The differences in Frequent and Intense Affect Balance when measuring Subjective Well-Being and Personality

A study among young adults

Arvid Erlandsson
Abstract: In this study 170 Swedish University students participated and evaluated themselves on Subjective well-being with affect balance measured both in frequency and in intensity, and on the five-factor personality factors. The results clearly indicate that intense positive emotions and intense negative emotions correlate positively, and that women experience emotions more intensely than men. Further, measuring affect balance in frequency leads to gender differences in happiness while intensity affect balance does not. Neuroticism (inverted) and extraversion are both strong predictors of happiness, but when using frequent affect-balance, neuroticism evidently stands out as the better of the two. Extraversion and to some extent neuroticism are intensifying people’s emotions. The findings suggest future research to distinguish between intense and frequent affects when calculating Subjective well-being.

Key words: Five-factor personality, Frequent affect balance, Intense affect balance, Subjective well-being.

Traditionally, the value, and the best way to reach happiness, was primarily discussed by philosophers. The Epicureans proposed a simple life in quiet contemplation while the Stoics and Aristotle emphasized the need for reason to obtain true happiness (Diener et al. 1991, Myers and Diener 1995). Utilitarianism is a moral system that in its classical, hedonic, version put subjective happiness as the one and only intrinsic good (Diener, Sapyta and Suh 1998). Jeremy Bentham (1748 - 1832) formulated the Utilitarian doctrine “The greatest happiness to the greatest number”, where “happiness” was defined as the presence of pleasure and the absence of pain. Hedonic utilitarianism has been criticized for numerous reasons, for example the inability of explaining happiness scientifically and empirically (Ahlenius 2004). Hence, there should be both a sociological and moral interest in turning towards the psychological research about happiness.

Happiness in psychological research

From a clinical psychological perspective, happiness has conventionally been seen as a state simply with an absence of mental problems (Diener et al 1997, Diener and Biswas-Diener 2000). However, in the last 25 years, the interest to study and understand happiness has increased noticeably. Researchers in positive psychology focus, in contrast to clinical psychologists, not only on the negative but also on the positive mental states humans experience ongoingly (Diener et al 1997).

In recent years, two perspectives concerning happiness have emerged as the primary ones (Ryan and Deci 2001). Firstly, the hedonic perspective emphasizes the importance of subjectivity in happiness and is usually measured with Subjective well-being (SWB). A person is happy if, and only if, she subjectively feel satisfied with her life and experience more positive than negative emotions (Samela-Aro and Schoon 2006, Kahneman et al.
The alternative to the hedonic perspective is the eudaimonistic. For an eudaimonist, subjective thoughts and feelings are not the main interest. Instead, well-being is seen as to realize your true self and to strive after important goals in life (Ryff and Keyes 1995). From an eudaimonic perspective, subjective happiness are not an intrinsic goal, but is believed to be an effect of a functional and “true” life (Ryan and Deci 2001). Psychological well-being (PWB), is one of the most common ways to measure eudaimonian happiness (Ryff 1989). SWB and PWB are definitely overlapping constructs, and believed to measure similar, but not identical, mental states (Ryan and Deci 2001). Ryan and Deci (2001) give a detailed review in this topic while Ryff (1989) and Diener, Sapyta and Suh (1998), defend PWB and SWB respectively.

In this study, the eudaimonic perspective is beyond the scope, and thus focus will be put at the hedonic perspective and SWB. A brief overview about the components of Subjective well-being, and research around it, will be presented next.

**Subjective well-being**

SWB is generally measured both as a cognitive part and as an affective part, and usually with three variables; life satisfaction, presence of positive affects and absence of negative affects (Salmela-Aro and Schoon 2006, Ryan and Deci 2001, Diener et al. 1997). These three variables relate to a certain extent, but are separate and ought to be measured one by one (Diener and Lucas 1999, Diener and Biswas-Diener 2002).

**Life Satisfaction**

Life Satisfaction (LS) is the cognitive part of SWB, and it measure to what degree a person is satisfied with him- or herself. LS is a persons subjective evaluation of how close to the ideal his life is (Pavot and Diener 1993). Conscious personal goals, values and congruence in ones life, all influence the life satisfaction. Life Satisfaction is seen to be relatively stable over time (Salmela-Aro and Schoon 2006), and is only weakly affected by the situational mood and life events (Eid and Diener 2003, Diener and Lucas 1999).

LS can be measured either globally or as specific domains in a person’s life (e.g. satisfaction with marriage, with the self, or with work). There are both individual and cultural differences in how different domains influence SWB, for example satisfaction with ones self predict much of SWB in individualistic countries, but much less in collectivistic (Diener, Oishi and Lucas 2003). The global evaluation of life satisfaction have been showed to be less influenced by the situational mood compared to different domains (Eid
and Diener 2003), and Veenhoven (2004) speculate it can be due to the fact that the domain satisfaction often arises from comparisons with others or with the ideal of society, whereas the global satisfaction is more independent. For these reasons, the global view seems preferable when measuring life satisfaction.

There have been discussions about expanding the cognitive part of happiness, for example by introducing self-esteem or optimism (Salmela-Aro and Schoon 2006), but it have been noticed that there are great national differences in to what extent these factors influence happiness (Diener, Oishi and Lucas 2003, Myers and Diener 1995).

**Affect balance**

The affective part of SWB measure both the amount of positive affects and the amount of negative affects a person experience during a limited time (e.g. Diener and Lucas 1999). The most common and simple method is to use a self-rating test and let the respondents subjectively evaluate to what extent they experience different emotions. Still this procedure has a theoretical bias, as the memory might be selective. This can mean that a pessimistic person recall the negative emotions to a higher degree than the positive, although they were experienced to a similar extent (Diener et al. 1997). A more advanced method is to let the participants keep a diary over experienced emotions (Oishi, Schimmack and Diener 2001), or even better, report their present emotional state every time an alarm beeps (Diener et al 1997). Despite the shortcomings, self-rating test shows similar results to other methods when compared (Diener and Seligman 2002). The affect balance of a person is calculated by simply subtracting the mean negative affect from the mean positive affect (Diener and Seligman 2002). The affect balance is rather stable over time, even though not as stable as the life satisfaction (Diener and Lucas 1999). Larsen and Fredrickson (1999) present several methods to measure emotions, but the Positive Affect, Negative Affect Schedule (PANAS) by Watson and Clark (1988) is one of the more well-known instruments to measure positive and negative affects (e.g Rusting and Larsen 1997, Urry et al. 2004, Egloff 1997). PANAS show good psychometrical results even between nations (Diener and Suh 1999).

The cognitive and affective parts summarized together represent a person’s Subjective well-being score (SWB) (Diener and Biswas-Diener 2000). According to this theory a person get happier in the following circumstances: a) when being more satisfied with ones own life, b) when experiencing more positive affects, or c) when experiencing
less negative emotions. Because of the life satisfaction component, Subjective well-being is not reducible to pure physical hedonism (Ryan and Deci 2001).

**Research of subjective well-being**

No single factor is sufficient to be happy, but a functional social life and emotional stability are reported by practically all happy individuals, therefore being interpreted as necessary for high SWB (Myers 1999, Diener and Seligman 2002). SWB show almost trait-like characteristics (Diener 1996), and Lykken and Tellegen (1996) tell us that 44-52 % of the variance in well-being is associated with genetic variations. I will use the term “happiness” as equivalent to Subjective well-being from now onwards.

**Personality and happiness**

Personality is a very wide concept and is made up both from heritability (traits) and environment and learning (characteristic) (Diener, Oishi and Lucas 2003). Personality has an intimate relation to differences in happiness, and stand for approximately 50% of the variance in SWB (Diener 1996).

A very evaluated and reliable personality theory is the five-factor model or “Big 5” (for review, see McCrae and John 1992). The five-factor model consist of five separate personality traits that all individuals posses to a certain degree. The five factors are Extraversion, Neuroticism, Agreeableness, Consciousness and Openness (McCrae and John 1992). The five traits are 25-45 % heritable (Larsen and Buss 2002), and the heritability is strongest for Extraversion and Neuroticism (McCrae and John 1992).

When analysing the relationship between SWB and the five personality factors, neuroticism is practically always negatively correlated with both the cognitive and affective part of SWB (Diener and Lucas 1999). This is quite expected as neuroticism roughly is defined with words such as anxiety, worry and fear (McCrae and John 1992). Life satisfaction is severely reduced by neuroticism (Pavot, Fujita and Diener 1997), but it is primary the affective part that is influenced by neuroticism (McCrae and John 1992). Especially the relation between negative affects and Neuroticism are almost indistinguishable (Diener and Lucas 1999, Eid and Diener 2003, McCrae and Costa 1991).

Several reports suggest that extraversion is strongly positively connected to happiness (Costa and McCrae 1980, Diener 1996, Eid and Diener 2003). Life satisfaction has a positive correlation with extraversion, but it is the presence of positive affects that is
principally related to extraversion (Rusting and Larsen 1997). For example, Fujita (1991) found the correlation for extraversion and positive affects to be a massive 0.8.

Agreeableness and Conscientiousness are not as strongly connected with SWB, but several reports give tendencies to a small positive correlation to SWB (DeNeve and Cooper 1998, Diener and Seligman 2002), and to positive affect (McCrae and Costa 1991). Diener and Lucas (1999) speculate that the weak correlation is attributable to the fact that Agreeableness and Conscientiousness are directed towards others while extraversion and neuroticism is directed toward the self. Hence, agreeable and conscientious people get (slightly) happier because the positive responses from others.

There are some disagreements concerning the value of neuroticism and extraversion in SWB. Many researchers mean that neuroticism is the main predictor of negative affects whereas extraversion is the main predictor of positive affect (Rusting and Larsen 1997, Fujita 1991, Costa McCrae 1980). Others, like Vittersø (2001) and DeNeve and Cooper (1998), hold that extraversion is overrated as a predictor of SWB. Instead they propose that neuroticism not only predict the presence of negative affects, but also the absence of positive affect, better than extraversion (Vittersø 2001). Further, the importance of extraversion for being happy seems to vary according to the environment. Lu and Hu (2005) and Oishi, Schimmack and Diener (2001) tell us that extraverted individuals experience physical activity as more pleasurable than introverts, but in contrast extroverted inmates report themselves as less happy than their introverted fellow inmates (Kette 1991, cited in Diener, Oishi and Lucas 2003).

Culture and Happiness

Much effort to measure happiness globally has been done, and even if there still remain problems in measuring, some distinct differences have been found. Many, but not all, of these differences can be attributed to economical and social factors (Veenhoven 1993). Diener, Oishi and Lucas (2003) report that about 10-15 % of the variance in SWB is due to culture, and according to Myers and Diener (1995), the mean happiness of nations differ even when controlling for economical factors.

When concentrating on the affective part of SWB, Bagozzi, Wong and Yi (1999) found tendencies that while people in the western world, generally see positive and negative emotions as bipolar (much PA = less NA), Chinese people experience positive and negative emotions in a much more connected way (much PA = much NA). Several researchers (e.g. Basabe et al. 2002), proposes individualism as a factor increasing SWB,
while Oishi, Schimmack and Diener (2002) mean that collectivistic nations differ quite much and that dialectical Buddhist thinking better explain the remarkably low SWB-scores from the Pacific-Rim nations. Many researchers suggest that happiness usually is a consequence of living and acting in congruence with the culture (e.g. Kitayama, et al. 2000)

**Life-events and happiness**

Life-events do have an impact on well-being, but primarily for the moment and far less for the long-term. Concerning both positive and negative life-events, and how positive or negative the initial response might be, the happiness levels out towards the base level after some time (Myers and Diener 1995). Nonetheless, after some really important life-events (e.g. the death of someone close or a dismissal), even the happiness base level might shift some (Diener, Oishi and Lucas 2003, Lucas et al. 2004). Traits and characteristics are believed to explain much of the differences in both how people experience, and also how likely they are to put themselves in life-event eliciting situations (Magnus et al. 1993, Diener 1996, Ryan and Deci 2001).

**Demographic differences**

Demographic variables, such as gender, age or social class, do not relate as strongly to happiness as one might believe. Moreover, physical attractiveness (Diener, Wolsic and Fujita 1995, and objective health (Okun and George 1984), only shows very small positive connections with SWB. DeNeve (1999) informs us that no single demographic variable explain more than 3 % of the variation in SWB and that all demographic variables together not explain more than 15 %.

**Gender:** The gender differences in Subjective well-being are small and don’t explain more than approximately 1 % of the variance (Fujita, Diener and Sandvik 1991, Myers and Diener 1995, Diener and Lucas 1999). However, when analysing happiness from different perspectives, another pattern emerge. Women are reported to be more apt to be depressed or to feel anxiety, but men more frequently develop alcohol-related problems and antisocial behaviour (Robins and Regier 1991). What's more, there are differences in how men and women experience affects. Women both tend to be more miserable in negative situations and to experience more joy when in positive situations than men (Fujita, Diener and Sandvik 1991). In accordance to those findings Bagozzi et al. (1999) noticed that women
experienced both positive and negative emotions more than men. Also Flouris (2003) report differences between genders, as women are more anxious and stressed than men, but concurrently more satisfied with life.

*Age:* Even if the strategies to achieve happiness differ with age (Ellison 1991), SWB generally do not seem very age-related (Myers and Diener 1995). Young people show more emotional up and downs than elders (Csikszentmihalyi and Larson 1984). Even if positive affects are reduced with age, negative affects and life satisfaction does not change (Watson and Clark 1994, Ryan and Deci 2001).

*Economical situation:* On a global level, it is a significant correlation between rich nations and happy nations (Diener and Biswas-Diener 2002). However, as rich countries generally also demonstrate many civil rights and individual freedoms, the relation between happiness and money seem to be secondary (Cummins 2000, Ott 2005). When the basic needs are fulfilled, money does not predict much of the happiness, and in industrialized nations money explain barely anything of the variance in SWB (Cummins 2000, Diener 1996). Speaking about the affective part of SWB, Wallbott and Scherer (1988) mean that people in poor countries experience both positive and negative emotions more intense and long lasting than people in richer nations.

**The problem with affect balance**

As half of the SWB springs from the affect balance in people, it is wise to take a closer look at how it is usually constructed. According to Ryan and Deci (2001), Diener and Lucas (2000) and Diener and Diener (1996) the following three statements are basically accepted.

1) Humans experience affects ongoingly.
2) Affects are experienced either positively or negatively.
3) Positive affects are experienced more than negative affects.

In SWB-research, the affect balance is generally measured by simply subtracting negative affects from positive affects (Schimmack and Diener 1997). This is done without regarding the amount of positive and negative affects. Plausibly, an individual experiencing strong ecstasy mixed with nasty misery have a different affect life than a person with an unemotional life with neither strong happiness nor painful unhappiness (Schimmack and Diener 1997). Nevertheless, more often than not, this distinction is not respected when
measuring affect balance in SWB (Schimmack and Diener 1997), even though differences in affects have been explored before (Larsen and Diener 1987).

Negative and positive affects are to a big extent independent of each other. The knowledge of a person’s positive emotions do not tell us much about the same persons negative emotions (Egloff 1998, Green and Salovey 1999). Two persons may experience the same amount of negative emotions (e.g. stress or martial problems), but while one of them alternate the negative emotions with several positive emotions (e.g. a motivating job), the other might live without any real positive emotions (see Schimmack and Diener for more examples).

Although the correlation between positive and negative emotions is negative, it is certainly not strong enough to suggest emotions to be seen as bipolar (Watson and Clark 1994). This fact, together with the statements above; 1) affects are experienced ongoingly and 2) affects are experienced either positively or negatively, logically require a new dimension when measuring affects. This dimension is usually labelled frequency/intensity and is investigated in some, but not all reports around SWB (Schimmack and Diener 1997, Eid and Diener 2003, Diener et al 1991).

The frequency of affects is normally considered a better predictor than the intensity of affects (Schimmack and Diener 1997, Diener et al. 1991, Diener and Seligman 2002). This is due to two reasons; firstly intense affects are not experienced more than 2,6 % of the time, and secondly, intense positive affects tend to be followed by negative affects which neutralize the affect balance (Diener and Lucas 2000, Diener et al 1991). When investigating the happiest individuals, Diener and Seligman (2002) found that they seldom experienced intense positive emotions; instead they felt contented or mildly happy very frequently (also in Diener and Diener 1996). It actually seems that intense positive affects have a very weak influence on SWB (Larsen and Diener 1987). According to Schimmack and Diener (1997), Diener et al (1991) and Green and Sallovey (1999), intense positive emotions correspond positively with intense negative emotions. In contrast, positive and negative frequent affects are negatively correlated (Myers and Diener 1995). There are many examples of intense negative affects following causally from intense positive affects, but Diener et al. (1991) and Bolger et al. (1989) show that positive affects might follow from intense negative ones as well. The positive correlation may also be due to a third factor increasing overall emotional intensity (Diener et al. 1991).
Bryant et al. (1996) and Simonsson-Sarnecki (2000) compares different measures of affect intensity and both find a three (or four) dimensional measure preferable to Larsen’s one-dimensional Affect Intensity Measure (AIM).

The aims of the present study

As can be seen in Veenhoven (2004), there are eye-catching amounts of definitions and measurements in happiness-research, and it is inconsistent to compare findings from different theories. In this study full focus is on subjective well-being (SWB). Although happy and satisfied people generally are more productive, creative and more successful both in marriage and at work (Lyubomirsky, King and Diener 2001), happiness is usually seen as an intrinsic value, and a goal rather than a mean (Diener, E. Personal homepage).

The main target of this study is to highlight the need for a clear distinction between frequent affects and intense affects. Diener and Suh (1999) illustrate this by informing us that Turks and Japanese on a global level experience similar life satisfaction and affect balance and therefore score similar on SWB. However, overlooked in this calculation is that Turks experience both positive and negative affects to a much greater degree than Japanese. This can naturally happen even on the individual level, and it underscores the need for measures of both frequency and intensity when examining affect balance. This is not the case in the original PANAS instrument, where respondent are asked to inform “to what extent” they experience emotions. “To what extent” can be understood as either frequency (e.g. Tarlow Friedman et al. 2002), or intensity (Urry et al. 2004), or a mix of both.

In this study, intense and frequent affect balance is measured side by side. This way, differences and similarities will be easily discovered, and of good use in future research. Naturally, not all determinants of SWB can be examined in one report. Thus, this study focuses on the five-factor personality traits. This is mainly because personality is the single largest predictor of happiness, but also because of some interesting disagreements.

Traditionally positive affects are seen as a result of extraversion and negative affects are seen as an effect of neuroticism (e.g. Rusting and Larsen 1997, Costa McCrae 1980), but Vittersø (2001), is questioning that viewpoint and mean that neuroticism predict 34 % of total SWB while extraversion only explain 1 %. As Vittersø is measuring affect balance in frequency and Rusting and Larsen (1997) is measuring it in intensity for the moment, it seems possible that these remarkable disagreements are due to different ways in measuring affect balance.
Also, Fujita et al (1991) tell us that while gender explain only 1 % of the variance in SWB, it explains 13 % of the variance in affect intensity. This may imply that women’s and men’s happiness could differ when measuring either frequent or intense affect balances.

Hypotheses

The following hypotheses were constructed.

1. Intense positive affects (IPA) are expected to have a positive correlation with Intense negative affects (INA), whilst Frequent positive affects (FPA) and Frequent negative affects (FNA) are experienced in a bipolar way and should therefore be negatively correlated.

2. Extraversion could very well be a predictor of emotionality and is therefore assumed to be strongly connected to intense positive affects (IPA), and also slightly positively connected to intense negative affects (INA).

3. In line with prior research (e.g. Fujita, Diener and Sandvik 1991), females are expected to experience both positive and negative emotions more intensely than males. The differences in frequency between the genders are not believed to be significant.

4. The frequency affect-balance (FAB) is supposed to be closer related to life satisfaction than the intensity affect-balance (IAB), thus making FAB more suitable when calculating SWB.

5. Extraversion is expected to predict more of the variance in SWB when affect balance is measured in intensity (SWBi), than in SWB with affect balance measured in frequency (SWBf), and hence possibly explain disagreements concerning the effect size of extraversion for happiness.

6. Extraversion is believed to predict both FPA and IPA, while Neuroticism primary regulate the FNA and INA. Further, Neuroticism is believed to reduce positive emotions as well as increasing negative emotions. In contrast Extraversion is not expected to reduce FNA and might even have a positive relation with INA.

7. Agreeableness and Consciousness small but positive influence on SWB are not supposed to be a result of intense emotions. Instead I take myself freedom to speculate that it is more likely that they have a small positive correlation with the frequent affect-balance and the Life satisfaction.
Method

Sample
A total of 170 Swedish University students completed the questionnaire during three weeks in March 2006. The participants consisted of 52 men, 114 women and 4 unknown. As the age span of the participants covered several age groups, persons above 35 years old, and participants with either gender or age unmarked, were filtered and excluded in this study. The remaining sample consisted of 50 men and 103 women (age span 18-35 years, \( M = 23.42, \text{SD} = 3.05 \)).

Procedure
A pilot study (\( N = 10 \)) was arranged at an early stage for the SWLS, Intense affect measure and Frequent affect measure. The results and comments from the participants highlighted the need for stronger emphasizing on the distinction on how and how often, and the instructions on each instrument were therefore modified for the main questionnaire.

The main questionnaire was given to the participants mainly in association to lectures at the University, but in some cases by confronting small groups of students inside the university building. Before starting, all respondents were informed that participation was voluntary and anonymous, and informed about how much time it would take to complete the questionnaire. Since the instrument was rather time-consuming and there were a risk the participants might suffer from lack of motivation, all participants were informed that they could participate in a lottery, were the winners would receive free movie-tickets. Additionally, an offer to receive a copy of the finished research-article was also given to all participants. Participants interested in this wrote their contact information on a separate paper when finished, in order to keep anonymous.

Of all the confronted and asked students, the dropout frequency differed strongly between the classes, but among the participating students, very few handed in incomplete questionnaires.

Measures
The measures used in this study are presented in the order the participants encountered them in the questionnaire.

Background information: Participants were asked about gender and age in order to get some background information. Three participants failed to mark both their gender and age, while one missed only the age-item.
Life satisfaction: To measure the cognitive part of happiness I wanted to use a measure that put focus on the global part of life satisfaction, rather than specific domains. A Swedish translation of the reliable 5-item Satisfaction with life scale (SWLS) was therefore used (Pavot and Diener 1993). Respondents were asked to rate themselves on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) on each of the questions. A reliability analysis were conducted on the five items and showed an alpha value of 0.76.

A mean life satisfaction score was computed by dividing the total score (theoretically ranging from 5 to 35), with the number of items (= 5).

Intense Affects: The four-factor AIR-model proposed by Bryant et al. (1996) was used as a model in this study. Bryant and colleges propose especially intense negative affects to be measured both in internal intensity and reactivity, where internal intensity refers to how strong the experience subjectively is, and reactivity refers to what degree a person objectively response to emotional stimuli. To cover all aspects of both positive and negative intense affects, I chose to use 4 items measuring positive internal intensity, 4 items measuring negative internal intensity, 4 items measuring positive reactivity and 4 items measuring negative reactivity. The items with the highest CFA factor loadings from each group were consequently picked from the four-factor model presented by Bryant et al. (1996) (p. 227 & p. 231). The measure was translated to Swedish and translated back to English by two separate bilingual students. The full measure can be found in the appendix.

Respondents were accentuated that they were answering how they experienced emotions, not how often they experienced them. The respondents rated themselves on a 6-point scale (1 = totally incorrect, 6 = totally correct). A mean score of each of the four factors were calculated and reliability analysis conducted. The Cronbach alpha were for Pos Intensity = 0.80, Neg Intensity = 0.71, Pos Reactivity = 0.74 and Neg Reactivity = 0.62.

Due to the small number of items and no remarkable discovered differences between internal intensity and reactivity, the four factors were cut down to one positive and one negative value. The internal reliability for Positive affects became = 0.86 and for Negative affects = 0.79. Each participant now had one score for mean Intense Positive Affect (IPA), and one score for mean Intense Negative Affect (INA), and consequently one intense affect balance-score.
**Frequent Affect:** The frequency of affects was measured with an instrument very similar to the Positive Affect, Negative Affect Schedule (PANAS) by Watson and Clark and Tellegen (1988). I used a measure consisting of 20 adjectives, 10 of whom clearly concerning positive affects and 10 clearly concerning negative affects. In the instructions, the respondents were asked specifically to respond to *how often,* not *how strongly* they experience all of the 20 adjectives, and the rating were done on a 5-point likert scale (1 = never, 5 = very often or constantly). A Swedish translation of PANAS was slightly modified to suit the added instructions (e.g. affects with an inherent intensity such as “frightened” and “strong” were excluded, while more elastic emotions such as “irritable” and “self confident” were introduced). All introduced words can be found in the Panas-X manual (Watson and Clark 1994). A reliability analysis showed a Cronbach’s alpha 0.80 for FPA and 0.79 for FNA. The used scale can be found in the appendix.

The data obtained gave one mean score for each participant’s frequent positive affect (FPA), and one mean score for each participants frequent negative affect (FNA) and also a score for frequent affect balance (FAB).

**Personality:** A Swedish translation of Costa and McCrae’s NEO-PI-R (Psykologiförlaget AB) was used to measure respondent’s personality according to the five-factor model. The 240 items of NEO-PI-R are organized into five categories (Neuroticism, Extraversion, Agreeableness, Consciousness and Openness) with 48 items each. As the test was believed to take much time into account, with the risk of fatigue as a consequence, I tried to shorten it without losing too much reliability. Neuroticism and Extraversion were believed to be more influential to happiness compared to the others three factors. Hence, the items of Agreeableness, Consciousness and Openness were reduced to half while the Neuroticism and Extraversion-items were left untouched. The items were then down to 168. The Cronbach’s alpha values were for Neuroticism = 0.92, Extraversion = 0.90, Agreeableness 0.80, Consciousness = 0.82 and Openness = 0.72. A total mean score of each personality factor was computed for each participant.

**Results**

The quality of collected data was checked. Both the skewness and kurtosis values were below 1 for all used variables, which indicates that they were approximately normally distributed. Analyses were made with SPSS v.12.0.2 (Windows). Reliability analysis,
Pearson correlation, Multi Regression Analysis, and Independent T-test were the methods primary used. The descriptive data for the used variables are presented in Table 1.

As the respondents consisted of clearly more women than men, it was thought likely that the gender difference might affect the overall results. For that reason all correlations in this study were partial and controlled for gender.

Table 1
Mean score for the five factor personality scales.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Theoretical Range</th>
<th>Raw score Range</th>
<th>Mean</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>153</td>
<td>1 – 7</td>
<td>2.20 - 7.00</td>
<td>5.04</td>
<td>0.92</td>
</tr>
<tr>
<td>Intense Positive Affect</td>
<td>153</td>
<td>1 – 6</td>
<td>2.00 - 6.00</td>
<td>3.83</td>
<td>0.86</td>
</tr>
<tr>
<td>Intense Negative Affect</td>
<td>153</td>
<td>1 – 6</td>
<td>1.75 - 6.00</td>
<td>3.71</td>
<td>0.89</td>
</tr>
<tr>
<td>Intense Affect Balance</td>
<td>153</td>
<td>-5 – 5</td>
<td>-1.88 - 2.50</td>
<td>0.11</td>
<td>0.74</td>
</tr>
<tr>
<td>Frequent Positive Affect</td>
<td>149</td>
<td>1 – 5</td>
<td>2.00 - 5.00</td>
<td>3.27</td>
<td>0.48</td>
</tr>
<tr>
<td>Frequent Negative Affect</td>
<td>151</td>
<td>1 – 5</td>
<td>1.60 - 4.10</td>
<td>2.62</td>
<td>0.53</td>
</tr>
<tr>
<td>Frequent Affect Balance</td>
<td>148</td>
<td>-4 – 4</td>
<td>-1.20 - 2.70</td>
<td>0.65</td>
<td>0.76</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>150</td>
<td>1 – 5</td>
<td>1.67 - 4.33</td>
<td>2.86</td>
<td>0.49</td>
</tr>
<tr>
<td>Extraversion</td>
<td>151</td>
<td>1 – 5</td>
<td>2.04 - 4.75</td>
<td>3.45</td>
<td>0.44</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>151</td>
<td>1 – 5</td>
<td>1.96 - 4.50</td>
<td>3.46</td>
<td>0.47</td>
</tr>
<tr>
<td>Consciousness</td>
<td>152</td>
<td>1 – 5</td>
<td>2.33 - 4.54</td>
<td>3.37</td>
<td>0.46</td>
</tr>
<tr>
<td>Openness</td>
<td>152</td>
<td>1 – 5</td>
<td>2.33 – 4.17</td>
<td>3.33</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Hypothesis 1.

In hypothesis 1, a Pearson partial correlation controlled for gender was conducted. Life Satisfaction (LS), Frequent Positive Affect (FPA), Frequent Negative Affect (FNA), Intense Positive Affect (IPA) and Intense Negative Affect (INA) were used as variables. The correlations can be seen in table 2.

Hypothesis 1 found partially support. The IPA-score and INA-score correlated positively and strongly significant. However, in contrary to expectations the correlation between FPA and FNA was not significantly negative, but non-significant.
Table 2
Correlations for Life Satisfaction, frequent and intense and positive and negative affect.

<table>
<thead>
<tr>
<th></th>
<th>LS</th>
<th>FPA</th>
<th>FNA</th>
<th>IPA</th>
<th>INA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction (LS)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequent Positive Affect (FPA)</td>
<td>0.364***</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequent Negative Affect (FNA)</td>
<td>-0.370***</td>
<td>-0.115</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intense Positive Affect (IPA)</td>
<td>0.195*</td>
<td>0.446***</td>
<td>0.097</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intense Negative Affect (INA)</td>
<td>-0.114</td>
<td>0.056</td>
<td>0.388***</td>
<td>0.588***</td>
<td>-</td>
</tr>
</tbody>
</table>

*** = Significance < 0.001
** = Significance < 0.01
*  = Significance < 0.05

Hypothesis 2
A partial Pearson correlation, controlling for gender, was conducted. The hypothesis found support when seeing that Extraversion correlated significantly positive with both intense positive affect \((r = 0.500, p < 0.001)\), and with intense negative affect \((r = 0.235, p = 0.004)\).

Hypothesis 3
To get a clear picture of the gender differences in SWB-components an independent t-test was conducted. Gender was chosen as the grouping variable while life satisfaction, frequent positive affect, frequent negative affects, intense positive affects, intense negative affect, frequent affect balance and intense affect balance were chosen as test variables. The results can be seen in table 3.

Hypotheses 3 found partial support in this study. There are significant gender differences in intense affects as women experience both IPA and INA to a higher extent than men. Conversely, in contrary to predictions, there were gender differences concerning frequent affects as well. No significant differences in FPA were found, however women scored significantly higher than men on the FNA-scale.
Life Satisfaction (LS) and Intense Affect balance (IAB) did not vary significantly between the genders but interestingly, there was a significant difference in frequent affect balance (FAB) where men scored significantly higher than women.

Table 3.
Gender differences in mean Life Satisfaction, frequent and intense affects and affect balance.

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction (LS)</td>
<td>4.89</td>
<td>5.12</td>
<td>-1.42 (ns)</td>
</tr>
<tr>
<td>Sd 0.96</td>
<td></td>
<td>Sd 0.90</td>
<td>df = 151</td>
</tr>
<tr>
<td>N = 50</td>
<td></td>
<td>N = 103</td>
<td></td>
</tr>
<tr>
<td>Frequent positive affect (FPA)</td>
<td>3.30</td>
<td>3.26</td>
<td>0.46 (ns)</td>
</tr>
<tr>
<td>Sd 0.50</td>
<td></td>
<td>Sd 0.46</td>
<td>df = 147</td>
</tr>
<tr>
<td>N = 48</td>
<td></td>
<td>N = 101</td>
<td></td>
</tr>
<tr>
<td>Frequent negative affect (FNA)</td>
<td>2.38</td>
<td>2.74</td>
<td>-4.16***</td>
</tr>
<tr>
<td>Sd 0.41</td>
<td></td>
<td>Sd 0.55</td>
<td>df = 149</td>
</tr>
<tr>
<td>N = 50</td>
<td></td>
<td>N = 101</td>
<td></td>
</tr>
<tr>
<td>Intense positive affect (IPA)</td>
<td>3.38</td>
<td>4.04</td>
<td>-4.82***</td>
</tr>
<tr>
<td>Sd 0.77</td>
<td></td>
<td>Sd 0.82</td>
<td>df = 151</td>
</tr>
<tr>
<td>N = 50</td>
<td></td>
<td>N = 103</td>
<td></td>
</tr>
<tr>
<td>Intense negative affect (INA)</td>
<td>3.13</td>
<td>4.00</td>
<td>-6.35***</td>
</tr>
<tr>
<td>Sd 0.85</td>
<td></td>
<td>Sd 0.77</td>
<td>df = 151</td>
</tr>
<tr>
<td>N = 50</td>
<td></td>
<td>N = 103</td>
<td></td>
</tr>
<tr>
<td>Frequent affect balance (FAB)</td>
<td>0.92</td>
<td>0.51</td>
<td>3.12**</td>
</tr>
<tr>
<td>Sd 0.71</td>
<td></td>
<td>Sd 0.75</td>
<td>df = 146</td>
</tr>
<tr>
<td>N = 48</td>
<td></td>
<td>N = 100</td>
<td></td>
</tr>
<tr>
<td>Intense affect balance (IAB)</td>
<td>0.25</td>
<td>0.05</td>
<td>1.58 (ns)</td>
</tr>
<tr>
<td>Sd 0.74</td>
<td></td>
<td>Sd 0.73</td>
<td>df = 151</td>
</tr>
<tr>
<td>N = 50</td>
<td></td>
<td>N = 103</td>
<td></td>
</tr>
</tbody>
</table>

*** = Significance < 0.001  
** = Significance < 0.01  
* = Significance < 0.05

Hypothesis 4

A Pearson two-tailed partial correlation (controlled for gender) was conducted to comprehend the relationship between life satisfaction (LS) and both frequent affect balance (FAB) and intense affect balance (IAB).

The hypothesis found support as the correlation between LS and FAB ($r = 0.492, p < 0.001$) exceeded the correlation between LS and IAB ($r = 0.340, p < 0.001$). FAB and IAB, unsurprisingly, correlated as well ($r = 0.499, p < 0.001$) but not to the extent that they can be accused of being synonymous.
Hypothesis 5

Two SWB-scales were constructed. Both used self-valued life satisfaction as the cognitive part of SWB, but were complemented by using the frequent affect balance (FAB) or the intense affect balance (IAB). As the scales varied in the questionnaires (e.g. mean LS spanned from 1 to 7 while FPA and FNA only spanned from 1 to 5), the three variables were fitted to one single scale before creating the SWB variables. The two Subjective well-being variables were named “SWBf” and “SWBi” for frequent and intense affect balance respectively.

Secondly, linear multiple regression analysis was conducted with both SWBf and SWBi as dependent variables. As independent variables the five personality traits from the five-factor model were used. Even if the hypothesis primarily was concerned with Extraversion, all five traits were included to make comparisons easier. The statistics from the analysis can be found in table 4.

The results gave ambiguous results on whether the hypothesis found support or not. Neuroticism seems to be a clearly stronger predictor for happiness than extraversion when using SWBf but not when using SWBi as the dependent variables. While the prediction power of Neuroticism is clearly higher for SWBf compared to SWBi, extraversion predicts a very similar amount of SWBf and SWBi.

Table 4.
Result of two MRA. Independent variables = Big five factors, Dependent variable = SWBf or SWBi

<table>
<thead>
<tr>
<th>Type of affect balance:</th>
<th>SWB(frequent)</th>
<th>SWB(intense)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism</td>
<td>β = -0.61***</td>
<td>β = -0.36***</td>
</tr>
<tr>
<td>Extraversion</td>
<td>β = 0.35***</td>
<td>β = 0.36***</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>β = 0.12*</td>
<td>ns</td>
</tr>
<tr>
<td>Consciousness</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Openness</td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>

*** = Significance < 0.001
** = Significance < 0.01
* = Significance < 0.05

Hypothesis 6

A number of Linear multiple regression analyses were conducted in order to understand to what extent the five-factor personality traits relate to both frequent and intense positive and negative affects. Because of expected gender differences men and women were calculated separately. As dependent variables were FPA, FNA, IPA and INA
used respectively. The Big five factors were used as independent variables in all of the analyses. The results can be seen in Table 5.

The hypothesis was well supported in this study. When focusing on frequent affect, Extraversion only predicted positive emotions, while Neuroticism predicted negative emotions strongly but also had a small but significant relation to the absence of positive emotions.

When moving to the intense affects, we can see that Extraversion predicted not only the presence of positive but also the presence of negative emotions. Unexpectedly, Neuroticism showed a similar pattern and seemed to predict both negative and positive intense emotions; this finding was only significant for women.

<table>
<thead>
<tr>
<th>Table 5. Result from four MRA, Independent variables = Big five factors, Dependent variable = FPA, FNA, IPA or INA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPA</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td><strong>Neuroticism</strong></td>
</tr>
<tr>
<td><strong>Women</strong></td>
</tr>
<tr>
<td><strong>Extraversion</strong></td>
</tr>
<tr>
<td><strong>Women</strong></td>
</tr>
<tr>
<td><strong>Agreeableness</strong></td>
</tr>
<tr>
<td><strong>Women</strong></td>
</tr>
<tr>
<td><strong>Consciousness</strong></td>
</tr>
<tr>
<td><strong>Women</strong></td>
</tr>
<tr>
<td><strong>Openness</strong></td>
</tr>
<tr>
<td><strong>Women</strong></td>
</tr>
</tbody>
</table>

*** = Significance < 0.001  
** = Significance < 0.01  
* = Significance < 0.05

Hypothesis 7

A partial Pearson correlation (controlled for gender) was conducted with Life Satisfaction (LS), Agreeableness (A) and Consciousness (C) as variables. Agreeableness and Life Satisfaction showed a tendency to correlate ($r = 0.152, p = 0.068$). Consciousness showed no relation to Life Satisfaction at all.

Further, although there were no correlations with A or C with frequent affect balance (FAB), Subjective well-being with the affect balance measured in frequency (SWBf) was to some extent predicted by agreeableness, whilst the SWBi was not (see Table 4). A positive relation between agreeableness and intense negative affects (INA) were discovered.
and is presented in table 5. This finding was not expected but nevertheless interesting. In summary, Hypothesis 7 found little or no support in this study.

**Discussion**

The main aim of this study was to understand whether there was a need to separate frequent and intense affect balance when calculating Subjective well-being or not? In accordance to expectations the results show that intensity and frequency in emotions are separate, and influenced by personality traits in different ways. For example, SWBf was found to lead to gender differences while SWBi did not, and both Neuroticism and Extraversion predicted frequent and intense affects differently. These findings recommend that frequency and intensity of affects should be checked separately when calculating affect balance, and that frequent affect balance is preferable to use when measuring SWB. This is in line with the result of Green and Sallovey (1999), Diener and Seligman (2002) among others. Also, gender differences in affect intensity but not in life satisfaction were found in this study, and this is coherent with prior research (e.g. Bagozzi et al. 1999, Myers and Diener 1995). Neuroticism and extraversion stood out as the clearly best predictors of a happy life. This has been established in many studies before (e.g. Diener and Lucas 1999). These findings give support to already existing empirical results, possibly implying that the present study showed acceptable reliability.

Although supported theories are encouraging, unexpected findings are generally more rewarding to discuss and try to explain. Hence, four remarkable findings will be analysed next, followed by some general discussion about possible directions of positive psychology.

Research tells us that a person experience either positive or negative affects constantly, but not both at the same time (Ryan and Deci 2001, Diener and Lucas 2000). Despite this, frequent positive and frequent negative affects were not significantly negatively correlated in this study. This is clearly incoherent and need additional explanations. Firstly, it is rather possible that an on-line study would give a clearly negative correlation between FPA and FNA, as the participants might simply not accurately remember how frequently they were experiencing affects when valuing themselves in a questionnaire like the one used here. Also, as only 20 emotions and moods are included, the questionnaire can unlikely cover all affects that are experienced during a life. Even if you never feel pride, excitement nor vigorous, you can still have many positive affects.
Alternatively the results may not be due to measuring-biases, but instead raise theoretical questions if we really experience affects ongoingly, and if the distinction between positive and negative is totally clear?

A quite remarkable finding is that while an affect balance measured in intensity does not show any gender differences, an affect balance measured in frequency significantly does so. The differences come from the more frequent negative emotions women report, while the frequent positive affects are experienced similar as men’s. As life satisfaction is about the same for women and men, the genders will score equally happy if using SWBi, while men will be significantly happier than women if using SWBf. This is in contrast with many studies that stress how gender is unimportant for total happiness (Fujita, Diener and Sandvik 1991, Myers and Diener 1995). This finding could definitely be explained by true gender differences in happiness either because of inborn traits or a tougher social climate for women. On the other hand it might be related to answering biases due to social desirability with women recalling and answering their emotions in a way concordant with sex role stereotypes (Diener and Biswas–Diener 2000). Women might hence be more prone to reporting even smaller everyday hassles while men don’t. Alternatively, there might be some unforeseen gender bias in the measurement itself. It is possible that the negative emotions in the test are more likely to be experienced by women while others, not included, negative emotions are more experienced by men. Anyhow, this study gives clear indication for future research not to take gender as something totally irrelevant when measuring SWB.

As expected, for both SWBf and in SWBi, neuroticism and extraversion are significant predictors, but there are noteworthy differences as well. Starting with the disagreements about how important extraversion is for happiness, it can very well be attributable to different ways in measuring affect balance. In this study, when measuring SWB with frequent affect balance, neuroticism was almost twice as strong predictor than extraversion, while neuroticism and extraversion predicted SWB with intense affect balance, very similar.

When concentrating on frequent affect, the results give some support to the results found by Rusting and Larsen (1997). Extraversion mainly increases the positive affects while neuroticism mainly increase the negative. But, while extraversion solely changes the positive affects, neuroticism makes people unhappy both by increasing negative and by reducing positive affects. This may explain why Vittersø (2001) means that emotional stability is a much stronger predictor than extraversion for happiness.
When concentrating on intense affects, the results are rather different as both extraversion and neuroticism increase both positive and negative intense emotions. These results are fairly remarkable but can possibly be due to the so-called rebound-effect. Diener et al. (1991) explains how intense negative affects are usually following from intense positive ones, but Bolger et al. (1989) mean that it is possible the other way around as well. If assuming that extraverted traits first and foremost make it likely for people to experience strong delight, the re-bound effect of intense positive emotions makes the same person likely to experience negative emotions as well. On the other hand neuroticism initially makes people suffer intensely, but the re-bound effect can occur even the other way around, and intensely sad people might very well turn into a joyful bliss, just by overcoming an everyday hassle.

The role of agreeableness and consciousness in happiness is not as well researched as neuroticism and extraversion. In this study, agreeableness had a weak correlation with life satisfaction and simultaneously predicted intense negative emotions. This finding may seem contradictory so some explanation is necessary. To help others is not usually something that give the helper pleasurable emotions. Instead it is the satisfaction with oneself that takes a boost by being supportive. This illustrates the need for the life satisfaction-part of SWB. Simply measuring affect balance would not give weight to the state of self-satisfaction most people get from helping others even if it involves some personal inconveniences affect-wise. One trait often closely connected to agreeableness is empathy. Probably, empathy is the strongest link for the discovered positive relation between agreeableness and intense negative emotions. It is not unlikely that the an empathic person who observe a violent accident or suffering creatures, becomes highly disturbed and experience intense negative emotions. These intense emotions are naturally uncomfortable for the person, and one possible coping style is to try to reduce the suffering. Thus, committing a typically agreeable act.

Naturally there are some limitations in this study. For example the sample consisted of solely young people, and the findings might therefore not be universal. Also, most of the results are correlations, hence not giving clear signs whether there are causality or just co-variance. Further, the instruments used were shortened and/or modified to suit instructions, and this could naturally be criticized. Firstly, in contrast to Bryant et al.’s (1996) recommendations, the intensity variable in this study used internal intensity and reactivity together and not separate. Although not ideal, this was a conscious choice to get a broad picture of affect intensity without making the instrument too time consuming. As expected,
when analysing the results more in detail, women’s scores were significantly higher than men’s on all four factors, and the difference was strongest for negative reactivity. However, intensity and reactivity did not show any major differences when it came to the relation with personality factors. Secondly, the PANAS-like instrument used to measure frequency was also modified. However, the introduced words were all picked from the PANAS-X manual (Watson and Clark 1994) and the alpha-values remained high, indicating good reliability. Thirdly, the elimination of half of the items for Agreeableness, Consciousness and Openness, was only due to practical reasons as the questionnaire was very time-consuming. The alpha-value naturally shrunk for these variables, but stayed above 0.8 for Agreeableness and Consciousness. It goes without saying that the full instruments are clearly advisable when practically possible, and also that on-line measurements of both the frequency and intensity of affects would be of great use.

**Concluding remarks and suggestions for future studies**

As already mentioned, the central finding from this study is the need for measuring affect balance both in frequency and intensity, and further, that frequent affect balance is preferable when measuring Subjective well-being. The intensity of affects undoubtedly influences also the frequency of affects (for example when being recalled), but frequent affect balance constantly seem like the better variable when measuring SWB. Important to notice is that this does not entail that intense emotions are unimportant or uninteresting for happiness research. One reason to focus more closely to intense affects is that while the frequency of experienced emotions might be pretty much based in ones inborn traits and more or less constant, it seem to be possible to intentionally change how intense one experience emotions.

Diener et al. (1991) present Cognitive Amplifying and Cognitive Dampening as coping strategies to either maximize intense positive emotions or to minimize intense negative emotions. The use of cognitive amplifying might result in great risk-taking in the quest after positive emotions, sometimes with disappointment and misery as a result. Practical cognitive amplifying can for example be to aim for almost inaccessible goals or by being emotionally possessed with someone. The opposite is cognitive dampening, and here the target is to avoid the pain rather than to reach the pleasure. To expect a negative outcome just to avoid disappointment is representative behaviour for cognitive dampening. Typically amplifying and dampening persons could be categorized as high and low affective individuals respectively when using Norlander et. al.’s (2002) affective
personality types. Moreover, cognitive dampening can be seen as a type of defensive pessimism (Elliot and Church 2003) or as constant avoidance goal strivings (Elliot et al. 2001). The question concerning what coping strategy is preferable is up for debate. However, just comparing the total happiness of one typically amplifying person with one typically dampening person is not sufficient. In this study, extraversion was positively correlated with both positive and negative intense emotions and total SWB. It is thus very plausible to expect highly extraverted persons to use cognitive amplifying to a bigger degree than introverts. Cognitive dampening, avoidance goal strivings and defensive pessimism are generally connected to basically unhappy persons, yet this is not a causal connection. Even if happy people more often use cognitive amplifying, this does not say that intensifying ones emotions casually makes people happier. Initially unhappy persons may very well be less unhappy by using cognitive dampening even if they never will reach the same levels of an initially happy person. For this reason, I would like to emphasize a caveat concerning optimism and positive thinking. Optimism is often used as one of the best advises to make people happier, but it is definitely not a universal advise, as it for some personality types will lead to increased disappointments and therefore unhappiness. For example, Elliot et al. (2001) found that avoidance goals predict unhappiness in the U.S but not in Korea or Russia. Also, defensive pessimism as a coping style does not reduce performance (Elliot and Church 2003). This is also in line with the theory that happiness comes from acting in accordance with the norms in ones culture (Kitayama et al. 2000).

Finally, the almost non-existing relation between Agreeableness, Consciousness and Subjective well-being give rise to some theoretical issues. From my point of view, if subjective well-being will be of pragmatic use in the future, we cannot simply focus on what traits or values the happy person have, nor how the happy or unhappy people behave. Therefore, for future studies, instead of focusing exclusively on what traits and behaviours that makes the person itself subjectively happy, researchers should concentrate on what traits and behaviours that increase the total subjective happiness. In the total subjective happiness, every person affected by a certain act (including but not limited to the actor) must be taken into account. Even if happy people generally are more rewarding to spend time with, and probably increase others happiness as well, I expect that the best method to increase total happiness is not identical to increasing ones own. Probably, agreeableness and consciousness will be much greater predictors for total happiness as it is expressed outwards (Diener and Lucas 1999). To analyse what kind of personalities and behaviours
that maximise the total happiness, could be a new and fascinating direction of positive psychology, and possibly a gateway for empirically based utilitarianism.
References


Appendix 1: The full questionnaire (in Swedish)

Läs detta innan ni fortsätter, tack.

Hej, Jag heter Arvid Erlandsson och denna termin skriver jag min Magisteruppsats i Psychologi på Växjö Universitet.

Ni hjälper mig väldigt mycket om ni hjälper mig att fylla i dessa enkäter. Testet är ganska långt och beräknas ta 25-35 minuter att slutföra.

Kompendiumet består av olika enkäter som handlar om framförallt emotioner och personlighet. Enkäterna ifylls i tur och ordning. Ni har rätt att avsluta testet när som helst utan någon speciell orsak. Testet ifylls helt anonymt och de ifyllda formulären kommer bara att läsas av mig och min handledare.

Var noga med att läsa instruktionerna inför varje test så att ni inte gör misstag. Tänk dock inte för länge på varje fråga utan svara det som du känner spontant. Det finns inga svar som är ”rätt” eller ”fel”.

Var ärliga när ni fyller i svaren och var noga så att ni inte lämnar något blankt.

Med vänlig hälsning.
Arvid Erlandsson

Vänd blad och börja testet.
Kön: Kille Tjej (ringa in vad du är)

Ålder: ...........................................år (skriv din ålder)

---------------------------

Instruktion
Denna undersökning handlar om hur Du ser på ditt liv. Använd den sjugradiga skalan nedanför för att ange Ditt förhållningssätt till varje påstående genom att skriva lämplig siffra på raden framför.

1 – Håller verkligen inte med
2 – Håller inte med
3 – Håller till viss del inte med
4 – Håller varken med eller inte med
5 – Håller med till viss del
6 – Håller med
7 – Håller verkligen med

____ I de flesta avseende är mitt liv nära mitt ideal.

____ Förutsättningarna i mitt liv är utmärkta.

____ Jag är nöjd med mitt liv.

____ Än så länge har jag fått de viktiga saker i livet jag vill ha.

____ Om jag kunde leva om mitt liv skulle jag i stort sett inte ändra på något alls.
Instruktion

Nedan följer ett antal påståenden som beskriver olika sätt att uppleva känslor vid speciella situationer. Markera med den siffra (1-6) det som representerar det svar som gäller dig. Lämna inga luckor blanka.


1. Stämmer inte alls
2. Stämmer inte så mycket
3. Stämmer lite
4. Stämmer till ganska stor del
5. Stämmer till mycket stor del

1. Mitt glada humör är så starkt, att det känns som jag är i himlen.
2. Mina känslor tenderar att vara mer intensiva än de flesta andra människors.
3. Om jag lyckas slutföra en uppgift som jag trodde var omöjlig, blir jag extatisk.
4. Sorgliga filmer påverkar mig starkt.
5. Jag blir alltför mycket entusiastisk.
6. Mina vänner kan säga att jag är känslomsam.
7. När något bra händer, är jag oftast mer jublande än andra.
8. Synen av en svårt skadad person, påverkar mig starkt.
9. När jag är lycklig, känns det som om jag spricker av glädje.
10. De gånger jag känner ängslighet är det vanligtvis väldigt starkt.
11. När jag vinner en utmärkelse, blir jag överlycklig.
12. Att se en bild av en våldsam bilolycka i tidningen, gör att jag känner mig illamående.
13. När jag är lycklig så bubblar jag över med energi.
15. När saker går bra för mig så känner jag mig överlycklig.
**Instruktion**


<table>
<thead>
<tr>
<th>Känsla</th>
<th>Inte alls</th>
<th>Sällan</th>
<th>Ibland</th>
<th>Ofta</th>
<th>Väldigt ofta eller konstant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorgsen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Munter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Upprörd</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Modig</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Rädd</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Irriterad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Entusiastisk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Stolt</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Haft skuldkänslor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Engagerad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Arg på sig själv</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Inspirerad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Nervös</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Självsäker</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Uppmärksam</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ängslig</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>På alerten</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Arg på andra</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Upprymd</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>