The contribution of metacognitions and attentional control to decisional procrastination

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Abstract

Earlier research has implicated metacognitions and attentional control in procrastination and self-regulatory failure. This study tested several hypotheses: (1) that metacognitions would be positively correlated with decisional procrastination; (2) that attentional control would be negatively correlated with decisional procrastination; (3) that metacognitions would be negatively correlated with attentional control; and (4) that metacognitions and attentional control would predict decisional procrastination when controlling for negative affect. One hundred and twenty-nine participants completed the Depression Anxiety Stress Scale 21, the Meta-Cognitions Questionnaire 30, the Attentional Control Scale, and the Decisional Procrastination Scale. Significant relationships were found between all three attentional control factors (focusing, shifting, and flexible control of thought) and two metacognitions factors (negative beliefs concerning thoughts about uncontrollability and danger, and cognitive confidence). Results also revealed that decisional procrastination was significantly associated with negative affect, all measured metacognitions factors, and all attentional control factors. In the final step of a hierarchical regression analysis only stress, cognitive confidence, and attention shifting were independent predictors of decisional procrastination. Overall these findings support the hypotheses and are consistent with the Self-Regulatory Executive Function model of psychological dysfunction. The implications of these findings are discussed.

Key words: attentional control; metacognitions; procrastination.

1. Introduction

Procrastination can be defined as the postponing of starting, or completing, a task or the making of a decision and can be conceptualised as a form of self-regulation failure (Baumeister, Heatherton, & Tice, 1994). Procrastination is common: Ellis and Knaus (1977) estimated that up to 70% of students procrastinate whilst the overall prevalence in an adult community has been found at 20% (Harriott & Ferrari, 1996). Procrastination can have a deleterious impact on individuals' academic and work performance, relationships, and mental well-being (Stöber & Joormann, 2001).

Research has sought to identify psychological variables that contribute to, or are associated with, procrastination. Relationships between maladaptive beliefs concerned with perfectionism (Burka & Yuen, 2008), fear of failure (Haghbin, McCaffrey, & Pychyl, 2012; Solomon & Rothblum, 1984), self-esteem (Ferrari, 1994), and self-efficacy (Haycock, McCarthy, & Skay, 1998) have been found to be associated with procrastination, as well as variables related to task characteristics. For example an individual's susceptibility to boredom is significantly associated with procrastination (Vodanovich & Rupp, 1999) as is task aversiveness in general (Solomon & Rothblum, 1984). Indeed, using a Principal Components Analysis, Blunt and Pychyl (2000) found that boredom and frustration were associated with task aversiveness, which in turn was associated with procrastination. Taking a meta-analytical approach, Van Eerde (2003) found that the strongest associations with procrastination were with the personality factors of conscientiousness, self-efficacy, and self-handicapping (for a review of psychological variables associated with procrastination see Steel (2007).

Evidence for the efficacy of traditional CBT interventions for procrastination that target these maladaptive beliefs and encourage behavioural activation is limited and is often based on

single case studies (Rozental & Carlbring, 2013). The exception is a recent RCT that found that self-help or guided self-help CBT interventions reduced procrastination compared to a waiting list control condition (Rozental, Andersson, & Carlbring, 2014). However, before fully evaluating traditional CBT interventions for procrastination, we argue that it would be beneficial to address a fundamental limitation of these approaches: i.e., their focus on the content of cognitions at the expense of other components of cognition such as attention and cognitive regulation (Wells & Matthews, 1996).

1.1. Failure of self-regulation

Procrastination has been conceptualised as a failure of performance (Baumeister & Heatherton, 1996; Baumeister et al., 1994; Ferrari, 2001) and emotional (Senecal, Koestner, & Vallerand, 1995; Sirois & Pychyl, 2013) regulation. Emotional state has been found to be associated with procrastination (Beswick, Rothblum, & Mann, 1988); furthermore it was found that students are more likely to procrastinate with early-term anxiety-provoking tasks (Ferrari & Scher, 2000), suggesting that procrastination is an attempt to regulate negative affect. Conceptualising procrastination as a failure to self-regulate would be aided by an explanatory framework that can help to take our understanding beyond that of the role of maladaptive beliefs.

Executive functioning is associated with frontal brain systems and refers to neurocognitive processes that govern self-regulation, and its relationship to self-regulation failures in procrastination has been investigated. Rabin, Fogel, and Nutter-Upham (2011) found that all nine aspects of executive functioning they measured were significant predictors of academic procrastination. Intuitively, executive dysfunction seems less amenable to psychological intervention. However, as Wells and Matthews (1996) suggest, at least in terms of attentional control, there is a difference between the strategic control and consciousness of

processing. The Self-Regulatory Executive Functioning (S-REF; Wells & Matthews, 1994) model offers a framework in which aspects of executive functioning are hypothesised to be under voluntary, conscious control.

The S-REF model describes a multilevel cognitive architecture that incorporates a range of cognitive processes and attentional strategies and has been used to develop models of psychopathology on which successful treatment protocols have been built (Normann, van Emmerik, & Morina, 2014; Wells, 2011). According to the S-REF model, psychological dysfunction is associated with a style of thinking termed the Cognitive Attentional Syndrome (CAS) that consists of heightened self-focused attention, repetitive thinking patterns (rumination and worry), avoidance, thought suppression, and threat monitoring. The activation and persistence of the CAS in response to stress is influenced primarily by top-down mechanisms, which are often triggered in response to low level automatic, or bottom-up, processing or activity (Wells, 2002). The S-REF model posits that procedural beliefs, in the form of metacognitions, are significant top-down contributors to the activation of maladaptive CAS configurations.

Metacognitions refer to the information held by an individual about their own cognition and internal states, and about coping strategies that impact on both (Wells, 2002; Wells & Matthews, 1994, 1996). Examples of information individuals hold about their own cognition may include beliefs concerning the significance of particular types of thoughts, e.g., “It is bad to think X” or “I need to control thought X.” Examples of information individuals hold about coping strategies that impact on cognition may include beliefs such as “Worrying will help me get things sorted out in my mind” or “Ruminating will help me solve the problem.”

1.2. Metacognitions in procrastination

Earlier research has implicated a potentially pivotal role for procrastination-related cognitions and beliefs in this problematic behaviour (Flett, Stainton, Hewitt, Sherry, & Lay, 2012; McCown, Blake, & Keiser, 2012). However, according to the S-REF model, cognitions, core beliefs, and conditional assumptions are the output or surface indicators of problematic CAS configurations that are governed by metacognitions. Accordingly, sustained modification of procrastination-related cognitions will not fully occur without the restructuring of CAS configurations.

Metacognitions have been found to predict psychopathology generally (Wells, 2013). Research has also indicated that metacognitions may play a role in procrastination (Fernie & Spada, 2008; Fernie, Spada, Nikčević, Georgiou, & Moneta, 2009). In particular, early work by Spada, Hiou and Nikčević (2006) found that lack of cognitive confidence is associated with behavioural procrastination, leading the authors to postulate that individuals who hold negative beliefs about their cognitive efficiency may doubt their task performance capabilities, adversely impacting on motivation as well as task initiation and persistence. The authors also observed a link between positive beliefs about worry and decisional procrastination explaining this in terms of such beliefs facilitating the activation of “internal reality-testing” or “mental problem-solving” routines akin to worry (a potentially cognitively demanding activity) which would hinder decision-making processes leading to decisional procrastination.

From the perspective of the S-REF model, procrastination can be conceptualised as a metacognitive control strategy (MCS): i.e., a strategy activated with the goal of regulating cognitive and emotional states. As with all MCSs, and according to this model, procrastination in itself it is neither ‘good’ nor ‘bad’. MCSs become problematic when they result in perseveration,

and likewise procrastination becomes maladaptive when it forms part of a 'paralysed' CAS configuration that fails to lead to either belief change or task completion. Procrastination may initiate through 'choice'; however, its subsequent perseveration may result from: (1) a termination of attempts to halt it because of beliefs about its uncontrollability, and (2) the activation of other MCSs (such as worry and rumination) that limit available resources for task completion.

1.3. The role of attention in procrastination

Attentional control refers to the ability to inhibit a dominant attention-attracting stimuli in favour of a less salient point of focus that may be more functional (Derryberry & Reed, 2002). Derryberry and Reed (2002) have identified three parameters to describe the voluntary control of attention: (1) attention focusing (e.g., ''When I am working hard on something, I still get distracted by events around me''); (2) attention shifting (e.g., ''I can quickly switch from one task to another''); and (3) flexible control of thought (e.g., ''It takes me a while to get really involved in a new task'). Evidence has demonstrated that high levels of attentional control enable the modulation of reflexive emotional responses, whereas low levels of attentional control increase vulnerability to acting on dysfunctional emotional responses (Derryberry & Reed, 2002).

The S-REF model predicts that poor attentional control will result in a reduction in the efficiency of belief change and information processing (Wells, 2011). For example, self-focused attention plays a role in a wide range of emotional disorders (Ingram, 1990). An internally focused, inflexible control of attention limits the processing of externally located stimuli that could potentially provide counter-evidence to negative cognitions and beliefs. According to the S-REF model, the control of attention is influenced by top-down, metacognitions and lower-

level, bottom-up activity. Once stimuli intrude into consciousness, procedural beliefs determine the strategic response to them: thus, maladaptive metacognitions may result in the selection and implementation of poor attentional strategies and, consequently, poor attentional control. In terms of procrastination, poor attentional control may: (1) inhibit the modification of maladaptive beliefs associated with procrastination; and (2) reduce the availability of resources for performance and task completion as a result of self-focused attention draining cognitive resources. The management of attention may be vital to self-regulation (Baumeister & Heatherton, 1996; Baumeister et al., 1994). Furthermore, one study found that procrastination was partially correlated with attention deficits when controlling for intelligence (Ferrari, 2000). In addition research suggests that metacognitions are involved in aspects of attentional control (Spada, Georgiou, & Wells, 2010), specifically shifting and focus.

1.4. Aims of study

To date, no study has investigated the association between attentional control, metacognition, and procrastination. This study aimed to test the following hypotheses: (1) metacognitions (positive beliefs about worry) will be positively correlated with decisional procrastination; (2) attentional control will be negatively correlated with decisional procrastination; (3) metacognitions will be negatively correlated with attentional control; and (4) metacognitions and attentional control will predict decisional procrastination when controlling for negative affect. Negative affect was included as a control variable as it has been shown to correlate with procrastination (Beswick et al., 1988; Steel, 2007) and attentional control (Derryberry & Reed, 2002).

2. Methods

2.1. Participants

One hundred and twenty-nine participants (99 female) were recruited into this study, with a mean age of 40.0 years (SD 11.7; range 16 to 63). The ethnicity of participants was mixed with 47.3% of the sample self-reporting as white, 36.4% as black, 7.0% as mixed, 3.9% as Asian, and the remainder identified another ethnic background or did not specify. Inclusion criteria were: (1) 18 years of age or above; (2) consenting to the study; and (3) understanding spoken and written English.

2.2. Procedure

Ethics approval for the study was obtained from an institution of higher education in the UK. A web link directing potential participants to the study website was sent on a university email circular. The first page of the study website explained the purpose of the study: “To investigate the relationship between negative affect, thinking styles, and procrastination”. Participants were then directed to a second page containing basic demographic questions and the self-report instruments. On completion of the study participants were asked to click on the “Submit” button to indicate their consent to participate in the study. Once participants had clicked on “Submit”, their data were forwarded to a generic postmaster account. This ensured that participants’ responses were anonymous. A second submission from the same IP address was not allowed so as to avoid multiple submissions from the same participant.

2.3. Self-report instruments

2.3.1. Decisional Procrastination Scale (DPS; Mann, 1982)

The DPS consists of five items and examines indecisiveness as it relates to handling conflicts in decision-making situations and includes such statements as: “I put off making

decisions" and "I waste a lot of time on trivial matters before getting to the final decision." Higher scores reflect greater decisional procrastination. The scale has been found to possess good psychometric properties with a Cronbach's alpha of .80 and test-retest reliability of .69 (Effert & Ferrari, 1989), as well as having strong correlations with behavioural procrastination tasks (Beswick et al., 1988), demonstrating face validity.

2.3.2. Depression Anxiety Stress Scales 21 (DASS-21; Lovibond & Lovibond, 1995)

The DASS-21 assesses depression, anxiety, and stress. It consists of three factors measured by 21 items in total. The three factors measure depression (e.g., "I felt that I had nothing to look forward to"), anxiety (e.g., "I felt scared without any good reason") and stress (e.g., "I was intolerant of anything that kept me from getting on with what I was doing"). Higher scores indicate higher levels of depression, anxiety, and stress. The DASS-21 has been reported to have good psychometric properties, with internal consistencies for each of the subscales of .91 (depression), .80 (anxiety), and .84 (stress) in nonclinical populations (Crawford & Henry, 2003). It has also been shown to possess construct validity in both clinical (Lovibond & Lovibond, 1995) and non-clinical (Crawford & Henry, 2003) samples.

2.3.3. Meta-Cognitions Questionnaire 30 (MCQ-30; Wells & Cartwright-Hatton, 2004)

This MCQ-30 assesses individual differences in metacognitions, judgments and monitoring tendencies. It consists of five factors assessed by 30 items in total. The five factors measure the following dimensions of metacognition: (1) positive beliefs about worry (e.g., "worrying helps me cope"); (2) negative beliefs about thoughts concerning uncontrollability and danger (e.g., "when I start worrying I cannot stop"); (3) cognitive confidence (e.g., "my memory can mislead me at times"); (4) beliefs about the need to control thoughts (e.g., "not being able to control my thoughts is a sign of weakness"); and (5) cognitive self-consciousness (e.g., "I pay

close attention to the way my mind works"). Higher scores indicate higher levels of maladaptive metacognitions. The MCQ-30 possesses good internal consistency and convergent validity, as well as acceptable test-retest reliability (Page, Hooke, & Morrison, 2007; Sinclair et al., 2012; Spada, Mohiyedinni & Wells, 2008).

2.3.4. Attentional Control Scale (ACS; Derryberry & Reed, 2002)

The ACS assesses the ability to voluntarily control attention. It consists of three factors assessed by 20 items in total. The three factors measure attention focusing (e.g., ''My concentration is good even if there is music in the room around me''), attention shifting (e.g., ''After being distracted or interrupted, I can easily shift my attention back to what I was doing''), and flexible control of thought (e.g., ''I can become interested in a new topic very quickly if I need to''). Higher scores predict more resistance to interference in Stroop-like spatial conflict tasks, greater disengagement from threat stimuli among highly anxious people (ACS; Derryberry & Reed, 2002), and greater activation in brain areas related to executive functioning while looking at fear-related pictures (Derryberry & Reed, 2002). The ACS possesses good internal reliability and predictive utility (Mathews, Yiend, & Lawrence, 2004).

3. Results

3.1. Data configuration

The distributions of the variables were examined for skewness and kurtosis and subjected to Kolmogorov-Smirnov normality tests to establish the nature of data distribution. These revealed that the all of the distributions of the experimental variables were non-normal except for decisional procrastination and (lack of) cognitive confidence. However, further examinations of skewness and kurtosis suggested a non-normal distribution of all data.

In order to assess the suitability of the data for regression modelling, the following factors were considered: there was no evidence of multicollinearity in the dataset: (1) no correlations greater than r=.9 were identified between the predictor variables used in the regression analyses; (2) the ranges of the Tolerance Index (TI) were between .40 and .82 (i.e., no TIs were calculated below .10); and (3) the Variance Inflation Factors (ranging between 1.22 and 2.80) for all predictor variables were less than 10. Additionally, the Durbin-Watson test suggested that the assumption of independent errors is tenable. Furthermore, histograms and normality plots suggested that the residuals were normally distributed and plots of the regression-standardized residuals against the regression standardized predicted values suggested that the assumptions of linearity and homoscedascity were met.

3.2. Correlation analyses

The Spearman's Rho correlation analyses revealed that decisional procrastination was significantly and positively correlated with all three factors of the DASS-21 (depression, anxiety, and stress) and four factors of the MCQ-30 (negative beliefs about thoughts concerning uncontrollability and danger, cognitive confidence, beliefs about the need to control thoughts, and cognitive self-consciousness). The analyses also revealed a negative, significant relationship between decisional procrastination and all three factors of the ATC (focus, shift, and control).

3.3. Hierarchical regression analysis with decisional procrastination as outcome variable.

Variables that were found to be significantly associated with decisional procrastination were entered in to a hierarchical regression analysis as predictor variables (see Table 2). On the first step, all three DASS-21 factors (depression, anxiety, and stress) were entered because research has shown emotion to be associated with procrastination (Derryberry & Reed, 2002; Judah, Grant, Mills, & Lechner, 2014). On the second step, the four factors of the MCQ-30 that had

been found to be significantly correlated with decisional procrastination were added to the model. Metacognitions were added to the second step because of findings from earlier research (Van Eerde, 2003). Finally, all three ACS factors (focus, shift, and control) were added to the model. In the final model, stress, (lack of) cognitive confidence, and the ability to shift attention after distraction were found to be independent and significant predictors of decisional procrastination. The final model accounted for 44.7% of the variance of decisional procrastination.

4. Discussion

Overall, the results from this study support the hypotheses although they differ in some respects to the findings from earlier studies. For example, this study failed to find a significant relationship (whether controlled or uncontrolled for negative affect), unlike (Spada, Hiou, & Nikcevic, 2006) did, between decisional procrastination and positive beliefs about worry. However this study found a significant relationship between decisional procrastination and the four other metacognitions, one of which (cognitive confidence) remained significantly associated when controlling for both negative affect and attentional control. This study also found that the attention shifting parameter of attentional control (i.e., the ability to refocus following a distraction) independently predicted decisional procrastination when controlling for negative affect and metacognitions. This result aligns itself with earlier research that implicates the management of attention in procrastination and failures of self-regulation Spada et al. (2006). This finding has implications for individuals susceptible to distraction and the marshalling of resources to facilitate performance and affect regulation.

Why should cognitive confidence be crucial in understanding decisional procrastination? We hypothesize two potential mechanisms. Firstly, negative appraisals of cognitive performance

may activate worry (itself a marker of problematic CAS configurations), increasing both cognitive load and task aversiveness. Earlier research has suggested worry impairs performance (Baumeister & Heatherton, 1996; Baumeister et al., 1994; Ferrari, 2000). Secondly, lack of cognitive confidence may lead to the belief of the need to address perceived deficits with additional compensatory strategies, increasing task demands and aversiveness. Indeed, self-efficacy, which is arguably a related concept to cognitive confidence, has been shown to be associated with procrastination (Vytal, Cornwell, Arkin, & Grillon, 2012). According to the S-REF model, negative self-efficacy beliefs would be conceptualised as the output of problematic CAS configurations. Engagement in worry, rumination, self-focused attention and procrastination would impair performance, reinforcing such beliefs.

We found an association between metacognitions (specifically negative beliefs about thoughts concerning uncontrollability and danger and cognitive confidence) and attentional control, as well as a relationship between attention shifting and decisional procrastination. According to the S-REF model, deficits in attentional control will be: (1) governed in part by metacognitions; and (2) reduce the efficiency of belief change and information processing. The measurement of attentional control on the ACS relates, fundamentally, to beliefs about executive control over attention, rather than an actual index of attention control, and can therefore be conceptualised as a form of metacognitive knowledge (see Steel, 2007). In terms of the S-REF model, the ACS is a measure of awareness of, over objective, attentional control.

From a therapeutic perspective the present findings suggest that Metacognitive Therapy (Spada et al., 2010) may be helpful in addressing procrastination whilst avoiding the limitations of traditional CBT (i.e., the neglect of the role of attention and cognitive processes in regulation). MCT interventions aim to modify metacognitions that govern perseverative cognitive processes

and maladaptive attentional strategies that impact performance, cognitive, and emotional regulation. For example, Attention Training Technique and Detached Mindfulness (MCT; Wells, 2011) aim to enhance attentional control and cognitive flexibility. Indeed, whilst we were unable to identify any studies that assessed MCT interventions in procrastination, a recent meta-analysis suggests MCT results in superior outcomes in the treatment of anxiety and depression when compared to traditional CBT (Wells, 2011).

This study has several limitations that will have to be addressed by future research. Firstly social desirability, self-report biases, context effects, and poor recall may have contributed to errors in self-report measurements. This is to an extent unavoidable as there are no objective or interview measures of metacognitions, however in the case of attentional control a behavioural test (Normann et al., 2014) exists. Secondly a cross-sectional design was adopted and this does not allow causal inferences. Thirdly, the study utilised the MCQ-30 to assess metacognitions. Whilst this measure was designed to assess metacognitions involved in worry, it may be more appropriate to use the Metacognitive Beliefs about Procrastination Questionnaire (e.g. a spatial orienting task; Derryberry & Reed, 2002) that specifically targets procrastination-related metabeliefs. Fourthly, the majority of the sample was female (77%) and this may limit the generalizability of this study's findings. Finally, in view of the relatively nascent phase in which treatment for procrastination finds itself, cautiousness is recommended when interpreting the findings and their possible generalizability to treatment.

Future studies could address these limitations by modifying experimental designs. For example, vulnerability to respective recall bias could be addressed by employing ecological momentary assessment designs. Research involving experimental manipulation of attentional control to test if its enhancement results in lower levels of procrastination (whilst controlling for

individual differences in metacognitions) may also prove valuable. It may also be of value to explore whether lack of cognitive confidence is related to frustration intolerance (a key concept in rational emotive behaviour therapy which shares similarities to metacognitive detachment; Di Giuseppe, Doyle, Dryden & Backx, 2014; Ellis & Dryden, 1997) and what is the relative contribution of these constructs to procrastination. Finally, examining whether changes in both metacognitions and attentional control occur during the process of treatment would be of interest.

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Table 1: Spearman's Rho correlation matrix.

Measures	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1. DP		.48**	.42**	.47**	.16	.46**	.45**	.30**	.22*	-.37**	-.44**	-.32**
2. DASS-21-Depression			.54**	.60**	.16	.49**	.29**	.35**	.24**	-.32**	-.38**	-.40**
3, DASS-21-Anxiety				.65**	.28**	.47**	.15	.40**	.27**	-.30**	-.16	-.12
4. DASS-21-Stress					.22*	.45**	.26**	.28**	.20*	-.40**	-.29**	-.24**
5. MCQ-30-1						.29**	.12	.33**	.34**	.02	.04	.08
6. MCQ-30-2							.38**	.43**	.43**	-.41**	-.30**	-.25**
7. MCQ-30-3								.17	.13	-.23**	-.34**	-.32**
8. MCQ-30-4									.53**	-.07	-.12	.00
9. MCQ-30-5										-.09	-.09	.04
10. ACS-Focus											.46**	.47**
11. ACS-Shift												.45**
12. ACS-Control												

Note. DP = Decisional Procrastination scale; DASS-21 = Depression, Anxiety, and Stress Scale 21; MCQ-30 = Metacognitions Questionnaire 30: (-1 = Positive Beliefs about Worry; -2 = Negative Beliefs about Thoughts Concerning Uncontrollability and Danger; -3 = Cognitive Confidence; -4 = Beliefs about the Need to Control Thoughts; -5 = Cognitive Self-consciousness); ACS = Attentional Control Scale; n=129; * $p<0.05$; ** $p<.01$.

Table 2: Hierarchical regression model with decisional procrastination as the outcome variable.

Predictor	R^2	Adjusted R^2	B	SE	β	95% Confidence Interval LL	95% Confidence Interval UL
Step 1							
DASS-21-Depression			.40	.13	.32**	.14	.66
DASS-21-Anxiety			-.13	.18	-.08	-.49	.22
DASS-21-Stress			.49	.18	.34**	.14	.84
	.56**	.31**					
Step 2							
DASS-21-Depression			.26	.12	.21*	.02	.51
DASS-21-Anxiety			-.21	.17	-.13	-.55	.12
DASS-21-Stress			.40	.16	.28*	.08	.72
MCQ-30-2			.15	.11	.13	-.07	.37
MCQ-30-3			.39	.10	.30**	.20	.59
MCQ-30-4			.23	.13	.14	-.04	.49
MCQ-30-5			-.03	.11	-.02	-.25	.20
	.67**	.45**			.		
Step 3							
DASS-21-Depression			.16	.13	.13	-.10	.41
DASS-21-Anxiety			-.13	.17	-.08	-.47	.20
DASS-21-Stress			.36	.16	.25*	.04	.68
MCQ-30-2			.08	.12	.06	-.15	.31
MCQ-30-3			.32	.10	.25**	.13	.52
MCQ-30-4			.22	.13	.14	-.04	.48
MCQ-30-5			.01	.11	.01	-.21	.24
ACS-Focus			-.06	.11	-.05	-.28	.15
ACS-Shift			-.31	.12	-.21*	-.55	-.06
ACS-Control			-.04	.27	-.01	-.57	.50
	.70*	.49*					

Note. DP = Decisional Procrastination scale; DASS-21 = Depression, Anxiety, and Stress Scale 21; Metacognitions Questionnaire 30: (-1 = Positive Beliefs about Worry; -2 = Negative Beliefs about Thoughts Concerning Uncontrollability and Danger; -3 = Cognitive Confidence; -4 = Beliefs about the Need to Control Thoughts; -5 = Cognitive Self-consciousness);ACS = Attentional Control Scale; n=129; * p<0.05; ** p<.01.