

The Affective Profiles in the USA: Happiness, Depression, Life Satisfaction, and Happiness-Increasing Strategies

Background. The affective profile model categorizes individuals as self-fulfilling (high positive affect, low negative affect), high affective (high positive affect, high negative affect), low affective (low positive affect, low negative affect), and self-destructive (low positive affect, high negative affect). The model has been used extensively among Swedes to discern differences between profiles regarding happiness, depression, and also life satisfaction. The aim of the present study was to investigate such differences in a sample of residents of the USA. The study also investigated differences between profiles with regard to happiness-increasing strategies.

Methods. In Study 1, 900 participants reported affect (Positive Affect Negative Affect Schedule; PANAS) and happiness (Happiness-Depression Scale). In Study 2, 500 participants self-reported affect (PANAS), life satisfaction (Satisfaction With Life Scale), and how often they used specific strategies to increase their own happiness (Happiness-Increasing Strategies Scales)

Results. The results showed that, compared to the other profiles, self-fulfilling individuals were less depressed, happier, and more satisfied with their lives. Nevertheless, self-destructive were more depressed, unhappier, and less satisfied than all other profiles. The self-fulfilling individuals tended to use strategies related to agentic (e.g., instrumental goal-pursuit), communal (e.g., social affiliation), and spiritual (e.g., religion) values when pursuing happiness.

Conclusion. These differences suggest that promoting positive emotions can positively influence a depressive-to-happy state as well as increasing life satisfaction. Moreover, the present study shows that pursuing happiness through strategies guided by agency, communion, and spirituality is related to a self-fulfilling experience described as high positive affect and low negative affect.

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Introduction

Besides being markers of well-being (Diener, 1984), positive (PA) and negative affect (NA) reflect stable emotional-temperamental dispositions or signal sensitivity systems (e.g., Watson and Clark, 1994; Tellegen, 1993). Larsen and Ketelaar (1991), for example, showed that compared to individuals who experience low levels of PA, individuals who experience high levels of PA attend and react more intensely to positive stimuli. Likewise, compared to individuals who experience low levels of NA, individuals who experience high levels of NA attend and react more intensely to negative stimuli (see also Norris, Larsen and Cacioppo, 2007; Lucas, 2008; Lucas and Diener, 2008). One of the most used instruments to measure affect, is the Positive Affect and Negative Affect Schedule (PANAS; Watson, Clark and Tellegen, 1988), which was developed on the idea that PA and NA represents two orthogonal independent dimensions: high PA versus low PA and high NA versus low NA (see also Watson and Tellegen, 1985).

Presenting affect as being composed of two systems, each one of them categorized as high and low, leads to four different combinations beyond the two-system approach (Garcia, 2011; for a point of view on two-system theories see Keren and Schul, 2009). This framework goes beyond the view of affect as two separate systems and allows for the interaction of both dispositions. Accordingly, previous studies have developed the affective profiles model (e.g., Norlander, Bood and Archer, 2002; Bood, Archer and Norlander, 2004; Norlander, Johansson and Bood, 2005; Archer, Adriansson, Plancak and Karlsson, 2007; Karlsson and Archer, 2007; Palomo, Kostrzewa, Beninger and Archer, 2007; Palomo, Beninger, Kostrzewa, and Archer, 2008; Archer, Adolfsson and Karlsson, 2008). The affective profiles model is developed through self-reported affectivity measured by the PANAS,

generating four different profiles: self-fulfilling (high PA, low NA,); high affective (high PA, high NA); low affective (low PA, low NA); and self-destructive (low PA, high NA).

Self-fulfilling individuals report feeling more energetic and optimistic than the other three affective profiles (Archer et al., 2007), while all four profiles react differently to stress and have different exercise habits and blood pressure.

Self-fulfilling and high affective individuals show the best performance during stress, have a more active life, and lower blood pressure than individuals with low affective and self-destructive profiles (Norlander et al., 2002; 2005). Nevertheless, Kunst (2011) showed that high affective profiles, as self-destructive profiles, were strongly associated with increased posttraumatic stress disorder symptoms severity (for similar results among psychiatric patients see Zöller and Archer, 2009; Zöller, Karlsson and Archer, 2009). Moreover, while low affective profiles have responded maladaptively to induced stress, compared to self-fulfilling and high affective individuals (Norlander et al., 2002), they have at the same time reported less stress in their life, as the self-fulfilling profiles (Norlander et al., 2005). Thus, the affective profile model offers something unique over and above the single dimensional framework by taking into account how both dimension interact; these interactions can be used to investigate individual differences in cognitive and emotional aspects of health and well-being (for a review see Garcia, Ghiabi, Moradi, Siddiqui & Archer, 2013).

More recent studies have, indeed, focused on differences among profiles with respect to different measures of well-being, personality and self-regulation (e.g., Garcia and Siddiqui, 2009a b; Garcia, Rosenberg, Erlandsson and Siddiqui, 2010; Garcia, 2012a; Garcia and Archer, 2012; Garcia, Kerekes, Andersson-Arntén, and Archer, 2012; Garcia, 2013). In line with earlier studies, Garcia and colleagues have

found that, compared to the other profiles, individuals with a self-fulfilling profile reported higher satisfaction with life, higher psychological well-being, lower depressive symptoms, and scored higher in personality traits related to agentic values (i.e., autonomy, responsibility, self-acceptance, intern locus of control, self-control). Nevertheless, low affective individuals, compared to self-destructives, have reported being more satisfied with life and experiencing higher levels of psychological well-being (e.g., Garcia and Siddiqui, 2009b). These specific findings are also in line with the observations that low affectives and self-fulfilling individuals, report less stress in their lives (Norlander et al., 2005). Moreover, Garcia (2012a) also showed that high affective and self-destructive profiles, compared to self-fulfilling and low affectives, scored higher on Neuroticism. This is not surprising, because Neuroticism is almost synonymous with negative affectivity (Watson and Clark, 1984; Tellegen, 1985)—both the high affective and self-destructive profiles have high levels of NA as a common characteristic. Perhaps also explaining the association between high affective and self-destructive profiles with increased posttraumatic stress disorder symptoms (Kunst, 2011) and these profiles reporting having more stressful experiences in their lives (Norlander et al., 2005).

In another study (Garcia et al., 2010), participants were instructed to read a short story in which valenced words (negative, positive and neutral) were highlighted in bold type (using The Interpretation and Recognition for words in a Short Story; Garcia, 2012b). Two days later participants were presented with a recognition list that included the bold typed words. All profiles, with the exception of self-destructives, seemed to self-regulate their reaction to negative words by paying attention and remembering words that were congruent to their own profile. For example, self-fulfilling and high affectives' reaction to negative words predicted the number of

positive words they recognized as being in bold type in the short story. In contrast, low affectives' reaction to negative words predicted the number of neutral words they recognized as being bold typed in the story. Garcia and colleagues (2010) suggested that, accordingly to Higgins' (1997) prevention and promotion focus principles, self-fulfilling and high affective individuals approached happiness, while low affectives avoided unhappiness.

To the best of our knowledge, the affective profiles model has mostly been used among Swedish participants (for three studies using Dutch, Indonesian, respectively Iranian participants see Kunst, 2011; Adrianson, Djameludin, Neila and Archer, 2013; Garcia and Moradi, 2013). Myers and Diener (1995) pointed out that there may be cultural differences in the interpretation of life events and situations: some cultures explain the world as good and controllable and others emphasize negative emotions as normal. In other words, some cultures have a tendency to view pleasant emotions as desirable and unpleasant emotions as relatively inappropriate, while other cultures tend to be relatively more acceptant of unpleasant emotions and relatively less acceptant of pleasant emotions (Diener, Suh and Oishi, 1997). In this context, it is interesting noting that the right to pursuit individual happiness is listed as an absolute right in the United States of America's declaration of independence (Tkach and Lyubomirsky, 2006). Moreover, in line with Garcia and colleagues suggestions, in the present study we investigated whether or not the affective profiles use different strategies to increase their happiness levels. Next we present a brief description of the concept of happiness and the happiness-increasing strategies people commonly use when pursuing happiness.

Happiness, depression, and life satisfaction

According to Joseph and colleagues (2004), in contrast to PA and NA there is now

broad agreement that happiness and depression can be usefully understood as opposite ends of a bipolar valence dimension (e.g., Russell and Feldman Barrett, 1999; Watson, Wiese, Vaidya, and Tellegen, 1999; Yik, Russell, and Feldman Barrett, 1999).

Subjective well-being is instead characterized by the experience of more frequent positive affect states than negative ones (Bradburn, 1969; Diener, 1984), as well as the sense of being satisfied with life (Diener, Suh, Lucas and Smith, 1999; Pavot, 2008).

Life satisfaction refers to a comparison process in which individuals assess the quality of their lives on the basis of their own self-imposed standard (Pavot & Diener).

However, although related, PA, NA, and life satisfaction act differently over time and have different relationships with other variables, such as personality and life events (Pavot & Diener, 1993; Pavot, 2008).

Happiness-Increasing Strategies

In order to intentionally pursue happiness, people seems to use different strategies.

Tkach and Lyubomirsky (2006) have identified, using first an open-ended survey, 53 happiness-increasing strategies used by residents of the USA (for studies using this scales among Swedes see, Garcia, 2012c; Nima, Archer and Garcia, 2012, 2013).

Tkach and Lyubomirsky (2006) found, using factor analysis, eight factors: Social Affiliation (e.g. “Support and encourage friends”), Partying and Clubbing (e.g. “Drink alcohol”), Mental Control (e.g. “Try not to think about being unhappy”), Instrumental Goal Pursuit (e.g. “Study”), Passive Leisure (e.g. “Surf the internet”), Active Leisure (e.g. “Exercise”), Religion (e.g. “Seek support from faith”) and Direct Attempts (e.g. “Act happy/smile, etc.”).

Results have shown that these happiness-increasing strategies accounted for 52% of the variance in happiness, while the Big Five personality traits, which traditionally have been linked to happiness, accounted for 46%. Further, even after

controlling for the contribution of personality, the happiness-increasing strategies accounted for 16%. However, the strategies' relations to happiness varied to a great deal. For example, extraverts tend to be more likely to use the strategy of Social Affiliation in comparison to introverts. Nevertheless the relation between extraversion and happiness seems not to be a direct one: extraversion, which is strongly related to high PA (Larsen & Ketelaar, 1991), is related to the use of the Social Affiliation strategy, which, in turn, is related to happiness. Tkach and Lyubomirsky (2006) suggested that the efficacy of the happiness-increasing strategies is also likely to vary to some extent. However, the strategy that was the most robust predictor of happiness was Mental Control. This strategy is defined as ambivalent intentional efforts aimed, on one side and avoidance of negative thoughts and feelings as well as proneness towards contemplation of negative aspects of life, on the other. Regarding the affective profiles, if the profiles differ in the way they pursue happiness (i.e., approaching happy experiences versus preventing unhappy experiences), then it could be expected that the profiles differ in the use of the strategies described here.

The present study

The aim of the present study was to investigate differences in happiness, depression, life satisfaction and use of strategies to increase happiness among affective profiles in residents of the United States of America (US-residents).

Study I

Method

Ethics statement

This research protocol was approved by the Ethics Committee of the University of Gothenburg and written informed consent was obtained from all the study participants.

Participants and procedure

The participants ($N = 900$, age $mean = 28.72$ $sd. = 19.10$, 550 males and 350 females) were US-residents recruited through Amazon's Mechanical Turk (MTurk; <https://www.mturk.com/mturk/welcome>). MTurk allows data collectors to recruit participants (workers) online for completing different tasks in change for wages. This method for data collection online has become more common during recent years and it is an empirical tested valid tool for conducting research in the social sciences (see Buhrmester, Kwang & Gosling, 2011). Participants were recruited by the following criteria: US-resident and to both speak and write fluent in English. Participants were paid a wage of two American dollars for completing the task and informed that the study was confidential and voluntary. The participants were presented with a battery of self-reports comprising the affect and happiness measures, as well as questions pertaining age and gender.

Instruments

Positive Affect and Negative Affect Schedule (PANAS; Watson et al., 1988). The PANAS instructs participants to rate to what extent they generally have experienced 20 different feelings or emotions (10 PA and 10 NA) during the last weeks, using a 5-point Likert scale (1 = *very slightly*, 5 = *extremely*). The 10-item PA scale includes adjectives such as strong, proud, and interested. The 10-item NA scale includes adjectives such as afraid, ashamed and nervous. *Cronbach's α* were .87 for PA and .89 for NA in the present study.

The Short Depression-Happiness Scale (Joseph Linley, Harwood, Lewis & McCollam, 2004). This instrument consists of six items, three items measuring happiness (e.g., "I felt happy") and three reverse coded items measuring depressive

states (e.g., “I felt my life was meaningless”). Participants rate how frequently they feel the way described in the item on a four-point scale: “never”, “rarely”, “sometimes”, “often”. In the present study, *Cronbach’s* α was .85 for the happiness scale and .76 for the depression scale.

Statistical treatment

We used participants’ self-reported affect measured by the PANAS from both Study 1 and 2 ($N = 1,400$) in order to classify participants in the four affective profiles.

Participants’ PA and NA scores were divided into high and low (*cut-off points*: low PA = 3.0 or less; high PA = 3.1 or above; low NA = 1.8 or less; and high NA = 1.9 or above).

For study 1, the two independent variables of the study were gender and affective profile: self-fulfilling ($n = 241$; 153 males, 88 females), low affective ($n = 236$; 137 males, 99 females), high affective ($n = 180$; 115 males, 65 females), and self-destructive ($n = 243$; 145 males, 98 females). The dependent variables were PA, NA, happiness, and depression.

Results and discussion

A Multiple Analysis of Variance (MANOVA) indicated a significant effect for gender ($F(4, 889) = 4.32$; $p = .002$, $Eta^2 = 0.02$, $power = 0.93$) as well as for affective profile ($F(12, 2673) = 162.19$; $p < .001$, $Eta^2 = 0.42$, $power = 1.00$). The interaction of gender and affective profile was not significant ($p = .236$). A between-subjects ANOVA showed a significant gender effects for happiness ($F(1, 892) = 7.60$; $p = 0.006$), whereby the female participants expressed a higher level of happiness ($M = 9.66$, $SD = 2.13$) than the male participants ($M = 9.35$, $SD = 2.33$).

A between-subject ANOVA indicated significant affective profile effects for PA ($F(3, 892) = 513.78$; $p < .001$), NA ($F(3, 892) = 503.58$; $p < .001$), happiness ($F(3,$

892) = 68.20; $p < .001$), and depression ($F(3, 892) = 71.50$; $p < .001$). A Bonferroni correction to the alpha level of .01 showed that the self-destructive group had significantly higher scores in NA and depression as well as lower scores in happiness in comparison to the other affective profiles. The self-fulfilling group differed significantly from the self-destructive profiles in all measured variables; PA, NA, happiness and depression. As expected, the high affective ones differed significantly from the self-fulfilling group in all variables except PA and the low affective ones differed significantly from the self-fulfilling group in all variables except NA. Which is not so strange since both the self-fulfilling group and the high affective group are characterized as high in PA and the same goes for self-fulfilling individuals and low affective individuals who are characterized by low NA. For further details, see table 1.

[Table 1 here](#)

Study II

Method

Participants and procedure

As in Study I, participants ($N = 500$, age $mean = 34.08$ $sd. = 12.55$; 217 male and 283 female) were recruited from MTurk by the following criteria: resident of the USA and to both speak and write fluent in English. Participants were paid a wage of two American dollars for completing the task and informed that the study was confidential and voluntary. The participants were presented with a battery of self-reports comprising the affect, life satisfaction, and happiness-increasing strategies measures, as well as questions pertaining age and gender.

Instruments

The same instrument as in Study I was used in Study II to measure PA and NA (i.e., the PANAS). Cronbach's α were .88 for PA and .90 for NA in Study II.

Satisfaction with Life Scale (Diener, Emmons, Larsen and Griffin, 1985). The instrument consists of 5 statements (e.g., “In most of my ways my life is close to my ideal”) for which participants are asked to indicate degree of agreement in a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The life satisfaction score was established by summarizing the 5 statements for each participant. Cronbach’s α were .90 in the present study.

Happiness-Increasing Strategies Scales (Tkach and Lyubomirsky, 2006). In the present study, participants were asked to rate (1 = *never*, 7 = *all the time*) how often they used the strategies identified by Tkach and Lyubomirsky (2006). The happiness-increasing strategies are organized in eight clusters: Social Affiliation (e.g., “Support and encourage friends”; Cronbach’s $\alpha = 0.79$), Partying and Clubbing (e.g., “Drink alcohol”; Cronbach’s $\alpha = 0.74$), Mental Control (e.g., “Try not to think about being unhappy”; Cronbach’s $\alpha = 0.43$), Instrumental Goal Pursuit (e.g. “Study”; Cronbach’s $\alpha = 0.76$), Passive Leisure (e.g. “Surf the internet”; Cronbach’s $\alpha = 0.63$), Active Leisure (e.g. “Exercise”; Cronbach’s $\alpha = 0.65$), Religion (e.g. “Seek support from faith”; Cronbach’s $\alpha = 0.70$), and Direct Attempts (e.g. “Act happy/smile, etc.”; Cronbach’s $\alpha = 0.56$).

Statistical treatment

As detailed in Study I, both samples were used in the classification of the four affective profiles. The number of participants in each profile for Study II were as follows: 158 self-fulfilling (75 males, 83 females), 92 low affective (42 males, 50 females), 123 high affective (54 males, 69 females), and 127 self-destructive (46 males, 81 females). The affective profiles and gender were the independent variables, PA, NA, life satisfaction, and the happiness-increasing strategies were the dependent variables.

Results and discussion

First a MANOVA (3 x 2 factorial design) was applied with affective profiles and gender as independent variables and with PA, NA and life satisfaction as dependent variables. The analysis did not indicate any significant interaction effect ($p = 0.14$), but did indicate a significant effect for gender ($F(3, 490) = 4.91; p < 0.01, \text{Eta}^2 = 0.03, \text{power} = 0.91$) as well as for affective profiles ($F(9, 1476) = 119.15; p < 0.001, \text{Eta}^2 = 0.42, \text{power} = 1.00$). Secondly, a MANOVA (1 x 2 factorial design) was applied with affective profiles and gender as independent variables and with happiness-increasing strategies as dependent variables. The analysis did not indicate any significant interaction effect ($p = 0.93$), but did indicate a significant effect for gender ($F(8, 485) = 5.85; p < 0.001, \text{Eta}^2 = 0.09, \text{power} = 1.00$) as well as for affective profiles ($F(24, 1461) = 8.64; p < 0.001, \text{Eta}^2 = 0.12, \text{power} = 1.00$).

A between-subjects ANOVA was conducted in order to test gender differences in PA, NA and life satisfaction. The result indicated significant gender effects for: NA ($F(1, 492) = 10.89; p < 0.01$), whereby the female participants expressed a higher level of NA ($M = 1.94, SD = 0.83$) than the male participants ($M = 1.72, SD = 0.67$). This specific result stands in contrast to the results from Study I which showed that females reported higher happiness than males. Nevertheless, this is a well-known paradox in the literature—females seem to experience positive and negative emotions equally intensive, explaining why female often report both experiencing more negative moods and depressive symptoms and also higher levels of happiness than males (Fujita, Diener & Sandvik, 1991). A between-subjects ANOVA was conducted to investigate gender differences in happiness-increasing strategies. The result indicated significant gender effects for: Social Affiliation ($F(1, 492) = 17.67; p < 0.001$), whereby the female participants expressed a higher level of Social Affiliation ($M = 3.43, SD =$

0.56) than the male participants ($M = 3.27$, $SD = 0.65$); Instrumental Goal Pursuit ($F(1, 492) = 6.60$; $p < 0.01$), whereby the female participants expressed a higher level of Instrumental Goal Pursuit ($M = 3.33$, $SD = 0.81$) than the male participants ($M = 3.19$, $SD = 0.82$); Religion ($F(1, 492) = 23.18$; $p < 0.001$), whereby the female participants expressed a higher Religion ($M = 3.08$, $SD = 1.13$) than the male participants ($M = 2.63$, $SD = 1.04$); Passive Leisure ($F(1, 492) = 9.25$; $p < 0.01$), whereby the female participants expressed a higher level of Passive Leisure ($M = 3.30$, $SD = 0.55$) than the male participants ($M = 3.16$, $SD = 0.60$); Direct Attempts ($F(1, 492) = 4.06$; $p < 0.05$), whereby the female participants expressed a higher level of Direct Attempts ($M = 3.66$, $SD = 0.58$) than the male participants ($M = 3.60$, $SD = 0.64$). The differences presented here are a replication of the original study conducted by Tkach and Lyubomirsky (2006).

In order to test differences in life satisfaction for each of the four affective profiles a between-subject ANOVA was conducted. The result indicated significant effects for life satisfaction ($F(3, 492) = 49.26$; $p < 0.001$). Further, a between-subject ANOVA was conducted in order to test differences in happiness-increasing strategies for each of the four affective profiles. The mean scores of life satisfaction as well as for happiness-increasing strategies for all four affective profiles are presented in Table 2.

Table 2 here

A Bonferroni test, with alpha level set to .01, was conducted to compare the mean differences in life satisfaction as well as for happiness-increasing strategies between affective profiles. The results showed, replicating earlier findings, among Swedes, that the self-destructive group had lower scores in life satisfaction compared to all the other affective profiles. The self-fulfilling group had higher scores

in life satisfaction compared to all the other affective profiles. Regarding happiness-increasing strategies the results showed that that the self-destructive group had lower scores in all happiness-increasing strategies except for Mental Control. For further details, see Table 3.

Table 3 here

General discussion

The aim of this set of studies was to examine the connections between the four types of affective profiles (self-fulfilling, high affective, low affective, self-destructive) to happiness and depression (Study I), satisfaction with life and happiness-increasing strategies (Study II) in US-residents. The results showed that the self-fulfilling group reported a significantly higher level of happiness and a significantly lower level of depression than all the three other groups (high affective, low affective, self-destructive). Furthermore, the self-destructive group reported a significantly higher level of depression and lower level of happiness than all the other three groups (self-fulfilling, high and low affective). The results also show that the high affective and low affective reported higher level of happiness and lower level of depression than the self-destructive group. But at the same time these groups (high and low affective) also showed significantly lower levels of happiness and significantly higher levels depression than the self-fulfilling group. As suggested by Garcia (2011), low PA among low affectives seems to influence happiness negatively as high NA influences happiness negatively among high affectives. The results presented here are corresponding to the results found in research with Swedish populations showing that high PA is related to less stress, depression, and anxiety (e.g., Garcia et al., 2012; Lindahl & Archer, 2013). Moreover, self-fulfilling, high affective and low affective participants all have higher life satisfaction compared with self-destructive

participants. This result also replicates findings among Swedish pupils where self-fulfilling, high and low affective participants showed higher level of life satisfaction compared with self-destructives (e.g., Garcia & Archer, 2012). As suggested by Lindahl and Archer (2013; see also Archer & Kostrzewa, 2013; Archer, Oscar-Berman, Blum & Gold, 2013), positive affect might serve as an anti-depressive factor and, as suggested here, also as protective factor for happiness and life satisfaction.

The self-fulfilling participants showed significantly higher results than all other profiles on the direct attempts strategy. Suggesting that in order to increase their happiness the self-fulfilling individuals are more prone to directly attempt to smile, get them selves in a happy mood, improve their social skills, and work on their self-control. Indeed, Garcia (2012a) showed that self-fulfilling score higher in personality traits related to agentic values (i.e., autonomy, responsibility, self-acceptance, intern locus of control, self-control) as measured by the Temperament and Character Inventory (Cloninger, Svrakic & Przybeck, 1993). Moreover, self-fulfilling individuals scored lower than high NA individuals (high affectives and self-destructives) in the strategy of mental control. The mental control scale has been defined as ambivalent behavior, that is, the individual using this happiness-increasing strategy make efforts to avoid negative experiences by suppressing negative thoughts and feelings but also ruminating about negative aspects of life (Tkach and Lyubomirsky, 2006). These tendencies may not only prolong unhappiness, suppressing negative thoughts actually may end up in maintaining these thoughts and thereby aggravate negative affect (Tkach & Lyubomirsky, 2006), which may explain why these tendencies are more frequent among high affective and self-destructive than self-fulfilling individuals.

Compared to low PA individuals (i.e., low affectives and self-destructives), the self-fulfilling individuals also reported using more often three of the other happiness-increasing strategies: social affiliation, instrumental goal pursuit, active leisure. Social affiliations activities comprise communal (i.e., cooperation) values to guide behavior such as: supporting and encouraging friends, helping others, trying to improve one self, interacting with friends, and receiving help from friends (Tkach & Lyubomirsky, 2006). Instrumental goal pursuit includes activities directed to achieving goals by trying to reach one's full potential, studying, organizing one's life and goals, and striving for the accomplishment of tasks (Tkach & Lyubomirsky, 2006). Finally, the use of active leisure comprises a proness to wellness through fitness and flow, that is, exercising and working on hobbies or activities in which the individual uses her/his strengths and becomes absorbed by the activity itself (Tkach & Lyubomirsky, 2006). In other words, both instrumental goal pursuit and active leisure comprises agentic (i.e., autonomous, self-directed) values guiding behavior in order to approach well-being. Indeed, among Swedes (Nima et al., 2012, 2013), these three strategies (social affiliation, instrumental goal pursuit, and active leisure) have been found to be positively related to subjective well-being. Agency and cooperation are also related to mental health, dysfunction and suffering (Cloninger & Zohar, 2011; Garcia, Anckarsäter & Lundström, 2013; Garcia, Lundström, Brändström, Raštam, Cloninger, et al., 2013) and are suggested to help the individual to become happier and healthier (Cloninger, 2013; see also Johansson Lyssarides, Andersson & Rousseau, 2013, who showed that increases in agency and cooperation are associated to improvement in depression). Moreover, compared to the self-destructives, the self-fulfilling individuals reported more frequently seeking support from faith, performing religious activities, praying, and drinking less alcohol (i.e., the religion

happiness-increasing strategy). Indeed, Cloninger (2013) has suggested that while agency and cooperation might lead to happiness and health, spiritual values might be needed for becoming a self-fulfilled individual that lives in harmony with the changing world. See Figure 1 for a summary of the results.

Figure 1 should be here

Limitations and future research

One major limitation is that the present set of studies was conducted using self-reports. Nevertheless, the measures used here are validated and reliable measures of happiness, depression, life satisfaction, and affect. Moreover, the lack of studies in adult populations using the affective profiles model and measures of well-being did not permit comparison of the results presented to other than earlier research among adolescents and young adults, thus, showing the need for further studies on adults regarding these factors. The reliability coefficients for some of the happiness-increasing strategies were low (e.g., Direct Attempts showed an *Cronbach's alpha* = .56). In studies among Swedes this scale has been modified through factor analyses (Nima et al., 2013). Although most of the scales in the present study showed alphas above .63, further studies focusing in the validation of these scales are needed.

Finally, since median splits distort the meaning of high and low, it is plausible to criticize the validity of the procedure used here to create the different affective profiles—scores just-above and just-below the median become high and low by fiat, not by reality (Schütz, Archer & Garcia, 2013). Nevertheless, a recent study (MacDonald & Kormi-Nouri, 2013) used k-means cluster analysis to test if the affective profiles model emerged as theorized by Archer and colleagues. The affective profile model was replicated using the k-means cluster analysis and the four affective

profiles emerged as the combinations of high vs. low affectivity. The procedure used by these researchers is useful for person-oriented analyses (see Bergman, Magnusson et al., 2003), thus, suggesting the original procedure by Archer as valid.

Conclusion

The present set of studies expands earlier results among Swedes to a relative large sample of US-residents. The results suggest that the affective profile model distinguish important differences in happiness, depression, and life satisfaction between individuals. These differences suggest that promoting positive emotions can positively influence a depressive-to-happy state as well as increasing life satisfaction. Moreover, the present study describes further how affective profiles differ with regard to happiness-increasing strategies. Showing that agentic, communal, and spiritual values guide behaviour when self-fulfilling individuals pursue happiness.

*“It was right then that I started thinking about
Thomas Jefferson on the Declaration of Independence
and the part about our right to life, liberty, and
the pursuit of happiness. And I remember thinking
how did he know to put the pursuit part in there?”*

Will Smith as Christopher Gardner in The Pursuit of Happyness

Legends and Captions

Table 1. Mean scores in PA, NA, happiness and depression for each affective profile in Study I.

Table 2. Means in life satisfaction and happiness-increasing strategies among affective profiles in Study II.

Table 3. Mean differences, in life satisfaction and happiness-increasing strategies between affective temperaments.

Figure 1. Summary of the differences between affective profiles in happiness, depression, life satisfaction, and the happiness-increasing strategies.

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Table 1(on next page)

Table 1. Mean scores in PA, NA, happiness and depression for each affective profile in Study I.

Values represent mean scores \pm SD. $p < 0.01$, Bonferroni test: ^a compared to self-fulfilling; ^b compared to the high affective; ^c compared to the low affective; ^d compared to the self-destructive.

Table 1. Mean scores in PA, NA, happiness and depression for each affective profile in Study I.

	Self-fulfilling <i>n</i> = 241	High affective <i>n</i> = 180	Low affective <i>n</i> = 236	Self-destructive <i>n</i> = 243
Positive Affect	3.66 ± 0.44 ^{c, d}	3.59 ± 0.41 ^{c, d}	2.37 ± 0.52 ^{a, b}	2.36 ± 0.50 ^{a, b}
Negative Affect	1.27 ± 0.21 ^{b, d}	2.20 ± 0.51 ^{a, d}	1.24 ± 0.21 ^{b, d}	2.45 ± 0.61 ^{a, b, c}
Happiness	10.65 ± 1.77 ^{b, c, d}	10.02 ± 1.94 ^{a, c, d}	9.37 ± 2.22 ^{a, b, d}	7.99 ± 2.12 ^{a, b, c}
Depression	4.80 ± 1.75 ^{b, c, d}	5.92 ± 1.85 ^{a, d}	5.75 ± 2.21 ^{a, d}	7.57 ± 2.35 ^{a, b, c}

Values represent mean scores ± SD. $p < 0.01$, Bonferroni test: ^a compared to self-fulfilling; ^b compared to the high affective; ^c compared to the low affective; ^d compared to the self-destructive.

Table 2(on next page)

Table 2. Means in life satisfaction and happiness-increasing strategies among affective profiles in Study II.

Table 2. Means in life satisfaction and happiness-increasing strategies among affective profiles in Study II.

	Self-fulfilling N = 158	High affective N = 123	Low affective N = 92	Self-destructive N = 127
Positive Affect	3.76 ± ± ± 0.49	3.59 ± ± ± 0.42	2.44 ± ± ± 0.52	2.30 ± ± ± 0.51
Negative Affect	1.25 ± ± ± 0.21	2.37 ± ± ± 0.58	1.20 ± ± ± ± 0.21	2.53 ± ± 0.67
Life satisfaction	5.17 ± 1.24	4.11 ± 1.32	4.42 ± 1.51	3.15 ± 1.49
Social Affiliation	3.56 ± 0.53	3.51 ± 0.42	3.28 ± 0.63	3.02 ± 0.67
Partying and Clubbing	2.12 ± 0.71	2.29 ± 0.75	2.18 ± 0.67	2.00 ± 0.64
Mental Control	2.12 ± 0.47	2.43 ± 0.50	2.20 ± 0.42	2.59 ± 0.49
Instrumental Goal Pursuit	3.47 ± 0.77	3.51 ± 0.67	3.07 ± 0.85	2.92 ± 0.83
Religion	3.11 ± 1.19	2.94 ± 1.04	2.88 ± 1.11	2.57 ± 1.02
Passive Leisure	3.22 ± 0.56	3.38 ± 0.51	3.17 ± 0.60	3.17 ± 0.63
Active Leisure	3.39 ± 0.54	3.28 ± 0.55	3.10 ± 0.65	2.90 ± 0.65
Direct Attempts	3.91 ± 0.50	3.68 ± 0.49	3.60 ± 0.60	3.27 ± 0.64

Table 3(on next page)

Table 3. Mean differences, in life satisfaction and happiness-increasing strategies between affective temperaments.

ns = non significant, * $p < 0.01$ with Bonferroni Correction.

Table 3. Mean differences, in life satisfaction and happiness-increasing strategies between affective temperaments.

Affective profiles	Self-fulfilling N = 158	High affective N = 123	Low affective N = 92	Self-destructive N = 127
<i>Self-fulfilling</i>				
Positive Affect		0.17*	1.32*	1.46*
Negative Affect		-1.12*	0.05ns	-1.28*
Life satisfaction		1.05*	0.75*	2.01*
Social Affiliation		0.05ns	0.28*	0.54*
Partying and Clubbing		-0.16ns	-0.06ns	0.12ns
Mental Control		-0.31*	-0.09ns	-0.47*
Instrumental Goal Pursuit		-0.04ns	0.39*	0.54*
Religion		0.17ns	0.23ns	0.54*
Passive Leisure		-0.16ns	0.05ns	0.05ns
Active Leisure		0.11ns	0.29*	0.49*
Direct Attempts		0.24*	0.31*	0.64*
<i>High affective</i>				
Positive Affect	-0.17*		1.15*	1.29*
Negative Affect	1.11*		-1.17*	-0.16ns
Life satisfaction	-1.05*		-0.31ns	0.96*
Social Affiliation	-0.05ns		0.24ns	0.50*
Partying and Clubbing	0.16ns		0.11ns	0.29*
Mental Control	0.31*		0.23*	-0.16ns
Instrumental Goal Pursuit	0.04ns		0.43*	0.58*
Religion	-0.17ns		0.05ns	0.36ns
Passive Leisure	0.16ns		0.21ns	0.20ns
Active Leisure	-0.11ns		0.18ns	0.38*
Direct Attempts	-0.23*		0.07ns	0.40ns
<i>Low affective</i>				
Positive Affect	-1.32*	-1.15*		0.14ns
Negative Affect	-0.05	-1.17*		-1.32*
Life satisfaction	-0.75*	0.31ns		1.26*

Social Affiliation	-0.28*	-0.24ns		0.26*
Partying and Clubbing	0.06ns	-0.11ns		0.18ns
Mental Control	0.09ns	-0.23*		-0.40*
Instrumental Goal Pursuit	-0.39*	-0.43*		0.15ns
Religion	-0.23ns	-0.05ns		0.31ns
Passive Leisure	-0.05ns	-0.21ns		-0.00ns
Active Leisure	-0.29*	-0.18ns		0.20ns
Direct Attempts	-0.31*	-0.07ns		0.33*
<u>Self-destructive</u>				
Positive Affect	-1.46*	-1.29*	-0.14*	
Negative Affect	1.28*	0.16ns	1.33*	
Life satisfaction	-2.01*	-0.96*	-1.26*	
Social Affiliation	-0.54*	-0.50*	-0.26*	
Partying and Clubbing	-0.12ns	-0.29*	-0.18ns	
Mental Control	0.47*	0.16ns	0.39*	
Instrumental Goal Pursuit	-0.54*	-0.58*	-0.15ns	
Religion	-0.54*	-0.36ns	-0.31ns	
Passive Leisure	-0.05ns	-0.20ns	0.00ns	
Active Leisure	-0.49*	-0.38*	-0.20ns	
Direct Attempts	-0.64*	-0.40*	-0.33*	

ns = non significant, * $p < 0.01$ with Bonferroni Correction.

Figure 1

Figure 1. Summary of the differences between affective profiles in happiness, depression, life satisfaction, and the happiness-increasing strategies.

