increasing the probability for honest feedback (Tourangeau & Yan, 2007). The use of self-reports was necessary in this instance, as several of the instruments are based on subjective experiences. However, there is a risk following the use of it. There could be differences between what one experienced in vivo, and what one retrospectively thinks one experienced, after emotions have settled.

Implications for Practice and Future Research

Both openness to experience and conscientiousness were related to the basic psychological needs, but in different ways. As mentioned, this builds on the assumption of functional significance. Uncovering underlying mechanisms in these relations is of importance, as knowledge on this topic will contribute to need-supportive environments to be better suited to an individual's characteristics. Increased knowledge on this topic could change interpersonal relationships, both informal and formal. Furthermore, if satisfaction and frustration of the needs were to affect one's personality, the findings could serve as a steppingstone in the search for environments which are thought of as growth-inducing or thwarting. Emotion crafting, which displayed an inverse relation to need satisfaction and frustration, shed light on the importance of positive emotions. It has been argued previously that positive emotion regulation has been overlooked, which based on the findings, shows promise towards psychopathological treatment, due to the relations between basic psychological needs and psychopathology (Kormas et al., 2014; Vandekerckhove et al., 2019; Wei et al., 2004). It would be of interest to examine whether emotion crafting could be taught, due to its relation to the needs and the counteractive effects of positive emotions on negative emotional experiences. If so, it could potentially change the traditional workings of therapy, which often revolves around the coping and removal of negative emotions, as opposed to the increase of positive emotions.

Although one underlying mechanism was implicated in the findings, it is unlikely that emotion crafting is operating on its own in the relation between personality and basic psychological needs. Hence, future research should aim to examine other possible mediators between personality and the needs. Concepts which are likely to mediate these relations are plentiful, but some have been suggested, i.e., other emotion regulation strategies and academic performance (Baranczuk et al., 2019; Poropat, 2009). Additionally, it would be of interest to examine the remaining facets in the five-factor model to possibly assess if some facets are more important than others in their relation to basic psychological needs. Also here,

the inclusion of mediation is preferred. Since the present study only examines relations, an experimental design between the variables used, are preferred to better determine which of them influences which. Additionally, such a design is vital when assessing if emotion crafting is teachable. In general, most research on emotion crafting should be welcomed. Research on positive emotion regulation is somewhat scarce, and further examinations of emotion crafting would provide knowledge with regard to its discriminant validity from other emotion regulation strategies, and further illustrate its reach. Furthermore, a replication of the current study is also recommended, preferably with a heterogenous sample to increase the generalizability of the findings.

Conclusion

The results indicated a significant mediating role of emotion crafting, in the relations between openness to experience and need satisfaction and frustration, respectively. The direct relation between them was, however, not significant. Emotion crafting was positively related to need satisfaction, and negatively related to need frustration. A theoretical explanation for emotion crafting as an underlying mechanism has been suggested, mostly resting on the emotional awareness and curiosity which is found in openness to experience. For conscientiousness, no significant role of emotion crafting was observed. Still, conscientiousness showed a positive relation to need satisfaction and a negative relation to need frustration. It has been suggested that conscientiousness does not tap into proactive regulation strategies, and other mediating concepts have been suggested as possible mechanisms between the relations. Emotion crafting proved to be positively related to need satisfaction and negatively related to need frustration in all analyses. This indicates its importance in the proactive increase of positive emotions, and possibly its counteractive effects on negative experiences. As a whole, the results bring further indications of the importance of functional significance in basic psychological needs. As well as, shedding light on the relevance of positive emotions.

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