

Goals and subjective well-being:

Further evidence for goal-striving reasons as an additional level of goal analysis

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Abstract

The paper at hand extends the goal-striving reasons framework in three different ways, using two empirical studies. The first cross-sectional study (N= 146) extends the framework by analysing the degree to which goal-striving reasons predict *subjective well-being* (SWB) over and above classical measures of goal content, approach-avoidance goals and self-concordance. The second study contributes to the extension of the framework in the following two ways. By providing longitudinal data (n = 43), study 2 allows to test whether goal-striving reasons have any causal impact on future SWB levels. Study 2 also contains further cross-sectional data (N = 69) to investigate the degree to which people's core self-evaluations, proactivity levels, and self-actualisation tendencies are associated with more SWB-enhancing goal-striving reasons. The findings of study 1 suggest that goal-striving reasons have incremental validity over other goal-related measures in the prediction of affective and cognitive SWB. The findings of study 2 further show that goal-striving reasons influence future SWB levels, and that core self-evaluations are positively correlated with SWB-enhancing goal-striving reasons.

Keywords: goal-striving reasons; goal content; approach-avoidance goals; core self-evaluations; subjective well-being.

1. Introduction

Research has shown that the amount of *subjective well-being (SWB)* people experience when they achieve their goals is influenced by the kind of goals people pursue (Brunstein, 1993). Two goal characteristics which have been consistently shown to impact the degree of SWB are whether these goals are approach or avoidance goals and what they are about, i.e. their content (Carver & Baird, 1998; Kasser & Ryan, 1993). At the same time, it has been argued that the analysis of goals, based purely on the way they are expressed, is superficial. Mostly because, differences in the reasons behind people's goals are not considered (Coats, Janoff-Bulman & Alpert, 1996; Dickson, 2006; Vansteenkiste, Lens, Elliot, Soenens & Mouratidis, 2014). This is despite the fact that the reasons for goal pursuit have generally been found to be related to various outcomes, particularly SWB (Carver & Baird, 1998; Deci & Ryan, 2000; Ryan & Connell, 1989; Wieber, Sezer & Gollwitzer, 2014).

Because goal characteristics have largely been ignored at a goal-striving reason level, it remains unclear to what extent differences in people's reasons for goal pursuit (with regard to their approach-avoidance tendencies as well as their content) are also important predictors of SWB (cf. Vansteenkiste et al., 2014). Until now, differences in the reasons for goal pursuit, particularly in relation to SWB, have focused mainly on people's degree of self-determination or self-concordance (Deci & Ryan, 2000). However, these measures are not identical to the approach-avoidance dimension or the content of goal-striving reasons despite some theoretical overlap (Elliot, Sheldon & Church, 1997; Judge, Bono, Erez & Locke, 2005). Consequently, measuring the degree to which goal-striving reasons are approach- or avoidance-driven as well as their content is likely to tap into facets of reasons behind people's goals which have not been captured yet and are distinctively different to measures around self-determination or self-concordance.

The recently developed goal-striving reasons framework applies the two goal characteristics of approach-avoidance and goal content onto the level of goal-striving reasons. This model has yielded significant relations with affective SWB and therefore provided empirical support for the importance of applying goal characteristics onto the level of goal-striving reasons (Ehrlich, 2012).

Given this initial support for the goal-striving reasons framework the paper at hand aims to extend the model in three different aspects using two empirical studies. Study 1 focuses on the question of how much incremental variance of SWB can be explained over and above measures of goal characteristics and self-concordance. Study 2 extends the model with regard to the following two aspects. First, the relevance of goal-striving reasons will further be increased if it can be shown that goal-striving reasons have a causal influence on future SWB levels. Thus study 2 includes longitudinal data with which the causal relation between goal-striving reasons and SWB can be tested. Second, in the case that goal-striving reasons do influence SWB, it is of further interest to identify relevant personality traits that coincide with more SWB-enhancing goal-striving reasons. Hence, study 2 includes data on people's core self-evaluations, proactivity and self-actualisation tendencies.

The remainder of this introduction provides the contextual backdrop to the two subsequent studies. A brief description of the goal-striving reasons framework as well as existing empirical findings on the relation with SWB summarise the current state of research on goal-striving reasons. Following on from there, related research on the incremental validity of goal-striving reasons over goal characteristics provide the theoretical background to study 1. The last two introductory parts delineate research relevant for study 2. Related studies on the causal relation between goal-striving reasons and SWB is followed by research that indicates how the three personality traits (core self-evaluations, proactivity and self-actualisation) are potentially linked to goal-striving reasons.

1.1. The goal-striving reasons framework and its relation to SWB

The importance of taking into account the underlying reasons of goal pursuits is widely acknowledged (Carver & Baird, 1998; Urdan & Mestas, 2006). They feature most predominantly within self-determination theory (Deci & Ryan, 2000) and the self-concordance model (Sheldon & Elliot, 1999). Both of these models base their analysis of differently motivated behaviours on the degree of self-determination, ranging from controlled to autonomous behaviour. Both models are well established and their linkages to SWB are widely documented (Deci & Ryan, 2000).

However, the degree of self-determination is not an adequate representation of the approach-avoidance dimension or the content dimension of goal reasons (Carver & Scheier, 2000; Ehrlich, 2012; Ryan & Deci, 1999). Thus, the goal-striving reasons framework has been developed (Ehrlich, 2012). This framework applies the approach-avoidance dimension onto the level of goal-striving reasons. It also uses a more content-specific distinction of goal-striving reasons based on the categorisation by Ford and Nichols (1987; cf. Eccles & Wigfield, 2002) which distinguishes between reasons aimed at changes within oneself (within-person reasons) and reasons aimed at changes in the external environment (person-environment reasons). Ford and Nichols (1987) themselves combined their distinction of within-person and person-environment reasons with the approach-avoidance dimension from which four particular goal-striving reasons could be selected, each of which being a representative of one of the four categories (see figure 1).

The four reasons are: pursuing a goal because of the pleasure people get from it; because it helps others; because of necessity; or because failing to achieve it would threaten people's self-esteem. Ehrlich (2012) empirically showed that the four goal-striving reasons were significantly correlated with affective SWB.

The four goal-striving reasons have also been transformed into a *goal-striving reason index (GSRI)*. This index takes into account the relative strength of the two approaching reasons in relation to the two avoidance reasons. The index has been found to be significantly and positively correlated with affective SWB (Ehrlich, 2012).

To conclude, the goal-striving reasons framework has shown to be a promising model which offers an additional level of goal analysis that is not fully captured thus far within the goal setting literature or self-determination theory. At the same time, further empirical studies are needed since it remains unclear whether (a) goal-striving reasons have incremental validity over other goal measures in predicting SWB, (b) whether they have a causal influence on SWB, and (c) which personality traits determine them.

1.2. The incremental validity of goal-striving reasons over goal characteristics in predicting SWB

As goal-striving reasons are not well established yet, research on the incremental validity of goal-striving reasons over classical measures of goal characteristics is scarce. However, there is some related research to draw on. With regard to goal content, substantial research has been conducted on whether the reasons behind people's goal pursuits can predict SWB over and above measures of goal content. Goals have thereby typically been divided into goals with an intrinsic or extrinsic content (Deci & Ryan, 2000). Intrinsic goal aspirations are aimed at personal growth, meaningful relationships or contribution to community. Extrinsic aspirations are goals aimed at money, fame or enhancing one's attractiveness (Kasser & Ryan, 1993). In this respect, Sheldon and Kasser (1995) found that students who value intrinsic aspirations are likely to report higher levels of self-determination in their pursuit of these aspirations and subsequently report relatively high levels of self-actualisation, with self-actualisation being an indicator of SWB. In contrast, students who tend to pursue extrinsic aspirations report more controlled reasons for goal pursuit and also

tend to report lower levels of self-actualisation. This indicates that the content of goals is related to people's level of self-determination, and that both goals and the level of self-determination influence people's SWB. While Sheldon and Kasser's (1995) findings suggest that goal content and goal-striving reasons are both related to SWB, Carver and Baird's (1998) study shows that the level of self-determination can at times be of such significance as to erase the incremental validity of goal content altogether. They therefore come to the conclusion that, at times, having the right reasons for an aspiration (i.e. being highly self-determined) is a stronger predictor of self-actualisation than the aspiration as such. Despite these slightly contradicting findings on the interplay between goal content and reasons for goal pursuit, both studies support the argument that the reasons for goal pursuit are an important predictor of SWB. Based on the findings presented above we therefore hypothesise that the goal-striving reasons framework, represented through the aggregate GSRI measure, predicts a significant amount of affective (H1a) and cognitive (H1b) SWB over goal content.

With regard to studies investigating the relative importance of approach-avoidance goals and approach-avoidance reasons, the literature is more scarce. To our knowledge, only Dickson (2006) has provided empirical findings related to the approach-avoidance dimension at a goal and goal-striving reason level. In her study, Dickson asked 74 participants, of which 41 were diagnosed as clinically-anxious, to state as many self-generated approach and avoidance goals as possible in a given time. Subsequently the participants were asked about positive and negative consequences for each of the goals to determine the amount of approach and avoidance reasons. Although her study design did not include any direct measures of SWB, the findings show that clinical anxious people do report higher levels of avoidance reasons than non-clinical anxious people. This indicates that people with more avoidance reasons tend to report lower SWB. More importantly, Dickson found that the amount of approach or avoidance reasons is independent from the amount of approach or

avoidance goals. Consequently one can argue that the analysis of approach-avoidance goal-striving reasons is another distinct level of analysis which has not yet been addressed sufficiently. Based on the general notion of approach goals being associated with positive SWB relative to avoidance goals (Coats et al., 1996) and on Dickson's (2006) findings that suggest that approach-avoidance reasons predict SWB, we hypothesise the following. GSRI, as a measure of the relative strength of approach to avoidance reasons within the goal-striving reasons framework, explains a significant amount of variance on affective (H2a) and cognitive (H2b) SWB over the ratio of approach to avoidance goals.

With regard to H1a - H2b, it is also important to show that any incremental variance explained on affective and cognitive SWB is solely attributable to goal-striving reasons and not through other goal-striving reason measures such as self-determination or self-concordance. Hence, for all four hypotheses, the incremental variance of goal-striving reasons is also tested against self-concordance.

1.3. Causal relation between goal-striving reasons and SWB

Although prior cross-sectional studies found goal-striving reasons to be an important predictor of SWB it remains unclear whether goal-striving reasons have a causal influence on future SWB levels. Goal characteristics (Brunstein, 1993) as well as people's self-concordance (Sheldon & Elliot, 1999) have in general been found to influence future SWB levels (cf. Klug & Maier, 2014, Judge et al., 2005). These related empirical findings give reason to believe that goal-striving reasons are also likely to influence future SWB levels.

If goal-striving reasons were empirically to be shown to cause changes in SWB it is equally important to test whether goal-striving reasons remain a significant predictor of future SWB when SWB levels (at the time of the measurement of goal-striving reasons) are controlled for. This is because past SWB is a strong predictor of future SWB (Brunstein, 1993; Sheldon & Elliot, 1999) and therefore any additional predictive validity of goal-

striving reasons over and above concurrently measured SWB would further substantiate the relevance of goal-striving reasons as a predictor for future SWB. We therefore hypothesise that goal-striving reasons influence future affective (H3a) as well as cognitive (H3b) SWB. Moreover the influence of goal-striving reasons on future SWB remains significant when past SWB levels are controlled for.

1.4. Core self-evaluations, proactivity and self-actualisation as predictors of goal-striving reasons

The final extension of the goal-striving reasons framework seeks to identify antecedents of goal-striving reasons with a focus on relevant personality traits (cf. Vansteenkiste et al., 2014). Personality traits have been found to play an important role in terms of antecedents or moderators of goals (Bipp, Kleingeld, Tooren & Schink, in press). Although goal-striving reasons are different from goal-characteristics, they do capture aspects of a goal on a goal-striving reason level and therefore are also likely to be related to certain personality traits. In particular, differences in people's core self-evaluations (Judge, Erez, Bono & Thoresen, 2003), their level of proactivity (Bateman & Crant, 1993) and their self-actualisation tendencies (Jones & Crandall, 1986) can be reasonably assumed to be significantly related to variations in goal-striving reasons. High core self-evaluations as the "basic, fundamental appraisal of one's worthiness, effectiveness, and capability as a person" (Judge et al., 2003, p. 304) should correlate with more approach and less avoidance reasons because individuals feel that they are worthy and capable to set themselves goals which they want to pursue rather than goals which they feel they have to pursue (cf. Judge et al., 2005). Proactivity, a personality measure for a person's disposition towards proactive behaviour, can also be assumed to be positively correlated with more approaching goal-striving reasons. Mainly because, the more an individual proactively shapes their environment to improve it (Crant, 1996), the more likely it is that the environment is conducive to goals an individual wants to

pursue rather than being forced to pursue. Finally, goal-striving reasons might also differ depending on a person's level of self-actualisation. People who score high on self-actualisation have been shown to be more strongly guided by internalised motivation and principles rather than being influenced by others. They also believe to determine their own fate more than people who score low on self-actualisation, which again can be reasonably assumed to coincide with pursuing goals for approaching reasons rather than by reasons with a "have to" notion (Jones & Crandall, 1986). Based on the arguments presented above, we hypothesise that core self-evaluations (H4a), self-actualisation (H4b) and proactivity (H4c) are positively related to GSRI, with GSRI representing the relative strength of people's approach to avoidance reasons.

2. Study 1 (Incremental validity of goal-striving reasons)

2.1. Methods

2.1.1. Procedure

Participants were asked to complete a self-administered, paper-pencil questionnaire in which they needed to state their three most important goals. For each of these goals they were asked to answer a similar set of questions about their goal-striving reasons, their self-concordance and the content of their goals. The latter part of the questionnaire contained the remaining measures of the study which had to be answered independently from the three reported goals. Participants were recruited on a voluntary basis but were rewarded with a £10 voucher. Data gathering took place from January 2013 to July 2013. Participants were given a participation information sheet before taking part in the study so that they could make an informed decision about their participation in the study. Prior to data gathering, ethical approval from the research institutes was obtained, if necessary by local regulations.

2.1.2. Participants

The sample consisted of 146 students all of whom were enrolled in modules with a (business) psychology focus. 72 were recruited from a British Business School and 74 students were recruited from a distance education university in the Netherlands. In total 249 students were invited to participate in the study which resulted in a response rate of 58%. Overall the average age of the sample was 35.35 (SD = 9.86; range: 22-60) years representing a rather mature student population. However, inspecting the two samples indicated significant differences in age, with 30.05 (SD = 6.68) and 40.04 (SD = 9.77) years for the British and Dutch sample respectively. With regard to gender the overall sample consisted of 71% female and 29% male although the Dutch sample was slightly more female dominated (81% females). Therefore, the variables age and gender were included as control variables in all subsequent analyses.

2.1.3. Measures

The measures used in the study were administered in the mother language of the participants. If not otherwise indicated, Dutch versions of the English scales were obtained by means of forward backward translation, as described by La Heij, Hooglander, Kerling and der Velden (1996), involving a professional translator. One person translated the items into Dutch which were then subsequently translated back into English by a second person. This version was compared to the original version of the questionnaire, and if necessary, items were adapted for the final version of the scales to ensure accuracy and clarity of the translation.

2.1.3.1 Dependent variables

SWB measures. Affective SWB was measured using the PANAS scale in its English (Watson, Clark & Tellegen, 1988) and Dutch (Engelen, De Peuter, Victoir, VanDiest & Van den Bergh, 2006) version. Participants answered to which degree they felt each of the affects on a scale from (1) “very slightly or not at all” to (5) “extremely” during the last month. The measurement of positive and negative affect also allowed us to calculate an overall affect

measure, affect balance, which is generated by subtracting the negative affect scores from the positive affect scores.

Cognitive SWB was measured by using the *Satisfaction with Life Scale (SWLS)* by Diener, Emmons, Larsen and Griffin (1985) in its English and Dutch version. The scale consists of five items with strong internal reliability (Diener & Seligman, 2002) and is widely used to measure life satisfaction. Participants were asked to rate each of the five items on a scale from (1) “strongly disagree” to (7) “strongly agree”.

2.1.3.2 Control variables

Approach-avoidance goal ratio. The three personal goals reported were independently rated as approach or avoidance goals by the two principal investigators of the study. The coding was guided by Elliot, Sheldon and Church’s (1997) definition of approach and avoidance goals which defines approach goals as goals that entail trying to move toward (or maintain) a desirable outcome and avoidance goals as goals that entail trying to move away (or stay away) from an aversive outcome or state. Initial agreement between the two raters was 97% on all reported goals and agreement on the remaining goals was reached through discussion.

Goal content. The measure of goal content was derived from Kasser and Ryan’s (1993; 1996) distinction into intrinsic (personal growth, meaningful relationships, contribution to community) and extrinsic (fame, attractiveness, wealth) goal contents. Participants were asked to rate the degree to which they think each of their personal goals is about the six possible goal contents on a seven point Likert scale ranging from 1 “not at all” to 7 “very much”. The goal *content index (GCI)* was calculated by computing the average for each of the six contents over the three goals and then adding up the intrinsic content scores from which the extrinsic goal content scores were subtracted.

Self-concordance. To measure self-concordance this study used Sheldon and Hoon's (2007) measure of self-concordance which consists of four items. Each of which represents one class of motivation: external pressures ("I strive for this goal because I have to or my situation demands it"), introjected reasons ("I strive for this goal because I would feel guilty, anxious or ashamed if I did not"), identified reasons ("I strive for this goal because I identify with it, even when it is not fun and enjoyable") and intrinsic goal motivation ("I strive for this goal because it is intrinsically interesting or challenging"). Participants were asked to answer each of the items for each of the three goals on a scale from 1 "not true at all" to 7 "very true". The *self-concordance index (SCI)* was created by subtracting the averaged item scores for controlled behaviours from the averaged autonomous item scores across the three goals (cf. Sheldon, 2004).

2.1.3.3 Primary predictor variable

Goal-striving reasons. Goal-striving reasons were measured with the goal-striving reasons framework (Ehrlich, 2012). This scale consists of 16 items, measuring the four goal-striving reasons. Each question was preceded by: "I strive for this goal because..." to ensure that the participants rate the reasons for their goal-striving rather than the goal itself. Examples of items for the four goal-striving reasons are: "...If I fail, my self-esteem would really suffer (self-esteem)", "...I like doing it (pleasure)", "...Other people do benefit from it (altruism)" and "...It is necessary to earn a living (necessity)". The participants were asked to state their answers on a seven point Likert scale ranging from 1 "not true at all" to 7 "very true". The four goal-striving reasons have also been aggregated into a GSRI which takes into account the relative strength of the approach reasons to the avoidance reasons. GSRI was created by subtracting the averaged item scores for necessity and self-esteem from the averaged items scores for pleasure and altruism across the three goals.

2.2. Results

2.2.1. Descriptive statistics

The descriptive statistics for the study variables for the overall sample are presented in table 1. The means of the SWB measures indicate that the sample shows on average more positive than negative affect. With regard to life satisfaction, the sample can be categorised, according to Pavot and Diener (2008), as slightly happy.

The descriptive statistics also show that the reliability indexes of the four separate goal-striving reasons are consistently high. Equally, a main component analysis revealed a clear four factor solution for the 16 items which explained 81.2% of variance. Reliabilities and factor solutions were also comparable to the overall findings when conducted separately for the two sub-samples. Based on these findings, the invariance of the goal-striving reasons measure can be assumed across the two samples. The current sample therefore reflects on a descriptive level the values obtained in the development sample of the original measurement instrument (cf. Ehrlich, 2012).

With regards to the correlations between the main study variables, it can be observed that the two approaching reasons as well as the two avoidance reasons show sufficient discriminant validity. This is because correlations within the two approaching reasons, as well as within the two avoidance reasons, are higher than between the approaching and avoidance reasons. It is also notable from table 1 that the correlations between the various indexes are relatively high. Given the similarities of the various indexes this is not unexpected. Furthermore, correlations show that GSRI correlates highest with GCI ($r = .65$) and SCI ($r = .55$) as GSRI measures the content of goal-striving reasons as well as doing this on a goal-reason level.

2.2.2. Hypotheses testing

Given the successful replication of the correlation pattern reported by Ehrlich (2012), hierarchical regressions were performed to analyse the incremental validity of GSRI over

goal content, the measurement of approach-avoidance goals, and self-concordance. This was done separately for affective and cognitive SWB. For both SWB measures, demographics (age, gender) were entered in step one, known goal relevant control variables (Ap-Av R, GCI, SCI) were entered in step two, and the primary predictor (GSRI) was included in step three.¹

The analysis for affective SWB (table 2) reveals that Ap-Av R, GCI and SCI explain a significant amount of variance in step two ($\Delta R^2 = .11$) when age and gender are controlled for in step one. SCI remains the only significant predictor ($\beta = .29$, $p > .05$) in step two. Adding GSRI in step three explains a further significant amount of variance on affective SWB over and above self-concordance ($\beta = .53$; $\Delta R^2 = .14$) rendering self-concordance an insignificant predictor of affective SWB. Hypotheses 1a and 2a (stating that GSRI explains a significant amount of affective SWB over goal content and the approach-avoidance ratio of goals) are therefore supported with regard to affective SWB even when self-concordance has been controlled for.

The analysis for cognitive SWB (table 3) shows that GCI, Ap-Av R and SCI also explain a significant amount of variance in step 2 ($\Delta R^2 = .10$) with SCI being the only significant predictor ($\beta = .29$, $p < .05$). Adding GSRI in step three explains a further significant amount of variance on cognitive SWB over and above self-concordance ($\beta = .46$; $\Delta R^2 = .11$) again rendering self-concordance an insignificant predictor of cognitive SWB. Hypotheses 1b and 2b (stating that GSRI explains a significant amount of cognitive SWB over goal content and the approach-avoidance ratio of goals) are therefore equally supported with regard to cognitive SWB even if self-concordance has been controlled for.

2.3. Summary and discussion of study 1

The aims of study 1 were to further establish the relevance of goal-striving reasons as an additional level of goal analysis in relation to approach-avoidance goals, goal content and self-concordance. The empirical findings clearly show that goal-striving reasons have

significant incremental validity over these traditional goal measures. This is the case for affective but also for cognitive SWB. Therefore, the importance of goal-striving reasons for SWB could be shown to be even wider than previously shown, as prior studies were limited to affective SWB only (Ehrlich, 2012). The relevance of goal-striving reasons is further substantiated by the fact that the findings are based on two different national-samples, which produced similar results.

However, given the cross-sectional nature of study 1 no causal relationship between GSRI and SWB can be inferred. Thus, at this stage, it remains unclear whether GSRI do cause SWB to change or whether changes in SWB impact on GSRI. Hence, a longitudinal research design is required. Furthermore, study 1 does not consider any personality traits that are associated with more or less SWB-enhancing goal-striving reasons.

3. Study 2 (Goal-striving reasons as predictor of future SWB;

Personality traits as predictors of goal-striving reasons)

3.1. Methods

3.1.1. Procedure

The participants were asked to complete two online questionnaires. The format of both questionnaires was similar to study 1. The second questionnaire was completed about two month after the first questionnaire. A two month period between the two questionnaires was chosen as this time period was thought to eliminate any memory effects among those who completed the questionnaire twice. Data gathering took place from October 2014 to January 2015 as not all students started the first questionnaire at the same time. Again, ethical approval of the study was obtained in advance from the relevant research institute.

3.1.2. Participants

The sample consisted of 69 students at time one and 43 students at time two which equates to an attrition rate of 38%. 131 students were invited to take part in the study

resulting in an initial response rate of 53%. The students were enrolled in modules with a strong business psychology focus at a British Business School. The sample consisted of 74% and 73% female and 26% and 27% male at time one and time two respectively. The distribution of age was again very similar with the following distribution at time one and time two respectively (5, 3 between 18-24 years; 29, 20 between 25-34 years; 13, 6 between 35-44 years, 16, 10 between 45 -54 years and 4, 4 between 55-64 years).

3.1.3. Measures

The questionnaire contained the same measures as used in study 1 with regard to goal-striving reasons and SWB. Both variables were measured at time one and time two. It also included the following three personality scales which were only measured at time 1.

Core self-evaluations. For the measurement of people's core self-evaluations the core self-evaluations scale (Judge's et al., 2003) has been used. It contains of 12 items rated on a five point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Examples of items are: "I am confident I get the success I deserve in life" or "I determine what will happen in my life". The internal reliability is reported with .84.

Proactivity. Proactivity has been measured with the proactivity scale by Bateman and Crant (1993). The scale consists of ten items with a five point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Examples of items are: "I am constantly on the lookout for new ways to improve my life", "Wherever I have been I have been a powerful force to constructive change". The internal reliability reported by Bateman and Crant (1993) across various samples ranges between .87 and .89.

Self-Actualisation. For the measurement of people's self-actualisation the Short Index of the Self-Actualisation Scale (Jones & Crandall, 1986) has been used. It contains 15 items which have to be rated on a scale from 1 = disagree to 4 = agree. Example of items are: "I

have no mission in life to which I feel especially dedicated” or” I am bothered by fears of being inadequate”. The internal reliability is reported with .65 for all 15 items.

3.2. Results

3.2.1. Descriptive statistics

The descriptive statistics for the study variables for time one are presented in table 4. There were no significant differences in the mean scores of the study variables for those individuals who only completed questionnaire one and those who completed both questionnaires. The mean scores for the SWB measures indicate that the sample shows on average more positive than negative affect although the difference is smaller than in study 1. With regard to life satisfaction the sample can again be categorised as slightly happy (Pavot & Diener, 2008). Reliability indices for the variables are again high and comparable with study 1. Correlations of the main study variables show mainly a similar pattern to the correlations presented in study 1.

3.2.2. Hypotheses testing

To analyse whether goal-striving reasons predict future affective and cognitive SWB the correlations between GSRI and SWB at time one and two are analysed. With regard to affective SWB the findings show that GSRI at time one is significantly related to SWB at time two ($r = .46, p < .01$) whereas SWB at time one is not significantly correlated to GSRI at time two ($r = .29, p = .06$). Furthermore a hierarchical regression analysis (table 5) reveals that GSRI at time one remains a significant predictor of SWB at time two over and above affective SWB at time one ($\beta = .34, p < .05$). Hypothesis 3a is therefore supported.

With regard to cognitive SWB similar findings are obtained. The correlation between GSRI at time one and cognitive SWB at time two is significantly higher ($r = .38, p < .05$) than the correlation between SWLS at time one and GSRI at time two ($r = .16, p > .30$). However the hierarchical regression reveals no incremental predictive validity of GSRI over

and above SWLS at time one. This can be attributed to the much higher correlation between SWLS at time one and two ($r = .75, p < .001$) compared to the much lower correlation of the two affective SWB measures at time one and two ($r = .47, p < .01$). Hypothesis 3b is therefore only partially supported.

With regard to the predictive validity of core self-evaluations, proactivity and self-actualisation the correlations in table 4 reveal that core self-evaluations ($r = .37, p < .05$) and self-actualisation ($r = .28, p < .05$) are significantly associated with GSRI. The correlations between the three constructs also indicate a significant overlap between the three variables. Thus a multiple regression analysis was performed where core self-evaluations remains the only significant predictor ($\beta = .29, p < .05$). Therefore only hypothesis 4a is supported.

3.3. Summary and discussion of study 2

The longitudinal data clearly shows that goal-striving reasons influence future SWB. People who report higher GSRI, meaning they strive for their goals more out of approaching and less for avoidance reasons, report higher future SWB levels. It can therefore be concluded that by changing goal-striving reasons to more approaching or to less avoidance reasons future SWB can be increased.

Study 2 also shows that people's core self-evaluations are correlated with more approaching goal-striving reasons whereas self-actualisation and proactivity are not. This suggests that goal-striving reasons are associated with the broader, second-order concept of core self-evaluations rather than with the narrower personality traits of proactivity or self-actualisation. Moreover, because core self-evaluations are indicated by four specific core traits (self-esteem, locus of control, neuroticism and generalised self-efficacy), it can be reasonably assumed that there is a considerable overlap with people's tendency to proactively shape their environment (locus of control) as well as their self-actualising tendencies (self-

esteem). This is also empirically supported by the intercorrelations between the three personality variables (table 4).

The findings on goal-striving reasons and core self-evaluations further suggest that the more people see themselves as worthy, efficacious, and in control of their lives, the more likely their goal striving reasons are of approaching nature, i.e. out of enjoyment or for altruistic reasons. This is in line with findings on core self-evaluations and self-concordance which shows that individuals with high core self-evaluations are more likely to pursue their goals for self-concordant reasons (Judge et al., 2005). Given the high correlation between GSRI and SCI it is not surprising that a significant relation has also been obtained for GSRI and core self-evaluations. The process by which the relation between core self-evaluations and goal-striving reasons can be explained is hereby similar to the explanation of how core self-evaluations and self-concordance are related. In essence, the ability to select goals driven by approaching reasons equally requires the ability to resist social pressures as well as having high self-awareness skills (Sheldon & Houser-Marko, 2001). Both of these required abilities are closely associated with high core self-evaluations.

4. General discussion

4.1. Discussion of overall findings

In addition to successfully replicating the findings reported in Ehrlich (2012), the paper at hand shows that goal-striving reasons explain a unique amount of cognitive and affective SWB over and above classical measures of goal-characteristics as well as self-concordance. Goal-striving reasons are therefore an additional and relevant level of goal analysis when examining the relation between goals and SWB. This is an important finding, particularly as Vansteenkiste et al. (2014, p. 153) argue that there needs to be a clearer distinction between goals and the reasons for goal pursuit because it “matters in terms of predicting outcomes” such as SWB.

The longitudinal data provides strong empirical evidence that goal-striving reasons do determine people's future SWB levels. It is therefore important to understand which processes lead to people pursuing their goals more out of pleasure and altruism and less for necessity and fear of self-esteem loss. The correlation as well as the hierarchical regression analyses in study 1 both show that GSRI overlaps with self-concordance suggesting that increasing people's level of self-determination has a positive impact on goal-striving reasons, i.e. leading to more approaching reasons. This is in line with authors who argue that self-concordant goals are fundamentally approach in nature whereas non-concordant goals are fundamentally avoidance in nature (cf. Judge et al., 2005). However, this does not mean that all approach reasons are self-concordant and not all avoidance reasons are non-concordant (Carver & Scheier, 2000; Ehrlich, 2012; Ryan & Deci, 1999). Thus, it seems reasonable to assume that each of the four goal-striving reasons can be increased or decreased through means other than changing people's self-concordance.

For example, when people report that they strive for a particular goal because of the pleasure they get out of it, this enjoyment might not always and entirely be due to intrinsic reasons. It is easily conceivable that the pursuit of a goal might also be enjoyable because of the positive feedback or positive reinforcement a person gets during goal pursuit. People tend to enjoy their goal pursuit more if other people praise them for doing it, admire them how well they do it, etc. This example clearly shows that individuals can pursue a goal out of enjoyment but not necessarily for intrinsic reasons. Indeed, people might even get more enjoyment out of their goal pursuit, once they pursue it for intrinsic reasons but also receive positive feedback or praise from their environment. Locke and Latham (2013) have long argued that in a work context self-determination theory underestimates the positive effects of supportive leadership as a source of influence on people's goal motivation.

Equally, the goal-striving reason of loss of self-esteem may not always be rooted in the fact that a goal is pursued out of introjected reasons. For example, the distinction between fragile self-esteem and secure self-esteem (Kernis, 2003, Deci & Ryan, 1995) provides an alternative underlying explanation why people might pursue a goal for self-esteem reasons. Individuals with a highly fragile self-esteem would still very much worry about their self-esteem even if the goal they pursue is pursued because it is intrinsically interesting and they strongly identify with it. These two examples illustrate that the goal striving reasons framework makes it possible to identify further underlying processes that influence people's goal-striving reasons that are not captured by self-determination or self-concordance theory.

Finally, core self-evaluations emerged as the most relevant personality trait that coincides with the degree to which people have SWB-enhancing goal-striving reasons. The more people view themselves as worthy, efficacious and in control of their lives, the greater the positive impact on people's general well-being (Judge et al, 2005). Our findings suggest that those positive views about oneself are also related to more SWB-enhancing goal striving reasons. The findings on core self-evaluations further suggest that the reasons why people pursue their goals are not fully determined by the nature or characteristics of a person's goals per se but to a significant degree by differences in personality. People seem to have some influence over the reasons which underpin their goals (Sheldon & Houser-Marko, 2001). The same goal can be pursued for a variety of different reasons and it seems that a person's personality is significantly associated with the degree of approaching or avoidance reasons especially when compared to the weak relation between goal-striving reasons and goal characteristics as such (cf. Dickson, 2006).

4.2. Limitations

While the two studies provide strong support for the importance of goal-striving reasons as an additional predictor of SWB, the findings have to be interpreted with caution.

For example, both studies draw on (mature) student samples which affect their external validity. They also relied exclusively on self-report data which opens up the possibility that the findings are inflated by common method variance. However given the similar correlation levels between GSRI and SWB in study 1 (cross-sectional) and study 2 (longitudinal, with a two month time period in between) the findings are unlikely to be overly affected by common method variance. Furthermore, participation in the study was voluntary therefore a certain self-selection bias cannot be ruled out. Additionally, the sample sizes of both studies are generally small, particularly the longitudinal data. As a consequence of the limited longitudinal data available, personality variables such as core self-evaluations were not considered as a predictor for future SWB. Finally, the longitudinal findings could have been susceptible to memory effects given that participants completed the same questionnaire after a two month period. While a two month period was deemed sufficient by the two researchers future studies should control more rigorously for any potential memory effects.

4.3. Implications for theory and practice

Despite these limitations, the findings provide contributions to theory and practice in the following ways. With regard to the theoretical implications, the goal-striving reasons framework has been further established as a new theoretical approach to measure the reasons for goal pursuit (Deci & Ryan, 2000). Its uniqueness stems from the fact that it taps into facets of reasons not (fully) captured by self-determination theory or the self-concordance model. Based on the argument that approaching reasons are not always self-concordant and avoidance reasons are not always non-concordant, the goal-striving reasons framework offers a theoretically broader alternative to distinguish between different goal-striving reasons. It is broader because it is based on a two dimensional approach (approach/avoidance and within-person/person-environment reasons), which is why it allows us to measure more content-specific goal-striving reasons such as fun, altruism etc. As a consequence, the four goal-

striving reasons can be caused by a variety of processes not only by a person's level of self-determination or self-concordance. This is an important theoretical contribution, not least because the wider framework significantly increases the amount of variance that can be explained on affective as well as cognitive SWB.

The framework also has practical implications as it seems particularly applicable in settings where self-determination theory is seen to be less suitable. Typically, these are settings where people have to work towards a given overall task and therefore the task is not self-generated or freely-chosen (Fay & Frese, 2000; Powers, Koestner & Zuroff, 2007), or where external factors such as supervisory or collegial support have a strong influence over people's goal pursuits (Locke & Latham, 2013). Therefore, any attempts to stimulate SWB in these settings, for example at work (e.g. Ouwenel, Le Blanc & Schaufeli, 2013), should also focus on strengthening people's approach goal-striving reasons as well as decreasing their avoidance reasons.

4.4. Future research directions

The findings of the two studies also identify areas of future research. One area revolves around the suitability of the goal-striving reasons framework in a more applied context. Particularly in the work context where people typically work on assigned tasks, it remains unclear, at this stage, whether goal-striving reasons also have incremental validity over goal measures such as approach-avoidance goals, goal content or self-concordance. Another area for future research is based on the notion that the goal-striving reasons framework, given its two dimensional basis (approach/avoidance reasons and within-person/person-environment reasons), offers the possibility to develop a more comprehensive measure of goal-striving reasons. Such a measure could potentially include people's goal-striving reasons, their level of self-concordance and other additional goal-striving reasons.

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Footnotes

¹All hierarchical regressions presented show similar results when analysing the two sub-samples separately which is why this findings are not explicitly presented.

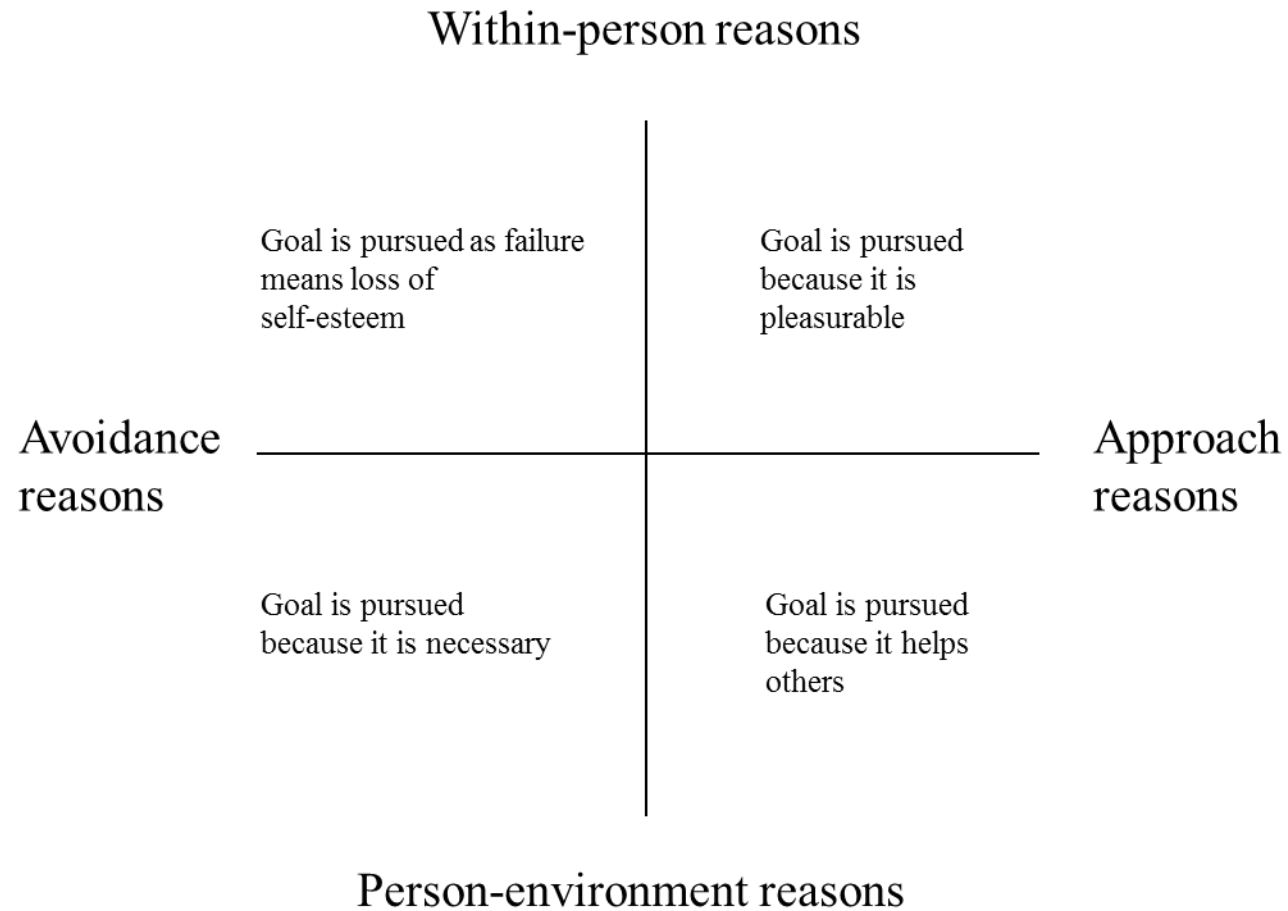


Figure 1: Goal-striving reasons framework (adapted from Ehrlich, 2012)

Table 1: Descriptive statistics of study variables (study 1)

	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	10	11
1) PA	3.68	.63	.83											
2) NA	2.11	.75	.84	-.35**										
3) Affect Balance	1.57	1.13	.85	.79**	-.85**									
4) SWLS	4.84	1.20	.86	.42**	-.38**	.49**								
5) Pleasure	4.90	1.18	.93	.45**	-.32**	.45**	.45**							
6) Altruism	3.93	1.29	.89	.42**	-.19*	.36**	.21*	.51**						
7) Self-esteem	3.25	1.19	.90	-.19*	.41**	-.37**	-.24*	-.15	.02					
8) Necessity	3.04	1.29	.93	.01	.17*	-.10	-.17*	-.09	.04	.27**				
9) GSRI	2.57	2.94	.88	.45**	-.48**	.54**	.45**	.73**	.60**	-.55**	-.53**			
10) SCI	2.80	2.99	.71	.25**	-.35**	.37**	.33**	.46**	.11	-.42**	-.36**	.55**		
11) GCI	4.41	4.14	.65	.21*	-.25**	.28**	.21*	.42**	.35**	-.31**	-.50**	.65**	.47**	
12) Ap-Av R	.94	.12	n/a	.20*	-.07	.16*	.07	.39**	.18*	-.05	.02	.26**	.21*	.32**

Note. For a better vividness, means (ranging from 1 to 7) instead of sums (ranging from 5 to 35) of the SWLS are presented. (N = 146). PA = Positive affect; NA = Negative affect; SWLS = Life satisfaction; GSRI = Goal-striving reason index; SCI = Self-concordance index; GCI = Goal content index; Ap-Av R = Approach-avoidance goal ratio.

Table 2: Hierarchical regression analysis predicting affective SWB based on approach-avoidance ratio of goals, self-concordance, goal content, and goal-striving reason index

Variable	Affective SWB		
	Model 1	Model 2	Model 3
	β	β	β
Age	.24*	.11	.04
Gender	-.11	-.13	-.09
Ap-Av R		.07	.03
GCI		.09	-.13
SCI		.29**	.14
GSRI			.53**
	R^2 (adjusted R^2)	.06 (.05)*	.18 (.15)**
	ΔR^2	.11*	.14**

Note. N = 146; + $p < .10$. * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2. Ap-Av R = Approach-avoidance goal ratio; SCI = Self-concordance index; GCI = Goal content index, GSRI = Goal-striving reason index.

Table 3: Hierarchical regression analysis predicting life satisfaction based on approach-avoidance ratio of goals, self-concordance, goal content, and goal-striving reason index

Variable	Cognitive SWB (SWLS)		
	Model 1	Model 2	Model 3
	β	β	β
Age	.09	-.04	-.10
Gender	.05	.02	.06
Ap-Av R		-.02	-.05
GCI		.09	-.10
SCI		.29**	.16
GSRI			.46**
	R^2 (adjusted R^2)	.01 (.01)	.11 (.08)**
	ΔR^2		.11**

Note. N = 146; + $p < .10$. * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2. Ap-Av R = Approach-avoidance goal ratio; SCI = Self-concordance index; GCI = Goal content index, GSRI = Goal-striving reason index.

Table 4: Descriptive statistics of study variables (study 2, time 1)

	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	13	14
1) PA	3.42	.60	.86											
2) NA	2.48	.71	.88	-.16										
3) Affect Balance	3.47	.49	.85	.70**	-.78**									
4) SWLS	4.52	1.23	.85	.42**	-.40**	.53**								
5) Pleasure	4.45	1.19	.90	.53**	-.06	.35**	.17							
6) Altruism	3.29	1.26	.92	.29*	.02	.17	.16	.57**						
7) Self-esteem	3.70	1.27	.88	-.22	.40**	.44**	-.38**	.08	.11					
8) Necessity	3.01	1.14	.90	.14	-.01	.08	.07	.25*	.46**	.28*				
9) GSRI	.98	2.34	.85	.40**	-.17	.38**	.31**	.57**	.54**	-.51**	-.26*			
13) Proactivity	3.34	.69	.89	.36**	-.03	.23	.19	.33**	.27	.02	.17	.23		
14) Self-Actualisation	5.20	1.01	.62	.23	-.34**	.35**	.18	.18	.02	-.27*	-.12	.28*	.34**	
15) CSE	3.27	.62	.76	.53**	-.64**	.76**	.62**	.22	.12	-.54**	.04	.37**	.28*	.36**

Note. For a better vividness, means (ranging from 1 to 7) instead of sums (ranging from 5 to 35) of the SWLS are presented. (N = 69). PA =

Positive affect; NA = Negative affect; SWLS = Life satisfaction; GSRI = Goal-striving reason index; CSE = Core self-evaluations.

Table 5: Hierarchical regression analysis predicting future SWB life satisfaction based on approach-avoidance ratio of goals, self-concordance, goal content, and goal-striving reason index

Affective SWB (time 2)			
Variable	Model 1	Model 2	Model 3
	β	β	β
Gender	.15	.13	.11
SWB (time 1)		.40**	.26
GSRI (time 1)			.34*
R^2 (<i>adjusted</i> R^2)	.02 (.00)	.18 (.14)**	.28 (.23)*
ΔR^2		.16**	.10*

Note. N = 43; * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2. SWB = Affect Balance; GSRI = Goal-striving reason index