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No Pain More Gain

Emma Judge
emma@positiveorg.com

Sasha Heinz
slheinz@mac.com

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Keywords

Character Strength, Virtue, Personal Growth, Well-Being, Happiness, Positive Emotions

Running head: HAPPINESS AND CHARACTER STRENGTH OVER TIME

No Pain, More Gain: The Positive Sum Dynamic of Character Development

Sasha Heinz and Emma Judge

Advised by Chris Peterson, Ph.D.

University of Pennsylvania

Abstract

A study of 6156 respondents to an online survey measuring their character strengths and virtues twice over a period of time suggests that an increase in virtue may be linked not only to eudemonic happiness, but to the hedonic as well. Happy people see more growth in character strengths than their less happy counterparts. This relationship is particularly strong for the virtues robustly associated with life satisfaction (gratitude, zest, love, curiosity, optimism/hope) and wisdom. Conversely those who are depressed and experience more negative affect see a greater decline in character strengths. The findings support the Broaden and Build theory (Fredrickson, 2001), in that the character strengths that broadened mindsets and behavioral repertoires are more affected by the subjective well-being. This may suggest an alternative approach to character development. Encouraging happiness and positive affect at the beginning of the process, may “prime” the individual for the change they wish to make happen.

No Pain, More Gain: The Positive Sum Dynamic of Character Development

Research in positive psychology has followed two distinct theoretical trajectories. The eudemonic tradition defines happiness as the pursuit of one's daimon or "true self" believing that the essential nature of man is to seek the good and in this pursuit happiness will follow. This is not a happiness of feeling, but rather one of doing and becoming – the sweat, blood, and tears approach. Those who follow in the hedonic tradition use different criteria to define happiness. Happiness, described as such, is about subjective state, the presence of positive emotion, and good feelings. For what is a happy life if it is not the sum total of positive moments and feelings? As research in the psychology of happiness continues to progress, more overlap between these two approaches seems to emerge (Deci & Ryan, 2001). The study hopes to suggest that there is a stronger connection between feeling good and acting rightly (or good) than we thought, and that eudemonic character development and hedonic positive emotions perpetuate each other in a positive spiral toward personal growth and increased subjective well-being.

This study builds on much of the existing work in the relatively new field of Positive Psychology. This field focuses on three main areas (positive emotions, character traits and institutions) (Compton, 2005). We are primarily studying positive emotions such as happiness and positive character traits as defined by the Virtues in Action Classification (Seligman and Peterson, 2004).

Two Theoretical Paths to Happiness

According to Deci and Ryan (2001), research in positive psychology has applied two different theoretical approaches to the science of happiness: the hedonic approach and the eudemonic approach. Those of the hedonic persuasion define happiness as a subjective state of positive feeling or positive self-report; the focus is on positive affect and the feelings of

happiness. According to Lyubomirsky, King, and Diener, three of the hedonic approach's most ardent champions, happy people are "those who experience frequent positive emotions, such as joy, interest, and pride, and infrequently (though not absent) negative emotions, such as sadness, anxiety, and anger" (2005, p. 816).

In many cultures this "pleasure principle" version of happiness tends to have a pejorative association and works against either the work-ethic of many Western societies or the sense of morality and virtue inherent in many religious traditions both from the East and West. The aforementioned positive emotion, pride, after all, was the first of the seven deadly sins. The opposition argues that hedonic happiness is likely to focus on a positive emotional outcome regardless of how it is attained. Seligman (2002) calls this approach the "pleasant life", which amplifies his belief that the hedonic approach is a less sophisticated definition of happiness.

However, there is another, more complex, side to the yellow smiley face. The Broaden and Build theory (Fredrickson, 2001) is probably the most compelling case that positive emotions have an evolutionary value "to help prepare the organism for future challenges" (Lyubomirsky et al, 2005, pp 806). The theory holds that, unlike negative emotions that narrow people's behavioral urges toward specific actions that are life-preserving (e.g. fight and flight), positive emotions widen the array of thoughts and actions called forth, facilitating generativity and behavioral flexibility (Fredrickson and Losada, 2005, pp. 679). Fredrickson and Losada propose that positive emotions change people's psychological mindset "widening the scope of attention, broadens behavioral repertoires and increases intuition and creativity" (pp. 678). They support their argument with a review of some evidence that the benefits are not just psychological, but physical as well: lower levels of cortisol, reduced inflammatory response to stress and reductions in subsequent-day physical pain for instance. Perhaps the most compelling

argument supporting the value and power of positive emotions is the finding that the level of one's ratio of positive to negative affect can predict lifespan (Fredrickson and Losada, 2005).

Other research in support of positive emotions is reviewed by Lyubomirsky, King and Diener (2005) who develop a convincing argument, based on a meta-analysis, that "happy people are likely to acquire favorable life circumstances, as well as being happier because of those favorable circumstances" (pp. 805). Laura King (2006) has studied the effect of positive emotion on meaning. Having reviewed the substantial body of thought supporting the view that meaning is important to psychological well-being and happiness, her experimental data show that "positive mood, as a concept and a feeling, enhances the feeling that life is meaningful" (pp.191). She suggests that the effect of positive mood is greater than any goal related efforts or thought about meaning.

Positive emotion and feeling happy are seen as an end in themselves from the hedonic perspective – with significant psychological and evolutionary benefits. Virtue or character is not directly associated with the outcome of happiness. A caveat to this delineation between happiness and character may lie in the definition of virtue as a social construct, designed to facilitate relationships (Bauemeister and Exline, 1999). Given that good relationships are a significant predictor of happiness (Myers and Diener, 1995), virtue may have a role even in the hedonic tradition.

In contrast, the eudemonic approach to happiness, as we referenced earlier, considers happiness to be much more than the constant experience of positive emotions, and places virtue front and center. Aristotle's notion of eudemonia is characterized as flourishing, not as a mere consequence of virtuous action, but rather as inherent in such action; thus, the cultivation and exercise of virtue and excellence are the keys to happiness (Aristotle, 1962). According to

philosopher Alasdair MacIntyre's reading of Aristotle, "What constitutes the good for man is a complete human life lived at its best and the exercise of the virtues is a necessary and central part of such a life" (MacIntyre, 1984, pp. 148, as cited in Jorgensen and Nafstad, 2004). In this school of thought, happiness is found in pursuit and attainment of virtue and is "not possible without excellence or virtue" (Melchert, on Aristotle, 2002, pp. 190).

Marty Seligman's three pronged approach to happiness: the pleasant life, the good life and the meaningful life incorporates the hedonic, but advocates a broader notion of happiness based on the eudemonic tradition (Seligman, 2002). He suggests, using the example of Wittgenstein to illustrate, that positive emotion is only one component of happiness.

Wittgenstein spent his life doing what he naturally did best, employing his strengths in the pursuit of truth and a greater good. He was also known for his lack of positive affect; he would not have been described as a "happy" person. And yet it is said that on his deathbed he said, "Tell them it's been wonderful!" (Seligman, 2002, p.7).

In this definition of a happy life, Seligman reformulates the eudemonic and the hedonic within the contemporary context of positive psychology and suggests that "full" happiness comes with the identification and application of signature strengths (engagement) to a purpose greater than the self (meaning), as well as the enjoyment of life's pleasures. In his discussion of eudemonia Seligman suggests that "The right question is the one Aristotle posed two thousand, five hundred years ago: 'What is the good life?'" (Seligman, 2002, p.121). Though the lens of science, Seligman revisits this ancient question and finds the answer linked to the identification and use of one's signature strengths (Seligman, 2002). He defines a signature strength as that which is vital to the authentic self and central to one's construct of identity (Compton, 2005). In addition, Seligman describes how the utilization of signature strengths engenders positive

emotion and happiness i.e. a feeling of excitement, invigoration, joy, zest, enthusiasm and “even ecstasy” (Seligman, 2002, pp. 160). The good life, according to Seligman, is one that involves “using your signature strengths every day in the main realms of your life to bring abundant gratification and authentic happiness” (pp. 161).

Character strengths, described alternatively as signature strengths or virtues, are central to the eudemonic approach in which happiness is seen as the inherent byproduct of the quest for greater virtue, the application of one’s signature strengths, and development of “good” character. The hedonic approach, on the other hand, makes no such connection between happiness and action in accordance with virtue (beyond social integration). However, we wonder if there is, indeed, a place for virtue and character development in the context of the theoretical framework of Broaden and Build.

In this section we have introduced the different approaches to well-being or happiness and how they may, or may not, relate to virtue and character. The next section focuses specifically on character and introduces the Values in Action Classification as a framework for defining and measuring character. We then outline what we already know about the relationship between character and happiness beyond the theoretical approaches outlined so far, and the development and growth of character.

Character Strengths

As the discussion above suggests, positive psychology has reclaimed character and virtue as legitimate topics of investigation for social science (McCullough & Snyder, 2000). A character strength can be defined as “a disposition to act, desire, and feel that involves the exercise of judgment and leads to a recognizable human excellence or instance of human flourishing” (Yearley, 1990, pp.13). For the past several years, Chris Peterson and Marty

Seligman have been involved in a project that first identified these components of good character and then devised ways to assess these components as individual differences (Peterson & Seligman, 2004). The classification (which was used in many of the studies described below) includes 24 ubiquitously-recognized character strengths organized under six broader virtues: (a) wisdom and knowledge (creativity, curiosity, judgment, love of learning, perspective); (b) courage (bravery, honesty, perseverance, zest); (c) humanity (kindness, love, social intelligence); (d) justice (fairness, leadership, teamwork); (e) temperance (forgiveness, modesty, prudence, self-regulation); and (f) transcendence (appreciation of beauty, gratitude, hope, humor, religiousness). For a more detailed description of the VIA Classification please see Table 1. This classification provides a starting point for a comparative psychology of character (Park, Peterson, & Seligman, 2004).

Much of the research in the realm of character and virtue suggests a link to happiness, often “mediated” by a third variable such as authenticity or resilience. For example, the idea that employing character strengths is related to cultivating one’s authentic self, and that this is somehow linked to happiness seems to be an accepted truth. Bauemeister and Exline (1999) did propose that character is a social, flexible construct, but still suggest that “virtues come closer to defining who the person is than any other category of qualities” (Zagzebski, as quoted in Bauemeister and Exline pp. 1165). In *An Introduction to Positive Psychology* (2005) Compton observes, “When people exercise their strengths, they tend to feel invigorated, enthusiastic about displaying them, and have a sense that their ‘real self’ is being expressed” (pp. 172). Reiterating the central role that character strengths play in cultivation of happiness, Ryan and Deci state, “the eudemonic conception of well-being calls upon people to live in accordance with their daimon, or true self” (2001, p.146).

Psychological resilience, implicated as a beneficial outcome of character development, is also found to contribute to happiness. According to their extensive research on resilience, Reivich and Shatte state that resilience is “essential to success and happiness” (2002, p.11). Emmons and Crumpler (1999) define virtues as a piece of both authenticity and resilience (as cited in Compton, 2005). Virtues, they write, are “acquired excellences in character traits, the possession of which contribute to a person’s completeness or wholeness” (p. 170). “Virtues,” Emmons and Crumpler continue, “represent ideal states that facilitate adaptation to life” (p. 170). Sandage and Hill define virtues by six dimensions, one of which describes virtues as “sources of human strength and resilience” (2001, as cited in Compton, 2005, p. 171).

Finally, employing character strengths seems to increase well-being and decreases depressive symptoms. Empirical investigations of this relationship have been made possible by the availability of the VIA Classification to the public through the Internet. In this way large numbers of subjects have been recruited and a variety of information about these subjects is available, including their character strengths and levels of happiness as measured in a number of different ways. In the first Seligman et al. (2005) carried out a placebo controlled Internet study, to understand the effect of 5 “happiness interventions” (pp.410). They found that 3 of the 5, one of which was to identify and apply one’s signature strengths, lastingly increased happiness and decreased depressive symptoms.

In a different study Park, Peterson and Seligman (2004) investigated the relationship between character strengths and life satisfaction using the Values In Action Inventory and the Satisfaction with Life scale. They found that there are five strengths most robustly associated with life satisfaction - gratitude, zest, curiosity, love and optimism. In this cross-sectional study they do not suggest that these particular character strengths “cause” happiness, but do see them

(in the eudemonic tradition) as inextricably linked to the experience of being happy. For example, “when we do a favor for someone, our act does not cause us to be satisfied with ourselves at some later point in time. Being satisfied is a necessary aspect of being helpful, of ‘right action’” (pp. 616). They also suggest, that if their findings are further corroborated, increasing well-being may be more likely if focus is given to these particular strengths.

This neatly takes us to the question of character development and growth. The literature on, and the practice of, character development is abundant and still growing, suggesting that there is a deeply held belief, amongst psychologists, educators and theologians at least, that character can be developed. Aristotle’s positive or motivational dynamic principle is interpreted by the philosopher, Rawls, (1976) as saying “other things equal, human beings enjoy the exercise of their realized capacities (their innate or trained abilities), and this enjoyment increases the more the capacity is realized, or the greater the complexity” (as cited in Jorgensen & Nafstad, 2004, p. 21). If we assume that strengths of character can be considered as a ‘capacity’ of an individual, this suggests, yet again, that the cultivation of character can be a source of happiness. Seligman and Csizszentmihalyi (2000) go as far as to say that by studying positive human traits “psychologists will learn how to build the qualities that help individuals and communities, not just to ensure and survive, but also to flourish” (pp. 13).

Carol Ryff’s work on life-span development also reflects the possibility and the importance of the attainment of virtue or good character. Ryff and her colleagues have “explored the question of well-being in the context of a life-span theory of flourishing. Also drawing from Aristotle, they describe well-being not simply as the attainment of pleasure, but as “the striving for perfection that presents the realization of one’s true potential” (Ryff, as cited in Seligman, 2002, pp. 290).

There are empirical studies, again using the VIA on the Internet, which suggest that character strengths do change, and, in particular, that they grow. Peterson and Seligman (2003) compared overall results for people who took the VIA online for a six month period after the dreadful events of September 11th, 2001, with those who had taken it before that day. They found that seven character strengths showed an increase, and that the change was still prevalent (although less so) 10 months after the terrorist attacked. They suggest that the ‘theological’ virtues seem to have been most affected. The data, furthermore, implied that “character is malleable” (pp. 384), and seems to grow in the face of adversity. In the second study Peterson, Park and Seligman (2006) retrospectively looked at the life satisfaction and character strengths of individuals who had had a history of illness. They found that those with the particular strengths of bravery, kindness and humor experienced less of a toll on life satisfaction. They conclude that “recovered individuals may then show elevated strengths of character that contribute to renewed life satisfaction” (p. 25) and that “recovery from illness and disorder may benefit character” (pp. 18). It is interesting, in light of our investigation, that in both studies the character growth is in response to negative, difficult, or stressful events. Given the assumption, in Western Society at least, that there is no gain without pain, and that strength comes from suffering and adversity these studies are not wholly surprising.

The Relationship between Happiness and Character

Many thinkers and scientists since Aristotle have further developed our understanding of the pursuit and attainment of virtue as a route to happiness. In this study, we seek to better understand this relationship and to investigate if it may be more bi-directional in nature than the current literature implies.

By looking at the different measures of happiness, both eudemonic and hedonic, we can begin to “unpack” the relationship between happiness and virtue. Given that virtue is such a key component of the very definition of eudemonic happiness, is it also possible that such happiness may sometimes be the ‘starting point’? Do people who are happy in the broader sense suggested by Seligman experience greater growth in their character strengths, potentially leading to even greater happiness? Essentially, do the rich get richer? We also hypothesize that the ‘Broaden and Build’ theory, which gives such weight to the hedonic approach, would support this view – giving new credibility to the positive emotions as a nutrient of character growth leading to greater engagement and meaning. We hope to find evidence that positive growth in character strengths is indeed more prevalent in happy people, and that this association is stronger when the happiness is defined in the broader sense outlined by Seligman (2002), but still apparent in the hedonic measures that specifically assess an individual’s degree of positive affect.

Method

Research Participants and Procedure

Between September, 2002 and December, 2005, 283,576 adults registered at www.authentichappiness.org, provided basic demographic information (age, gender, educational attainment, country of residence), and completed the VIA Inventory of Strengths (VIA-IS). Some number of respondents also completed one or more measures of well-being. After completing a questionnaire, respondents received immediate feedback about their scores relative to other respondents, and we believe that this feature motivated participants. We presume that respondents came to the website to learn more about positive psychology and themselves. Questionnaires were presented only in English.

Of those who completed the VIA-IS, 9584 (3.4%) did so more than one time, and 6156 (64%) of them completed the measure 30+ days apart (range 30-1204 days, mean = 342 days, median = 266 days). Data from these latter respondents were used in the present study. This group was not appreciably different from the larger sample with respect to age, gender, educational attainment, and U.S. residence, although the “repeat” sample was somewhat more educated and more likely to be female (see Table 2).

Nor were the overall sample and the smaller subsample of individuals who took the VIA-IS twice appreciably different with respect to their initial VIA scores (see Table 3) or well-being scores (see Table 4), although the “repeat” sample had somewhat higher scores on self strengths such as appreciation of beauty, creativity, curiosity, open-mindedness, and love of learning. The “repeat” sample was also marginally more happy and less depressed than the overall sample.

Measures

Character Strengths

The Values in Action Inventory of Strengths (VIA-IS) is a face-valid questionnaire that uses 5-point Likert-style items to measure the degree to which respondents endorse items reflecting the 24 strengths of character in our character classification (from 1 = “very much unlike me” to 5 = “very much like me”). There are ten items per strength (240 total). For example, the character strength of hope is measured with items that include: “I know that I will succeed with the goals I set for myself.” The strength of gratitude is measured with such items as: “At least once a day, I stop and count my blessings.” Responses were averaged across the relevant items to provide scores for each of the 24 character strengths.

Details concerning the reliability and validity of the VIA-IS are presented elsewhere (e.g., Park & Peterson, 2006; Park, Peterson, & Seligman, 2006; Peterson, Park, & Seligman,

2005, 2006; Peterson & Seligman, 2003, 2004). Briefly: (a) all scales have satisfactory reliabilities ($\alpha > .70$); (b) test-retest correlations for all scales over a four-month period are substantial ($r_s > .70$); (c) scores are skewed to the right but have coefficients of variation ranging from .15 to .25, implying acceptable variability; (d) self-nomination of strengths correlate substantially ($r_s > .5$) with the matching scale scores; and (e) ratings by friends or family members of a respondent's top strengths correlate moderately ($r_s \cong .3$) with the matching scale scores for most of the 24 strengths, implying that the VIA-IS reflects something more than just self-perception.

Well-Being

The following measures of well-being were completed by some number of the 6156 respondents who completed the VIA-IS on two occasions 30+ days apart:

- Authentic Happiness Inventory (AHI) (N = 428; Peterson, Park, Steen, & Seligman, 2006)
- CESD measure of depressive symptoms (N = 1190; Radloff, 1977)
- General Happiness Scale (GHS) (N = 2966; Lyubomirsky & Lepper, 1999)
- PANAS measure of positive affect and negative affect (N = 3166; Watson, Clark, & Tellegen, 1988)
- Satisfaction with Life Scale (SWLS) (N = 3022; Diener, Larsen, Emmons, & Griffin, 1985)

All the well-being measures used in this analysis have slightly different approaches to assessing happiness. For the purposes of this research study, the following three happiness scales are used as measures of the hedonic definition of happiness. The Positive Affect and Negative Affect Schedule (PANAS) consists of two 10-item mood scales that act as a self-report of affect

and how a person feels in the moment (Watson, Clark, Tellegen, 1988). Both the Satisfaction with Life Scale (SWLS) and General Happiness Scale (GHS) apply the “subjectivist” approach, maintaining that the best judge of one’s happiness is oneself. The 5-item SWLS assesses the cognitive and judgmental component of hedonic happiness; “Am I satisfied with my life?” as opposed to “Do I feel good?” (Diener et al., 1985). Lyubomirsky’s 4-item General Happiness Scale (GHS) evaluates both the cognitive and the affective aspects of subjective well-being. Ranking happiness on a 1 (not a very happy person) to 7 (a very happy person) scale, respondents are asked to characterize their own degree of happiness with absolute ratings and ratings in comparison to others (Lyubomirsky & Lepper, 1999). In essence, the GHS provides subjective feedback as to whether one is a happy person or unhappy person.

The other two well-being measures used, The Authentic Happiness Inventory (AHI) and the Center for Epidemiological Studies-Depression Scale (CES-D) were used to assess a more global and objective – eudemonic - definition of well-being, which includes emotions, engagement, and meaning. Like the CES-D which is longer and was designed to measure depression with symptom specific items, the AHI also created “symptom” specific items for the pleasant life, the engaged life, and the meaningful life (Peterson et al., 2006). Of the 24 questions on the AHI, only 8 are related to feeling happy, while the other 16 items assess perceived and objective ratings of engagement, achievement, and meaning. As the corollary to the CES-D, the AHI also allows for more subtle distinctions in degrees of happiness than any other well-being measure (Peterson et al., 2006).

Results

Table 3 shows the mean VIA time-one and time-two scores for respondents who took the measure twice. As can be seen, scores for all strengths slightly increased over time (about .05 of

a scale point), and the largest increases ($\geq .08$) were for strengths known to be robustly associated with life satisfaction (Park, Peterson, & Seligman, 2004)—gratitude, hope, love, and zest—and for perspective and religiousness.

Although strengths on average increased over time, their relative rankings across respondents were stable, as shown by the correlations in Table 3 between time-one and time-two scores, which were high in all cases ($> .65$). In other words, individuals high on a given strength at time one (relative to other respondents) were also high at time two, and conversely for those initially low on a given strength (relative to other respondents).

Did the magnitude of change in a strength vary according to respondent's well-being? Difference scores were computed for each strength for each individual by subtracting his or her time-one score from the corresponding time-two score. We also computed an overall change score by averaging the 24 difference scores. Larger positive scores mean that the strength increased, and larger negative scores mean that the strength decreased.

We then correlated these difference scores with the various well-being measures, controlling for respondent age, education, and time-one strength score (to avoid ceiling or floor effects). Results are shown in Table 5 and are clear. For most strengths (except modesty), positive strength change (for the “better”) occurred for respondents higher in well-being, whereas negative strength change (for the “worse”) occurred for respondents lower in well-being. These correlations were in most cases small but were more substantial for strengths like curiosity, gratitude, hope, love, and zest - the major character contributors to well-being (Park et al., 2004) - and more substantial when they involved the AHI and the CESD, which are longer, show more defined gradations in subjective well-being, and arguably measure a broader definition of well-being than the other questionnaires completed by respondents.

These analyses were repeated using the absolute value of the difference scores (in effect treating positive change and negative change as equivalent). The results just described were substantially reduced, meaning that it was important to take into account the direction of change. These analyses were also repeated treating all negative difference scores as zero, and the results were only slightly reduced, meaning that the patterns described can plausibly be interpreted in terms of strength changes for the better among those satisfied with their lives and not simply in terms of strength changes for the worse among those less satisfied. This conclusion also follows from the finding that on average, the strength changes were in the direction of improvement.

We also repeated the analysis only including those who had taken the VIA more than 90 days apart. Suh et al (1996) found that the effect of significant events on well-being seemed to diminish significantly after 90 days, so by looking at change over a longer period, we hoped to minimize the unknown effect of such events. This analysis showed very little difference in the overall picture.

Discussion

How, then, can character strength and happiness measures illuminate the relationship between the two distinct definitions of happiness – good character and good subjective feelings?

The central finding of this research study provides preliminary evidence that people with greater happiness show increases over time in many character strengths, especially those known to be robustly associated with well-being (gratitude, hope, love, curiosity and zest) plus perspective. In other words, the happier get more virtuous ... and wiser to boot. Conversely, those who are depressed (scoring highly on the CES-D) show decreases over time in character strengths and again, in particular, gratitude, hope, love, curiosity and zest, and perspective.

From this analysis, three interesting and preliminary conclusions to consider emerge. The first noteworthy point suggests that this data reinforces and adds to what we know in positive psychology about the eudemonic framework. Secondly, it reinforces and adds to what we know about the hedonic framework. And lastly, it begins to illustrate how, and to what extent, the two theoretical frameworks overlap.

From the ancients to Ben Franklin to the more recent work of Peterson and Seligman, it has been widely believed and empirically proven that cultivating character strengths increases one's level of subjective well-being (Seligman et al., 2005). However this data begins to suggest that happy individuals, by virtue of being happy, are more likely to see growth in their character strengths over time. Thus, the eudemonic notion of human flourishing creates its own positive spiral as the act of cultivating virtue increases happiness, and happiness enables and may perpetuate the cultivation of more virtue.

As reviewed earlier, King and Fredrickson contend that positive emotions and subjective well-being are critical to social and cognitive development by widening the repertoire of thoughts and actions, increasing behavioral flexibility (Fredrickson & Losada, 2005). The positive emotions of joy, interest, contentment and love, "serve to broaden an individual's momentary thought-action repertoire, which in turn has the effect of building that individual's physical, intellectual, and social resources" (Fredrickson, 1998). The positive character growth in strengths associated with life satisfaction and perspective among individuals high in well-being strongly supports this theory. More love, enthusiasm, hope, curiosity, gratitude and perspective begets more loving acts, enthusiastic undertakings, hopeful thoughts, curious behavior, grateful thanksgiving, and wise council. As the saying goes, "practice makes perfect" and happiness seem to provide fuel for the character development or eudemonic fire.

In addition, there is some indication that it may be the expanding range of thoughts and actions enabled by positive emotions that facilitates this growth in character strengths. Of all four well-being measures used in this analysis, the one that assessed engagement as a component of happiness (i.e. AHI) and the one that assessed disengagement as a symptom of depression (i.e. CES-D) show the highest correlation with positive growth or negative correlation in the case of depression. In essence, what Aristotle called “activity of the soul in conformity with excellence” (Melchert, 2002, p.196) or in positive psychological parlance, engagement, might play a mediating role in this link between happiness and character growth. The eudemonic definition of happiness reflects the idea that happiness is not merely an “outcome” of virtue, but is inextricably linked to the action of virtue. The findings of this research study not only provide evidence that sustain the eudemonic view that happiness resides in right action, but also intimates that happiness might foster the further development of right action.

More must be said on how hedonic happiness might facilitate character development. Positive emotions, as Broaden and Build postulates, prime and enable our mind and bodies toward growth, development, and positive relationships. Negative emotions, on the other hand, produce a flight or fight response that limits attention and sharpens analytical processing. According to Laura King, positive emotions “facilitate more abstract top-down answers” while negative emotions call forth “data-driven, bottom-up, processing strategies (King, 2006, p. 192). It is important to note here that both positive and negative emotions seem to have necessary cognitive role in human development, however positive emotions seem to foster the more ideational and abstract thinking and negative emotion the more analytical and contingency planning thinking. A similar pattern emerged in the particular manner in which the 24 character

strengths grew and diminished over time in relation to an individual's level of subjective well-being.

First consider the most robust correlations: those that have a high positive correlation with happiness (greater than 0.2 with the AHI, and 0.1 with all GHI, PA and SWLS) and a high negative correlation with depression (less than -1.5) and negative affect (less than -1.0). These strengths were gratitude, hope, love, zest and perspective. Curiosity 'missed the cut' due to a lack of significant correlation with NA and SWLS, but will be included in this group due to the strength of correlation with AHI (0.28), GHS and PA.

Secondly there is a group that shows lower correlations overall. This group consisting of appreciation of beauty, creativity, love of learning, and open mindedness has no correlation with affect, but does correlate mildly with the AHI and CES-D.

While it is probably dangerous to read too much into the specifics of these groupings, there are some broad themes that are pertinent to our discussion. As we have already seen, positive change in the strengths most robustly associated with well-being (love, zest, hope, gratitude, and curiosity) seems to correlate with people who describe themselves as happy – hence the virtuous circle. These strengths seem to represent the positive, behaviorally expansive virtues, and perspective, a strength that reflects the broadening of one's mindset, also experienced positive growth in robust correlation with happiness. It is a matter of interest and further investigation, that the positive growth in the strengths that directly reflect the theoretical principles of Broaden and Build (i.e. broadening emotional repertoire and broadening mindset) demonstrated the most correlation with well-being.

On the other end of the spectrum lie appreciation of beauty, creativity, love of learning, open mindedness, and religiousness which showed comparatively less growth or diminution in

relation to subjective well-being and depression measures. This grouping of strengths seems to represent the more analytical strengths of character. Creativity seems an odd bedfellow for these “analytical” strengths since it is commonly defined as out-of-the-box thinking or artistic talent. The VIA, it is important to clarify, measures creativity as originality in problem solving, thinking, and behaving which does not necessarily mean abstract or conceptual thinking (see Appendix A). Unsurprisingly, perhaps, these “thinking” strengths show some relationship with the CES-D and AHI, measures that include assessments of engagement - the most cognitive of Seligman’s three pathways to happiness - but little or no relationship with measures of affect. Creativity and open mindedness do show a small, but significant, correlation with PA, perhaps due to their evolutionary role as suggested by the Broaden and Build theory.

The SWLS correlations deserve their own attention in this analysis. Although the correlations of the SWLS with the positive growth of character strengths on the VIA follow the same general trend as the other well-being measures, the statistical significance of the effects were less. Furthermore, a slightly different pattern emerged. As was mentioned earlier, the SWLS is a cognitive and judgmental assessment of satisfaction with life in the past and present – feelings do not come into direct play. It, therefore, is noteworthy that the strengths which saw the most growth in people who scored high on the Satisfaction with Life Scale were strengths associated with coming to grips with the past and judgment i.e. forgiveness, fairness, perspective, and perseverance as well as the strengths already discussed.

Modesty sits in a group of its own – showing very little movement, positive or negative, with any of the measures of well-being which calls for a further and more precise examination of this character strength.

One last lingering question has to do with those strengths that did not show much change over time in correlation with levels of happiness and depression. What have been referred to as the “analytical” strengths of open-mindedness/critical thinking, creativity, appreciation of beauty, and love of learning differ from other cognitive strengths such as perspective and curiosity which show significant growth over time in happier individuals. It is unclear what are the defining mechanisms that differentiate the cognitive character strengths into those that expand with positive emotion and those that do not. It may be, as was suggested earlier, the difference between analytical processing driven by negative affect and abstract processing driven by positive emotion.

These two possible and overlapping conclusions are most succinctly summed up by Ryan and Deci who, in their meta-review of theoretical approaches to positive psychology, surmised that the notion of happiness is best understood “as a multidimensional phenomenon that includes aspects of both the hedonic and eudemonic conceptions of well-being” (2001, p. 148). A data analysis of the correlation between changes in VIA scores over time and well-being validates a similar view. Increases in “feeling good” and increases in “doing good” seem to lead one to the same hopeful, grateful, zestful, loving, and perspicacious place. Perhaps, the philosophical bias which draws a line between eudemonic happiness and hedonic pleasure by linking one to challenge and effort and associating the other with relaxation, ease, and exertion-free happiness is, in reality, quite blurred. This data proposes that the two theories of happiness are inextricably linked where the evolutionary-based theory of positive emotions and character development overlap. It seems that Broaden and Build specifically applies to the development of character strengths and virtues by providing the emotional and cognitive flexibility needed to grow – a theme we will return to in our concluding remarks.

Potential Practical Implications

If, as we suggest, happiness and virtuous growth are indeed related what would that mean for those of us involved in the endeavor of cultivating both happiness and character? What follows are some ideas about how this finding could affect such endeavors. We include them in this discussion to provide both food for thought and motivation for further study and experimentation. Given the limitations of the study already outlined, there is no suggestion that these are concrete practical recommendations, but rather that they suggest this topic is worth further investigation.

The Aristotelians amongst us are likely to see virtuous growth, a focus on the development of character strengths, as a way to improve well-being. Many such positive interventions are already in use in the world of coaching, therapy and character education (Seligman, 2005, Pawelski, in press). Our findings suggest that these may be further enhanced by the addition of a “priming” mechanism – that encouraging feelings of happiness at the outset, however superficial this may seem in the moment, might enable the exercise to have more effect. One could imagine, for instance, a coach or therapist beginning the coaching or therapy relationship with a series of exercises designed to make the person feel happier – encouraging the pleasant life (Seligman, 2002) – first. Perhaps the coach and client might agree on an “action plan” which involves the client seeing their favorite movies, spending time with people they know make them happy, and focusing on what is right about themselves. A more conventional approach encourages excitement and motivation about the future through goal setting, taking stock of where they are now, and where the gaps might be in order to begin the ‘hard work’ of change (Locke and Latham, 1991). Good coaching or therapy (particularly those informed by the field of positive psychology) absolutely encourages a focus on strengths and what is right

about the individual and their lives. However, this study suggests a more explicit focus on the positive emotions as early in the process as possible may enable greater growth over time.

Similarly in the educational environment character development is becoming more mainstream as seen in schools such as the renowned Culver Academy in the US and Wellington School in the UK. Perhaps creating laughter and happiness in the classroom - specifically designing the curriculum to increase happiness at the outset should prove to be a feature of such programs.

Another area of significant practical potential highlighted by this study is the role of the “emotional” virtues in happiness. We know zest, love, gratitude, and hope are robustly correlated with happiness, and that they seem to be more open to positive change for happy people than their cognitive counterparts. It almost seems that there might be a spiral within the virtuous spiral - that these particular strengths might provide a platform for accelerated development. If that is so (and we accept it is a big ‘if’) then perhaps the area of character development would benefit from an even greater focus on more "neck down" interventions which tap more directly into the emotions and complement a more cognitive approach.

Limitations and Further Research Questions

We present our findings with a degree of confidence given the significance of many of the correlations, the congruence of the overall themes and the size of the sample. However, there are obviously some limitations to our method and data. Many of these limitations lead to interesting areas for further research.

Firstly, it could be argued that the use of the Internet introduces some concerns. A review of the potential challenges of the use of this medium to recruit and measure is covered elsewhere (Seligman et al., 2005, p. 420), and suggests that the size of the sample and the accessibility of the Internet, at least in the Developed World, do minimize such concerns.

It almost goes without saying that the findings are, in essence, correlational and are informed by a longitudinal perspective. We cannot say for sure that the relationship between happiness and character development is a causal one. In many ways this is not a major concern, as our suggestion is not one of simple causality – but more one of interdependency. On a similar note we should also be clear that, although we do know that the measures of happiness were taken before the first VIA survey, we do not know for sure (due to some limitations of the way data is recorded from the website) they were taken at exactly the same time as the first survey.

We are also missing some useful information about the subjects that would be important to gather in any further studies. Particularly it would be interesting to know why the individuals did the VIA twice, or what had happened in their lives in the meantime. We do not know if these people were focusing on character development at all, in a general way or on a specific virtue. Finally, we do not yet know if the degree of change in a particular virtue translates into significant behavior change – does the person actually become more grateful on a day-to-day basis when their “score” goes up? And if so what is the magnitude of change needed for us to be able to say that behavior change has occurred?

Apart from the obvious need to attempt to replicate these findings (ideally using a truly random sample of the population), two further areas of study would be valuable. The first area of further research would be a more detailed longitudinal study where we capture more information about the individuals, their motivations, life experiences during the period under review, and behavioral changes at the end. The second area of investigation would be experimental. One could imagine a scenario, for instance, where one group going through a coaching process might be “primed” in the way we described, the other not.

Conclusion

The broadest implication of this data may even suggest that character development is important to the evolutionary development of man. What has been described here as a “virtuous cycle” of intertwining eudemonic flourishing and hedonic happiness can be seen as a non-zero sum or positive-sum dynamic in the process of growing character strengths. Robert Wright offers a theory of human history and organic evolution that advocates the teleological trajectory of cultural and biological evolution toward higher levels of organization, increased behavioral complexity, and, even, greater intelligence (Wright, 2000). The positive-sum relationship of “no pain, more gain” seems to have a positive effect on character strengths, which, by extension, builds emotional resilience, self-actualization, self-efficacy, achievement, and sheer pleasure – all of which, one could argue, promote superior reproductive success. In Seligman’s words, “the more positive-sum games in a culture, the more likely it is to survive and flourish” (Seligman, 2002, p. 255). The correlation of happiness and character strength development, therefore, could potentially be one of the non-zero sum dynamics that drive biological and cultural evolution and growth.

So, perhaps virtuous growth does not have to be the result of pain, or even just hard work. Is it possible that we can grow from happiness as well as the more traditional sources – the pain of dissatisfaction, tough life challenges, and uncomfortable? We would like to think that our findings may suggest an alternative approach to character development and long term happiness which integrates the hedonic and eudemonic definitions of happiness, giving equal value and weight to each. Perhaps where you step on to the virtuous upward spiral of happiness and virtuous growth matters less than the need to ensure a focus on both the “doing” aspect of growth and the experience of just “being” happy.

Table 1

Classification of 6 Virtues and 24 Character Strengths (Peterson & Seligman, 2004)

1. **Wisdom and knowledge:** cognitive strengths that entail the acquisition and use of knowledge
 - Creativity: thinking of novel and productive ways to do things
 - Curiosity: taking an interest in all of ongoing experience
 - Open-mindedness: thinking things through and examining them from all sides
 - Love of learning: mastering new skills, topics, and bodies of knowledge
 - Perspective: being able to provide wise counsel to others
2. **Courage:** emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal
 - Authenticity: speaking the truth and presenting oneself in a genuine way
 - Bravery: not shrinking from threat, challenge, difficulty, or pain
 - Persistence: finishing what one starts
 - Zest: approaching life with excitement and energy
3. **Humanity:** interpersonal strengths that involve “tending and befriending” others
 - Kindness: doing favors and good deeds for others
 - Love: valuing close relations with others
 - Social intelligence: being aware of the motives and feelings of self and others
4. **Justice:** civic strengths that underlie healthy community life
 - Fairness: treating all people the same according to notions of fairness and justice
 - Leadership: organizing group activities and seeing that they happen
 - Teamwork: working well as a member of a group or team
5. **Temperance:** strengths that protect against excess
 - Forgiveness: forgiving those who have done wrong
 - Modesty: letting one’s accomplishments speak for themselves
 - Prudence: being careful about one’s choices; not saying or doing things that might later be regretted
 - Self-regulation: regulating what one feels and does
6. **Transcendence:** Strengths that forge connections to the larger universe and provide meaning
 - Appreciation of beauty and excellence: noticing and appreciating beauty, excellence and/or skilled performance in all domains of life
 - Gratitude: Being aware and thankful for the good things that happen
 - Hope: Expecting the best and working to achieve it
 - Humor: Liking to laugh and tease; bringing smiles to other people
 - Religiousness: Having coherent beliefs about the higher purpose and meaning of life

Table 2

Demographic Characteristics

Total sample (N = 283576)

About 40 years old

31% male

62% college

72% US

“Repeat” sample (N = 6156)

About 40 years old

28% male

76% college

72% US

Table 3

Mean VIA Strength Scores

	Total sample	“Repeat” sample		correlation
		time one	time two	
Beauty	3.78	3.89	3.94	.75*
Bravery	3.66	3.66	3.73	.75*
Creativity	3.75	3.84	3.90	.76*
Curiosity	3.97	4.07	4.13	.73*
Fairness	3.99	4.00	4.05	.68*
Forgiveness	3.64	3.71	3.78	.73*
Gratitude	3.90	3.92	4.01	.74*
Honesty	3.96	3.94	3.99	.71*
Hope	3.60	3.55	3.66	.75*
Humor	3.81	3.74	3.82	.77*
Judgment	3.96	4.04	4.07	.70*
Kindness	3.96	3.93	3.98	.72*
Leadership	3.75	3.74	3.79	.69*
Learning	3.83	4.04	4.08	.75*
Love	3.91	3.90	3.98	.73*
Modesty	3.39	3.31	3.38	.78*
Perseverance	3.62	3.56	3.61	.77*
Perspective	3.77	3.81	3.89	.72*
Prudence	3.47	3.46	3.51	.73*
Religiousness	3.46	3.50	3.58	.82*
Self-regulation	3.29	3.25	3.32	.76*
Social intelligence	3.76	3.77	3.83	.75*
Teamwork	3.70	3.61	3.67	.71*
Zest	3.57	3.58	3.67	.76*

* $p < .001$

Note.—Correlations controlled for age and gender.

Table 4

Mean Well-Being Scores

Measure	Total sample	“Repeat” sample
Authentic Happiness Inventory	3.15	3.27
depression (CESD)	17.2	14.0
General Happiness Scale	4.47	4.54
positive affect (PANAS)	29.1	30.3
negative affect (PANAS)	15.5	15.2
life satisfaction (SWLS)	21.4	22.2

Table 5

Correlations between Character Strength Changes (Time Two – Time One) and Well-Being in the “Repeat” Sample

	<u>Well-being measure</u>					
	AHI	CESD	GHS	Positive affect	Negative affect	SWLS
Overall difference	.31*	-.20*	.19*	.13*	-.06*	.11*
Beauty difference	.06*	-.08*	.03	.01	-.02	-.03
Bravery difference	.13*	-.07*	.08*	.06*	-.01	.04
Creativity difference	.10*	-.06*	.04	.06*	.00	.02
Curiosity difference	.28*	-.10*	.12*	.11*	-.03	.05
Fairness difference	.15*	-.07*	.13*	.08*	-.04	.09*
Forgiveness difference	.14*	-.10*	.14*	.08*	-.08*	.09*
Gratitude difference	.25*	-.16*	.15*	.12*	-.05	.12*
Honesty difference	.17*	-.11*	.10*	.09*	-.04	.07*
Hope difference	.32*	-.25*	.19*	.16*	-.07*	.12*
Humor difference	.13*	-.12*	.14*	.08*	-.03	.05
Kindness difference	.22*	-.09*	.15*	.10*	-.04	.03
Leadership difference	.15*	-.15*	.15*	.09*	-.06*	.11*
Learning difference	.08*	-.03*	.00	.01	-.01	.00
Love difference	.24*	-.21*	.19*	.14*	-.08*	.13*
Modesty difference	.00	-.07*	.03	.02	-.01	.04
Open-mindedness difference	.19*	-.10*	.05	.07*	-.04	.03
Perseverance difference	.21*	-.09*	.11*	.11*	-.02	.09*
Perspective difference	.22*	-.21*	.16*	.14*	-.10*	.11*
Prudence difference	.10*	-.10*	.06	.06*	-.07*	.07*
Religiousness difference	.11*	-.12*	.05	.04	-.02	.05
Self-regulation difference	.12*	-.10*	.10*	.10*	-.02	.06*
Social intelligence difference	.18*	-.14*	.14*	.10*	-.03	.09*
Teamwork difference	.12*	-.09*	.11*	.07*	-.04	.07*
Zest difference	.35*	-.20*	.20*	.17*	-.07*	.13*

* $p < .001$

Note: Correlations control for age, gender, and level of time one strength

APPENDIX A: Curiosity items on VIA-IS

Originality

Q.004

Being able to come up with new and different ideas is one of my strong points.

Q.028

When someone tells me how to do something, I automatically think of alternative ways to get the same thing done.

Q.052

I like to think of new ways to do things.

Q.076

I pride myself on being original.

Q.100

I am always coming up with new ways to do things.

Q.124

My friends say that I have lots of new and different ideas.

Q.148

I am an original thinker.

Q.172

My imagination stretches beyond that of my friends.

Q.196

In the last month I have found an original solution to a problem in my life.

Q.220

I have a powerful urge to do something original during this next year.

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