

The Development of an Extended Goal-Striving Reasons Framework: Evidence for Its Relevance in the Workplace, for Its Theoretical Difference to Self-Concordance and for Its Buffering Effect on Work Intensity

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Abstract

This paper aims to provide further empirical evidence for the relevance of the goal-striving reasons framework in relation to people's positive psychological functioning. More specifically, it presents an extended version of the goal-striving reasons framework which, compared with the original framework, is shown to have increased predictive strength for work engagement and burnout. This also demonstrates, for the first time, the relevance of the goal-striving reasons framework for the work context. The paper also provides evidence of the theoretical differences between the goal-striving reasons framework and the self-concordance model. These differences revolve around the notion that goal-striving reasons are more sensitive to the influence of others and are therefore significantly correlated with people's assertiveness levels, whereas self-concordance is not. Following on from these theoretical differences around assertiveness, findings further show that goal-striving reasons also reduce the negative effects of high work intensity on burnout. The study employed a quantitative, longitudinal research design comprising of 257 voluntary sector workers (not volunteers) at time 1 and 137 participants at time 2. Findings are mainly based on multiple (including hierarchical) regression analyses. Theoretical and practical implications of the findings revolve around the notion that the extended goal-striving reasons framework constitutes a more comprehensive measure of goal-reasons when compared to the original framework. It also offers a real alternative to self-concordance when measuring goal-reasons - particularly in a research context where goal pursuits are not freely chosen but are strongly influenced by others.

Keywords

Extended goal-striving reasons framework; self-concordance, engagement, assertiveness, and work intensity.

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The goal-striving reasons framework, which distinguishes between approach and avoidance reasons of goal-pursuits, has now received a critical mass of empirical research. The research shows that goal-striving reasons can significantly predict important outcome variables such as cognitive and affective subjective well-being (SWB; Ehrlich & Bipp, 2016; Ehrlich, 2012). Most importantly, goal-striving reasons have shown to have higher predictive power in the prediction of SWB than the self-concordance model (Sheldon & Elliot, 1990) which is currently the most widely used model to measure goal-reason. Thus, the goal-striving reasons framework provides a real alternative to self-concordance when measuring goal reasons.

In essence, the model is based on the distinction between approach and avoidance goal-striving reasons – a classical distinction within motivation theories in general (Elliot & Trash, 2010) but also within goal-setting theory (Dickson, 2006). More precisely, it measures the strength of two approaching goal-striving reasons (goals being pursued for pleasure or for altruistic reasons) in relation to two avoidance reasons (fear of losing self-esteem or to avoid a financially undesirable situation). The following real-life example provides an illustration of possible goal-striving reasons for a work-related goal. An employee might be motivated to pursue a particular work project because s/he enjoys the work involved with it (pleasure). The work project might also be motivating to this employee because it aims to improve the lives of less fortunate people in life (altruistic reasons). However, it could also be very important for this employee not to fail in this project as this would negatively affect this person's self-esteem (fear of loss of self-esteem). Another strong driver might be that failure in this work project would lead to financial difficulties, and the inability to pay the rent or the children's school fees (necessity).

Goal-striving reasons have been shown to be more favourable for people's SWB the more they pursue their goals for the two approach reasons compared to the two avoidance reasons (Ehrlich & Bipp, 2016). Within the two approaching goal-striving reasons as well as the two avoidance reasons, the framework further differentiates between reasons aimed at the person (within-person reasons) and reasons aimed at the environment (person-environment reasons) – a distinction based on Ford and Nichols' (1978) categorisations of goal contents. It does so to be able to include elements of goal-striving reasons that go beyond pure self-interest, i.e. altruism (Ehrlich, 2012). For a detailed description of the model see Ehrlich and Bipp (2016).

Although the model has shown to be a strong predictor of SWB, several aspects related to the goal-striving reasons framework need to be further addressed. For example, the model can be criticised for not being comprehensive enough. This is because the current model only considers emotionally driven within-person reasons (e.g. pleasure and fear of loss of self-esteem). It does not consider the fact that people, quite often, pursue within-person goals out of rational considerations (Porter & Lawler, 1968). These kinds of goals are generally labelled as purpose-related goals (Rheinberg, 2008). People typically pursue them because they feel that these goals will enrich their lives or prevent their lives from becoming worse.

Furthermore, the original goal-striving reasons framework has, so far, only been applied to people's most important personal goals in life which is why its relevance for a specific life domain remains unclear. This paper applies the extended goal-striving reasons framework exclusively to the

work context, so that the applicability of the goal-striving reasons framework for people's work related goals can be empirically tested.

Focussing on the work domain also allows for the provision of further evidence of the theoretical differences between the goal-striving reasons framework and the self-concordance model. These differences, according to Ehrlich and Bipp (2016), are assumed to revolve around the fact that the goal-striving reasons framework is more sensitive to the influence of others in relation to people's goal pursuits. In this context, it is also important to note that researchers have criticised the self-concordance model for lacking such an explicit consideration of the direct influence of others on people's goal pursuits (Locke & Latham 2013). The work context seems to be the ideal testing ground for this theoretical difference, as it is here where people often have to negotiate with others or assert themselves against others when setting goals (for example, with supervisors and/or colleagues).

Finally, if the goal-striving reasons framework is found to be more strongly associated with assertive behaviour, then this should also mean that assertive people are likely to be better at dealing with external demands. This is because, they are able to choose more carefully which of the external demands they are taking on. Such a tendency can be assumed to be especially important for external demands that are highly strenuous. From the literature on stress it is well known that high demanding work tasks over which people have no control are the most detrimental to peoples' well-being (Haeusser, Mojzisch, Niesel & Schulz-Hardt, 2010). If people with high approaching goal-striving reasons are associated with an increased likelihood of taking on highly demanding tasks they want to pursue (rather than have to pursue) then this should reduce the negative effect of highly strenuous tasks.

To summarise, the paper at hand intends to contribute to the goal-reason literature by advancing the goal-striving reasons framework with regards to its scope, its theoretical distinctiveness compared with self-concordance and its applicability in the work context. Its applicability in the work context is hereby tested with regards to its predictive power for work engagement and burnout, but also with regards to its buffering function for high work intensity on burnout.

The Extension of the Goal-Striving Reasons Framework

Although the original goal-striving reasons framework captures four important goal-striving reasons, the motivation literature suggests that a particular class of goal-striving reasons is missing. People quite often pursue goals simply for the fact that the pursuit of a goal is associated with (rational) positive or negative consequences regardless of any emotional associations with a goal (Diener & Emmons, 1984; Watson, Clark & Tellegen, 1988).

The most classical theory of human motivation in this context is Gray's (1970) formulation of the Behavioural Approach System (BAS) and the Behavioural Inhibit System (BIS). In their essence BAS and BIS are each described to fulfil the following functions: BAS is characterised as an approach-related, positive-incentive oriented motivation system, whereas BIS is characterised by an avoidance tendency, which is therefore more sensitive to threat and non-rewarding cues, i.e. negative consequences (Kasch, Rottenberg, Arnow & Gotlib, 2002). Both systems are major drivers of human behaviour in general which includes people's choice of goals and the reasons behind them.

At their core, BAS and BIS include positive and negative, rational but also emotional consequences. However, for the purpose of the extension of the goal-striving reasons framework BAS and BIS highlight the fact that only looking at the positive and negative emotional aspects associated with goal pursuits does not take into account another important class of goal-striving reasons: the rational consequences associated with the pursuit of goals. Based on the arguments presented above, the original goal-striving reasons framework is extended by positive and negative consequences (see Figure 1). Following on from this extension, the first aim of the study at hand is to test the degree to which the extended goal-striving reasons framework has higher predictive power than the original goal-striving reasons framework in relation to work related outcomes. More specifically, it is hypothesised (H1) that the extended goal-striving reasons framework is a better predictor of work engagement and burnout than the original goal-striving reasons framework.

	Approach	Avoidance
Within-person (emotional)	Pleasure	Fear of loss of self-esteem
Within-person (rational)	Positive consequences	Negative consequences
Person-environment	Altruism	Necessity (for financial bare necessities)

Figure 1. The extended goal-striving reasons framework

Goal-striving Reasons and the Influence of Others on People's Goal Pursuits

In addition to the development of a more comprehensive goal-striving reasons framework, it also seems important to highlight theoretical differences between the goal-striving reasons framework and the self-concordance model. This is important insofar as a better understanding of the theoretical differences between the two concepts helps researchers to decide which of the two is best suited to a particular research context.

Generally, self-concordance as well as the goal-striving reasons framework both assume that people need to be capable of setting themselves approaching or self-concordant goals, if they can freely choose their goals. However, this assumption neglects the notion of having to negotiate or even assert one's goals or goal-striving reasons in the light of the demands of others. Such a scenario might, for example, occur in a work context where employees need to negotiate their goals with their supervisor.

In this context, it is important to note that the approach-avoidance dimension within the goal-striving reasons framework explicitly includes goal reasons that are mainly motivated by the

reactions of others. It therefore explicitly allows for others to have an influence on people's goal-striving reasons. This can be most clearly demonstrated with some of the items with which goal-striving reasons are measured. For example, the goal-striving reason of altruism contains items such as: "I strive for this goal because it helps others". Equally, the goal-striving reason of 'fear of losing self-esteem' contains items such as: "I strive for this goal because failing in it would mean others would look down on me." Similar arguments can be put forward with regards to the goal-striving reason of pleasure which considers the possibility that the amount of pleasure one gets from pursuing a goal might be altered by the positive or negative reactions of others as it does not limit the amount of pleasure one gets from a goal through the task itself.

By contrast, within self-concordance theory the influence of others is very much focussed on the degree to which others provide an autonomy-supportive environment which enables individuals to pursue a goal autonomously (Deci & Ryan, 2000). Research in this context is, for example, provided within sports psychology where studies could show that autonomy-supportive behaviour or interactions with relevant others such as coaches or role models is positively related with autonomous goal pursuits of athletes (cf. Healy, Ntoumanis, Veldhuijzen & Paine, 2014; Ntoumanis et al., 2014). However, this kind of influence of others can be seen as an indirect form of influence by merely providing autonomy-supportive conditions. The influence of others, whereby a person pursues a goal because of the (direct) reactions from others (such as praise), or because a goal helps others, is not explicitly considered to foster autonomous goal motivation. This is most clearly demonstrated by the fact that typically none of the self-concordance items (cf. Sheldon, 2004; Sheldon & Hoon, 2007) contain the word "others" in them. As a consequence, the pursuit of goals in a self-concordant way does not take into account the safeguarding of goals against any of these direct influences from others.

Based on these considerations, the second aim of this study is to test whether the goal-striving reasons framework is more sensitive to the influence of others than the self-concordance model. More specifically, it is hypothesised that (H2a) the higher people's assertiveness levels or (H2b) the lower their desire to please others the more approaching people's goal-striving reasons should be. Furthermore, it is also hypothesised (H2c) that there should be no significant relationship between people's assertiveness levels or their desire to please others and self-concordance.

Goal-Striving Reasons and Their Buffering Function for Burnout at Work

Finally, the paper at hand also aims to show that having stronger approach than avoidance goal-striving reasons reduces the level of burnout associated with high work intensity – a global challenge for people's well-being at work (Findlay & Thompson, 2017). Particularly in the literature on stress, there is widespread evidence for the negative effects of prolonged high work intensity on employees (Karasek, 1979; Schaufeli & Bakker, 2004). At the same time, a number of theoretical models show that there are a variety of moderating factors that can eliminate or reduce the typically negative implications of high work intensity. For example, the transactional theory by Lazarus and Folkman (1984) highlights the importance of people's cognitive appraisal mechanism which can serve as a buffer between work intensity and exhaustion or burnout (Paskvan, Kubicek, Prem & Korunka, 2016). The Job Demand-Control model (Karasek, 1979) or the very similar Job Demand-Resource

model (Maslach, Jackson & Leiter, 1986) also state that the degree to which people feel that they have sufficient control or resources to deal with the job demands will reduce the negative implications of work stress or high work intensity (Schaufeli & Bakker, 2004).

With regard to the question whether goal-striving reasons also have such a buffering effect on work intensity research is very limited. Only Fernet, Guay and Senecal (2004) found a moderating effect of self-determination (which is based on similar assumptions as self-concordance) in the sense that for highly self-determined people, job control was able to reduce the negative effect on job demands with regards to facets of burnout. Studies on either the self-concordance model or the goal-striving reasons framework are missing in this context.

This paper intends to narrow this gap and argues that positive goal-striving reasons are also able to reduce the negative effects of high work intensity on burnout. This is because, high positive goal-striving reasons mean that people pursue their goals because their approaching reasons are stronger than their avoidance reasons. As research generally suggests, approach reasons are associated with positive affect whereas avoidance reasons are associated with negative affect (Dickson, 2006; Ehrlich & Bipp, 2016). If people's goal-pursuits are predominantly approaching then they should experience more positive than negative emotions during their goal-pursuit. Furthermore, research on work engagement (Bakker & Demerouti, 2008) as well as on flow (Csikszentmihalyi, 1990) also shows that hard work can be accompanied by positive emotions, and if this is the case, tends to be associated with reduced levels of burnout. Given that prior studies research (Ehrlich & Bipp, 2016) have shown that the pursuit of goals with stronger approaching than avoidance reasons is accompanied by positive emotions, the study's third aim is to show that these findings also apply to burnout. More specifically, it is hypothesised (H3) that high approaching goal-striving reasons serve as a buffer against the negative effects of work intensity on burnout..

Method

Participants

The sample size of this purposive sample at time 1 was $N = 257$ of which 137 participants also completed the follow-up questionnaire a month later. This equates to a retention rate of 53% at time 2. The criterion to be eligible to take part in this study was to be employed in the voluntary sector which meant that participants had to be in paid employment as opposed to being a volunteer. Respondents were recruited from a variety of voluntary sector organisations, in order to reflect the heterogeneity of the sector. Overall, the sample consisted of 54% female and 46% male respondents with an average age of 49 years ($SD = 15.31$). The follow-up sample was reasonably similar with a 51% to 49% female to male gender distribution and an average age of 53 years ($SD = 13.55$). The ratio between full-time and part-time staff was 40% to 60% for time 1 and 33% to 67% for time 2, respectively. Equally, the ratio between staff with and staff without management responsibilities was very similar between the two measurement points; 38% to 62% respectively at time 1 and 37% to 63% respectively at time 2. Due to the retention rate of 53%, further analyses have been conducted to test whether the participants who did not complete the second questionnaire differed significantly on key study variables from those participants who completed both. The analyses revealed that there were no significant differences in work engagement levels ($t [255] = -1.16, p = .07$), self-

concordance ($t [255] = -1.32, p = .18$), work intensity ($t [255] = .83, p = .40$) and gender ($\chi^2: 2.02, df: 1, p = .15$) between the two groups. However, participants who only responded at time 1 reported significantly higher levels of burnout ($t [255] = 2.62, 16, p < .01$) and less positive goal-striving reasons ($t [255] = -2.77, p < .01$). They were also significantly older ($t [255] = -4.04, p < .01$). Given these differences, further analyses were required to test whether the findings for this particular subgroup were similar or deviated from the findings obtained from those participants who completed both questionnaires.

Measures

Goal-Striving Reasons. Goal-striving reasons were measured using the extended goal-striving reasons framework. This framework contained the items of the original goal-striving reasons framework (Ehrlich and Bipp, 2016¹), and eight items on positive and negative consequences which were newly developed. Thus, the final scale consisted of 25 items. Each question was preceded by: “I strive for this goal because...”. Example of items for the six goal-striving reasons are: “...If I fail, my self-esteem would really suffer (self-esteem)”, “...I am having fun working on this goal (pleasure)”, “...Other people do benefit from it (altruism)” ...It is necessary to earn a living (necessity)”, “...If I fail, I would face serious negative consequences (negative consequences)” and “...It is worthwhile pursuing (positive consequences)”. 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). Reported internal reliability indices for the goal-striving reasons framework range from .85-.88 (Ehrlich & Bipp, 2016). Goal-striving reasons were measured at time 1 and time 2 of this study.

The 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 to the avoidance reasons. To be able to test the degree to which the extended goal-striving reasons framework is better in predicting work engagement and burnout, the original GSRI based on four goal-striving reasons as well as the extended GSRI based on six goal-striving reasons (GSRI_{ext}), were created. Both indices were then calculated by subtracting the averaged item scores for avoidance reasons from the averaged item scores for the approach reasons across the two goals.

Self-Concordance. Self-concordance was measured using Sheldon and Hoon’s (2007) measure of self-concordance. It consists of four items with each item representing 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 two goals on a scale from 1 (not true at all) to 7 (very true). Reliability indices of the scale are reported to range from .75 to .81 (Judge et al., 2005; Sheldon & Houser-Marko, 2001). Again, a *self-concordance index (SCI)* was created by subtracting the averaged item scores for controlled behaviours from the averaged autonomous item scores across the two goals (cf. Sheldon, 2004). Self-concordance was measured at time 1 and time 2 of this study.

Assertiveness. Assertiveness was measured using the 19-item Simple Rathus Assertiveness Schedule (SRAS; Jenerette & Dixon, 2010). Participants were required to answer the items on a six-point Likert scale with 3 (very much like me) to – 3 (very much unlike me). The scale is reported with an internal reliability of .85. For data analysis purposes the original scale was transformed into a 1-6 scale where a higher score stands for higher levels of assertiveness. Assertiveness was measured at time 1 and time 2 of this study.

Control Subscale of the Index of Autonomous Functioning (IAF). The susceptibility of people to the demands of others was measured using the control scale within the IAF scale. IAF generally aims to measure a trait like disposition of autonomous functioning. According to Weinstein, Przybylski and Ryan (2012), the IAF scale has been designed in such a way that it is recommendable to use the control subscale by itself. Low susceptibility of control contains 5 items which have to be answered on a Likert scale ranging from 1 (not at all true) to 5 (completely true). An example of the item texts is: “I believe certain things so that others will like me“. The subscale is described as brief and reliable (Weinstein et al., 2012). The control subscale was measured only at time 1 of this study.

Work Intensity. Work intensity was measured using four items that are typically used in British and European panel surveys (e.g. Employment in Britain 2014, Eurobarometer 2017). Items are: “My job requires that I work very hard; I work under a great deal of tension; I often have to work extra time, over and above the formal hours of my job, to get through the work; I often come home from work exhausted.” Participants had to answer these questions on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items measure work intensity both physical and mentally and the degree of effort demanded from the job. Work intensity was measured at both times of this study with reliability indices of $\alpha = .83$ for time 1 and $\alpha = .89$ for time 2.

Burnout. Burnout was measured using the Shirom-Melamed (2006) burnout measure (SMBM). This 14-item measure conceptualises burnout as an individual’s feelings of physical, emotional, and cognitive exhaustion due to the chronic exposure to occupational stress and is reported to have high internal reliability ($\alpha = .92$). Participants are asked to answer the items on a seven-point Likert scale ranging from 1 (never; almost never) to 7 (always; almost always). Examples of items are “I am tired“ or “I feel like my batteries are dead“. Burnout was measured at both times of the study.

Work Engagement. Work Engagement was measured using the short (time 1) and long form (time 2) of the Utrecht Work Engagement scale. The short form was used at time 1 to keep the overall amount of items of the first questionnaire to a minimum as this questionnaire also contained additional items (demographical items, IAF subscale control) not measured at time 2. Both forms are reported to have high internal reliability (range between .85-.92; Schaufeli & Bakker, 2003; 2006). Items have to be answered on a seven-point Likert scale ranging from 1 (never) to 7 (always; every day). Examples of items featuring in both forms are for example: “At my work I feel bursting with energy“ or “I am immersed in my work“.

Procedure

Participants were asked to complete a self-administered, online questionnaire in which they needed to state their two most important goals at work. For both goals they were asked to answer a similar set of questions about their goal-striving reasons and self-concordance. The latter part of the

questionnaire contained the remaining measures of the study (assertiveness, work engagement, etc.) which had to be answered independently from the two goals. Participants were financially rewarded and recruited through a market research institute which used a participation information sheet to recruit and communicate the overall purpose of the study to participants. Prior to data gathering, ethical approval from the author's research institute was obtained.

Data analysis

Data analysis can be divided into two phases. The first, preparatory, phase was aimed at testing reliability and validity of the extended goal-striving reasons framework. This included examining the Cronbach's alpha scores for the extended goal-striving reasons framework. In this context, it was particularly important to demonstrate that the two new goal-striving reasons (positive and negative consequences) showed acceptable internal reliability indices. Furthermore, convergent and discriminant validity of the two new goal-striving reasons needed to be tested, using Pearson product-moment correlation analysis. Exploratory as well as confirmatory factor analysis were employed to see whether the addition of positive and negative consequences still resulted in a clear two factor solution (approach and avoidance goal-striving reasons) of the goal-striving reasons framework. The second phase of the analyses aimed at testing the extended goal-striving reasons framework with regards to the three aims of the study. To test whether the extended goal-striving reasons framework has higher predictive power than the original framework, hierarchical regression analyses were employed. The theoretical differences between goal-striving reasons and self-concordance were analysed by correlating both concepts with assertiveness and the IAF subscale of control, using Pearson product-moment correlation analysis. Finally, to test for the existence of an interaction effect between goal-striving reasons and work intensity for burnout, multiple regression analyses were performed. All data analyses were conducted using SPSS version 25 and AMOS version 25.

Results

Descriptive Statistics

The descriptive statistics for the study variables for the overall sample are presented in Table 1. The means for GSRI, GSRIex and SCI show that participants reported more approaching reasons than avoidance reasons and also more autonomous goal motivation than controlled motivation. GSRI as well as GSRIex correlate with SCI with .47 and .48 which indicates that GSRI and SCI are sufficiently different (cf. Ehrlich & Bipp, 2016).

Equally, it has to be noted that GSRI and GSRIex correlate strongly with each other which can be explained by the fact that GSRIex contains all items of GSRI. The sample reported high levels of work engagement and low levels of burnout at both times. The reported assertiveness levels as well as the susceptibility to control scores were all slightly above the mid point of the scale. The means for work intensity show that the sample overall did not report very high levels of work intensity.

Table 1. Descriptive statistics of study variables

		<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7
1) GSRI	Time 1	3.18	3.4	.89							
	Time 2	4.05	3.49	.85							
2) GSRIlex	Time 1	5.26	5.03	.93	.98**						
	Time 2	6.92	5.24	.90	.98**						
3) SCI	Time 1	.88	2.16	.83	.47**	.48**					
	Time 2	1.06	2.11	.79	.48**	.47**					
4) Burnout	Time 1	3.22	1.26	.96	-.50**	-.53**	-.22**				
	Time 2	3.14	1.29	.86	-.45**	-.50**	-.19**				
5) Engagement	Time 1	5.00	1.24	.94	.26**	.28**	.21**	-.22**			
	Time 2	5.11	1.05	.97	.27**	.29**	.34**	-.19**			
6) Assertiveness	Time 1	3.23	.63	.72	.30**	.32**	.13*	-.37**	.18**		
	Time 2	3.53	.59	.68	.27**	.30**	.20**	-.26**	.21*		
7) IAF control	Time 1	2.76	.83	.79	-.24	-.25**	-.11	.46**	-.05	-.33**	
	Time 2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
8) Work intensity	Time 1	4.24	1.29	.83	-.27	-.28	-.12*	.32**	.30**	-.05	.16
	Time 2	4.18	1.45	.89	-.23*	-.23**	.01	.26**	.33**	-.04	n/a

Note. Time 1: *N* = 257, Time 2: *N* = 137. **p* < .05. ***p* < .01. GSRI = Goal-striving reasons index; GSRIlex = extended goal-striving reasons index; SCI = Self-concordance index.

Hypothesis Testing: Extension of the Model and Its Applicability in the Work Domain

Given that the extended goal-striving reasons framework introduced eight new items, reliability and validity of the new scales had to be tested. With regards to the reliability indices, the descriptive statistics show good internal reliability with α scores from .79 and above (Table 2).

Table 2. Correlation matrix of the six goal-striving reasons

		<i>M</i>	<i>SD</i>	α	1	2	3	4	5
1) Pleasure	Time 1	5.11	1.24	.91					
	Time 2	5.19	1.11	.88					
2) Positive consequences	Time 1	5.64	1.16	.91	.80**				
	Time 2	5.91	.83	.81	.66**				
3) Altruism	Time 1	5.58	1.19	.91	.74**	.86**			
	Time 2	5.91	.86	.78	.60**	.83**			
4) Self-esteem	Time 1	3.73	1.51	.90	.28*	.24**	.21**		
	Time 2	3.78	1.43	.88	.14*	.16	.05		
5) Negative consequences	Time 1	3.56	1.58	.89	.18**	.15	.16**	.82**	
	Time 2	3.11	1.66	.85	-.05	-.04	-.06	.73**	
6) Necessity	Time 1	3.77	1.84	.94	.03	.01	-.03	.54**	.68**
	Time 2	3.43	1.94	.79	-.03	-.09	-.08	.52**	.80**

Note. Study 1: *N* = 257, Study 2: *N* = 137. **p* < .05. ***p* < .01.

The correlation matrix for the six goal-striving reasons (Table 2) also reveals that positive consequences correlates most strongly with the two approaching reasons whereas negative consequences correlates most strongly with the two avoidance reasons. Thus, the extended goal-

striving reasons shows good discriminant and convergent validity. A (varimax rotated) main component analysis reveals a clear two-factor solution (Table 3) where the 25 items could explain 66% of variance for the time 1 data.

Table 3. Principal component analysis of items on extended goal-striving reasons framework

This goal is important to me because	Factor 1	Factor 2
I am having fun working on this goal.	.76 (.61)	
I like doing it.	.84 (.84)	
I actually enjoy working on this goal quite a lot.	.88 (.78)	
I get a lot of energy from this goal.	.72 (.63)	
I gain a lot from it	.88 (.75)	
It is worthwhile pursuing	.84 (.84)	
It is important to me	.89 (.80)	
It makes sense to strive for it	.83 (.79)	
It helps others.	.88 (.84)	
It serves a good cause.	.83 (.83)	
Other people do benefit from it.	.84 (.82)	
It makes the world a better place	.75 (.59)	
If I fail, my reputation amongst other people would drop.		.74 (.65)
If I fail, my self-esteem would really suffer.		.71 (.64)
If I fail, other people would look down on me.		.83 (.81)
If I fail, I would feel like a loser.		.79 (.75)
If I fail, I could not look myself into the eyes.		.64 (.63)
If I fail, things would become a lot worse		.62 (.63)
If I fail life would be less comfortable		.86 (.84)
If I fail I would face serious negative consequences		.86 (.88)
If I fail I would be worse off		.88 (.89)
It helps me to make a living.		.78 (.84)
I need the money		.79 (.83)
It makes ends meet		.77 (.83)
It is necessary to make a living		.74 (.85)

Note. Time 1: $N = 257$, Time 2: $N = 137$. Factor loadings of study 2 in brackets. Loadings under .50 in magnitude are omitted.

The data for time 2 also reveals a clear two factor solution with 62% of variance explained. Confirmatory factor analysis, using the larger data from time 1, reveals the best model fit for a two-factor solution based on 3 clusters (Figure 2). This factor solution represents an acceptable fit with ($\chi^2 = 980.558$, $df = 269$; $P \text{ CMIN/DF} = 3.645$, $CFI = .90$; $RMSEA = .098$).

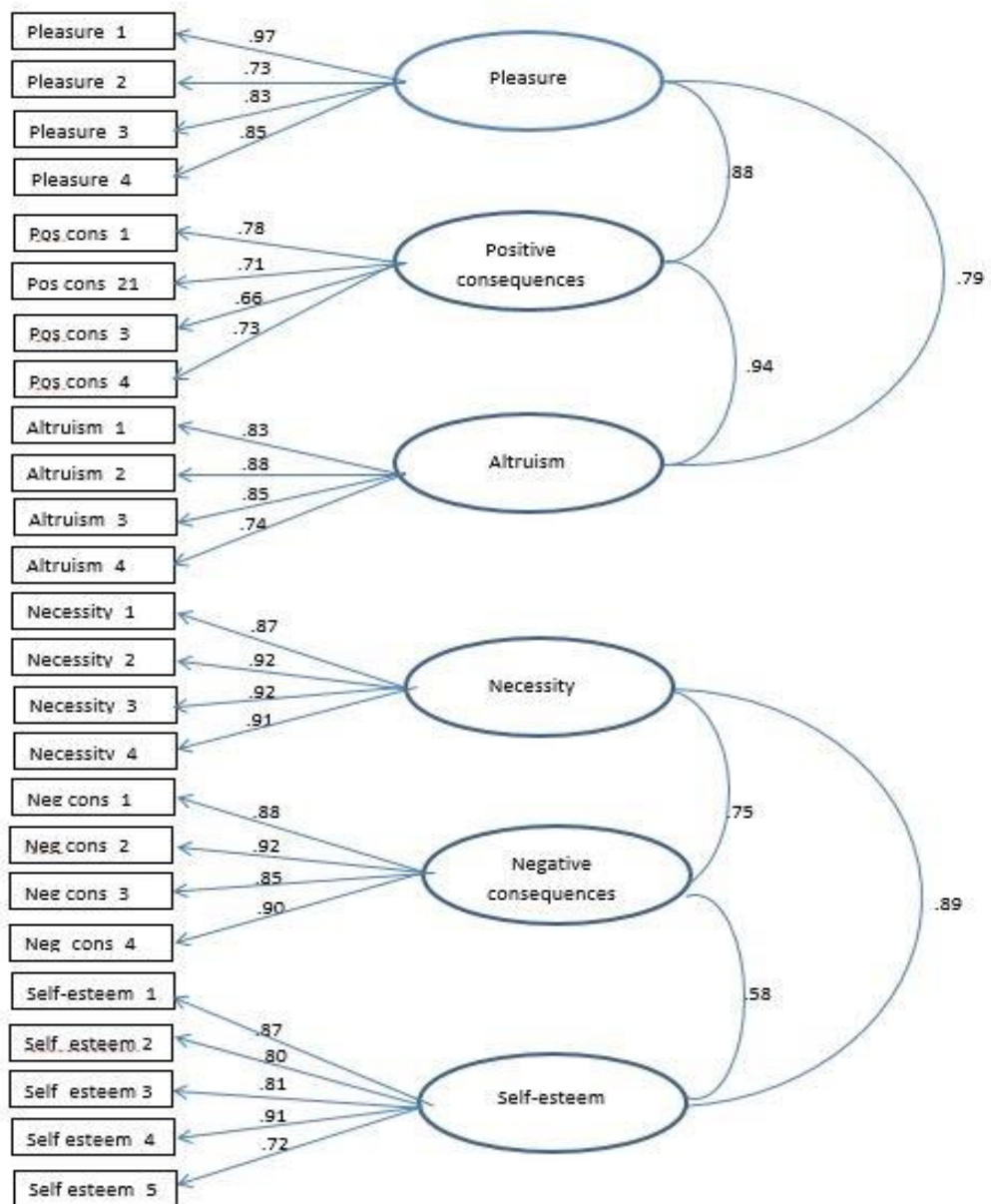


Figure 2. Confirmatory factor analysis on the extended goal-striving reasons framework

With regards to their respective predictive power, using hierarchical multiple regression analyses, the findings show that GSRIex reveals slightly higher beta weights compared to GSRI when predicting engagement and burnout cross-sectionally (see Table 4). Equally, multiple hierarchical regression analyses whereby GSRI was used to predict engagement and burnout longitudinally also show that GSRIex yields slightly higher beta weights compared to GSRI (see Table 5).

Table 4. Hierarchical regression analysis predicting engagement and burnout (cross-sectional)

Variable	Engagement			Burnout		
	Model 1 β	Model 2 β	Model 3 β	Model 1 β	Model 2 β	Model 3 β
Age	.01	-.02	-.03	-.35**	-.18**	-.16*
Gender	-.05	-.02	.03	.15*	.07	.05
SCI		.11	.10		.01	.04
GSRI		.24**	----		-.44**	----
GSRIlex			.27**			-.49**
R^2 (<i>adjusted</i> R^2)	.01 (.00)	.09 (.07)**	.10 (.08)**	.11 (.11)**	.28 (.27)**	.30(.29)**
ΔR^2		.08**	.10**		.11*	.14**

Note. $N = 257$; * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2; SCI = Self-concordance index; GSRI = Goal-striving reasons index; GSRIlex = extended goal-striving reasons. ΔR^2 of model 3 are given in relation to model 1.

However, due to the large similarity between GSRI and GSRIlex, it was expected that the predictive power of GSRIlex over GSRI would only reveal small increases. Furthermore, these increases represent descriptive differences as opposed to statistically significant differences. This is also why the ΔR^2 of model 3 in all hierarchical regressions analyses (see Table 4 and 5) are compared to model 1 of the regression analyses.

Given the relatively high attrition rate between time 1 and time 2, in combination with the fact that respondents who did not complete the second questionnaire differed significantly with regards to age, burnout and GSRIlex, the predictive power of GSRIlex has also been analysed for respondents who only completed the first questionnaire. Here, results reveal very similar findings to the ones reported in Table 4 and are therefore not explicitly reported.

In sum, based on the findings of the hierarchical regression analyses above, and keeping in mind that GSRIlex was only expected to reveal small increases in predictive strength, it can be concluded that the extended goal-striving reasons framework is a better predictor of engagement and burnout than GSRI. This is in support of hypothesis 1. Based on these findings, all further analyses will be conducted using GSRIlex.

Table 5. Hierarchical regression analysis predicting engagement and burnout (longitudinal)

Variable	Engagement			Burnout		
	Model 1 β	Model 2 β	Model 3 β	Model 1 β	Model 2 β	Model 3 β
Age	.09	-.02	-.03	-.43**	-.30**	-.27*
Gender	.03	.02	.03	.16*	.13	.11
SCI		.06	.06		.02	.03
GSRI		.24*	----		-.29**	----
GSRIlex			.25*			-.32**
R^2 (adjusted R^2)	.01 (.00)	.07 (.04)	.07 (.05)*	.19 (.18)**	.24 (.22)**	.25 (.23)**
ΔR^2		.04	.05*		.11*	.14**

Note. N = 137. * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2; SCI = Self-concordance index; GSRI = Goal-striving reasons index; GSRIlex = extended goal-striving reasons context. ΔR^2 of model 3 are given in relation to model 1.

Hypothesis Testing: Relation to Assertiveness and Control from Others

To test for the assumed theoretical differences between goal-striving reasons and self-concordance around the influence of others, the study draws on simple correlation analyses. Correlation analyses allow for a direct comparison of correlation coefficients when assertiveness or sensitivity to control are correlated with GSRIlex and SCI. Moreover, as the analyses were not aimed at testing the relative predictive strength of assertiveness and sensitivity to control for GSRIlex or SCI, multiple regression analyses were not employed.

Here, the cross-sectional data (Table 6) shows that the correlation of assertiveness with GSRIlex ($r = .32$) is higher than the correlation between assertiveness and SCI ($r = .13$).

Table 6. Correlation analyses of assertiveness and sensitivity to control predicting GSRIlex and SCI

Variable	Cross-sectional analysis		Longitudinal analysis	
	GSRIlex (time 1)	SCI (time 1)	GSRIlex (time 2)	SCI (time 2)
Assertiveness (time 1)	.32**	.13*	.31**	.22**
Susceptibility to control (time 1)	-.25**	-.11	-.31**	-.06

Note. Time 1: N = 257, Time 2: N = 137. * $p < .05$. ** $p < .01$. GSRIlex = extended goal-striving reason index; SCI = Self-concordance index

The difference between the two correlation coefficients is significant using Steigers (1980) test for significance between dependent samples ($Z = 3.05, p < .01$). Table 6 also shows that the IAF subscale of control correlates significantly with GSRIlex ($r = -.25$) but is not significantly correlated with SCI ($r = -.11$). This correlation pattern was, again, very similar for those respondents who only completed the first questionnaire.

Assertiveness and sensitivity to control also show similar correlation patterns when predicting future GSRI and SCI (Table 6). Assertiveness predicts future GSRIlex with $r = .31$ whereas it only predicts future SCI with $r = .22$. This difference in correlations coefficients is however not significant using Steiger's (1980) significance test. Sensitivity to control correlates significantly with future GSRIlex ($r = -.31$) but is not significantly correlated with SCI ($r = -.06$).

Overall, the findings provide strong support for hypotheses 2a and 2b, which state that assertiveness and "susceptibility to control" are significantly correlated with goal-striving reasons. Furthermore, self-concordance is mostly not significantly correlated with assertiveness and control, which provides partial support for hypothesis 2c.

Hypothesis Testing: GSRI as Buffer for Work Intensity on Burnout

To test for any buffering effects of GSRIlex in the prevention of burnout multiple regression analyses have been performed. These analyses aimed to test whether there is a significant interaction effect for GSRIlex and work intensity that reduces the amount of burnout. Findings reveal the existence of such an interaction effect, cross-sectionally as well as longitudinally, for those people who reported signs of burnout related to work intensity (table 7).² Although not explicitly reported, this interaction effect has also been obtained for those respondents who only completed the first questionnaire.

Table 7. Multiple regression analyses predicting burnout

	Burnout at time 1	Burnout at time 2
Variable	β	β
Age	-.14**	-.36**
Gender	.03	.06
GSRIlex	-.43**	-.24*
Work intensity	.27**	.26*
Interaction GSRIlex*work intensity	-.12*	-.17*
R^2 (adjusted R^2)	.39** (.37**)	.35** (.32**)

Note. Time 1: N = 250. Time 2: N = 118. * $p < .05$. ** $p < .01$. Coding: Gender: Male = 1, Female = 2. GSRIlex = extended goal-striving reason index

Figure 3 further shows that the interaction effect acts as a buffer for high work intensity as it reduces the negative impact on burnout when people have high approaching goal-striving reasons. Hypothesis 3 is therefore supported.

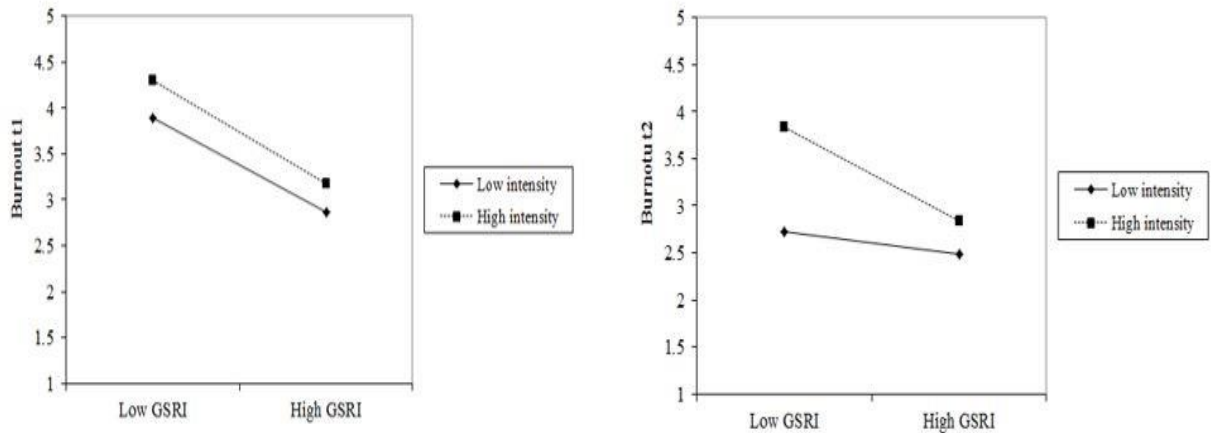


Figure 3. Interaction effect between GSRIlex and work intensity (left: interaction effect for burnout at time 1; right interaction effect for burnout at time 2)

Discussion

Summary and Discussion of Findings

The main aims of the study were to test whether an extension of the goal-striving reasons framework by reasons around people's anticipated positive and negative consequences is a better predictor of work-related outcome variables such as work engagement and burnout than the original goal-striving reasons framework. The application of the goal-striving reasons framework in the work context also aimed to see whether the goal-striving reasons framework is equally applicable in the work context as research so far was based exclusively on people's overall goals in life but not specifically on their work goals. Furthermore, this paper aimed to see whether there is empirical support for the assumed theoretical differences between goal-striving reasons and self-concordance which lies in the fact that goal-striving reasons are more sensitive to the influence of others and therefore are more closely associated with people's assertiveness levels or the tendency (not) to overly rely on the approval from others. Finally, this paper aimed to test to which degree goal-striving reasons serve as a buffer mechanism between work intensity and burnout.

With regard to the extension of the model, it firstly has been shown that the additional two goal-striving reasons showed good reliabilities and good convergent and discriminant validity. Equally, the addition of the two goal-striving reasons was successful as a clear two-factor solution, based on the approach-avoidance dimension, was obtained. With regards to its predictive power the extension of the model resulted in a better prediction of burnout and engagement although the increase in predictive power was not significant. This can be attributed to three reasons. Firstly, the original goal-striving reasons framework already showed relatively high predictive power and therefore a further significant increase could not be expected. Secondly, the two measures are largely similar

due to the fact that the 17 items of the original goal-striving reasons framework were also part of the extended goal-striving reasons framework. Thirdly, the particular sample of this study (voluntary sector) might be a group that is less susceptible to extrinsic consequences through their goals than, for example, people working in the private sector (cf. Feeney and Bozeman, 2009). However, given that there was a consistent increase in predictive power by using GSRIlex over GSRI the extension has been successful. Furthermore, from a theoretical perspective, the extension seemed necessary as any measure of goal-striving reasons that does not consider any goal pursuit around positive or negative rationale consequences would simply be incomplete.

Because the extended goal-striving reasons framework has been tested in the work context, the findings further demonstrate the applicability of the goal-striving reasons when it is based on people's work related goals. This increases the external validity of the goal-striving framework beyond its application on people's overall goals in life.

With regards to GSRIlex being more strongly associated with variables that capture people's tendencies to assert their own wishes over others, the findings at hand suggest that such tendencies are more strongly associated with approaching goal-striving reasons but less so with self-concordance. This again, highlights the theoretical difference between self-concordance and goal-striving reasons in as far as goal-striving reasons are more sensitive to the influence of others on people's goal pursuits than self-concordance which focusses mostly (with the exception of external pressures) on the characteristics of the goal itself. Thus, as argued in Ehrlich and Bipp (2016), the goal-striving reasons framework is a more comprehensive measure of goal-reasons because it combines the reasons why people pursue their goals based on the task itself with the (additional) influence others have on people's goal pursuits.

Finally, with regard to work intensity the findings show that having more approaching than avoidance goal-striving reasons reduces the effect of high work intensity on burnout. This effect has been found cross-sectionally and longitudinally although only if people with high work intensity and low levels of burnout have been excluded. This small group of excluded employees were employees who reported to thrive on high work intensity and therefore did not show high levels of burnout despite high work intensity - a phenomenon reported in the literature with regards to work engagement (Bakker & Demerouti, 2008). The fact that these employees were excluded does, however, not limit the relevance of goal-striving reasons as a buffer for work intensity as it is most relevant for those people who suffer from high work intensity, i.e. report high levels of burnout due to high work intensity.

Limitations

While the study provides strong support for the importance of goal-striving reasons as a predictor of engagement and burnout, the findings have to be treated with care. This is because participants were financially rewarded which could have led to a self-selecting bias. Additionally, the high attrition rate between time 1 and time 2, in combination with the fact that respondents who did not complete the second questionnaire differed in some of the main study variables, potentially limits the external validity of the findings. Yet, the fact that the analyses for this particular subgroup revealed nearly identical findings with regards to all three aims of the study does restore confidence in the

generalisability of the overall findings. Furthermore, the findings are based on self-report data which might have inflated the finding due to common method variance. However, given the similar findings of the cross-sectional data and the longitudinal data this seems unlikely. Finally, memory effects cannot be ruled out as this study did not control for it. However, one month in between the two data gathering points seemed to be long enough, to make memory effects unlikely.

Implications for Theory and Practice

Despite these limitations the findings have implications for theory and practice. With regards to the theoretical implications, the goal-striving reasons framework has been further established as a useful concept to predict important psychological outcome variables. Due to its extension, it now offers a more comprehensive measurement of people's goal-striving reasons. For the first time, it could also been demonstrated that goal-striving reasons are equally applicable in the work context. Because of this, the findings also have practical implications which mostly revolve around the notion that employees in an organisational context are required to assert their goal pursuits against other groups within the organisation (colleagues, supervisor). As people's assertiveness levels coincide with the quality of people's goal-striving reasons but not with self-concordance one can argue that in a work context, where safeguarding one's goals against external demands is required, the goal-striving reasons framework seems to be a more suitable measure for goal reasons compared to self-concordance. However, given that the study at hand was conducted in a particular setting and with a particular research focus, the predictive benefits of the goal-striving reasons framework over self-concordance cannot be generally assumed and at no time does this imply that the goal-striving reasons framework is generally superior to the self-concordance model.

Future Research Directions

The findings of the studies also stipulate future research. Firstly, the extension of the goal-striving reasons framework should be tested for professional groups where it can be assumed that positive or negative outcomes through goal pursuit are maybe of greater importance. This, for example, could be for private sector employees - particular those who receive large bonuses. It would then be interesting to see if GSRIlex is an even stronger predictor of engagement or burnout compared to the traditional GSRI.

Secondly, the sample of this study showed relatively low levels of work intensity and burnout. Hence, it would be interesting to analyse whether the interaction effect between GSRIlex and work intensity would be even greater for work places with higher work intensity. At this point it can only be speculated that this might be the case but empirical tests are needed. This would require a follow-up study in a high work-intensive industry such as investment banking where stress levels are notoriously high.

Conclusion

To conclude, the study at hand provides empirical evidence in relation to several important aspects of the goal-striving reasons framework that have advanced the relevance of the goal-striving reasons framework. Advancements were made with regards to its scope, its theoretical difference to self-concordance, and its applicability in the work place. These advancements should give researchers

further confidence in the fact that the goal-striving reasons framework is an important level of analysis that not only predicts people's general subjective well-being as established in previous studies (Ehrlich & Bipp, 2016) but is also applicable in predicting specific work outcomes such as work engagement or burnout.

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Notes

¹It also contained one additional altruism item (I strive for this goal because I makes the world a better place) to measure altruism more comprehensively.

²This meant people with relatively high work intensity (work intensity > 3.5) but low levels of burnout (burnout < .5.5) had to be excluded from this analysis. The remaining sample therefore consisted of 250 participants at time 1 and 118 participants for time 2.

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