The goal-striving reasons framework: Further evidence for its predictive power for subjective well-being on a sub-dimensional level and on an individual goal-striving reasons level as well as evidence for its theoretical difference to self-concordance

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Abstract

This paper compares the predictive power of the goal-striving reasons model and the self-concordance model on a sub-dimensional and an individual goal-striving reasons level based on a cross-sectional research design (N = 139). Multiple regression analyses on a sub-dimensional level show that approach, as well as avoidance goal motivation, have higher predictive power in the prediction of affective and cognitive subjective well-being than autonomous and controlled goal motivation. Equally, the predictive power of the four individual goal-striving reasons is generally stronger than the predictive power of the individual self-concordance reasons. The analyses of the theoretical differences between goal-striving reasons and self-concordance show that on an overall goal-striving reasons index level, on a sub-dimensional level as well as on an individual goal-striving reasons level that the goal-striving reasons framework is generally more strongly related to measures representing people's tendency to be influenced by others in their goal pursuit. Self-concordance is not significantly associated with either of these measures. Based on these findings, it is concluded that the goal-striving reasons framework is more sensitive to the influence of others than self-concordance. The theoretical implications of these findings revolve around the fact that goal-striving reasons can be seen as a more comprehensive goal reason measure than self-concordance. Practical implications point towards the importance of personal assertiveness as a correlate of positive goal-striving reasons.

Keywords: goal-striving reasons; self-concordance model; subjective well-being; index of autonomous functioning; sociotropy.

1. Introduction

The reasons why people pursue their goals are an important predictor of their subjective well-being (SWB; Deci & Ryan, 2000). Self-concordance, i.e. the degree to which people's goal motivation emanates from self-choices (autonomous goal pursuit) rather than from external pressures (controlled goal pursuit), is currently the most predominant characteristic to measure the quality of goal reasons with. Self-concordance has been shown to be related to a variety of outcome variables all representing positive psychological functioning, including SWB (Elliot, Sheldon & Church, 1997; Judge, Bono, Erez & Locke, 2005; Sheldon & Hoon, 2007).

The goal-striving reasons framework has recently been promoted as a distinctively different way of conceptualising the "why of goal pursuit" (Ehrlich, 2012; Ehrlich & Bipp, 2016; Ehrlich, 2018). Unlike the self-concordance model, it divides the reasons for goal pursuit into approach and avoidance reasons rather than along a continuum of self-concordance ranging from autonomous to controlled goal-strivings. The goal-striving reasons framework has been found to be significantly related to cognitive and affective SWB (Ehrlich, 2012). It has also been found to have higher predictive power than the self-concordance model in the prediction of cognitive and affective SWB (Ehrlich & Bipp, 2016), as well as work engagement and burnout (Ehrlich, 2018).

However, two aspects need to be addressed further to appreciate the unique contribution of the newly developed goal-striving reasons framework in comparison to the self-concordance model. One of these aspects is the fact that the theoretical differences between the goal-striving reasons framework and the self-concordance theory remain somewhat fuzzy. Ehrlich and Bipp (2016) argue that goal-striving reasons place a stronger emphasis on the approval or disapproval of others in relation to people's goal pursuits, but very little empirical research has been conducted in this respect.

Furthermore, there is a lack of studies that compare the predictive power of goal-striving reason and self-concordance on a sub-dimensional level as well as on an individual goal-striving reasons level. So far, comparative studies between the goal-striving reasons framework and self-concordance have always used a composite measure whereby approach and avoidance motivation, as well as self-concordant and non-concordant motivation, were aggregated into a single, overall index. Although such studies are important, it is imperative to analyse the degree to which approach and avoidance motivation, especially in comparison to autonomous and controlled motivation, are able to predict different aspects of positive psychological functioning. Furthermore, an analysis of the predictive power of individual goal-striving reasons gives further insights into the relationship between individual goal-striving reasons and measures of well-being.

Against this backdrop, the objectives of this paper are as follows. Firstly, the article aims to compare the predictive power of the goal-striving reasons framework and the self-concordance model for people's positive psychological functioning on a sub-dimensional level as well as on an individual goal-striving reasons level. Secondly, the paper aims to analyse whether goal-striving reasons and self-concordance correlate differently with psychological constructs that measure people's sensitivity to the influence of others.

1.1. Self-concordance theory and the goal-striving reasons framework

Self-concordance theory, as well as the goal-striving reasons framework, are both concepts which claim to measure the quality of reasons that underpin people's goal pursuits. Self-concordance theory, introduced by Sheldon and Elliot (1999), is based on the more widely known self-determination theory (Deci & Ryan, 1985). In essence, the self-concordance theory posits that goal motivation varies in quality (self-concordant and non-

concordant motivation) and that these differences in quality impact on people's psychological functioning (Gillet, Vallerand, Lafrenier & Bureau, 2012).

Goals are pursued in a self-concordant way when they are pursued out of intrinsic motivation (because of a strong interest) or identified motivation (self-identified personal convictions). In these two cases, goals are characterised as integrated with a person's self and therefore emanate directly from self-choices (Sheldon & Elliot, 1999). Self-determination theory characterises these two forms of goal motivation as internalised forms of motivation. In contrast, goals can also be pursued because of external forces (because the situation demands it) or introjected reasons (because one would feel guilty, anxious or ashamed not to pursue a certain goal). In these two instances, the locus of causality, the reasons why one pursues a goal, lies outside a person's self and therefore does not emanate from self-choices but from forces outside the self. These two forms of non-concordant motivation are typically labelled as controlled goal motivation (Sheldon & Elliot, 1999). Here, goals are pursuit because of forces to which the person does not give his/her full assent (Deci & Ryan, 2000; Sheldon & Elliot, 1999).

The goal-striving reasons framework divides people's reasons for goal pursuits into approach and avoidance reasons - one of the most classical distinction within motivation theories in general (Elliot & Thrash, 2010) but also within goal-setting theory specifically (Latham, 2012). Generally, approach goals are defined as goals which aim to move towards desired outcomes whereas avoidance goals aim to avoid undesired outcomes (Carver & Scheier, 1999). Research has provided ample evidence for the fact that approach goals relative to avoidance goals typically contribute more strongly to people's SWB (Dickson, 2006; Ryan & Deci, 2001). The goal-striving reasons framework applies the distinction between approach and avoidance goals onto the level of goal reasons. It also distinguishes within approach and avoidance goals whether a particular goal-striving reason is aimed at

self-centred reasons (within-person reasons) or reasons outside a person (person-environment reasons) – a distinction first introduced by Ford and Nichols (1987) but since then used by many other researchers (Austin & Vancouver, 1996; Eccles & Wigfield, 2002, Ford, 1992). Using the specification of within-person and person-environment reasons for approach and avoidance reasons, the goal-striving reasons framework identifies four specific goal reasons (see Figure1): pleasure (approach/within-person), altruism (approach/person-environment), avoiding the loss of self-esteem (avoidance/within-person), and necessity (avoidance/person-environment).

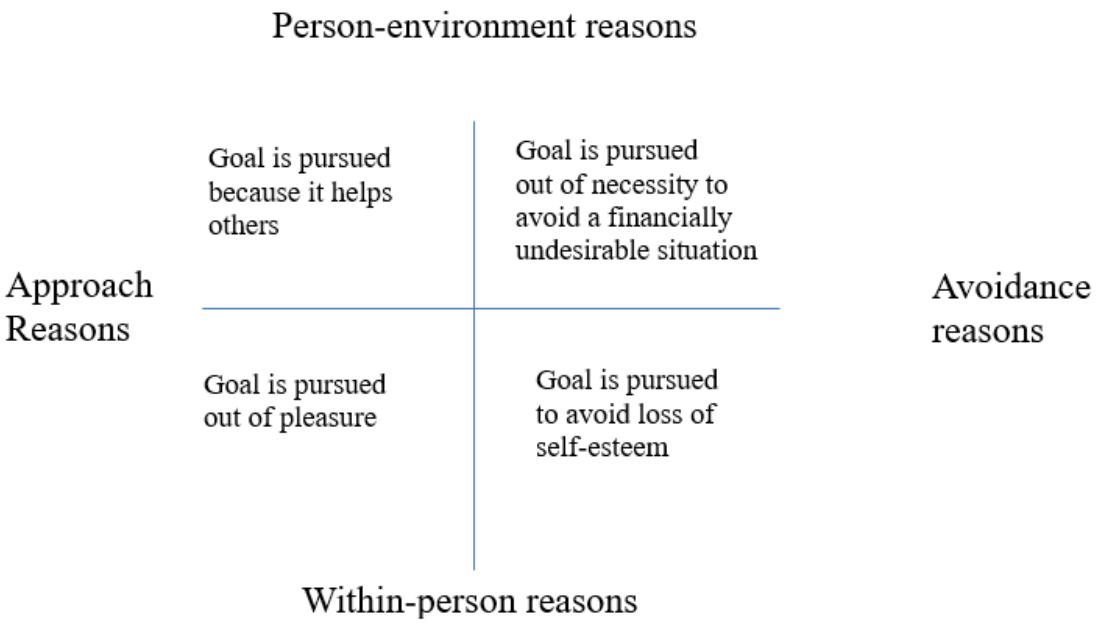

Figure 1: Goal-striving reasons framework (Adapted from Ehrlich & Bipp, 2016)

These four specific reasons have been chosen as each of them has been found to be a significant driver of human behaviour. For example, the amount of pleasure or positive emotions experienced, particularly during goal-pursuit, is widely acknowledged by a variety of authors and therefore has been chosen as a very important reason to understand the

emotional consequences of people's goal-striving reasons (Brunstein, 1993; Carver & Baird, 1998; Csikzsentmihalyi, 1988; Deci & Ryan, 2000; Kehr, 2004; Latham, 2012). Equally, people's desire not to lose a positive view about themselves (self-esteem) is another fundamental driver that underpins the goal-pursuit of many individuals (Crocker & Park, 2002; Crocker & Knight, 2005; Ellis, 2005; Judge, Erez, Bono & Thoresen, 2003; Kernis, 2003). With regard to avoiding an unwanted external situation, the desire not to lose essential material wealth is seen as one of the strongest drivers with regards to avoidance of a negative external situation (Austin & Vancouver, 1996; Wicker, Lambert, Richardson & Kahler, 1984). Individuals are quite often in a situation where they have to pursue a certain goal in order to maintain a necessary standard of living to be able to make a (good) living. The final goal-striving reasons centres around the notion that for many individuals being able to help others is again a major driver for their behaviour and their goal-strivings. For instance, Adler (1937) argued that helping others is an innate human characteristic which is generally associated with positive feelings. More recent studies also clearly show the positive impact of helping others for one's own well-being (Batson, Ahmad & Lishner, 2009; Schwartz, Meisenhelder, Ma & Reed, 2003). Most prominent in this context are the "act of kindness" studies which have conclusively demonstrated the positive benefits of helping others for people's own well-being (Chancellor, Margolis, Bao, & Lyubomirsky, 2018).

The arguments presented above highlight why those four goal-striving reasons can be seen as important underpinning drivers for people's goal-strivings. At the same time, it has to be acknowledged that the goal-striving reasons framework does not claim to capture all possible goal-striving reasons. Thus, other important drivers of human goal-pursuit, such as pursuing financial gains in order to pursue luxury items, are not covered.

The following example, based in the work context, is used to further illustrate the application of the goal-striving reasons framework. An employee might be motivated to

pursue a particular work project because of the amount of pleasure he/she gets out of it, whether through the task itself or the positive feedback from others (pleasure). Another strong driver for the employee might be that their work has direct positive consequences for others (altruism). Equally, the employee might feel that it is important to complete the project successfully as failure would mean that they might feel less good about themselves (fear of loss of self-esteem). Finally, the employee might also be motivated to work on this project as an unsuccessful project might mean less money resulting in financial difficulties such as being unable to pay the rent or the children's school fees (necessity).

1.2. Comparison of the predictive power of approach and avoidance goal motivation versus autonomous and controlled goal motivation

With regard to the comparative predictive power of the goal-striving reasons framework in relation to self-concordance, it is important to test the predictive power of the models on a sub-dimensional level as well as on an individual goal-striving reasons level. This is necessary as, in the past, the practice of creating an aggregated summary index of self-concordance whereby the controlled motivation scores are subtracted from people's autonomous goal motivation scores has received some criticism. Mostly because autonomous and controlled motivation have been found to be not always significantly negatively correlated with each other – but moderately positively correlated (cf. Judge et al., 2005). Also, autonomous and controlled motivation related differently with variables representing people's positive psychological functioning. For example, Koestner, Otis, Powers, Pelletier & Gagnon (2008) found that autonomous goal motivation was related to goal progress whereas controlled motivation was not. Similar findings have been reported by Sheldon and Elliot (1998) and Judge et al. (2005). With regard to controlled motivation, Gillet et al. (2012) for

example, found that controlled motivation is particularly related to negative affect but not to positive affect. Thus, research indicates that autonomous motivation is typically associated with positive psychological functioning whereas controlled motivation tends to be related with negative psychological functioning (for reviews see Deci & Ryan, 2000; Vallerand 2007).

The critique of creating a composite score across approach and avoidance goal-reasons is equally applicable to the goal-striving reasons framework. This is because approach and avoidance reasons have also been found to be mostly not significantly negatively correlated (Ehrlich & Bipp, 2016) and at times even positively correlated (Ehrlich, 2018). These findings therefore also suggest that it is necessary to test to which degree approach and avoidance motivation are differently related to people's positive and negative psychological functioning. Related studies with regard to the relative importance of approach and avoidance goal-striving reasons for the prediction of positive psychological functioning are mostly lacking. Thus far, only Ehrlich (2012) could empirically show that approach reasons tend to relate more strongly with positive affect whereas avoidance reasons are related to negative affect, which in essence is very similar to the findings obtained for autonomous and controlled motivation within the self-concordance literature. However, studies, whereby the comparative predictive power of approach against autonomous motivation as well as avoidance against controlled motivation is simultaneously tested, have been lacking.

The present study aims to narrow this research gap described above by addressing the following two hypotheses. Firstly, based on prior studies whereby goal-striving reasons showed higher predictive power than self-concordance in the prediction of SWB (Ehrlich & Bipp, 2016) it is hypothesised that the two sub-dimensions of approach and avoidance motivation *(H1a)*, as well as the four individual goal-striving reasons *(H1b)*, are a stronger predictor of people's SWB than the corresponding self-concordance measures. Secondly,

based on research that indicates that approach and autonomous goal motivation are generally related with positive psychological functioning whereas avoidance and controlled goal motivation are typically related to negative psychological functioning, it also seems important to test this assumption for both models on a sub-dimensional as well as on an individual goal-striving reasons level. As prior studies indicated a stronger predictive power of the goal-striving reasons framework compared to self-concordance, it is hypothesised that *(H2a)* approach goal-striving reasons (on a sub-dimensional level and an individual goal-striving reasons level) are a stronger predictor of people's *positive affect (PA)* than their corresponding self-concordance measures. Equally, *(H2b)* avoidance goal striving reasons (on a sub-dimensional and individual goal-striving reasons level) should be a stronger predictor of people's *negative affect (NA)* compared to the corresponding self-concordance measures.

1.3. Theoretical differences between goal-striving reasons and self-concordance

With regard to the theoretical differences between goal-striving reasons and self-concordance, it has been argued that the goal-striving reasons framework is a wider framework than self-concordance. This is because it allows for the reactions of others to be an additional factor to influence the amount of pleasure, altruism, fear of losing self-esteem and necessity (Ehrlich & Bipp, 2016). In contrast, self-concordance focusses exclusively on the various degrees of autonomy, with concordant goals being highly autonomous, and as a result, puts far less emphasis on the (direct) influence of others. The following arguments aim to highlight these differences in more detail.

In the case of the goal-striving reasons of pleasure, one can, for instance, argue that people might pursue a goal because it is highly interesting (high self-concordance). However,

the fact that other people in their environment are responding positively or negatively to this goal might further increase or decrease the amount of pleasure people get from it. The case of others being able to further increase or decrease one's pleasure is considered within the goal-striving reason of pleasure. This is because pleasure can be derived from the task itself but also from the positive reactions from others. Self-concordance, on the other hand, focuses exclusively on the intrinsic value of the task itself.

Equally, the degree to which one's goal is driven by the desire "not to be looked down upon by others" is an important facet in the avoidance-driven goal-striving reason of "fear of losing self-esteem". Although self-concordance also captures the degree to which introjected behaviours are focussed on feelings of shame or guilt (similar to losing self-esteem) it does so by focussing on internalised norms and values rather than how guilt or shame can be caused directly by others. Finally, the goal-striving reason of altruism is clearly capturing the notion to what extent goals are driven by the desire to have a positive impact on the wellbeing of others– again a facet not explicitly captured within self-concordance (cf. Ehrlich, 2012). The arguments presented above are further substantiated by the mere fact that typically, measures of self-concordance do not contain the word "others", whereas some items within the goal-striving reasons framework do.[1] Initial empirical evidence for the assumed theoretical differences is provided by Ehrlich (2018) who could show that, in the work context, goal-striving reasons are positively related to people's assertiveness levels whereas self-concordance is not. Assuming that at work, where people rarely choose their goals freely, employees need to, at times, assert themselves against the influence of others (supervisor, colleagues) to ensure that they pursue the goals they want to pursue. As the direct influence

[1] Admittedly, self-concordance theory acknowledges, substantiated by empirical evidence, the relevance of others for people's self-concordance. However, the influence of others is of an indirect nature as it is very much focussed on providing an autonomy-supportive environment which enables individuals to pursue goals autonomously. This might include autonomy-supportive behaviour of others (Deci & Ryan, 2000; Ehrlich, 2018).

of others is not considered within self-concordance theory, no such relationship between assertiveness and self-concordance has been obtained.

The differences in measurement, as well as the initial empirical findings of Ehrlich (2018) between goal-striving reasons and self-concordance, give strong reasons to believe that the goal-striving reasons framework is more sensitive to the influence of others when compared with self-concordance. However, further empirical studies are needed to a) see whether the findings of Ehrlich (2018) can be replicated but also b) if these findings are also obtained when other suitable measures with which to capture people's sensitivity to the influence of others are used.

One measure to test this with is the *Index of autonomous functioning* (*IAF,* Weinstein, Przybylski & Ryan, 2012). This index captures a trait like disposition of autonomy based on the tendency to behave self-congruently (authorship), to follow one's interests (interest) and the degree to which one feels dependency on others (control). The IAF can be used as an overall index but it is equally valuable to use the three subscales separately (Weinstein et al., 2012). For the purpose of the present paper, the two subscales authorship/self-congruence and control are particularly relevant.

With regard to authorship, it can be hypothesised *(H3)* that goal-striving reasons and self-concordance should both correlate equally high with this subscale. Mainly because authorship represents the level of dispositional autonomy and this trait, in turn, very much represents people's self-concordance (Weinstein et al., 2012). Similarly, Judge et al. (2005) argue that self-concordant goals are very often 'approach' in nature which leads to the conclusion that approach reasons should also coincide with authorship. With regard to the control dimension, it can be argued that this subscale very much touches on people's tendency to act or feel strongly obliged to act according to the expectations of others. Given that the goal-striving reasons are assumed to be more sensitive to the positive and negative

reactions or influences of others one can hypothesise *(H4)* that goal-striving reasons correlate more strongly with the control subscale than self-concordance.

Another measure to substantiate the theoretical difference between goal-striving reasons and self-concordance is sociotropy (Clark, Steer, Beck & Ross, 1995). Sociotropy refers to an investment in positive interactions with others in such a way that individuals pay an overly strong attention to the fact that they are liked and accepted by others (Clark & Beck, 1991). As the goal-striving reasons framework is assumed to be more sensitive to the reactions of others it can be hypothesised *(H5)* that goal-striving reasons correlate more strongly with sociotropy than self-concordance.

2. Methods

2.1. Procedure and participants

Participants were recruited on a voluntary basis through an online recruitment platform following a convenience sample approach. The sample consisted of 139 native English speakers. The average age of the sample was 33 years (SD = 9.66). The sample consisted of 67% female participants and 33% male participants. 104 participants reported to be employed or self-employed whereas 35 respondents reported being not employed at the time (unemployed, retired or student). Participants were asked to complete a self-administered, online questionnaire in which they needed to state their four most important, self-defined work goals. For each of these idiosyncratic goals, they were asked to answer a set of questions with regard to their goal-striving reasons and self-concordance. The latter part of the questionnaire contained the remaining measures on SWB, IAF, sociotropy as well as demographic information which had to be answered independently from the four goals. Therefore, the questions about those measures were presented to the respondents after they

completed the questions on self-concordance and goal-striving reasons. Participation was financially rewarded with a £10 voucher. Data gathering took place from March to May 2016. Prior to data gathering, ethical approval from the author's research institute was obtained.

2.2. Measures

2.2.1. Dependent variables

SWB measures. Affective SWB was measured using the *PANAS* scale (Watson, Clark & Tellegen, 1988). 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 two months. The scale can be used as an overall measure of affective SWB but is typically split into two subscales of *positive (*PA) and *negative affect* (NA), both of which are measured with 10 items. Examples of positive affect items are: enthusiastic, proud and strong. Examples of negative affect items are: upset, distressed and afraid. The overall measure of affective well-being (Affect Balance) was created by subtracting the averaged NA scores from the averaged PA scores for each participant. Cognitive SWB was measured using the *Satisfaction with Life Scale (SWLS)* by Diener, Emmons, Larsen, and Griffin (1985). The scale consists of five items with strong internal reliability 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". Examples of items are: "In most ways my life is close to my ideal" or "I am satisfied with my life."

2.2.2. Primary predictor variables

Goal-striving reasons. Goal-striving reasons were measured with the goal-striving reasons framework (Ehrlich & Bipp, 2016) representing the four goal-striving reasons: goal

pursuit because of pleasure, goal pursuit because of altruistic reasons, goal pursuit to avoid loss of self-esteem and goal pursuit out of necessity. This scale in its original form consists of 16 items. The paper at hand uses a 17-item version in which one item has been added to measure altruistic reasons more comprehensively[2]. Each question was preceded by: "I strive for this goal because" to ensure that the participants rate the reasons for their goal-striving. The participants were asked to state their answers on a Likert scale ranging from 1 = "not true at all" to 7 = "very true".

The four goal-striving reasons have also been aggregated into a *goal-striving reasons index (GSRI)* which takes into account the relative strength of the approach reasons (pleasure, altruism) to the avoidance reasons (necessity, self-esteem). GSRI was created by subtracting the averaged item scores for necessity and self-esteem from the averaged scores for pleasure and altruism across the four goals. The index for people's approach motivation was created by averaging the item scores for all items on pleasure and altruism across the four goals. The index for people's avoidance motivation was calculated similarly by using the items for necessity and loss of self-esteem.

Self-concordance. To measure self-concordance Sheldon and Hoon's (2007) measure, which consists of four items, was used. Each item represents one motivational class: "I strive for this goal because I have to or my situation demands it" (external pressures), "I strive for this goal because I would feel guilty, anxious or ashamed if I did not" (introjected reasons), "I strive for this goal because I identify with it, even when it is not fun and enjoyable"

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2. The item added is: I strive for this goal because it makes the world a better place. A principal component analysis shows a clear four-factor solution very similar to the factor solution of the 16-item version reported in Ehrlich (2012). No items showing cross-loadings higher than .40 and the differential between the factor loadings of the intended factor and any other factor was .20 or higher (cf. Osborne and Costello, 2004; Van Dyne, Graham & Dienesch, 1994). Performing Harman's one-factor test, the first factor did not account for the majority of the variance explained (19%) which, although not precluding the possibility of common method variance, suggests that common method variance is not of great concern (Podsakoff & Organ, 1986). Performing a confirmatory factor analysis also revealed an acceptable best fit (cf. Hu & Bentler, 1999) for a four-factor solution (*P Cmin/DF* = 2.128, *CFI* = .91, *RMSEA* = .09).

(identified reasons) and "I strive for this goal because it is intrinsically interesting or challenging" (intrinsic). 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 four goals (cf. Sheldon, 2004). The index of autonomous goal motivation was created by calculating the mean scores for the intrinsic and identified item scores across the four goals. Similarly, the index of people's control goal motivation was created by averaging the external pressures and introjected items across the four goals.

2.2.3. Variables to test for construct validity

Index of autonomous functioning (IAF). The IAF measures people's trait autonomy based on three subscales: authorship/self-congruence, interest-taking, and low susceptibility to control. It contains 15 items which have to be answered on a Likert scale ranging from 1 = ''not at all true'' to 5 = ''completely true''. Examples of items are:"My decisions are steadily informed by things I want or care about (authorship)", "I do a lot of things to avoid feeling ashamed" (control) and "I often reflect on why I react the way I do" (interest). The scale is described by the authors as brief and reliable (Weinstein et al., 2012). According to the authors the IAF scales can be used as an overall measure as well as on a subscale level.

Sociotropy. Sociotrophy has been measured using the scale provided by Clark et al. (1995). Although the scale has been developed for clinical samples, the construct validity of the sample has also been tested for non-clinical samples (Clark & Beck, 1991). The reported internal consistencies have been adequate ranging from .68 to .90. The study at hand used the sociotrophy scale as described in Clark and Beck (1991), which consists of 28 items and had to be answered on a five-point scale ranging from 1 = ''strongly disagree" to 5 = ''strongly

agree“. Examples of items are: “It is important to be liked and approved by others” or “I am uneasy when I cannot tell whether or not someone I met likes me”. It is important to note that the sociotrophy scale taps into issues more associated with independence, i.e. non-reliance on others, rather than autonomy as conceptualised within self-concordance (Weinstein et al., 2012).

3. Results

3.1. Descriptive statistics

The descriptive statistics for the main study variables are presented in table 1. The means of the SWB measures indicate that the sample shows on average significant more positive than negative affect (PA $M = 3.28$, $SD = .73$; NA $M = 2.58$, SD =.75; (t (138) = -6.78, $p<.001$) resulting in a positive affect balance score. With regard to life satisfaction, the sample can be categorised as slightly dissatisfied (Pavot & Diener, 2008).

There was a significant difference for employed and non-employed participants with regards to their positive affect (employed $M = 3.38$, $SD = .67$; unemployed $M = 2.99$, SD =.80; t (138) = 2.82, $p <.01$) as well as life satisfaction (employed $M = 18.25$, $SD = 5.13$; unemployed $M = 14.82$, SD =5.98; t (138) = 3.37, $p <.01$). Thus, employment status was controlled for when testing the predictive strength of goal-striving reasons and self-concordance for affective and cognitive SWB. The descriptive statistics also show that the reliability indexes are generally high. However, SCI, as well as the IAF subscale control, show only acceptable internal reliability indices. Correlations between GSRI, SCI, cognitive and affective SWB are similar to the correlations reported in Ehrlich and Bipp (2016).

	M	*SD*	α	1	2	3	4	5	6	7	8	9	10	11
1) Affect Balance	.69	1.21	.86											
2) SWLS	17.37	1.10	.83	.45**										
3) GSRI	.61	2.24	.87	.49**	.47**									
4) GSRI_approach	4.00	.99	.89	.32**	.40**	.66**								
5) GSRI_avoidance	3.69	.87	.87	-.27**	-.17*	-.56**	.24**							
6) SCI	.85	2.49	.66	.36**	.27**	.50**	.27**	-.34**						
7) SCI_autonomous	4.57	.96	.62	.35**	.30**	.39**	.55**	.09	.61**					
8) SCI_controlled	4.14	.99	.64	-.12	-.05	-.25**	.18*	.52**	-.65**	.19*				
9) IAF_authorship	3.46	.67	.66	.45**	.33**	.39**	.38**	-.08	.39**	.55**	.03			
10) IAF_control	2.81	.68	.60	-.29**	-.12	-.29**	-.08	.29**	-.03	.12	.16*	-.09		
11) Sociotropy	3.13	.49	.83	-.23**	-.15	-.25**	-.20*	.09	-.02	.08	.10	.01	.53**	

Note. N = 139: *p <.05. **p <.01. ***p <.001. GSRI= Goal-striving reasons index; SCI = Self-concordance index; IAF = Index of autonomous functioning.

Table 1: Descriptive statistics of study variables

3.2. Hypotheses testing: Predictive power of the goal-striving reasons framework and the self-concordance model on a sub-dimensional level and individual goal striving reasons level

With regard to the predictive power of the goal-striving reasons framework in comparison to self-concordance on a sub-dimensional level, hierarchical regression analyses have been conducted. In step one, the demographic variables alongside the two self-concordance dimensions (autonomous and control motivation) have been entered. In step two, approach and avoidance goal motivation have been added.

	Affect Balance		Life Satisfaction	
Variable	Model 1	Model 2	Model 1	Model 2
Age	.28***	.26**	-.07	-.09
Gender	-.02	-.03	-.08	-.09
Employment	-.01	-.02	-.25**	-.26***
Autonomous (SCI)	.38**	.21*	.30**	.08
Controlled (SCI)	-.19*	-.04	-.07	.07
Approach (GSRI)		.30**		.40***
Avoidance (GSRI)		-.32**		-.33***
R^2 *(adjusted*R^2*)*	23 (.21)***	.34 (.31***)	.17 (.14***)	.32 (.29***)
Overall *F*(4,135)	8.22**		5.50***	
Overall *F*(6,133)		9.81***		8.91***
ΔR^2		.11***		.15***
ΔF		10.75***		14.49***

Note. N = 139: *p <.05. **p <.01. ***p <.001. Female = 1, Male = 2. Employment = Employment status 1 = employed ; 2 unemployed; SCI = Self-concordance index; GSRI = goal-striving reasons index

Table 2: Hierarchical regression analysis predicting SWB based on autonomous-control and approach-avoidance components (sub-dimensional level)

The results show that the approach, as well as the avoidance dimension, remains to have higher predictive power in the prediction of affective SWB (Affect Balance) as well as cognitive SWB (Life Satisfaction) when compared to the autonomous/control dimensions (Table 2)[3]. These findings are in support of hypotheses 1a.

A more granular analysis based on the four individual goal-striving reasons in comparison with the four self-concordance reasons further reveals, using correlation analysis, that the two approach goal-striving reasons (pleasure, altruism) are generally more highly correlated with measures of well-being than the two corresponding self-concordance scales of intrinsic and identified motivation, although the difference in correlational strength is descriptive (Table 3). These descriptive differences are even stronger when the correlational

[3] Similar findings have been obtained, using hierarchical regression analyses, when the two composite measures (GSRI and SCI) have been used. The results were also similar when the analyses were performed for employed participants only.

strength of the two avoidance goal-striving reasons (Self-esteem, necessity) is compared with the two controlled self-concordance scales (introjected, external pressures).

	M	*SD*	Affect Balance	SWLS	PA	NA
1) Pleasure	4.27	1.06	.43***	.49**	.53**	-.18*
2) Altruism	3.73	1.11	.14	.22**	.28**	.04
3) Self-esteem	3.88	1.00	-.26**	-.21*	-.13**	.29**
4) Necessity	3.51	1.01	-.19*	-.08	.04	.36**
5) Intrinsic	4.56	1.18	.37**	.31**	.53***	-.11
6) Identified	4.59	1.13	.20*	.18*	.23**	-.10
7) Introjected	4.16	1.10	-.08	-.08	.05	.17*
8) External pressures	4.11	1.18	-.15	-.04	-.10	.14

Note. N = 139: *p <.05. **p <.01. ***p <.001.

Table 3: Correlations between goal-striving reasons and self-concordance reasons with subjective well-being measures (individual goal-striving reasons level)

Furthermore, hierarchical multiple regression analyses (Table 4) show that for affect balance and SWLS the two within-person reasons (pleasure and self-esteem) have the strongest predictive power whereas none of the four self-concordance reasons had a unique significant contribution to make. This is in support of hypothesis 1b.

	Affect Balance		SWLS	
Variable				
Age	.30	.31***	-.05	-.03
Gender	-.03	-.04	-.09	-.11
Employment	.01	.01	-.25**	-.24**
Intrinsic	.33***	.11	.24**	-.07
Identified	.10	.07	.10	.08
Introjected	-.09	.03	.04	.18
External pressures	-.11	-.03	-.12	-.05
Pleasure		.38***		.46***
Altruism		-.04		.03
Self-esteem		-.21*		-.30**
Necessity		-.11		-.04
R^2	.25	.38	.17	.36
(adjustedR^2)	(.21)***	(.32)***	(.13)**	(.31)***
Overall F (6,133)	6.25		3.93	
Overall F (10,129)		7.01		6.61
ΔR^2		.13***		.19***
ΔF		6.47***		9.47***

Note. N = 139: *p <.05. **p <.01. ***p <.001. Female = 1, Male = 2.
Employment = Employment status 1 = employed ; 2 unemployed.

Table 4: Hierarchical regression analyses to test the predictive validity of the four goal-striving reasons

With regard to the question whether approach and avoidance motivation have different predictive power for PA and NA, multiple regression analyses on a sub-dimensional level show that the approach dimension can predict a unique amount of variance on PA above and beyond autonomous goal motivation. In the case of NA, the avoidance dimension even renders the control dimension as not significant in the prediction of NA (Table 5). This is in line with hypothesis 2a and 2b on a sub-dimensional level.

	Positive Affect		Negative Affect	
Variable				
Age	.27***	.28**	-.19*	-.16
Gender	-.03	-.06	-.01	-.03
Employment	-.18*	-.16*	-.17*	-.12
Autonomous (SCI)	.45***	.25**	-.18*	-.10
Controlled (SCI)	-.08	-.04	.23**	.03
Approach (GSRI)		.36***		-.12
Avoidance (GSRI)		-.13		.39***
R^2	.32	.41	.12	.22
(adjustedR^2)	(.30)***	(.38)***	(.09)	(.18)***
Overall F (4,135)	12.71***		3.59	
Overall F (6,133)		13.17***		5.41
ΔR^2		.09***		.11***
ΔF		9.98***		8.90***

Note. N = 139: *p <.05. **p <.01. ***p <.001. Female = 1, Male = 2. Employment = Employment status 1 = employed ; 2 = unemployed; SCI = Self-concordance index; GSRI = goal-striving reasons index

Table 5: Hierarchical regression analysis predicting positive and negative affect based on autonomous-control and approach-avoidance components

With regard to the predictive power of the individual goal-striving reasons for PA and NA (Table 6), pleasure remains the only significant predictor for PA whereas for NA necessity is the only significant predictor.

	Positive Affect		Negative Affect	
Variable				
Age	.30***	.33**	-.20*	-.18*
Gender	-.06	-.10	-.01	-.02
Employment	-.15*	-.11*	-.16	-.13
Intrinsic	.46***	.18	-.10	.01
Identified	.06	.07	-.12	.17
Introjected	-.06	.01	.09	.03
External pressures	.01	.03	.18	.07
Pleasure		.40***		-.24
Altruism		-.03		.03
Self-esteem		-.17		.17
Necessity		.09		.25*
R^2	.37	.47	.12	.22
(adjustedR^2)	(.33)***	(.42)***	(.07)*	(.18***)
Overall *F* (6,133)	10.86		2.54	
Overall *F* (10,129)		10.17		5.41
ΔR^2		.10***		.12**
ΔF		6.01***		5.03**

Note. N = 139: *p <.05. **p <.01. ***p <.001. Female = 1, Male = 2.
Employment = Employment status 1 = employed ; 2 unemployed;

Table 6: Hierarchical regression analyses to test the predictive validity of the four goal-striving reasons

It is also important to note in this context that none of the four self-concordance reasons made a unique significant contribution to predict PA or NA. Thus, these findings provide further empirical support of hypothesis 2a and 2b on an individual goal-striving reasons level.

3.3. Hypotheses testing: Theoretical differences between goal-striving reasons and self-concordance

With regard to the assumed theoretical differences between GSRI and SCI, table 1 shows that GSRI correlates more strongly with IAF than SCI. Moreover, authorship,

representing most closely the concept of autonomy and self-concordance, correlates equally strongly with both indices (GSRI and SCI) which is in support of hypothesis 3. With regard to the control scale, representing people's tendency to act according to the expectations of others, GSRI is significantly correlated whereas self-concordance is not. The difference between the two correlation coefficients is significant when performing Steiger's (1980) significance test for correlations between dependent samples ($Z = 7.04$, $p < .001$). This is consistent with hypothesis 4. The correlation pattern is equally clear with regard to sociotropy (Table 1). GSRI is significantly correlated with sociotropy whereas SCI is not. The difference between the correlation coefficients is again statistically significant ($Z = 6.77$, $p < .001$), which is consistent with hypothesis 5.[4]

These findings are further supported by multiple regression analyses on a sub-dimensional level. Model 1 tested hereby the predictive power of autonomous and controlled goal motivation whereas model 2 tested the predictive power of approach and avoidance goal motivation. Finally, the relative predictive power of all four sub-dimensions was tested by entering them simultaneously (Model 3). Table 7 shows that for authorship autonomous goal motivation is the strongest predictor but approach motivation is also a significant predictor in model 2 and remains significant in model 3. The findings are similar when analysing the predictive power of autonomous/controlled motivation and approach/avoidance motivation. Comparing the descriptive differences between model 1 and 2 the results, in both cases, indicate that the approach/avoidance dimension has stronger predictive power than the autonomous/control dimension. More precisely, the findings show that approach motivation

[4] Given the low reliability of SCI (Table 1), correlational analyses have also been performed using a goal-striving reasons index which was based on only four items for each goal (GSRI_short), similar to the self-concordance index. This index yielded an internal reliability of .65. The items selected, based on their highest factor loadings as reported in Ehrlich (2012), were: 'I actually enjoy working on this goal quite a lot' (pleasure); 'It serves a good cause' (altruism); 'If I fail, I would feel like a loser' (self-esteem loss) and 'It is necessary to earn a living' (necessity). Correlational analyses using GSRI_short revealed the same correlational pattern as for the traditional GSRI.

is a significant predictor of control whereas avoidance motivation is a significant predictor of sociotropy. On the contrary, the corresponding regression analyses for autonomous and controlled motivation for control and sociotropy (see both models 1) show no significant predictive power for any of the two self-concordance measures. These findings, therefore, provide further support for hypotheses 4 and 5. However, the results of the two regression analyses which include all four sub-dimensions to predict control and sociotropy (model 3) reveal high confounding variances between the four sub-dimensions. As a result autonomous and approach goal motivation increase substantially in their predictive power compared to model 1 and 2[5]. These results are therefore less clear to interpret. However, due to the fact that this effect can be assumed to be caused by how the four sub-dimensions relate to each other rather than by differences in their sensitivity to the influence of others it seems justified to disregard this particular effect for the purpose of this paper.

	IAF - authorship			IAF- control			Sociotropy		
Variable	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Age		.12	.10	-.17	-.15	-.15*	.02	.05	.01
Gender	.10***	-.11	-.06	-.01	-.03	-.08	-.03	.-.03	-.01
Employment	-.06 .01	.01	-.01	-.16	-.14	-.14***	.02	.02	.01
Autonomous (SCI)			.46**	.09		.27**	.06		.26**
Controlled (SCI)			.00	.16		.01	.09		.04
Approach (GSRI)	.57**		.19*		-.16	-.31**		-.24**	-.40***
Avoidance (GSRI)	-.06*	.45*** .06	-.15		.32***	.31**		.17	.14
R^2	.33	.21	.36	.08	.15	.20	.01	.07	.12
(adjustedR^2)	(.30)***	(.18)***	(.33) ***	(.05)*	(.12)**	(.15) ***	(-.02)	(.04)	(.08)*
Overall $F(4,135)$	13.10**	7.22***		2.55*	4.63**		.47	2.01	
Overall $F(6,133)$			10.70***			4.66***			2.06*

Note. N = 139: *p <.05. **p <.01. ***p <.001. Female = 1, Male = 2. Employment = Employment status 1 = employed ; 2 unemployed; SCI = Self-concordance index; GSRI = goal-striving reasons index.

Table 7: Multiple regression analysis predicting authorship, control and sociotropy based on autonomous-control and approach-avoidance components

Finally, the predictive power of the four individual goal-striving reasons and the four self-concordance reasons have also been tested using multiple regression analysis (Table 8).

[5] In this context it has to be noted that the collinearity statistics of VIF has been tested and none of the predictors had a VIF score of above 1.6.

Intrinsic and identified goal motivation remained hereby the only significant predictors of authorship whereas IAF-control and sociotropy are exclusively predicted by goal-striving reasons.

Variable	IAF-author			IAF-control			Sociotropy		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Age	.10	.14	.10	-.18*	-.15	-.18*	.08	.05	.08
Gender	-.08	-.11	.08	-.01	-.01	-.01	-.02	-.01	-.01
Employment	.04	.02	.03	-.20*	-.16*	-.18*	-.03	-.01	-.02
Intrinsic	.45***		.36**	-.02		.13	-.07		.10
Identified	.22**		.18*	.17		.13	.14		.03
Introjected	-.18*		-.01	.20*		.02	.30**		.15
External pressures	.10		.14	.01		-.05	-.19		-.19*
Pleasure		.44***	.13		.01	-.15		.06	-.03
Altruism		.08	.06		-.14	-.10		-.27**	-.26*
Self-esteem		.02	-.15		.48***	.41***		.52***	.47***
Necessity		-.14	-.17		-.09	-.03		- .29**	-.24*
R^2	.36	.25	.39	.14	.24	.27	.10	.27	.30
(adjustedR^2)	(.33)***	(.21)***	(.33)***	(.10)*	(.20)***	(.21)*	(.06)	(.23)***	(.23)***
Overall *F*	10.57***	6.19***	7.33***	3.06*	5.90***	4.31*	2.23*	6.98***	4.88

Table 8: Multiple regression analysis predicting control and sociotropy based on the four goal-striving reasons

More precisely, the tendency to be obliging to the expectations of others (control) coincides with the degree to which people pursue their goals to avoid a decrease in their self-esteem. The tendency to overly please others (sociotropy) is also positively associated with self-esteem but negatively associated with the goal motivation of helping others and the fact that goals are pursuit out of necessity. Thus, individuals who pursue their goals predominantly to help others or in order to make ends meets are less likely to be overly focussed on pleasing others. These findings provide further support for hypotheses 4 and 5.

4. Discussion

4.1. Summary and Discussion

The paper at hand empirically shows that the goal-striving reasons framework remains to have higher predictive power in the prediction of affective and cognitive SWB on a sub-dimensional as well as on an individual goal-striving reasons level when compared to the self-concordance model. Thus, the higher predictive power of the goal-striving reasons framework compared to self-concordance in prior studies, when using an overall composite measure, has been successfully replicated.

On a sub-dimensional level, the findings show that approach and avoidance goal-striving reasons have stronger predictive power than the autonomous and controlled goal motivation as both sub-dimensions (approach and avoidance) being significant predictors of overall affective and cognitive SWB. The analysis of the predictive power of the four individual goal-striving reasons for SWB further reveals that the two within-person goal-striving reasons (pleasure, self-esteem) are the most important reasons to predict overall subjective well-being measures. This in line with findings reported by Ehrlich (2012) and provides further support for the argument that the two within-person reasons have the strongest direct relationship to people's overall SWB as they are most closely linked to people's emotional experiences.

With regard to the predictive power of the goal-striving reasons framework and the self-concordance model in relation to PA and NA the results reveal that approach goal-striving reasons are related to PA but not NA, whereas avoidance goal-striving reasons are related to NA but not to PA. Thus, approach and avoidance goal-striving reasons seem to have different predictive power for the two composite measures of affective SWB (PA and NA) which again is consistent with previous findings based on correlational analysis on an individual goal-striving reasons level (Ehrlich, 2012; Ehrlich & Bipp, 2016). The respective

predictive power of autonomous goal motivation for PA is hereby much lower or, as in the case of controlled goal motivation and NA, not significant at all. Thus, again, the differential predictive power of approach and avoidance motivation is considerably stronger than for the autonomous/control dimensions.

The predictive power of PA and NA on an individual goal-striving reasons level is slightly different as pleasure remains the only significant predictor of PA whilst necessity is the only significant predictor of NA. This suggests that for PA the most important driver is the fact that people pursue their goals out of pleasure. The strongest driver for NA seems to be when people feel that they have to pursue a certain goal to make ends meet. This goal-striving reason, therefore, appears to be an even stronger negative goal reason than avoiding any self-esteem loss. Equally important in this context is the fact that none of the four self-concordance reasons were a significant predictor of PA or NA beyond the four individual goal-striving reasons.

The findings also provide further evidence for the assumed theoretical difference between the goal-striving reasons framework and the self-concordance theory stating that the goal-striving reasons framework is more sensitive to the influence of others. Empirical evidence has been provided on an overall goal-striving reasons index level, on a sub-dimensional level as well as on an individual goal-striving reasons level. The findings on the overall index level, using GSRI and SCI, clearly show that GSRI is more sensitive to the influence of others. However, the findings on a sub-dimensional level as well as on the goal-striving reasons level give further insights into these relationships.

On a sub-dimensional level, the results reveal that avoidance goal-striving reasons are positively correlated with the tendency to be sensitive to the control of others (feeling of having to oblige expectations of others) whereas the approach dimension is significantly (negatively) related to sociotropy (an overly strong desire to please others). On the contrary,

autonmous motivation and controlled motivation are not significantly related to control or sociotropy on a sub-dimensional level. This suggests that the two sub-dimensions of approach and avoidance within the goal-striving reasons are more sensitive to the influence of others. However, these relations can now be understood in a more differentiated way as the approach dimension seems to be more related to the fact that people are less likely to want to please others, whereas the avoidance dimension seems to be more strongly associated with a stronger need to oblige to the expectations of others.

Analysing the relationships between the four individual goal-striving reasons and the four self-concordance reasons further show that the goal-striving reasons of self-esteem is the most significant one that captures the notion of having to (control) as well as wanting to please others (sociotropy). With regard to having an overly strong desire of wanting to please others the very fact that people need to pursue their goals in order to make a living as well the desire to help others are also both significantly, but negatively, correlated with sociotropy. This seems logical insofar as being able to help others is distinctively different from wanting to please others. Being able to help someone is typically associated with drawing on the power bases of expert power (Raven, 1992) which puts the person who is helping in a more powerful position than the person who is being helped. Hence, the tendency to overly please others is different from wanting to help others. Equally, the findings suggest that people who very strongly pursue their goals because they need to make ends meet are most likely to focus on just that – rather than on pleasing others. On the contrary, the four self-concordance reasons are not significantly related with control or sociotropy with the exception of external pressures. This, however, seems logical as this encapsulates, similarly to necessity, the tendency to do things because "the situation demands it", which according to the findings at hand makes the tendency to please others less likely.

4.2. Limitations

While the findings provide strong empirical support for the aims of the study, they have to be interpreted with caution because of the following reasons. The study relied on self-report data which means results might be inflated by common method variance even though Harman's one-factor test (Podsakoff & Organ, 1986) indicated that this is unlikely to have confounded the findings. Participation in the study was voluntary and rewarded and therefore a self-selection bias cannot be ruled out, especially as information regarding the response rate could not be obtained. However, findings with regards to GSRI and SCI and their respective predictive strength for important psychological outcome variables such as affective and cognitive SWB were similar to findings reported in Ehrlich and Bipp (2016), where the response rate (58%) was sufficiently high to rule out an overly strong effect due to selection bias. Also, the sample size, although sufficient (Tabachnick & Fidell, 2007), is generally small.

4.3. Implications for theory and practice

Despite the limitations, the findings provide contributions to theory and practice. With regard to the theoretical implications, the goal-striving reasons framework shows that there is merit in a wider conceptualisation of the 'why' of goal pursuit beyond self-concordance. The goal-striving reasons framework provides such a wider conceptualisation as it encapsulates self-concordance (Ehrlich & Bipp, 2016) but captures something additionally: it is more sensitive to the influence of others. This kind of influence has so far given very limited consideration within the goal reason literature (cf. Stone, Deci & Ryan, 2009). Because goal-striving reasons are more sensitive to the influence of others, it might be of particular relevance for researchers studying people's reasons for goal pursuit in a context where others

have a strong influence on the kind of goals people pursue. This could be, for example, in the work environment where employees typically pursue goals that are negotiated with their supervisor, colleagues or customers (cf. Powers, Koestner & Zuroff, 2007).

The results around the predictive power of the approach and avoidance dimensions further suggest that, unlike for the self-concordance model, the two dimensions of approach-avoidance have equal importance in the prediction of overall affective SWB or life satisfaction. This leads to the conclusion that there is value in predicting overall affective SWB or life satisfaction by using the overall goal-striving reasons index. At the same time, approach and avoidance reasons also seem to have a differential contribution to make with regard to positive and negative affect: approach motivation seems to relate more strongly to positive affect whereas avoidance motivation seems to relate more strongly to negative affect. Hence, any research that focusses on PA and NA separately would benefit from analysing people's approach and avoidance motivation separately. The results further suggest that in the case of predicting PA and NA separately, the goal-striving reasons framework seems to yield stronger predictive power than the self-concordance model. On an individual goal-striving reasons level, the findings indicate that the two within-person reasons of pleasure and self-esteem are the strongest predictors of people's general, overall well-being.

An important final point regarding the theoretical implications of this study is to emphasise that the study ~~at hand~~ has been conducted in a specific research context. This implies that, at no stage, can it be concluded that the goal-striving reasons framework is generally superior to the self-concordance model in any other given research context.

With regard to practical implications, the established theoretical differences between goal-striving reasons and self-concordance suggest that the ability to safeguard one's goal pursuits against social pressures, a concept coined interpersonal assertiveness (Ames, 2008), seems to be a vital ingredient to ensure SWB-enhancing goal-striving reasons. Thus,

strengthening interpersonal assertiveness skills contributes not only to SWB in general (Argyle & Lu, 1990) but can also be seen as a route to ensure higher levels of SWB-enhancing goal-striving reasons.

4.4. Future research

The findings also point towards areas for future research. One area revolves around the need to test empirically the relative importance of approach and avoidance goal-striving reasons in different contexts and for various other variables representing positive or negative psychological functioning. With regard to different research contexts, it would be particularly interesting to test the predictive power of the goal-striving reasons framework if it were to be based on more specific kind of goals such as altruistic goals only or Emmons's (1986) personal strivings concept. Equally, the relevance of the goal-striving reasons framework would further increase if its' applicability to specific contexts, such as the school environment, could be demonstrated. The relevance of the goal-striving reasons framework would also be enhanced, if future studies could show that people's goal-striving reasons are able to predict other important outcome variables such as basic need satisfaction (Deci & Ryan, 2000) or meaning in life (Steger, Frazier, Oishi & Kahler, 2006).

Future research also needs to investigate how to explain the confounding effects between the goal-striving reasons framework and self-concordance theory on a sub-dimensional which lead to a substantial increase in predictive power of the approach sub-dimension and the autonomous sub-dimension. This might require testing the predictive power of the goal-striving reasons framework and self-concordance on the basis of a more sophisticated model including further predictors. Finally, the goal-striving reasons framework, at this stage, is a purely diagnostic tool. Thus, future research is needed to

develop an adequate training programme to actively help people to increase their SWB-enhancing goal-striving reasons and reduce the amount of SWB-decreasing reasons.

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