

**The Effects of Dispositional Academic Self-
handicapping on Performance Expectations,
Performance Outcomes and Affect.**

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BA (Hons)

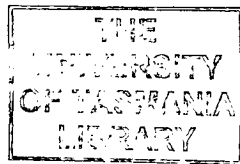
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Statement

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Abstract

There is evidence to suggest that dispositional self-handicappers suffer long-term negative effects such as poor academic performance and negative affect. However, there has been little research investigating these effects in situations where real life goals are salient and where specific academic self-handicapping measurement tools are used. In addition, research directly investigating dispositional self-handicapper's performance expectations is limited to laboratory settings. Studies have indicated a need for the development and validation of academic self-handicapping scales that are more reflective of self-handicapping in the academic domain. Consequently, further research investigating the above areas in a field setting using a specific academic self-handicapping tool is advised. In study 1, participants ($N = 240$) completed a package of questionnaires including the *Revised Academic Self-Handicapping Scale (RASH)* and 140 participants returned to complete the second questionnaire package four weeks later. The *RASH* was revised to form a 12-item scale (*RASH-II*). The *RASH-II* was found to have two subscales: *Procrastination* and *Achievement Anxiety*, and was found to be a psychometrically sound instrument, which has good reliability and validity. Study 2 examined the relationship between dispositional academic self-handicapping and claimed handicaps, performance expectations, performance and affect in a naturalistic context using the *RASH-II* as a specific academic self-handicapping assessment tool. Participants ($N = 78$) completed the *RASH-II* and were provided the opportunity to claim handicaps, report performance expectations, and report affect at various times during the semester. In addition, participants' grades on assignments and examinations were obtained. Participants who scored high on the *RASH-II*, claimed more handicaps prior to

assignments and exams and expected to perform more poorly than those who scored low. This was despite similar performances throughout the year. In addition, these participants also reported higher levels of negative affect. These findings confirm previous research into the effects of chronic self-handicapping whilst using a new academic self-handicapping measurement tool and focussing on real life performance situations for third year University students.

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Research has established a pervasive tendency on the part of individuals to attribute successful outcomes to themselves and unsuccessful outcomes to other factors. This 'self serving bias' enables an individual to deny personal responsibility for unsuccessful outcomes, thereby avoiding any negative implications, and assume responsibility for successful outcomes. In so doing, they assert the link between performance and evaluation. Berglas and Jones (1978) have suggested that these principles of self-image protection are also used proactively. They coined the term *self-handicapping* to represent the *characteristic of actively seeking or creating factors that interfere with performance in order to provide an external explanation for failure and enhanced responsibility for success.*

Situational Self-handicapping Strategies

Situational self-handicapping strategies *occur in situations when certain factors or characteristics are present such as non-contingent success or high task difficulty.* It has been suggested that self-handicapping occurs in situations where the outcome is uncertain (Jones & Berglas, 1978; Berglas & Jones, 1978; DeGree & Snyder, 1985; Harris & Snyder, 1986; Snyder, 1990; Snyder & Smith, 1982) and that self-handicaps are strategies designed to reduce uncertainty regarding one's abilities (Maracek & Mettee, 1972). In their initial demonstration of self-handicapping behaviour, Berglas and Jones provided participants who were allocated to either (a) contingent success or (b) non-contingent success feedback, the opportunity to self-handicap for an upcoming test by ingesting what they believed to be a debilitating drug. Participants who had experienced non-contingent success chose to take the debilitating drug presumably as a means to undermine the competence implications of any decreases in performance. Further research has replicated

these findings utilising both drug ingestion (Kolditz & Arkin, 1982) and alcohol consumption (Tucker, Vuchinich, & Sobell, 1981). Snyder and colleagues (Frankel & Snyder, 1978; Snyder, Smoller, Strenta, & Frankel, 1981) suggested that lack of effort could be utilised as an impediment to performance and afford the self-handicapper the same benefits as drug ingestion and alcohol consumption. They found that participants who had been given unsolvable problems followed by music said to facilitate performance, did in fact reduce effort on the upcoming task. Reductions in effort have also been found in other studies (Baumeister, Hamilton, & Tice, 1985; Pyszczynski & Greenberg, 1983; Rhodewalt & Fairfield, 1991).

Arkin and Baumgardner (1985) suggest an organisational scheme to classify situational self-handicapping behaviour. Alcohol consumption, drug ingestion and reductions in effort constitute an “*acquisition of an impediment to accurate appraisal*” (p. 175), *where an individual deliberately behaves in a certain manner prior to performance situations*. By contrast, it is suggested that *claims* of handicaps also occur (such as claiming test anxiety). These handicaps are also known as *self-reported* handicaps (Hirt, Deppe, & Gordon, 1991) and represent *handicaps that individuals claim to have prior to a performance situation*.

In an investigation of the performance-related consequences of self-handicapping and state self-confidence among physical education students, Ryska (2002) utilised an open-ended response format to measure claimed impediments to performance. Participants claimed performance impediments such as inadequate physical preparation, other sport commitments, pre-competitive anxiety, injury/illness, social activities, poor concentration, inadequate sleep and many more. In an academic context, Feick and Rhodewalt (1997),

Rhodewalt and Hill (1995) and Thompson and Richardson (2001) found that individuals with a disposition for self-handicapping behaviour claimed handicaps such as test anxiety, financial worries, feeling off colour and headaches as impediments to future performance. Arkin and Baumgardner suggest that the above classes of *internal* handicaps can be contrasted with *external* handicaps such as the choice of difficult goals, or non-diagnostic contexts. *Internal handicaps represent those handicaps with an internal locus of control whereas external handicaps are termed as such due to an external locus of control.*

Dispositional Self-handicapping

Edward E. Jones and colleagues in the 1970's believed that there are differences among people in the extent to which they utilise situational self-handicaps (Berglas & Jones, 1978; Jones & Berglas, 1978). Specifically, it was postulated that *some individuals will use any possible claim or behavioural impediment to performance if it is available across a variety of situations and over a long period of time. These individuals can be thought of as 'dispositional self-handicappers'.* These individuals are thought to have a tenuous and uncertain sense of esteem (Harris & Snyder, 1986) and thus, their tendencies towards self-handicapping reflect an uncertainty about how competent they are (Berglas & Jones). In addition, research has shown a higher level of self-criticism amongst dispositional self-handicappers (Eronen, Nurmi, & Salmela-Aro, 1998; Rhodewalt & Hill, 1995). When people are faced with a task they feel is a threat to their self-esteem, fear of failure or fear of evaluation can develop (Deppe & Harackiewicz, 1996; Newman & Wadas, 1997) and self-handicapping or failure avoidant behaviours are utilised.

In relation to views about the self, Thompson and Muskett (2003) have asserted that dispositional self-handicappers have an entity view of intelligence, where intelligence

or ability is seen as a fixed, immutable, stable trait. Hence poor performance on a task implies that a person has low ability relative to that task. When people who hold an entity view of ability encounter a situation in which they are uncertain of their ability to perform well, they may be more likely to engage in self-handicapping behaviours in order to deflect explanations of ability for the failure.

In the late 1970s, Jones devised a questionnaire to directly probe individuals about their self-handicapping behaviours and motivations (Jones & Berglas). Initial work with this scale produced correlations with low self-esteem (r 's .30 to .50). Consequently the *Self-Handicapping Scale (SHS)* (Jones & Rhodewalt, 1982, cited in Rhodewalt, 1990) was designed to assess preferences for the use of self-handicapping strategies with as little overlap with self-esteem as possible.

The Self-Handicapping Scale (SHS)

In its original form, the *SHS* consisted of 20 items that probed respondents' tendency to claim handicaps such as lack of effort, illness, procrastination or emotional upset in situations involving evaluative threat. Items include: "I would do a lot better if I tried harder," "I tend to put things off to the last minute," and "I suppose I feel 'under the weather' more often than most people." Participants indicate their agreement with each statement on a 6-point scale with end-points "Strongly Disagree" and "Strongly Agree." A 25-item version of the scale also exists. Both versions have been used in research and the basic item content in the 20-item version is contained in the 25-item scale. In addition to this, various modifications of the response alternatives and changes to the number of response alternatives (four, five, six and seven) have been reported. Psychometric data is often reported without differentiation between the two scales. The *SHS* has been found to

be internally consistent ($\alpha = .78$) and temporally stable (test – retest at one month = .74) from a mass testing of 685 college undergraduates ($M = 67.5$, Median = 67; Rhodewalt, Saltzman, & Wittmer, 1984). More recently, Ross, Canada, and Rausch (2002) reported a similar internal consistency for the scale ($\alpha = .76$).

In addition, the scale has continued to show good predictive validity for a variety of self-handicapping strategies. Strube and Roemmele (1985) demonstrated that high self-handicappers who had a reason for self-protection (low self-esteem) deliberately chose a test form that maximised potential pride whilst minimising potential shame. In addition, Thompson and Richardson (2001) found a trend for high self-handicappers (as measured by the *SHS*) to claim more handicaps (such as test anxiety, financial worries and feeling off colour) than low self-handicappers prior to an intellectually evaluative event. Similarly, Hirt et al., (1991) found that high self-handicapping men engaged in behavioural self-handicapping and reported greater stress when it served as a viable excuse for poor performance than low self-handicappers.

Rhodewalt et al., (1984) revealed that competitive swimmers and professional golfers who scored high on the *SHS* did not increase the amount of effort they put into practicing prior to an important performance situation, whereas the low self-handicappers did. In addition, McCrea and Hirt (2001) found that high self-handicapping individuals claimed to prepare less for an exam than low self-handicappers. In support of the above research, Rhodewalt and Fairfield (1991) found that when a task was difficult (i.e. when individuals did not expect to succeed), high self-handicappers as measured by the *SHS*, indicated they intended to exert less effort on the task than low self-handicappers. These

studies support the utility of the *SHS* in predicting a reduction in effort and practice as a self-handicapping strategy in high dispositional self-handicappers.

Although the *SHS* shows good predictive validity and good levels of internal consistency and temporal stability, factor analytic studies suggest that the psychometric properties of the scale can be improved (Martin & Brawley, 1999; Prapavessis & Grove, 1998; Rhodewalt, 1990; Strube, 1986). Ten-item and 14-item scales have been developed with at least as good reliability and validity as the *SHS*. Researchers continue to utilise all versions of the scale with much similar results.

Academic Self-handicapping

The *SHS* was originally designed to measure tendencies towards self-handicapping across all domains, however it has been validated predominantly in academic contexts. Although the validation and reliability data for the *SHS* in academic contexts is good, the scale items are worded in more general terms and are not necessarily reflective of self-handicapping in the academic domain (Urdu & Midgley, 2001). In addition, Murray and Warden (1992) suggest that a questionnaire that is specifically tailored to academic self-handicapping may have greater potential for the identification of individuals who have a tendency to use self-handicapping strategies academically.

Academic Self-Handicapping Questionnaire (ASHQ; Warden, 1987, cited in Murray & Warden, 1992)

Warden (1987, cited in Murray & Warden, 1992) adapted the *Academic Self-Handicapping Questionnaire (ASHQ)* from Jones and Rhodewalt's (1982, cited in Rhodewalt, 1990) *SHS*. The *ASHQ* contains 22 items that relate specifically to academic situations. A pilot study has shown the *ASHQ* to have adequate internal consistency ($\alpha =$

.76; Murray & Warden). Murray and Warden evaluated the validity of the *ASHQ* in predicting self-handicapping behaviours by testing two hypotheses: (1) that self-handicapping strategies result in a reduction in effort and (2) that self-handicappers are more critical of their performance than others are about their performance.

Results showed that there was an inverse relationship between self-handicapping and the amount of studying prior to an exam and that self-handicapping also correlated negatively with actual performance on the exam. The authors suggest that these results validate the *ASHQ* as a measure of academic self-handicapping behaviour. In addition, people who scored high on the *ASHQ* tended to have relatively low expectations of performance and low perceived performance on the exam. Furthermore, their perceived performance, after receiving feedback, was lower than that of low scorers on the *ASHQ* who performed comparably. The authors state that this further supports the use of the *ASHQ* as a measure of academic self-handicapping (Murray & Warden, 1992). Warden and Murray (personal communication, 1999) revised the *ASHQ* to produce a 24-item scale known as the *Revised Academic Self-Handicapping Scale (RASH)*. There appears to be no other research utilising the *ASHQ*, and no psychometric data at all to support the use of the *RASH* in academic contexts.

Performance Expectations

In their original conceptualisation of self-handicapping behaviour, Berglas and Jones (1978) suggested that self-handicapping occurs when future outcome uncertainty and uncertain self-images are created. This has been achieved in the literature by manipulating task importance and prior exposure to non-contingent success (success which is undeserved on the basis of actual feedback: Higgins & Harris, 1988; Kolditz & Arkin, 1982; Mayerson

& Rhodewalt, 1988; Rhodewalt & Davison, 1986; Tucker et al., 1981). Similarly, C. R. Snyder and colleagues (e.g., Smith, Snyder, & Handelsman, 1982; Snyder, 1990; Snyder & Smith, 1982) emphasise the role of an uncertain anticipatory set in self-handicapping behaviour and suggest that this requires tasks to be presented as diagnostic of a valued attribute such as intelligence (DeGree & Snyder, 1985; Greenberg, 1985; Pyszczynski & Greenberg, 1983; Rhodewalt et al., 1984; Sheppard & Arkin, 1989; Smith et al.).

Both conceptualisations of self-handicapping behaviour emphasise the role of “efficacy expectancies” in self-handicapping behaviour. “Efficacy expectancies” refer to a person’s beliefs about whether a behaviour can be performed (Bandura, 1977). On the one hand, individuals with uncertain self-images doubt their ability to perform efficaciously and on the other, the manipulation of uncertainty concerning future performance outcomes challenges individuals’ perceived ability to achieve a certain outcome.

Much of the research has focussed on situational self-handicapping and the manipulation of efficacy expectancies in a laboratory setting usually by manipulating the difficulty of the task. It appears that only limited research has investigated whether high dispositional self-handicappers have chronically low efficacy expectancies. It is implicit in the above conceptualisations of situational self-handicapping behaviour that individuals who chronically self-handicap are likely to exhibit chronically low efficacy expectancies. That is, high dispositional self-handicappers might chronically expect poorer performance on tasks and expect that they are less likely/less able to achieve their goals on tasks than low dispositional self-handicappers.

Although not a primary focus of either study, Feick and Rhodewalt (1997) and Rhodewalt and Hill (1995) measured individuals’ performance expectations on an

upcoming exam. Their primary focus was on participants' attributional, affective, and self-esteem responses to test grades that were not as high as expected and grades that met or exceeded expectations. They used a set of questions designed by Rhodewalt and Hill, which probed students' expectations for their performance on the first examination. These included asking participants to indicate what grades they expected to receive on the first exam. They circled one of 13 possible grades (A+, A, A-,F) for each item. Surprisingly, both Feick and Rhodewalt and Rhodewalt and Hill reported that participants' expected test grades were unrelated to dispositional self-handicapping as measured by the *SHS*.

Similarly, McCrea and Hirt (2001) measured performance expectations. Although not a primary focus of their study, they found that expectations for the second exam, whilst controlling for the first exam performance, did not differ as a function of dispositional self-handicapping.

Although these studies suggest that high dispositional self-handicappers do not expect to perform more poorly than low dispositional self-handicappers, Murray and Warden (1992) investigated university students' study habits, expectations for performance and actual performance on a midterm examination and found that dispositional self-handicapping was negatively correlated with expected scores on the examination. That is, high dispositional self-handicappers reported lower expectations than low dispositional self-handicappers. Similarly, Eronen et al., (1998) measured success expectations as part of an investigation of achievement strategies, academic success and well-being. Participants who showed a self-handicapping pattern had fewer success expectations than participants who showed an optimistic or defensively pessimistic pattern of achievement behaviour.

In summary, investigations where participants' expectations for success or failure are manipulated in a laboratory setting result in changes in situational self-handicapping behaviours. It is implicit in the original conceptualisations of self-handicapping behaviour that those individuals who have a disposition for engaging in self-handicapping behaviour are likely to exhibit chronically low performance expectations. However there has been limited research that has investigated whether high dispositional self-handicappers have chronically low efficacy expectancies. Feick and Rhodewalt (1997), McCrea and Hirt (2001) and Rhodewalt and Hill (1995) have shown that dispositional self-handicappers *do not* expect to perform more poorly than others. However, Eronen et al., (1998) and Murray and Warden (1992) suggest that they *do* expect to perform more poorly than others.

Those studies failing to report a relationship between dispositional self-handicapping and performance expectations utilised the *SHS* to identify dispositional self-handicappers, whereas a scale developed specifically for academic contexts (*ASHQ*) was used by Murray and Warden and behavioural patterns known to specifically relate to academic self-handicapping were used to categorise the self-handicapping group in Eronen et al.,'s study. It is possible that the differing results are a function of how the researchers identify dispositional self-handicappers. There is quite obviously a need for further research into dispositional self-handicapping and performance expectations to clarify this.

Performance

If self-handicapping behaviour involves the creation of impediments to performance in settings where the potential for feedback that damages self-images is likely (Berglas & Jones, 1978; Jones & Berglas, 1978), then one would expect poor performance as a result of creating such impediments. It has been shown that impaired performance typically

results from negative evaluation expectancies (Sanna, 1992; Sanna & Pusecker, 1994; Sanna & Shotland, 1990). If one were to assume that dispositional self-handicappers expect to perform poorly, then it follows that performance will be impaired. However, some researchers have found performance benefits as a result of self-handicapping behaviour (e.g., Sanna & Mark, 1995). Evidence suggests that the relationship between self-handicapping and performance is complex and depends on whether the handicap is *claimed* or *acquired*, and whether it is *internal* or *external*.

Drexler, Ahrens, and Haaga (1995) suggest that *acquired* handicaps are more likely to interfere with performance than *claimed* handicaps. Although one would expect *internal, acquired* handicaps such as a reduction in effort, consumption of alcohol or drug ingestion to interfere with performance, research on these handicaps is limited for ethical reasons. Contrary to Drexler et al.'s suggestion, it has typically been shown that the *acquisition* of *external* handicaps, such as choice of difficult goals or listening to debilitating music, improves performance. It has been suggested that this may be a result of reduced anxiety and lowered concern about expending effort (Rhodewalt & Fairfield, 1991), or the alleviation of pressure created by performance concerns, which enables the individual to have a more adaptive attentional focus (Baumeister & Showers, 1986). This results in enhanced self-confidence, improved ability, and increased motivation and performance (Deppe & Harackiewicz, 1996).

In support of the above comments, Sanna and Mark (1995) randomly assigned University students to one of three conditions, where they (a) did not listen to music, (b) listened to what was described as debilitating music or (c) listened to what was described as facilitating music. The authors also manipulated efficacy expectations by varying the

difficulty of the preliminary task and manipulated levels of expected evaluation. They found that when participants were provided with a handicap, greater performance was found when a negative evaluation was expected. This was especially the case for high dispositional self-handicappers as measured by the *SHS*. Similarly, Snyder et al., (1981) had participants perform tasks that were either (a) solvable with response contingent feedback, or (b) unsolvable with non-contingent feedback. Participants performed a second task whilst either (a) listening to debilitating music or (b) not listening to debilitating music. Participants who experienced unsolvable problems and thus expected to fail the upcoming task, and who listened to debilitating music did not display any performance deficits relative to solvable problem participants. This suggests that the distracting performance setting provided them with an alternative means of self-esteem protection and thus, freed them to try and do well without concern about the implications of failure.

The conclusion that *acquired, external* handicaps lead to enhanced effort, and possibly enhanced performance, is qualified by Rhodewalt and Davison (1986). In their study, participants performed a cognitive task and received success or failure feedback that was either response contingent or non-contingent. Participants then chose whether to listen to distracting music during the administration of a second cognitive test. Participants who expected to fail in the up-coming task and self-handicapped, performed at a higher level than all others. Participants exposed to non-contingent success who self-handicapped performed more poorly than all other groups. Thus, it can be suggested that *acquired, external* handicaps facilitate performance following failure but not following non-contingent success or that which cannot be confidently attributed to one's own efforts or capacities.

It is widely recognised that individuals with no overt psychological dysfunction may respond to situation specific threats to self-esteem by claiming handicaps or by behaviourally self-handicapping (Berglas, 1990). This may afford the situation specific self-handicapper (who is not necessarily a chronic self-handicapper) performance benefits. These individuals may utilise such strategies on limited occasions, when the right conditions exist. Thus, we may expect to see the benefits of self-handicapping behaviour in those studies which focus on situational self-handicapping. Although this may be the case, it is the *chronic self-handicapper who exhibits similar symptoms to the situational self-handicapper, but on an enduring basis* who Berglas believes will experience negative consequences such as poor performance, negative affect and poor well-being as a result of long-term self-handicapping.

Research that has been conducted into dispositional self-handicapping and performance shows that dispositional self-handicappers perform poorly as a result of *chronic self-handicapping behaviours (long-term self-handicapping)*. In a study by Rhodewalt and Fairfield (1991), participants scoring in the top and bottom thirds of a sample distribution of *SHS* scores were led to believe that they were about to take a test which was described as either (a) important or (b) unimportant and in which they were led to anticipate would be (a) difficult or (b) easy. Prior to taking the test, participants reported how hard they intended to try. The results showed that there were no differences in performance when participants were led to expect the test to be easy. However, when they were led to expect it to be difficult (low probability of success), high dispositional self-handicappers indicated they intended to put forth less effort and performed more poorly than low self-handicappers.

Supporting these results in a naturalistic setting, Beck, Koons, and Milgram (2000) studied undergraduate psychology students. Prior to taking an exam, participants completed a package of questionnaires and recorded the time spent studying. High dispositional self-handicappers claimed that they studied less and performed more poorly on the exam than low self-handicappers. Similarly, Murray and Warden (1992) found that University students who were grouped as high dispositional self-handicappers reported that they studied less and they did not achieve as well on an examination compared to low dispositional self-handicappers. Eronen et al., (1998); Martin, Marsh, and Debus (2001) and Zuckerman, Kieffer, and Knee (1998) showed that University students who chronically self-handicap are least successful in their studies compared with students who self-handicap less.

In qualification of the above results, McCrea and Hirt (2001) examined self-handicapping behaviours and test performance among undergraduate university students over the course of a semester. They found that high dispositional self-handicappers performed poorly relative to low self-handicappers after claiming poor preparation, however not after claiming stress. This suggests that future performance is not affected uniformly by dispositional self-handicapping and depends largely on the types of claims or behaviours that dispositional self-handicappers use in an attempt to buffer self-esteem.

Midgely, Urdan, and colleagues (1995, 1996, 1998) showed that this pattern of underachievement is not restricted simply to University contexts. They conducted a series of survey style studies with school age children. Although their primary focus was not on self-handicapping and performance alone, their results consistently showed that for fifth and eighth graders, low achievers report using self-handicapping strategies more than high

achievers. In a similar vein, Nurmi, Onatsu, and Haavisto (1995) found that underachieving high school students reported a pattern of attributions and affect that was consistent with self-handicapping.

In contrast to the above studies that suggest dispositional self-handicapping negatively affects performance, Rhodewalt and colleagues (Feick & Rhodewalt, 1997; Rhodewalt & Hill, 1995) have found no such relationship. Using undergraduate psychology students' course examinations as performance indicators, the authors obtained information about dispositional self-handicapping at the beginning of term. Participants then completed a checklist of claimed handicaps at a point prior to taking the first exam (during the same class; Feick & Rhodewalt, and two days prior to the exam; Rhodewalt & Hill). Their results showed that dispositional self-handicapping was not related to actual grade achieved. In support of these results, Wesley (1994) had undergraduate University students complete procrastination and self-handicapping questionnaires and obtained Grade Point Average (GPA) information. Regression analyses showed that self-handicapping, as measured by the *SHS*, played no part in the statistical prediction of GPA. Results suggested that self-handicapping and procrastination overlap in the portion of variance accounted for in GPA.

In summary, evidence suggests that the relationship between situational self-handicapping and performance depends on whether the handicap is *claimed* or *acquired*, *internal* or *external*. Research has typically shown that the *acquisition* of *external* handicaps, such as choice of difficult goals or listening to debilitating music, improves performance, at least following failure. Research into dispositional self-handicapping and performance suggests that dispositional self-handicappers perform poorly as a result of

chronic self-handicapping behaviour patterns. However, some research has shown no relationship at all. It is possible that dispositional self-handicapping, in and of itself, may not be enough to predict poor performance rather than the types of claims that are made by dispositional self-handicappers, and whether these are actually a true indication of their behaviour, provide a clearer indication of future performance.

Affect

Just as one might expect self-esteem benefits from engaging in self-handicapping behaviour, so too might one expect to obtain affective benefits. Research has supported the suggestion that short-term affective benefits occur as a result of self-handicapping behaviour. In a study of level and certainty of self-esteem and self-handicapping, Harris and Snyder (1986) measured participant anxiety levels following an 'intelligence test'. They found that uncertain participants derived affective benefits, in the form of reduced anxiety, from using the self-handicapping strategy of reduced practice. Similarly, Feick and Rhodewalt (1997) found that although post-performance affect was predicted predominantly by performance, the number of claimed handicaps also contributed to increases in affect. The measures of affect used in this study were the positive and negative affect subscales of the *Resultant Self-esteem Scale* (McFarland & Ross, 1982, cited in Rhodewalt & Hill, 1995). This scale was also used in a similar study by Rhodewalt and Hill where the authors found that affect was not predicted by dispositional self-handicapping.

The most comprehensive measure of affect appears to be that used in a study by Drexler et al., (1995) in which the *Positive and Negative Affect Scale (PANAS)* (Watson & Clarke, 1984) was employed. Drexler et al., measured the pre- and post-spatial relations

task affect of University undergraduates. Participants were given the opportunity to choose what was described as debilitating music whilst performing a task purported to be indicative of intelligence and future success. Participants who self-handicapped, reported smaller decreases in positive affect than those who did not. There were no differences for negative affect. This study also lends support to the suggestion that there are short-term affective benefits associated with self-handicapping behaviour.

However, according to Covington (1984) the temporary relief afforded by failure-avoiding tactics such as situational self-handicapping is illusory as their repeated use may destroy an individual's will to learn. Covington (1992) found that although people who self-handicap may convince others that their performance did not reflect lack of ability, they continue to describe themselves in self-deprecatory terms such as "lazy" and "shiftless". This is especially the case for people who believe they have responsibility for their own actions as they may experience feelings of guilt later for successful excuses that enabled them to avoid responsibility (Jung, 1991). Thus, although there appear to be short-term affective benefits as a result of employing specific self-handicaps, those dispositional self-handicappers, who use these strategies across situations and time, are likely to develop negative affective states. Research suggests a link between chronic self-handicapping and negative affective states is likely.

Aunola, Stattin, and Nurmi (2000a) have shown that maladaptive achievement strategies used by adolescents (such as self-handicapping) contribute to the development of depressive symptomatology. Similarly, a lack of 'feeling in control' is a characteristic of maladaptive achievement strategies (Diener & Dweck, 1978; Dweck, 1986) and has been shown to be related to depression and anxiety (Petersen, Compas, Brooks-Gunn, Stemmler,

Ey, & Grant, 1993). Maladaptive achievement strategies have also been linked with emotion-focussed coping, which is related to depression and overall low adjustment (Rijavec & Brdar, 1997).

More specific to self-handicapping, Strube (1986) examined the psychometric properties of the *SHS* and found that higher self-handicapping was related to higher levels of depression. Similarly, Weary and Williams (1990) have shown that self-handicapping is associated with depression. In addition, drawing from a population of undergraduate psychology students, Ross et al., (2002) investigated the relationship between self-handicapping and the Five Factor Model of personality (Costa & McCrea, 1992, cited in Ross et al.). The Five Factor Model is an empirically-derived model that represents personality in terms of five factors (Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness). Results showed that the Neuroticism factors predicted self-handicapping, with the lower order factor of depression being the strongest predictor. These results support other findings suggesting that depressive symptoms are characteristic of people who repeatedly engage in self-handicapping behaviour (Adams & Adams, 1991; Eronen et al., 1998; Greaven, Santor, Thompson, & Zuroff, 2000; Nurmi, 1993; Weary & Williams).

The majority of studies have focused primarily on depressive symptomatology. There is very little research into general affective states of self-handicappers. Two studies have focused on general affect and self-handicapping. Murray and Warden (1992) found that affect was predominantly mediated by performance. However, self-handicapping was also an important mediator with high self-handicappers expressing less positive affect than low self-handicappers. Additionally, Zuckerman et al., (1998) investigated self-

handicapping as a dispositional variable over time. They used the *PANAS* as a measure of general affect and found that for both time 1 and time 2, the *SHS* was negatively related to positive affect (*PANAS* PA) and positively related to negative affect (*PANAS* NA). In addition, higher *SHS* scores at time 1 resulted in more negative affect over time. Higher negative affect and lower positive affect at time 1 resulted in higher *SHS* scores over time. Thus the authors suggested that self-handicapping reinforces negative affect but, in turn, is also reinforced by this construct.

Research has shown that the NA subscale of the *PANAS*, but not the PA subscale, is related to self-reported stress and poor coping (Clark & Watson, 1986, cited in Clark & Watson, 1988; Kanner, Coyne, Schaefer, & Lazarus, 1981; Wills, 1986), health complaints (Beiser, 1974; Tessler & Mechanic, 1978) and frequency of unpleasant events (Stone, 1981; Warr, Barter, & Brownbridge, 1983). In addition, Tellegen (1985, cited in Watson, Clark, & Tellegen, 1988) suggests that low PA and high NA are distinguishing features of depression and anxiety. This is consistent with the above results linking depression with maladaptive achievement strategies and high NA and self-handicapping.

In summary, research has provided evidence for the short-term affective benefits of situational self-handicapping, however, Covington (1984, 1992) and Jung (1991) suggest that the temporary affective relief afforded by failure-avoiding tactics such as situational self-handicapping, is limited as people who are chronic self-handicappers continue to describe themselves in self-deprecatory terms. This is supported by research showing a close link between chronic self-handicapping and depressive symptomatology. The above research suggests that a link between chronic self-handicapping and negative affect is likely, however, only limited research has focused on positive and negative affect. The

limited research to date suggests that dispositional self-handicapping is related to higher levels of negative affect and lower levels of positive affect. Only one longitudinal study to date has used the *PANAS* as a measurement of general affect. The PANAS scale is useful, as it has well established links with other constructs and issues that assist in providing a more detailed account of what ‘negative affect’ and ‘positive affect’ actually entail.

Research Designs

Much of the early research into academic self-handicapping behaviour has been conducted in experimental settings. This allowed controlled investigations of situational self-handicapping and has provided invaluable insight into the short-term benefits of situational self-handicapping behaviour. However, long-term self-handicapping can create pervasive patterns of avoiding esteem or control threatening situations, which can undermine the individual’s self-esteem (Berglas, 1990). It has been shown that chronic self-handicapping may also lead to other types of problem behaviour such as dropping out of school, subsequent unemployment and norm breaking behaviours such as substance use and delinquency (Nurmi, 1993; Nurmi, Salmela-Aro, & Ruotsalainen, 1994). Consequently, there is a need for researchers to focus on chronic forms of self-handicapping behaviour.

The appearance of longitudinal and field investigations in the study of dispositional self-handicapping has only occurred over the last decade. These studies vary in their approach, however the majority utilise a survey style, in which questionnaires are completed by a large number of participants at one or two points in time. This style of research has typically involved correlation and regression analyses to investigate the relationship between dispositional self-handicapping, achievement and a range of well-

being constructs such as depression, affect, self-esteem, and coping style (Aunola et al., 2000a; Aunola, Stattin, & Nurmi, 2000b; Martin et al., 2001; Martin, Marsh, & Debus, 2002; Midgley et al., 1996; Midgley & Urdan, 1995; Nurmi et al., 1995; Ross et al., 2002; Urdan et al., 1998; Wesley, 1994). These designs, however, have rarely involved the investigation of self-handicapping behaviour in response to real life threats which provides invaluable information on self-handicapping in natural contexts, rather than contrived situations. Consequently, there is a real need for further investigations utilizing real-life naturalistic designs.

Summary and Hypotheses

Study 1

More recently, researchers have begun to recognize the importance of investigating dispositional self-handicapping in real life contexts. However, limited research has utilized tools specifically designed to assess *academic* self-handicapping (Urdan & Midgley, 2001). A questionnaire that is specifically tailored to academic self-handicapping may have greater potential for the identification of individuals who have a tendency to use self-handicapping strategies academically (Murray & Warden, 1992). The *SHS* has been used in the majority of research on dispositional self-handicapping. Although the validation and reliability data for the *SHS* in academic contexts is good, the scale items are worded in more general terms and are not necessarily reflective of self-handicapping in the academic domain (Urdan & Midgley). Thus, there is a need for specific academic self-handicapping scales to be developed and used regularly in future research. The *RASH* is an academic self-handicapping scale that has been developed (Warden & Murray, personal

communication, 1999), however there appears to be no psychometric data at all to support the use of the *RASH* in academic contexts.

As academic self-handicapping is a domain specific form of general self-handicapping, it was hypothesized that the *RASH-II* would correlate positively with the *Self-Handicapping Scale* (Jones & Rhodewalt, 1982, cited in Rhodewalt, 1990). Research suggests that dispositional self-handicappers have a tenuous and uncertain sense of esteem and that self-handicapping tendencies reflect an uncertainty about how competent one is. Thus, it was hypothesized that the *RASH-II* would correlate positively with the *Causal Uncertainty Scale* (Weary & Edwards, 1994) and the *Global Self-Esteem Uncertainty Scale* (Marsh, 1990) and negatively with the *Confidence in Ability Scale* (Henderson et al., 1992, cited in Hong et al., 1995) and the *Academic Self-Esteem Scale* (Marsh).

Research suggests that when people are faced with a task that they feel will be a threat to their self-esteem they usually develop a fear of failure or fear of evaluation. Therefore, it was hypothesized that the *RASH-II* would correlate positively with the *Fear of Negative Evaluation Scale* (Leary, 1983).

Self-handicappers have been shown to have higher levels of self-criticism than non self-handicappers. The *Attitudes Toward Self Scale* (Carver & Ganellen, 1983) measures individuals' tendencies to be self-punitive. Consequently, it was hypothesized that the *RASH-II* would correlate positively with the *Attitudes Toward Self Scale* and its three subscales (*Overgeneralisation*, *High Standards* and *Self-Criticism*).

It has been asserted that self-handicapping is related to having a view of ability as a fixed trait (Thompson & Muskett, 2003). Consequently, these individuals believe that poor performance on a task implies low ability. Thus, it was hypothesized that the *RASH-II*

would correlate positively with the *Implicit View of Ability Scale* (Henderson et al., 1992, cited in Hong et al., 1995).

Self-worth protection and impostor fears are considered to be failure-avoiding strategies. Both self-worth protection and self-handicapping involves strategies to protect self-esteem in situations of evaluative threat. Impostor fears involve intense feelings of intellectual phoniness such that people harbor doubts about their own abilities. It has been suggested that self-handicappers also have doubts regarding how competent they are. Thus, it was hypothesized that the *RASH-II* would correlate positively with the *Self-Worth Protection Scale* (Thompson & Dinnel, 2004) and the *Clance Impostor Phenomenon Scale* (Clance, 1985). It was hypothesized that the *RASH-II* would have stronger correlations with those constructs related to academic contexts (such as the *ASE*, *CIA* and *IVA* Scales) than would the *SHS*.

Study 2

As the *RASH-II* is a measure of dispositional self-handicapping in academic contexts, it was hypothesized that *High Self-handicappers* (as measured by the *RASH-II*) would claim more handicaps on all measures than *Low Self-handicappers*. This would provide adequate evidence for the predictive validity of the *RASH-II* in an academic context.

It appears that only limited research has focussed primarily on dispositional self-handicapping and efficacy expectancies. Of these studies, three have shown that dispositional self-handicappers do not expect to perform more poorly than others whilst other studies suggest the opposite. Given that one's expectations for success or failure are ultimately linked with one's performance, it is imperative that there is a clear

understanding of chronic self-handicappers' efficacy expectancies. Those studies failing to report a relationship between dispositional self-handicapping and performance expectations used the *SHS* to identify dispositional self-handicappers, whilst other studies have used questionnaires specifically designed for academic contexts. It is possible that the differing results are a function of how the researchers identify dispositional self-handicappers. Thus, it was hypothesized that *High Self-handicappers* would expect lower grades for assignments than *Low Self-handicappers*. With regard to self-handicappers' failure expectations, it was hypothesized that *High Self-handicappers* would feel they have less 'margin for error' than *Low Self-handicappers* with regard to performing above what they consider to be a failure.

It was hypothesized that *High Self-handicappers* would report that they are less likely to achieve the grades needed to reach their goals than *Low Self-handicappers*. To ensure that any difference here was not a function of the actual grades they believe they needed in order to achieve their goals, a 'grades needed' measure was also taken. There is no evidence to suggest that self-handicappers would differ in their perception of the grades they required to reach their goals, consequently no difference was expected between self-handicapping groups for this measure.

Research into dispositional self-handicapping and performance suggests that dispositional self-handicappers perform poorly as a result of chronic self-handicapping behaviour patterns. However, some research has failed to show any relationship at all. It is possible that dispositional self-handicapping, in and of itself, may not be enough to predict poor performance and that the types of claims that are made by dispositional self-handicappers, and whether these are actually a true indication of their behaviour, provide a

clearer indication of future performance. The majority of the research supports a link between chronic self-handicapping and poor performance. Thus, it is hypothesized that *High Self-handicappers* would achieve lower grades across all measures than *Low Self-handicappers*.

Previous studies have shown that a link between chronic self-handicapping and negative affect is likely. However, only limited research has focused on positive and negative affect. The limited research to date suggests that dispositional self-handicapping is related to higher levels of negative affect and lower levels of positive affect, yet only one dispositional self-handicapping study has used the *PANAS* as a measure of general affect. The *PANAS* scale is useful as it has well established links with other constructs and issues that assist in providing a more detailed account of what ‘negative affect’ and ‘positive affect’ actually entail. Thus, it was hypothesized that *High Self-handicappers* would report higher levels of negative affect and lower levels of positive affect than *Low Self-handicappers*. It has been suggested that chronic self-handicapping may destroy an individual’s will to learn. Consequently, it was hypothesized that *High Self-handicappers* would report less *Positive Motivation* toward their studies than *Low Self-handicappers*.

STUDY 1

There is a need for specific academic self-handicapping tools to be developed and used in future research, therefore the aim of Study 1 was to subject the *Revised Academic Self-Handicapping Scale (RASH)* to a psychometric evaluation of its items, reliability, and validity and revise it for use as the dispositional self-handicapping measure in the second study (Study 2).

Summary of Hypotheses

It was hypothesised that the *RASH-II* would correlate positively with the *Self-Handicapping Scale* (Jones & Rhodewalt, 1982, cited in Rhodewalt, 1990), *Causal Uncertainty Scale* (Weary & Edwards, 1994), *Brief Fear of Negative Evaluation Scale* (Leary, 1983), *Self-Worth Protection Scale* (Thompson & Dinnel, 2004), *Attitudes Towards Self Scale* (Carver & Ganellen, 1983), *Overgeneralisation, Self-Criticism and High Standards* subscales of the *Attitudes Toward Self Scale*, *Implicit View of Ability Scale* (Henderson et al., 1992, cited in Hong et al., 1995), the *Clance Impostor Phenomenon Scale* (Clance, 1985) and the *Global Self-Esteem* subscale of the *Self-Descriptive Questionnaire* (Marsh, 1990-formatted to assess *uncertainty of self-esteem*).

It was hypothesised that the *RASH-II* would correlate *negatively* with the *Academic Self-Esteem* subscale of the *Self-Descriptive Questionnaire* (Marsh, 1990) and the *Confidence in Ability Scale* (Henderson et al., 1992, cited in Hong et al., 1995). It was also hypothesised that the *RASH-II* would have stronger correlations with the *Academic Self-Esteem Scale*, *Confidence In Ability Scale* and *Implicit Views of Ability Scale* than would the *Self-Handicapping Scale*.

Method

Participants

Participants were 240 undergraduate psychology students enrolled at the University of Tasmania, who received course credit for their participation (191 females, 49 males). The ages of these participants ranged from 17-58 with a median age of 19. Participants were asked to return in four weeks to complete the package again. Of the original 240

participants, one hundred and forty participants returned questionnaire packages for the second testing (109 females, 31 males) four weeks later.

Instruments

Participants were asked to complete a questionnaire package that contained the *Revised Academic Self-Handicapping Scale* (Warden & Murray, personal communication, 1999), the *Self-Worth Protection Scale* (Thompson & Dinnel, 2004), the *Causal Uncertainty Scale* (Weary & Edwards, 1994), the *Clance Imposter Phenomenon Scale* (Clance, 1985), the *Academic Self-Esteem* subscale of the *Self-Descriptive Questionnaire III* (Marsh, 1990), the *Global Self-Esteem* subscale of the *Self-Descriptive Questionnaire III* (Marsh - formatted to assess *uncertainty of self-esteem*), the *Attitudes Toward Self Scale* (Carver & Ganellen, 1983), the *Self-Handicapping Scale* (Jones & Rhodewalt, 1982, cited in Rhodewalt, 1990), the *Brief Fear of Negative Evaluation Scale* (Leary, 1983), the *Confidence in Ability Scale* (Henderson et al., 1992, cited in Hong et al., 1995), and the *Implicit View of Ability Scale* (Henderson et al., cited in Hong et al.). Nine scales were used to give an adequate indication of both convergent and divergent validity. There were five different scale orders within the packages to compensate for order effects. Participants were also asked to provide their age, sex and package completion date on the front cover.

Revised Academic Self-Handicapping Scale (Warden & Murray, Personal Communication, 1999)

The *Revised Academic Self-Handicapping Scale (RASH)* is a revision of the 22-item *Academic Self-Handicapping Questionnaire* developed by Warden and Murray. The *RASH* is a 24-item scale that measures *dispositional self-handicapping* in academic contexts. Examples of items from the *RASH* are: "I usually don't ask questions even when it would

help me” and “I find myself easily distractible when I am trying to work.” Respondents rate each item on a 6-point scale (1 = “Strongly Disagree”, 2 = “Moderately Disagree”, 3 = “Mildly Disagree”, 4 = Mildly Agree”, 5 = “Moderately Agree”, 6 = “Strongly Agree”).

Self-Worth Protection Scale (Thompson & Dinnel, 2004)

The *Self-Worth Protection Scale (SWPS)* is a 33-item scale that identifies students who manifest self-worth protection strategies. An example of an item on this scale is: “I avoid academic situations in which I can’t do as well as I would like.” Respondents are asked to rate each item on a 7-point scale with end-point designations (1 = “Not very true of me”; 7 = “Very true of me”). The *SWPS* has been shown to have a test-retest reliability of .90 for a four week interval and an internal consistency (coefficient alpha) of .90.

Confidence in Ability Scale (Henderson et al., 1992, cited in Hong et al., 1995)

The *Confidence in Ability Scale (CIA)* contains three pairs of items, one indicating high confidence in ability and the other indicating low confidence in ability. Respondents select between the option in each pair of items that best describes them (e.g., “I usually think I am intelligent” vs “I wonder if I am intelligent”) and then rate the degree to which the selected item is true of them on a 3-point scale (1 = “Sort of true”, 3 = “Very true”).

Scoring is then recoded to a 6-point scale in which a high score indicates a more confident view of ability. Henderson et al., (cited in Hong et al.) demonstrated high internal consistency for the *CIA* Scale ($\alpha = .81$) and high test-retest reliability for a 1-week period ($r = .83$). In addition, Neemann and Harter (1986, cited in Hong et al.) found that the *CIA* Scale was highly correlated ($r = .77$) with the perceived *Intellectual Competence* subscale of the *Self-perception Profile for College Students* and less highly correlated ($r = .43$) with the *Rosenberg Self-Esteem Scale*.

Self-Handicapping Scale (Jones & Rhodewalt, 1982, cited in Rhodewalt, 1990)

The *Self-Handicapping Scale (SHS)* is a 20-item scale that measures respondents' tendencies to voluntarily adopt or claim a handicap to account for possible poor performance. An item from this scale is "I sometimes enjoy being mildly ill for a day or two because it takes off the pressure." Respondents rate each item on a 6-point scale with end-point designations of 1 = "Strongly Disagree" and 6 = "Strongly Agree." For the purpose of the present study, Rhodewalt's 14-item *SHS* was used.

Clance Impostor Phenomenon Scale (Clance, 1985)

The *Clance Impostor Phenomenon Scale (CIPS)* is a 20-item measure designed to assess the degree to which individuals are anxious that others will discover that they are not truly intelligent and that they will be eventually exposed for the impostors that they believe they are. Items such as "I can give the impression that I am more competent than I really am" are rated on a 5-point scale (with end-point designations of 1 = "Not at all true of me" and 5 = "Very true of me"). Chrisman, Pieper, Clance, Holland, and Glickauf-Hughes (1995) found the *CIPS* to have a coefficient alpha of .92.

Academic Self-Esteem subscale of the Self-Descriptive Questionnaire III (Marsh, 1990)

The *Academic Self-Esteem* subscale (*ASE*) measures individuals' self-esteem in academic situations using 30 items such as "I learn quickly in most academic subjects." Respondents are asked to indicate their level of agreement to each item on a 9-point scale (1 = "strongly disagree; 9 = "strongly agree").

Global Self-Esteem subscale of the Self-Descriptive Questionnaire III (Marsh, 1990)

The *Global Self-Esteem* subscale (*GSE*) has 12-items that measure how individuals' feel about themselves in general. Uncertainty of *GSE* was assessed by formatting the Marsh

items into a dichotomous point format (“like me”, “unlike me”), then asking participants to rate their responses on a five-point scale with end point designations of 1 = “Not at all certain” and 5 = “Very certain.” However, responses were recoded such that a high score reflected global self-esteem uncertainty (*GSEUS*-see Thompson, 1993; Thompson, Davidson, & Barber, 1995). Marsh reports a coefficient alpha of $r = .93$ for the *GSE Scale*. Although psychometric data are not available for the *Global Self-Esteem Uncertainty Scale*, Marsh has provided information about the *GSE* and the *ASE*. Measures of internal consistency (Cronbach’s alpha) for these two measures of self-esteem have ranged from .76 to .95 with a mean of .89. Marsh also reported median test-retest reliabilities of .87 for a 1-month interval and .74 for an 18-month interval.

Attitudes Toward Self Scale (Carver & Ganellen, 1983)

The *Attitudes Toward Self Scale (ATS)* is an 18-item scale that measures individuals' tendencies to be self-punitive. Respondents are asked to rate the degree to which each item is true of themselves on a 6-point scale (1 = “extremely untrue”; 6 = “extremely true”). From a factor analytic perspective, Carver and Ganellen found three component scales of the *ATS*: *Overgeneralisation*, *High Standards*, and *Self-Criticism*. An item from each of the three subscales of the *ATS* is “my feelings about myself drop if I notice any weakness or shortcomings at all”, “other people think I expect a lot from myself”, and “when my behaviour doesn’t live up to standards, I feel I have let myself or someone down” respectively. Carver and Ganellen report measures of internal consistency of $r = .82$ for the tendency to *overgeneralise* self-judgments, $r = .80$ for maintenance of *high standards*, and $r = .65$ for the tendency to be *self-critical*.

Brief Fear of Negative Evaluation (Leary, 1983)

The *Fear of Negative Evaluation Scale (FNE: Watson & Friend, 1969)* is a 30-item scale that assesses the extent to which people experience apprehension about being negatively evaluated by other people. An item from the *FNE* is "I worry about what other people think of me even when I know it won't make any difference." Respondents are asked to rate the degree to which each item is characteristic of them on a 5-point scale with designations "not at all characteristic of me", "slightly characteristic of me", "moderately characteristic of me", "very characteristic of me" and "extremely characteristic of me". The brief form of the *FNE* scale (Leary), used in the present study, has 12 of the original 30 items from the *FNE*. An inter-item reliability of .90 and test-retest reliability of .75 are reported for the brief form (Leary).

Causal Uncertainty Scale (Weary & Edwards, 1994)

The *Causal Uncertainty Scale (CUS)* is a 14-item scale that measures the degree to which individuals are uncertain of the causes of events in their lives and others' lives. An item from the *CUS* is "When things go right, I generally do not know what to do to keep them that way." Respondents are asked to rate each item on a 6-point scale (1 = "Disagree very much", 2 = "Disagree pretty much", 3 = "Disagree a little", 4 = "Agree a little", 5 = "Agree pretty much", 6 = "Agree very much"). Edwards, Weary, and Reich (1998) reported a coefficient alpha of $r = .86$ and found that the *CUS* was significantly correlated with depression ($r = .37$), perceived lack of control ($r = .51$), anxiety ($r = .41$), intolerance of ambiguity ($r = .26$), self-esteem ($r = -.40$), neuroticism ($r = .32$), decisiveness ($r = -.28$) and need for cognition ($r = -.42$), demonstrating construct validity.

Implicit View of Ability Scale (Henderson et al., 1992, cited in Hong et al., 1995)

The *Implicit View of Ability Scale (IVA)* is a 3-item scale in which respondents indicate the degree to which they believe intelligence is a stable construct. A sample item from this scale is "Your intelligence is something about you that you can't change very much." Respondents are asked to rate their agreement with each item on a 6-point scale (1 = "Disagree very much"; 6 = "Agree very much"). Hong et al., found that the *IVA* correlated highly ($r = .77$) with the *Intellectual Competence* subscale of the *Self-Perception Profile* and was moderately correlated ($r = .43$) with the *Rosenberg Self-Esteem Scale*. Hong et al., also reported a coefficient alpha of $r = .81$ and a test-retest reliability of $r = .83$ for a one-week delay.

Procedure

Participants were given the questionnaire package to fill out in their own time within one week. Participants were instructed to read the items carefully and to respond without thinking excessively about each item. Participants were asked to return four weeks later to complete the *RASH* a second time to provide an assessment of re-test reliability.

Results

A one-way ANOVA was performed to compare scores on all scales across the five different order combinations (see Appendix A1). There were no significant differences between the five combinations for any of the dependent measures ($p > .05$). Therefore, data across all combinations were collapsed for all further analyses.

Factor analysis

In order to assess the degree to which the *RASH* scale measures a unitary construct, the data was submitted to an exploratory factor analysis using a principal axis extraction

with an oblique rotation (see Appendix A2). A number of methods of extraction were employed, however the principle axis extraction method was chosen as the results were more psychologically meaningful. From the scree test, it was determined that two factors best described the data. These two factors combined accounted for 34.9% of the variance. The first factor accounted for 26.5% of the variance and seems to focus primarily on a *Procrastination* component of self-handicapping. The second factor accounted for 8.4% of the variance and seems to focus primarily on an *Achievement Anxiety* component of self-handicapping. When a factor loading criterion of .30 or higher was used, five items (2, 6, 10, 12, 16) loaded solely on the first factor whereas seven items (3, 7, 8, 18, 19, 22, 24) loaded solely on the second factor. Twelve items (1, 4, 5, 9, 11, 13, 14, 15, 17, 20, 21, 23) did not load on either factor at criterion level.

Corrected Item/Item Total Correlations

Correlations between the response to a particular item and the sum of the responses to all other items were obtained. Items were considered potentially problematic if they did not exceed .30 (see Appendix A3). Three items (4, 5, 23) failed to achieve this criterion level.

Based on these item analyses, twelve items (1, 4, 5, 9, 11, 13, 14, 15, 17, 20, 21, 23) were eliminated from further consideration. The decision was taken to pursue the analyses with a global measure of self-handicapping based on the items which loaded on the two subscales (as a total score) as this was the primary interest of the investigation. The formation of a total *RASH-II* score is defensible since the correlation between the two subscales was $r = .45$. The practice of generating a total score from moderately correlated subscales is common in psychological research (The *Self-Worth Protection Scale* subscales

inter-correlate at .20, .25 and .60, Thompson & Dinnel, 2004; the *Contingencies of Self-Worth Scale* subscales inter-correlate at .53, .45, .54, and .42, Crocker, Cooper & Bouvrette, 2003; the *Objectified Body Consciousness Scale* subscales inter-correlate at .66 and -.51, McKinley & Hyde, 1996; and the *Levels of Self-Criticism Scale* subscales inter-correlate at .45, Thompson & Zuroff, 2004). Thus, for all further analyses, a total score on the *RASH-II* scale consisted of the sum of the responses to the remaining 12 items. The *Procrastination* subscale of the *RASH-II* consisted of the sum of the responses to the five items listed above from Factor One and the *Achievement Anxiety* subscale of the *RASH-II* consisted of the sum of the responses to the seven items listed above from Factor Two.

Reliability Analysis

Participants were asked to complete the *RASH-II* scale on two separate occasions, at least four-weeks apart. A test-retest reliability of .79 was established for the *Procrastination* subscale, .82 for the *Achievement Anxiety* subscale, and .83 for the total *RASH-II* score (the sum of the two subscales-see Appendix A4). A measure of internal consistency was computed for the subscales of the *RASH-II* scale. The internal consistency using coefficient alpha was .76 for the *Procrastination* subscale and .79 for the *Achievement Anxiety* subscale. For the total *RASH-II* score, the internal consistency (coefficient alpha) was .82 (see Appendix A5).

Correlates of the Revised Academic Self-Handicapping Scale-II

Self-handicapping is multifaceted and consequently has close links with a large variety of constructs. Consequently, zero-order correlations with nine other scales were used to examine evidence for convergent validity of the *RASH-II* scale based on previous predictions. As was expected, the correlation between academic self-handicapping (*RASH-*

II) and general self-handicapping (as measured by the *SHS*) was positive and strong ($r = .74$). *Dispositional academic self-handicapping* (as measured by the *RASH-II*) was significantly positively correlated with two other failure avoidant strategies: impostor phenomenon ($r = .62$) and self-worth protection ($r = .58$). *Dispositional academic self-handicapping* was positively correlated with the *Attitudes Towards Self Scale* ($r = .36$). In relation to the three subscales of the *ATS*, *dispositional academic self-handicapping* was significantly positively correlated with the tendency to *overgeneralise* self-judgments ($r = .48$) and the tendency to be *self-critical* ($r = .35$), but was not significantly correlated with the maintenance of *high standards* ($r = .13$).

Dispositional academic self-handicapping also correlated significantly and positively with causal uncertainty ($r = .49$), and self-esteem uncertainty ($r = .36$). Significant, positive correlations were also found between *dispositional academic self-handicapping* and implicit views of ability ($r = .19$) and fear of negative evaluation ($r = .49$). Finally, *dispositional academic self-handicapping* was significantly and negatively correlated with confidence in ability ($r = -.47$) and academic self-esteem ($r = -.45$).

The correlational results for the general *Self-Handicapping Scale* showed that the *SHS* was significantly and positively correlated with the *Implicit View of Ability Scale* ($r = .17$) and significantly negatively correlated with the *Confidence in Ability Scale* ($r = -.40$) and *Academic Self-Esteem Scale* ($r = -.33$).

Discussion

The results of the present study show preliminary evidence for the reliability and validity of the *RASH-II* in the assessment of dispositional self-handicapping tendencies in academic settings. When twelve items from the *RASH* were removed (1, 4, 5, 9, 11, 13, 14,

15, 17, 20, 21, 23) as a result of the item analyses, the resulting scale was reliable from two perspectives. First, there was a high degree of internal consistency based on coefficient alpha. Second, there was consistency in scores over a limited period of time, indicating the stability of the scale over a one-month period.

Factor Structure

From the results of the factor analysis of the items on the *RASH*, a two-factor structure seemed to be the clearest explanation of the data. Upon examining the items that loaded on the first factor, it was determined that the factor seemed to measure a tendency to use *Procrastination* behaviours as a self-handicapping strategy in academic situations. This result is consistent with Jones and Rhodewalt's (1982, cited in Rhodewalt, 1990) conceptualisation of self-handicapping involving lack of effort, illness and procrastination as strategies for protecting the self-concept against judgments of low ability. Ferrari (1991a, 1991b), Beck et al., (2000) and Ferrari and Tice (2000) also found that high self-reported procrastination was related to delayed task engagement and less preparation time prior to an upcoming important task. The results support previous work by Lay, Knish, and Zanatta (1992), which suggests that behavioural procrastination may be a behavioural self-handicapping strategy.

The second factor seemed to measure an *Achievement Anxiety* component of self-handicapping. The anxiety link with self-handicapping has been established in a number of studies. For example, test-anxious (Harris, Snyder, Higgins, & Schrag, 1986; Greenberg, Pyszczynski, & Paisley, 1985; Smith et al., 1982) and socially anxious (Snyder, Smith, Augelli, & Ingram, 1985) participants have shown self-handicapping behaviours in contexts that involved evaluative conditions and expectancies that encouraged this type of

behaviour. In addition to the use of anxiety as a self-handicapping strategy, literature detailing the theoretical underpinnings of self-handicapping behaviour suggests that the certainty one has to produce a successful outcome in an important evaluative situation is conducive to self-handicapping behaviour. It follows that if one is uncertain about his or her ability to produce an outcome in a situation that has high ego-relevance for that individual, he or she is quite likely to have a high level of negative affect (Weary & Jacobson, 1997) and achievement anxiety. Thus, the factor analysis has produced factors within the *RASH-II* that are theoretically and behaviourally consistent with our knowledge of the dynamics of self-handicapping.

Relations with Neighbouring Constructs

The results of the correlational analysis suggest that the *RASH-II* is a construct-valid instrument.

Uncertain Self-Esteem

According to Jones and Berglas (1978; Berglas & Jones, 1978) and C. R. Snyder and colleagues (e.g., DeGree & Snyder, 1985; Harris & Snyder, 1986; Snyder, 1990; Snyder & Smith, 1982) self-handicapping is a set of behaviours or claims to protect one's self-image in situations where the outcome is uncertain. It has also been suggested that they are strategies designed to reduce uncertainty regarding one's abilities (Maracek & Mettee, 1972). In addition to this, it has been proposed that self-handicappers have a tenuous and uncertain sense of esteem (Harris & Snyder) and that self-handicapping tendencies reflect an uncertainty concerning how competent one is (Berglas & Jones, 1978). The results of the present study are consistent with these suggestions as both global self-esteem uncertainty and causal uncertainty were significantly negatively related to

academic self-handicapping as predicted. The results also support Newman and Wadas (1997) who demonstrated a relationship between self-esteem uncertainty and self-handicapping behaviour.

Low Academic Self-Esteem and Confidence in Ability

An alternate way of conceptualising uncertain self-esteem may be a general lack of confidence in one's academic ability (Harris & Snyder, 1986). Confidence in ability is reflected in the academic self-esteem of people. Thus, if people are not confident in their academic abilities or have low academic self-esteem, they may be more likely to engage in academic self-handicapping. The present results are consistent with this reasoning. Individuals who scored higher on the *RASH-II* tended to score lower on measures of academic self-esteem and confidence in ability.

Self-Criticism, Overgeneralisation and High Standards

As predicted, the present results showed a positive correlation between the *RASH-II* and the *ATS* Scale. More specifically, as participants increased their self-critical assessments and their tendencies to overgeneralise negative self-judgments, they also increased in their tendencies to report academic self-handicapping behaviours. These results are consistent with other research that has shown a higher level of self-criticism amongst self-handicappers (Eronen et al., 1998; Rhodewalt & Hill, 1995), suggesting that these individuals may have a tendency to protect themselves from their self-criticism by engaging in self-handicapping behaviour. Contrary to expectation, the relationship between dispositional self-handicapping and high standards was not significant. These results provide some support for the relationship between these constructs and dispositional self-handicapping.

Implicit Views of Ability

In relation to views about the self, Thompson and Muskett (2003) have asserted that having an entity view of intelligence or ability is related to self-handicapping behaviours. Under the entity view, intelligence or ability is seen as a fixed, immutable, stable trait. Hence poor performance on a task implies that a person has low ability relative to that task. When people who hold an entity view of ability encounter a situation in which they are uncertain of their ability to perform well, they may be more likely to engage in self-handicapping behaviours in order to deflect explanations of ability for the failure. If a handicap is in fact utilised, the explanation for poor performance is equivocal. Either low ability or the handicap can be invoked as an explanation of poor performance. In academic or educational settings, ability is constantly being tested. The results indicated some support for this view. There was a weak, but significant, positive relationship between academic self-handicapping and an entity view of ability as predicted.

Fear of Negative Evaluation

When people are faced with a task that they feel will be a threat to their self-esteem, they usually develop some type of fear of failure on that task or at least some form of fear of evaluation (Deppe & Harackiewicz, 1996; Newman & Wadas, 1997; Smith et al., 1982). The results of the present study were consistent with these findings. As predicted, there was a positive relationship between academic self-handicapping and fear of negative evaluation. This relationship may be particularly salient since formal and informal evaluations are the norm in an educational setting.

Failure-Avoidant Behaviours

Self-worth protection and impostor phenomenon fears have been regarded as failure-avoidant strategies. Self-worth protection involves the strategy of withdrawing effort in order to protect the self-esteem in situations where people believe they will not perform well (Thompson & Dinnel, 2004). While self-worth protection and self-handicapping are not synonymous, they are related in that they involve strategies to protect self-esteem in situations of evaluative threat. In addition, impostor fears involve intense feelings of intellectual phoniness such that people harbour doubts of their own abilities, which they believe are over-estimated by other people. Their behaviours and cognitions are sated with anxiety which may be related to the anxiety associated with self-handicapping.

If self-handicapping is a generalised tendency to engage in particular behaviours, it should be positively related to academic self-handicapping which is a more domain-specific form of self-handicapping behaviour. Consistent with these positions, as predicted, the results showed that as academic self-handicapping increased so did general self-handicapping, self-worth protection, and impostor fears.

The correlational results suggest that although the *SHS* has similar relationships with certain constructs to the *RASH-II*, the *RASH-II* has stronger relationships with those constructs related to academic contexts such as the *Academic Self-Esteem*, *Confidence in Ability*, and *Implicit View of Ability* scales.

STUDY 2

The aim of Study 2 was to examine the relationship between dispositional academic self-handicapping and claimed handicaps, performance expectations, performance and affect in a naturalistic context using a specific academic self-

handicapping assessment tool. In order to maximise the natural occurrence of self-handicapping facilitating factors, third year undergraduate psychology students were recruited and asked to complete questionnaires relating to their studies. Third year psychology students have either continued on to third year because they would like to do fourth year honours in psychology, or because psychology is likely to be useful in their pursuit of other career goals outside of the University. Consequently, there is a high level of competition, and competition has been suggested to contribute to increases in self-handicapping behaviour (Garcia, 1995). In addition, grading on a curve, which occurs in psychology at the University of Tasmania, is also likely to contribute to increases in self-handicapping behaviour (Garcia) and competition for those students not guaranteed success could represent an environment in which self-protection is the main objective (Covington & Omelich, 1984, cited in Martin et al., 2002).

Logically, the importance of psychology assessments is likely to be greater than in previous years, which has been shown to increase the occurrence of self-handicapping behaviour (Rhodewalt & Fairfield, 1991). In addition, recruiting students during the last year of their degrees provides an opportunity to investigate dispositional self-handicapping at a time when real life career goals are salient. To this end real life performance situations, which carry real life consequences were used as measurement points over a period of five months.

Summary of Hypotheses

It was hypothesised that *High Self-handicappers* would claim more handicaps on all measures than *Low Self-handicappers*. This would provide adequate evidence for the predictive validity of the *RASH-II* in an academic context.

It was hypothesised that *High Self-handicappers* would expect lower grades for assignments than *Low Self-handicappers*. It was also hypothesised that *High Self-handicappers* would feel they have less ‘margin for error’ than *Low Self-handicappers* with regard to performing above what they consider to be a failure. No difference was expected between *Self-handicapping Groups* for the grades they believe they need in order to reach their goals, however, *High Self-handicappers* were hypothesised to report that they are less likely to achieve these grades than *Low Self-handicappers*.

It was hypothesised that *High Self-handicappers* would achieve lower grades across all measures than *Low Self-handicappers*.

It was hypothesised that *High Self-handicappers* would report higher levels of negative affect and lower levels of positive affect than *Low Self-handicappers*. It was also hypothesised that *High Self-handicappers* would feel less motivated toward their studies than *Low Self-handicappers*.

Method

Participants

Participants were 78 third year psychology students enrolled in an elective unit in *Educational Psychology* at the University of Tasmania. There were 60 females and 6 males in the sample. Twelve participants did not provide gender information. Ages ranged from 19 years to 46 years ($M = 22$, $SD = 5.93$). Eleven participants did not provide their age.

Instruments

Participants completed *Package One* in Week 5 and *Package Two* in Week 10 of Semester 1. They also completed a *Questionnaire specific to the due dates of Assignment 1 and 2*.

Package One

Package One included the *General Performance Expectation* scales and the *Revised Academic Self-Handicapping Scale-II*, which assessed *Dispositional Self-handicapping*. Participants were asked to provide their age, sex and student ID number on the cover of the package in order to match their responses with their marks and other measures.

Revised Academic Self-Handicapping Scale-II (From Study 1). The *Revised Academic Self-Handicapping Scale (RASH-II* – see Appendix B1) is a 12-item revision of the original 24-item scale by Warden and Murray (Personal Communication, 1999) that measures a respondent's tendency to voluntarily adopt or claim a handicap in academic situations to account for poor performance should this occur.

General Performance Expectations. Participants were asked to indicate *How Important* it is for them to do well in psychology, the *Grades Needed* to realise their goals, and the *Likelihood* of achieving these grades (see Appendix B2). *Grades Needed* were converted to percentages for purposes of analyses (see Appendix A6).

Package Two

Package two included the *General Performance Expectations* questions noted above, a *Claimed Handicap Scale*, the *Positive and Negative Affect Scale (PANAS, Watson & Clarke, 1984)* and three items assessing *Positive Motivation* developed for the present study. Participants were asked to provide their student ID number on the cover of the package.

Claimed Handicap Scale. Following Strube (1986), a checklist of possible extenuating circumstances that could have prevented participants from exhibiting their true abilities was constructed (see Appendix B3). Similar checklists have been utilised with

success in other studies (Thompson & Hepburn, 2003; Thompson & Richardson, 2001). This checklist provided participants with the opportunity to claim handicaps by rating the degree to which each item was likely to have affected their performance. As the primary focus of the study was to assess the degree to which individuals claim handicaps as opposed to which handicaps are claimed, items were summed to produce a final *Claimed Handicap* measure. Coefficient alphas for the scale range from .87 to .91 across three repeated administrations. Instructions for the *Claimed Handicap Scale* either requested participants to focus specifically on recently completed assignments (*Assignments 1 & 2*), or their general behaviour (*Generic Claimed Handicaps*). For the various *Claimed Handicap Scale* instructions see Appendix B5.

Positive and Negative Affect Scale (PANAS; Watson & Clark, 1984). The *PANAS* consists of 10 descriptors for the *Positive Affect* (PA) scale: *attentive, interested, alert, excited, enthusiastic, inspired, proud, determined, strong and active* and 10 descriptors for the *Negative Affect* (NA) scale: *distressed, upset, hostile, irritable, scared, afraid, ashamed, guilty, nervous and jittery*. The *PANAS* can be used with a variety of time instructions. Individuals are asked to rate (on a scale with end-point descriptors of 1 = 'not at all' to 5 = 'extremely') to what extent they feel or have felt this way right now, today, in the past few days, during the past week, during the past few weeks, during the past year, or in general. Alphas range from .86 to .90 for PA and from .84 to .87 for NA (Watson et al., 1988).

Positive Motivation. Participants were asked to indicate the degree to which they felt: *Motivated, Committed* and *Interested* in their academic studies (see Appendix B4). As scores for each item were highly inter-correlated, item scores were totaled for a measure of

Positive Motivation towards academic studies. The resultant co-efficient alpha suggests that this is justified (.88).

Questionnaires Specific to Assignment 1 and 2 Due Dates

Participants were asked to provide their student ID number on the front of the questionnaire as well as the date they handed the assignment in and the date they completed the questionnaire. The questionnaire included the *Claimed Handicap Scale* discussed above. Participants were asked to respond specifically in relation to the assignment they just handed in. The questionnaire also included *Specific Performance Expectation* measures, where participants were asked to indicate their *Expected Grade* for the assignment and the *Grade below which they would consider to have failed* (see Appendix B6).

Procedure

In Week 3 of the semester, students enrolled in *Educational Psychology* at the University of Tasmania were told of the purpose of the study. They were visited in their practical class in Week 5 and were given procedural details. Information sheets and consent forms were handed out. All but one student elected to participate in the study.

Participants were advised that all data would be confidential and that information would be matched through their student identification numbers. Participants were also informed that they could withdraw from the study at any time without prejudice. Participants provided their e-mail addresses (without names) so that correspondence could be maintained. Participants then completed *Package One* before leaving the practical class.

The *Questionnaires specific to Assignment 1 and 2 due dates* were placed on a table adjacent to where students submitted and collected their assignments. A locked box

was provided for completed questionnaires. Participants were sent reminders via e-mail three days prior to assignment due dates. Reminder notices were also posted where students submit assignments.

During Week 10 of the semester (half way between due dates for *Assignments 1* and 2), participants completed *Package Two* during practical class and any concerns/questions regarding the study were discussed. Finally, participant's grades for *Assignments 1* and 2, end of course marks for *Educational Psychology* and grades for other psychology courses were obtained from the School of Psychology office with participants' consent. Contact was maintained via email to encourage continued participation. Participants were thanked and debriefed upon completion of the study.

Results

Treatment of Data

Exclusion of Data

As it was necessary to limit opportunities for participants to discuss outcomes with one another and possibly alter their performance expectations, data returns were excluded from the analyses if questionnaires were dated as completed more than three days after the due date ($N = 2$). In addition, data were eliminated if participants rated the *Importance* of doing well in psychology (included in the *General Performance Expectation* measure) as less than 6 out of 10 ($N = 3$).

Attrition Rate

As might be expected with a study of this nature, some attrition occurred. Some participants forgot to complete questionnaires, whilst others missed questions. From the original 78 participants who completed *Package One*, 57 participants completed the

Questionnaire specific to Assignment 1 and 2 due dates for Assignment 1. The number was different again for Assignment 2.

Following Rhodewalt and Fairfield (1991), data were sorted to create three *Dispositional Self-Handicapping* groups (*Low, Medium* and *High*) based on participant's scores on the *RASH-II*. Frequency analyses utilising scores on these items were run to determine cut off points for three relatively even groups (see Appendix A7). As expected, the scores for this sample were skewed slightly to the lower end of the scale with a minimum value of 19 and a maximum value of 64. Participants with scores ranging from 19 to 31 were classified as *Low Dispositional Self-handicappers* ($N = 20$), while participants with scores ranging from 32 to 37 were classified as *Medium Dispositional Self-handicappers* ($N = 18$) and those participants with scores ranging from 38 to 64 were classified as *High Dispositional Self-handicappers* ($N = 19$).

Analysis Strategy

Given the attrition rate in this study, and the need to utilize as much data as possible, it was necessary for one-way ANOVAs to be performed on each dependent variable where MANOVAs might otherwise have been used. In each case, unless otherwise stated, one-way ANOVAs were performed with the *Dispositional Self-Handicapping* group (*Low, Medium* or *High*) as the independent variable. Where tests of homogeneity were non-significant, Tukey HSD post-hoc tests were performed. Where tests of homogeneity were significant, Dunnett's T3 post-hoc tests were performed. In the majority of cases, the *Medium Self-handicapping* group means fell in between those of the *High* and *Low Self-handicapping* groups. Consequently, for purposes of simplicity, post-hoc tests incorporating the *Medium Self-handicapping* group were reported only if the

Medium Self-handicapping group means did not fall between those of the *Low* and *High Self-handicapping* groups (for all post hoc results see Appendix A8).

Claimed Handicaps

Claimed Handicaps were measured on three occasions: (a) when participants handed in *Assignment 1* (*Claimed Handicaps Assignment 1*), (b) when participants handed in *Assignment 2* (*Claimed Handicaps Assignment 2*) and (c) when participants completed *Package Two*. This third measure was generic in nature and occurred in between *Assignment 1* and 2 due dates (*Generic Claimed Handicaps*).

One-way ANOVAs were performed for each dependent variable (*Claimed Handicaps Assignment 1*, *Claimed Handicaps Assignment 2* and *Generic Claimed Handicaps*).

It was expected that *High Self-handicappers* would claim more handicaps prior to handing in *Assignment 1* (*Claimed Handicaps: Assignment 1*) and 2 (*Claimed Handicaps: Assignment 2*) and on the *Generic* measure (*Generic Claimed Handicaps*) than *Low Self-handicappers*. Table 1 presents means and standard deviations for *Claimed Handicaps* across the three measurement points (*Assignment 1*, 2 and *Generic*) for the *Dispositional Self-handicapping* groups (*Low*, *Medium*, *High*).

As expected, *High Self-handicappers* claimed more handicaps prior to handing in *Assignment 1*: $F(2, 50) = 12.1, p < .001$ and on the *Generic* measure: $F(2, 51) = 6.9, p < .01$ than *Low Self-handicappers*. However, contrary to expectations, *High Self-handicappers* did not claim more handicaps prior to *Assignment 2* than *Low Self-handicappers*: $F(2, 47) = 1.7, ns$.

Table 1: Means and Standard Deviations and Ns for Claimed Handicaps Across the Three Measurement Points for Low, Medium and High Dispositional Self-handicappers.

Dependent Measures	Dispositional Self-handicapping Group		
	Low	Medium	High
Assignment 1	6.4 _a (3.5) N=20	12.8 _b (6.0) N=15	15.0 _b (7.0) N=18
Assignment 2	7.6 _a (6.6) N=21	10.4 _a (7.0) N=16	11.9 _a (7.4) N=13
Generic measure	11.0 _a (6.5) N=22	16.2 _b (6.9) N=19	19.2 _b (6.1) N=13

Note: Means not sharing a common alphabetical subscript differ statistically at $p<.05$.

Performance Expectations

Specific Performance Expectations

Performance expectations specific to *Assignments 1* and *2* were measured. Participants indicated their *Expected Grade* and the *Grade below which they would deem a failure*. To investigate the failure expectations of *High* and *Low Self-handicappers*, a *Difference Score* was taken between participant’s *Expected Grade* and the *Grade below which they would deem a failure*. One-way ANOVAs were performed for each dependent variable (*Expected Grade Assignment 1*, *Difference Score Assignment 1*, *Expected Grade Assignment 2* and *Difference Score Assignment 2*).

It was expected that *High Self-handicappers* would report a lower *Expected Grade* for *Assignments 1* and *2* than *Low Self-handicappers*. It was also expected that *High Self-handicappers* would have a smaller *Difference Score* for *Assignments 1* and *2* than *Low Self-handicappers* (i.e., difference between their expected and actual grade). This would suggest that *High Self-handicappers* believe they have far less ‘margin for error’ than *Low Self-handicappers* with regard to performing above what they consider to be a failure. Table 2 presents means and standard deviations for *Expected Grade* for *Assignments 1* and *2* for *Low*, *Medium* and *High Dispositional Self-handicappers*.

As expected, *High Self-handicappers* reported a lower *Expected Grade* for *Assignment 1* than *Low Self-handicappers*: ($p < .01$). *Medium Self-handicappers* also reported a lower *Expected Grade* for *Assignment 1* than *Low Self-handicappers*: ($p < .001$): $F(52, 2) = 10.6, p < .001$. However, contrary to expectations, *High Self-handicappers* did not report a lower *Expected Grade* for *Assignment 2* than *Low Self-handicappers*: $F(2, 47) = 1.9, ns$.

Table 2: Means, Standard Deviations and Ns for Expected Grades and Difference Scores on Assignments One and Two for Low, Medium and High Dispositional Self-handicappers.

Dependent Measures	Dispositional Self-handicapping Group		
	Low	Medium	High
<i>Assignment 1:</i>	<i>N=20</i>	<i>N=17</i>	<i>N=18</i>
Expected Grade	74.9 _a (5.4)	67.0 _b (6.2)	68.6 _b (5.2)
Difference Score	13.5 _a (6.8)	8.6 _{a b} (5.3)	7.7 _b (6.6)
<i>Assignment 2:</i>	<i>N=21</i>	<i>N=16</i>	<i>N=13</i>
Expected Grade	71.2 _a (8.4)	66.7 _a (8.0)	67.6 _a (5.0)
Difference Score	12.0 _a (6.1)	6.7 _a (7.9)	8.7 _a (7.6)

Note: Means not sharing a common alphabetical subscript differ statistically at $p<.05$.

As expected, *High Self-handicappers* had a smaller *Difference Score* for *Assignment 1* than *Low Self-handicappers*: $F(2, 52) = 4.7, p < .05$. There was a trend for *High Self-handicappers* to have a smaller *Difference Score* for *Assignment 2* than *Low Self-handicappers*: $F(2, 47) = 2.6, p = .08$. This may suggest that *High Self-handicappers* believe they have far less ‘margin for error’ than *Low Self-handicappers* with regards to performing above what they consider to be a failure.

General Performance Expectations

General Performance Expectations were measured on two occasions - in *Package One* (Week 5) and *Package Two* (Week 10). Participants were asked what *Grades Needed*

to achieve to reach their goals and the *Likelihood* of achieving these grades. One-way ANOVAs were performed for each dependent variable: *Grades Needed* (Week 5), *Grades Needed* (Week 10), *Likelihood* (Week 5) and *Likelihood* (Week 10).

It was expected that there would be no difference between *High* and *Low Self-handicappers* for the *Grade Needed* in Weeks 5 and 10. It was also expected that *High Self-handicappers* would report less *Likelihood* of achieving the grades needed in Weeks 5 and 10 than *Low Self-handicappers*.

As expected, there was no difference between *High* and *Low Self-handicappers* for *Grade Needed* in Week 5: $F(2, 71) = .07, ns$ or Week 10: $F(2, 53) = .46, ns$. Also as expected, *High Self-handicappers* reported less *Likelihood* of achieving the grades needed to realize their goals than *Low Self-handicappers* in Week 5: $F(2, 71) = 9.0, p < .001$ and Week 10: $F(2, 53) = 5.1, p < .01$. Table 3 presents means and standard deviations for *Grade Needed* and *Likelihood* in Weeks 5 and 10 for *Low*, *Medium* and *High Dispositional Self-handicappers*.

Table 3: Means, Standard Deviations and Ns for Grade Needed and Likelihood of Achieving Grades in Week 5 and 10 for Low, Medium and High Dispositional Self-handicappers.

Dependent Measures	Dispositional Self-handicapping Group		
	Low	Medium	High
Week 5:	N = 27	N = 25	N = 22
Grade Needed	2.8 _a (.96)	2.8 _a (.60)	2.3 _a (.61)
Likelihood	8.0 _a (1.2)	7.3 _{a b} (1.4)	6.5 _b (1.3)
Week 10:	N = 23	N = 20	N = 13
Grade Needed	2.6 _a (.73)	2.7 _a (.50)	2.5 _a (.50)
Likelihood	7.3 _a (1.5)	6.7 _{a b} (1.8)	5.6 _b (1.3)

Note: Means not sharing a common alphabetical subscript differ statistically at $p<.05$.

Performance

Performance measures were the *Grades Received on Assignments 1 and 2*, the *Final Course Grade for Educational Psychology* (Assignment 1 and 2 plus exam mark), and the average mark participants received across all psychology courses for the year (*Overall Grade*). One-way ANOVAs were run for each dependent variable (*Grade*

Received Assignment 1, Grade Received Assignment 2, Final Course Grade and Overall Grade).

It was expected that *High Self-handicappers* would achieve a lower grade on *Assignments 1 and 2, the Final Course Grade and Overall Grade* than *Low Self-handicappers*.

Table 4 presents means and standard deviations for *Grade Received* for *Assignments 1 and 2, Final Course Grade and Overall Grade* for *Low, Medium and High Self-handicappers*. Contrary to expectation, there were no differences between *High* and *Low Self-handicappers* for *Grade Received* for *Assignment 1*: $F(2, 68) = 1.4, ns$, *Assignment 2*: $F(2, 69) = .96, ns$, or *Final Course Grade*: $F(2, 69) = 3.1, ns$. Similarly, *High Self-handicappers* did not obtain a lower *Overall Grade* than *Low Self-handicappers*: $F(2, 70) = 2.2, ns$. *Medium Self-handicappers* obtained higher *Final Course Grades* than *High Self-handicappers* ($p < .05$) and consistently obtained higher grades than both *High* and *Low Self-handicappers* across all other measures, however, not significantly so.

Table 4: Means and Standard Deviations for Grades Received on Assignments 1 and 2, Final Course Grade and Overall Grade for Participants Scoring Low, Medium and High Dispositional Self-handicappers.

Dependent Measures	Dispositional Self-handicapping Group		
	Low	Medium	High
Assignment 1	63.7 _a (10.0) N = 26	65.2 _a (11.2) N = 25	60.3 _a (8.0) N = 20
Assignment 2	63.7 _a (12.0) N = 26	65.8 _a (10.9) N = 25	60.5 _a (16.0) N = 21
Final Course Grade	64.4 _{ab} (9.7) N = 26	65.8 _a (9.1) N = 25	59.3 _b (8.6) N = 21
Overall Grade	64.9 _a (9.1) N = 26	67.4 _a (6.8) N = 25	62.2 _a (9.4) N = 22

Note: Means not sharing a common alphabetical subscript differ statistically at $p<.05$.

In an attempt to explain the above results, participants were grouped as *High*, *Medium* or *Low* on the subscales of the *RASH-II* (*Procrastination and Achievement Anxiety*) based on their *RASH-II* scores. Data were subjected to one-way ANOVAs with *Procrastination* subscale groups (*High*, *Medium*, *Low*) and *Achievement Anxiety* subscale

groups (*High, Medium, Low*) as independent variables maintaining the same dependent measures reported above.

Those who scored *High* on the *Procrastination* subscale received lower *Grades* for *Assignment 1*: $F(2, 68) = 4.2, p < .05$, *Final Course Grade*: $F(2, 69) = 7.9, p < .001$ and *Overall Grade*: $F(2, 70) = 4.6, p < .05$ than those who scored *Low* on the *Procrastination* subscale (see Table 5). There was also a trend for those who scored *High* on the *Procrastination* subscale to receive lower *Grades* for *Assignment 2*: $F(2, 69) = 2.9, p = .058$. There were no differences between those who scored *High* or *Low* on the *Achievement Anxiety* subscale on any of the Performance measures (see Appendix A9). This suggests that the *Procrastination* component of dispositional self-handicapping that contributes to poorer performance and that the *Achievement Anxiety* component on its own has no impact on performance.

Table 5: Means and Standard Deviations for Grades Received on Assignments 1 and 2, Final Course Grade and Overall Grade for Participants Scoring Low, Medium and High on the Procrastination Subscale of the RASH-II.

Dependent Measures	Procrastination subscale Group of the RASH-II		
	Low	Medium	High
Assignment 1	67.1 _a (10.8) N=28	62.1 _a (10.3) N=25	59.0 _b (5.8) N=18
Assignment 2	67.6 _a (11.7) N=28	62.4 _a (11.8) N=25	58.7 _a (14.6) N=19
Final Course Grade	67.9 _a (9.4) N=28	62.6 _a (8.6) N=25	57.8 _b (7.5) N=19
Overall Grade	67.8 _a (6.9) N=28	65.4 _a (8.8) N=25	60.5 _b (9.1) N=20

Note: Means not sharing a common alphabetical subscript differ statistically at $p<.05$.

Affect

General Affect

Affect was measured using the PANAS in Week 10 of Semester 1 (Package Two). One-way ANOVAs were performed for each dependent variable (Positive Affect and

Negative Affect). It was expected that *High Self-handicappers* would report higher levels of *Negative Affect* and lower levels of *Positive Affect* than *Low Self-handicappers*.

As expected, *High Self-handicappers* reported higher levels of *Negative Affect* than *Low Self-handicappers*: High; $N = 13$, $M = 28.7$, $SD = 7.6$; Low: $N = 22$, $M = 17.9$, $SD = 6.5$: $F(2, 51) = 10.8$, $p < .001$. Contrary to expectations, *High Self-handicappers* did not report lower levels of *Positive Affect* than *Low Self-handicappers*: High; $N = 13$, $M = 26.4$, $SD = 6.6$; Low: $N = 22$, $M = 30.0$, $SD = 6.7$: $F(2, 51) = 1.2$, ns .

Positive Motivation

Positive Motivation in relation to academic studies was measured in Week 10 (*Package Two*). A one-way ANOVA was performed. It was expected that *High Self-handicappers* would report less *Positive Motivation* in relation to academic studies than *Low Self-handicappers*.

Contrary to expectation, *High Self-handicappers* ($N = 13$, $M = 8.5$, $SD = 2.3$) did not report less *Positive Motivation* in relation to academic studies than *Low Self-handicappers*: $N = 22$, $M = 10.3$, $SD = 3.3$: $F(2, 51) = 1.5$, ns .

Discussion

The present study examined the relationship between dispositional academic self-handicapping and claimed handicaps, performance expectations, performance and affect in a naturalistic context. The results show that the *RASH-II* is a reliable predictor of claimed handicaps in academic contexts. The results also show that high dispositional academic self-handicappers, as measured by the *RASH-II*, believe they are less likely to achieve the grades they need in order to realise their goals, despite needing the same grades as low dispositional self-handicappers. The results suggest that they believe they have far less

“margin for error” with regard to performing above what they consider to be a failure and there was some support for high dispositional self-handicappers to expect to perform more poorly than low dispositional self-handicappers on assignments. Despite these expectations, there was limited evidence to suggest that high dispositional self-handicappers performed more poorly than low dispositional self-handicappers. Higher levels of negative affect were evident for high dispositional self-handicappers, however there were no differences between self-handicapping groups for positive affect or positive motivation.

Predictive Validity of the RASH-II

In addition to conducting Study 1 in which the psychometric properties of the *RASH-II* were investigated, an aim of Study 2 was to investigate the predictive validity of the *RASH-II* in an academic setting. To this end, it was expected that *High Self-handicappers* would report more *Claimed Handicaps* prior to handing in *Assignment 1*, 2 and on the *Generic Claimed Handicaps* measure than *Low Self-handicappers*. These expectations were supported for *Assignment 1* and the *Generic Claimed Handicaps* measure, however this was not the case for *Assignment 2*. Although the pattern of responses was in the direction expected, it is possible that the decrease in the number of participants in the *High Self-handicapping* group from *Assignment 1* to *Assignment 2* contributed to the lack of a significant difference in *Claimed Handicaps* between self-handicapping groups for *Assignment 2*. These results are consistent with the results of Murray and Warden’s (1992) study that showed the *Academic Self-Handicapping Questionnaire* (*ASHQ*: from which the *RASH* and consequently, the *RASH-II* is derived)

was predictive of self-handicapping strategies such as reduction in effort. The results show that the *RASH-II* has good predictive validity in academic contexts.

Performance Expectations

Despite *Low* and *High Self-handicappers* reporting they needed the same grades to achieve their future goals, *High Self-handicappers* reported that they were less likely to be able to achieve these grades than *Low Self-handicappers*. Similarly, for *Assignment 1*, they expected to perform more poorly than *Low Self-handicappers*. In addition, results indicated that *High Self-handicappers* believe they have far less “margin for error” with regard to performing above what they consider to be a failure than *Low Self-handicappers*. These results contradict research by Feick and Rhodewalt (1997), Rhodewalt and Hill (1995) and McCrea and Hirt (2001) who found no such differences in performance expectations for *High and Low Self-handicappers*. However, these researchers used the *SHS* as their measurement of dispositional academic self-handicapping, as opposed to a measure specifically designed for academic contexts. Yet Murray and Warden (1992) used the *ASHQ* in their study and found that *High Self-handicappers* expected to perform more poorly than *Low Self-handicappers* on an upcoming exam—results consistent with findings of the present study.

Thus, it can be concluded that *High Self-handicappers* carry uncertain self-images and consequently doubt their ability to achieve a successful outcome. Much research has focussed on the manipulation of uncertainty concerning future performance and uncertain self-images. The present research shows that even without such manipulation and in a naturalistic context, *High Self-handicappers* carry doubts about their ability and that these doubts are evidenced across a variety of assessment situations.

Performance

Research suggests that dispositional self-handicappers perform poorly as a result of chronic self-handicapping (Beck et al., 2000; Eronen et al., 1998; Martin et al., 2001; Midgley et al., 1996; Midgley & Urdan, 1995; Murray & Warden, 1992; Nurmi et al., 1995; Urdan et al., 1998; Zuckerman et al., 1998). Thus, it was expected that *High Self-handicappers* would perform more poorly than *Low Self-handicappers* for *Assignments 1, 2, Final Course Grade* and *Overall Grade*. However, results suggested that *High Self-handicappers* performed equally to *Low Self-handicappers* across all four measures. This supports research by Feick and Rhodewalt (1997), Rhodewalt and Hill (1995) and Wesley (1994) who also failed to find any differences in performance as a function of dispositional self-handicapping.

McCrea and Hirt (2001) suggest that performance may be affected by dispositional self-handicapping only when claiming certain handicaps and not others. They found that performance was affected after claims of poor test preparation, however not after claims of stress. It is possible that claims such as poor test preparation are accurate appraisals of behavioural handicaps employed by dispositional handicappers. By virtue of its inherent nature, this type of handicap is likely to affect performance. However, stress may be less likely to directly affect performance. This may explain the findings that *Medium Self-handicappers* performed better than both *Low* and *High Self-handicappers*. It is possible that the self-handicapping strategies employed by the Medium group differed to those in the other groups. It would be interesting to investigate the types of handicaps employed by various groups of dispositional self-handicappers. This would be a new and innovative step in future self-handicapping research.

To investigate further the performance effects of dispositional self-handicapping, participants were grouped according to their scores on the two subscales of the *RASH-II: Procrastination* and *Achievement Anxiety*. Based on the research previously noted, it was expected that participants high on the *Procrastination* subscale would perform more poorly on all measures than those who scored low. However, no differences were expected between *Achievement Anxiety* groups.

Results confirmed that those participants who scored high on the *Procrastination* subscale received lower grades across measurements than those who scored low on the *Procrastination* subscale. As expected, there were no differences between *Achievement Anxiety* groups on any of the performance measures. These results support research by Wesley (1994) who showed that self-handicapping and procrastination overlap in the portion of variance accounted for in Grade Point Average and suggest that it is the more active forms of self-handicapping that dispositional self-handicappers employ over a period of time that affect performance. Research that differentiates dispositional self-handicappers according to their preferences for particular handicaps is likely to provide further insight into the effects of dispositional self-handicapping on performance.

Affect

Research on dispositional self-handicapping has seldom used a comprehensive measurement of affect such as the *Positive and Negative Affect Scale (PANAS)*: Watson & Clarke, 1984). Consequently, the *PANAS* was used in the present study and it was expected that *High Self-handicappers* would report lower levels of positive affect and higher levels of negative affect than *Low Self-handicappers*. In addition, it was expected that *High Self-handicappers* would report lower levels of positive motivation than *Low Self-*

handicappers. The results showed that *High Self-handicappers* reported higher levels of Negative Affect, however there were no differences between self-handicapping groups for Positive Affect or Positive Motivation. These results are consistent with Zuckerman et al., (1998) who also used the *PANAS*. They found that higher levels of dispositional self-handicapping at one point in time (as measured by the *SHS*) resulted in lower Negative Affect over time, however there were no changes in Positive Affect over time.

Negative Affect is a general dimension of subjective distress that includes a variety of aversive mood states such as anger, contempt, disgust, guilt, fear and nervousness (Watson et al., 1988). Negative Affect has been shown to correspond with the dominant personality factors of anxiety/neuroticism, which in turn have also been shown to predict self-handicapping (Ross et al., 2002) and is related to self-reported distress and poor coping (Clarke & Watson, 1986, cited in Clark & Watson, 1988; Wills, 1986) and measures of depression (Watson et al.). Thus, it can be suggested that despite possible short-term affective gains, dispositional self-handicappers exhibit negative affect over time, which is suggestive of distress, poor coping and possible depression.

GENERAL DISCUSSION

Study 1 provided preliminary evidence that the *Revised Academic Self-Handicapping Scale-II* is a psychometrically sound instrument that has good reliability and validity, however further studies with a larger sample and utilising confirmatory factor analytical procedures are recommended. The results also suggest that the *RASH-II* may be beneficial in helping to identify whether people tend to self-handicap in academic situations by engaging in procrastination behaviours and by utilising anxiety-based performance deficit explanations of their performance. The *RASH-II* has marginally

stronger relationships with other academic constructs than the *SHS*. Finally, it carries an additional benefit in being a domain specific measure.

Study 2 examined the relationship between dispositional academic self-handicapping and claimed handicaps, performance expectations, performance and affect in a naturalistic context. The results show that the *RASH-II* is a reliable predictor of claimed handicaps in academic contexts. The results also show that high dispositional academic self-handicappers, as measured by the *RASH-II*, believe that despite needing the same grades as low dispositional self-handicappers in order to realise their goals, they are less likely to achieve these grades. The results also suggest that they believe they have far less “margin for error” with regards to performing above what they consider to be a failure. There was some support for high dispositional self-handicappers to expect to perform more poorly than low dispositional self-handicappers on assignments. Although high self-handicappers expected this to be the case, there was limited evidence to suggest that they performed more poorly than low dispositional self-handicappers. High dispositional self-handicappers evidenced higher levels of negative affect, however there were no differences between self-handicapping groups for positive affect or positive motivation.

Limitations of the Study

The attrition rate in study 2 did not enable repeated measures analyses of data to obtain information about changes in self-handicapping behaviour over time. In addition, some analyses were performed with unequal cell numbers as a result of the attrition rate. To date, the only methods that have been used to measure self-handicapping in longitudinal contexts are questionnaire-based assessments. These questionnaires have focussed on providing people with the opportunity to claim handicaps, without assessing

whether people actually engage in these behaviours and for what purpose. Midgley and Urdan (2001) suggest that a combination of methods should be used to assess self-handicapping strategies such as observations, surveys and interviews. The present study used a questionnaire-based method of assessing self-handicapping behaviour and might have benefited from additional self-handicapping measurement strategies. As a limited number of participants in Study 2 scored at the extreme high end of the *RASH-II*, the sample was skewed at the lower end of the self-handicapping spectrum. Thus, the results reflect high self-handicapping individuals relative only to the specific sample, not relative to the general population.

Given the design of the study, it is not possible to establish cause and effect. It is possible, for example, that chronic self-handicapping does not lead to negative affect, but that individuals who report more negative affect are more likely to self-handicap. However, research has suggested that self-handicapping is cyclical in nature and that self-handicapping results in poor adjustment over time and that poor adjustment results in further self-handicapping (Zuckerman et al., 1998; Eronen et al., 1998; Murray & Warden, 1992).

Directions for Further Research

Study 1 provided preliminary evidence that the *RASH-II* is a psychometrically sound instrument for the measurement of academic self-handicapping. Future research might attempt to provide additional evidence for the continued use of the *RASH-II*. In addition, future research might focus on utilising the two subscales of the *RASH-II* (Procrastination and Achievement Anxiety). Study 2 showed that high dispositional self-handicappers claim more handicaps, report that they expect to perform more poorly, and

report more negative affect than low self-handicappers when they are faced with real life assessment situations that are relevant to their real life goals. Research that investigates the longer-term effects of self-handicapping behaviour whilst still grounded in real life contexts would shed more light on the contextual and individual factors that affect self-handicapping. Research that has focussed on the longer-term effects of self-handicapping has simply used questionnaire based assessments at three or four points in time, without specific assessments of self-handicapping behaviour as it occurs in response to real life academic assessment situations. Research that uses a variety of self-handicapping measurement strategies will be able to provide a clearer interpretation of the effects of self-handicapping. In addition, a new innovative step in the self-handicapping research would involve the investigation of the types of handicaps employed by various groups of dispositional self-handicappers (such as low, medium and high).

Conclusion

Research has suggested that specific academic self-handicapping assessment tools be used over the more generic tools that are currently available. This study provided preliminary psychometric support for the use of the *RASH-II* in the measurement of academic self-handicapping. However, further studies with a larger sample and utilising confirmatory factor analysis procedures are required. The detrimental effects of chronic academic self-handicapping and the performance attitudes of chronic self-handicappers have also been demonstrated within a context in which real life goals are salient and competition for high grades is a priority.

In terms of performance expectations, individuals who chronically self-handicap expect to perform more poorly on upcoming assignments than those who don't and

consequently claim more handicaps. However, they do not necessarily perform more poorly on assignments and exams.

When investigated further, individuals who scored high on the procrastination component of the self-handicapping scale (*RASH-II*), suggesting the use of behavioural self-handicapping strategies, performed more poorly than those who scored low on this scale. The study supports research highlighting the link between chronic self-handicapping and negative affect, but not positive affect or motivation. The use of the *PANAS* also enabled the suggestion of a link between chronic self-handicapping and poor general well-being, depressive affect and poor coping. Understanding the attitudes of chronic self-handicappers and the detrimental effects of chronic self-handicapping has implications for educating these individuals on the importance of having more adaptive attitudes and using more adaptive strategies throughout their university studies.

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Appendix A1: Study 1; ANOVA on Scale Order Variations

Table 6. ANOVA Results for all Study 1 Scales Across the Five Order Variations

Scale	DF	MS	F	Sig.
RASH	4, 82	121.6	.445	.776
CUS	4, 82	71.5	1.25	.297
IVA	4, 82	10.6	.765	.551
CIA	4, 78	23.2	1.43	.232
IP	4, 81	218.2	.932	.450
GSEUS	4, 80	45.0	1.79	.589
ASE	4, 77	1663.9	1.79	.140
ATS	4, 82	523.4	1.89	.121
FNE	4, 81	116.2	1.20	.318
SHS	4, 81	131.4	1.00	.412
SWP	4, 78	1016.8	1.33	.267

RASH: Revised Academic Self-handicapping Scale, *CUS*: Causal Uncertainty Scale, *IVA*: Implicit View of Ability Scale, *CIA*: Confidence in Ability Scale, *IP*: Impostor Phenomenon Scale, *GSEUS*: Global Self-esteem Uncertainty Scale, *ASE*: Academic Self-Esteem Scale, *ATS*: Attitudes Toward Self Scale, *FNE*: Fear of Negative Evaluation Scale, *SHS*: Self-Handicapping Scale, *SWP*: Self-Worth Protection Scale. DF: Degrees of Freedom, MS: Mean Square.

Appendix A2: Study 1; Factor Analysis of the *RASH*

Table 7. Factor Analysis of the Revised Academic Self-Handicapping Scale

Items	I	II
1. I tend to take the initiative in directing my own education.*	--	--
2. I usually find myself easily distractible when I am trying to work.	.67	--
3. I sometimes find myself blanking out while taking exams.	--	.47
4. I feel I can master any topic if I give it my best effort.*	--	--
5. I often get up for a snack while studying.	--	--
6. I am good at concentrating on the material while studying.*	.67	--
7. Sometimes I feel so pressured by school work that I find it hard to accomplish anything.	--	.44
8. Problems that I have no control over always seem to appear when I need to study.	--	.55
9. I usually don't ask questions even when it would help me.	--	--
10. I tend to get quite interested in whatever I am studying.*	.34	--
11. I don't let events in my life interfere with my school work.*	--	--
12. My weekends are usually wasted as far as school is concerned.	.31	--
13. Having to do a major project motivates me to do my best.*	--	--
14. I generally keep up with the work in all of my classes.*	--	--
15. I don't get intimidated by heavy competition.*	--	--
16. I lack the discipline to give my best effort in school.	.32	--
17. I have learned some ways to improve my studying efficiency.*	--	--
18. My emotions often get in the way of my getting anything done.	--	.46
19. I have mental blocks against certain subjects.	--	.72
20. I usually manage to keep my study breaks no longer than I intend them to be.*	--	--
21. I tend to put off school work that I should be doing.	--	--
22. I wish others didn't have such high expectations of me.	--	.36
23. I don't cram for exams as much as most people.*	--	--
24. It often turns out that I waste time studying the wrong material.	--	.47
Eigenvalue	6.36	2.01
Percent of Variance Accounted for	26.50	8.38

Note: Only factor loadings greater than .30 are reported.

* Item is recoded when scoring.

Appendix A3: Study 1; Item/Item Total Correlations

Table 8. Corrected Item/Item Total Correlations for the Revised Academic Self-Handicapping Scale

Item	Corrected Item/ Total Correlation	Coefficient Alpha if Item Deleted
1	.38	.86
2	.56	.86
3	.44	.86
4	.18	.87
5	.27	.87
6	.51	.86
7	.56	.86
8	.56	.86
9	.50	.86
10	.35	.86
11	.45	.86
12	.52	.86
13	.43	.86
14	.47	.86
15	.40	.86
16	.59	.85
17	.41	.86
18	.62	.85
19	.41	.86
20	.41	.86
21	.58	.86
22	.35	.86
23	.03	.87
24	.33	.86

Appendix A4: Study 1; Test-retest Reliability Analysis

Table 9. Paired Samples Correlations for the *Procrastination* and *Achievement Anxiety* Subscales of the *RASH* and the Total *RASH* Scores.

Scale	Mean	N	SD	SE	Correlation Coeff.	Sig.
<i>Procrastination</i>						
<i>Subscale</i>						
Time 1	16.9	139	4.4	.38		
Time 2	16.9	139	4.4	.38		
					.79	.000
<i>Achievement</i>						
<i>Anxiety Subscale</i>						
Time 1	22.5	140	6.2	.52		
Time 2	22.6	140	6.2	.53		
					.82	.000
<i>RASH</i>						
Time 1	39.4	139	8.9	.75		
Time 2	39.5	139	9.4	.80		
					.83	.000

Appendix A5: Study 1; Internal Consistency Analysis

Table 10. Reliability Analysis of the *RASH* and the *Procrastination* and *Achievement Anxiety* Subscales of the *RASH*.

Scale	Mean	SD	N variables	N cases	Alpha
RASH	39.6	9.3	12	238	.82
Procrastination Subscale	16.7	4.5	5	239	.76
Achievement Anxiety Subscale	22.8	6.4	7	239	.79

Appendix A6: Study 2; Conversion of *Grades Needed* to Percentages

As student's *Grades* from the School of Psychology office were provided in percentages, the raw data for all question items reflecting *Grades* were converted to percentages for comparative purposes. Letters were converted as indicated below based on the understanding that at the School of Psychology, University of Tasmania, 'A' and its alternatives (A- and A+) represent 80% and above, 'B' and its alternatives represent 70%-79%, 'C' represents 60%-69%, 'D' and its alternatives represents 50%-59%, and 'E' and below represents under 50%.

A+ = 97%,	A = 90%,	A- = 83%
B+ = 78%,	B = 75%,	B- = 72%
C+ = 68%,	C = 65%,	C- = 62%
D+ = 58%,	D = 55%,	D- = 52%
E+ = 47%,	E = 42%,	E- = 37%
F+, F, F- = 30%		

Appendix A7: Study 2; RASH-II Low, Medium and High Groups

Table 11. Descriptive Statistics for the Computation of the *RASH* Low, Medium and High Groups and the *RASH* Subscale Low, Medium and High Groups.

Scale	N	Mean	Minimum	Maximum	33 rd Perc.	66 th Perc.
RASH	78	34.7	19	64	31	37
Procrastination Subscale	78	14.6	7	23	13	15.7
Achievement Anxiety Subscale	78	20.1	10	41	17	23

Appendix A8: Study 2; Post hoc Analyses

Table 12. Post hoc Analyses of Claimed Handicaps for Low, Medium and High Self-handicappers Across Assignment 1, 2 and the Generic Measure.

Dependent Variable	Groups		SE	Sig.
<i>Assignment 1</i> (Dunnetts T3)	Low	Medium	1.7	.004
		High	1.8	.000
	Medium	High	2.3	.70
<i>Assignment 2</i> (Tukey HSD)	Low	Medium	2.3	.44
		High	2.4	.20
	Medium	High	2.6	.84
<i>Generic</i> (Tukey HSD)	Low	Medium	2.1	.04
		High	2.3	.002
	Medium	High	2.4	.42

Table 13. Post hoc Analyses for Specific Performance Expectations (Expected Grade and Difference Score) of Low, Medium and High Self-handicappers Across Assignment 1 and 2.

Dependent Variable	Groups		SE	Sig.
<u>Expected Grades</u>				
<i>Assignment 1</i> (Tukey HSD)	Low	Medium	1.9	.000
		High	1.8	.003
	Medium	High	1.9	.70
<i>Assignment 2</i> (Tukey HSD)	Low	Medium	2.5	.18
		High	2.7	.38
	Medium	High	2.8	.94
<u>Difference Score</u>				
<i>Assignment 1</i> (Tukey HSD)	Low	Medium	2.1	.06
		High	2.1	.02
	Medium	High	2.1	.91
<i>Assignment 2</i> (Tukey HSD)	Low	Medium	2.4	.07
		High	2.5	.40
	Medium	High	2.7	.72

Table 14. Post hoc Analyses for General Performance Expectations (Grades Needed and Likelihood) of Low, Medium and High Self-handicappers Across Weeks 5 and 10.

Dependent Variable	Groups		SE	Sig.
<u>Grades Needed</u>				
<i>Week 5</i> (Dunnetts T3)	Low	Medium	.22	1.0
		High	.23	.99
	Medium	High	.18	.97
<i>Week 10</i> (Tukey HSD)	Low	Medium	.18	.81
		High	.21	.91
	Medium	High	.21	.62
<u>Likelihood</u>				
<i>Week 5</i> (Tukey HSD)	Low	Medium	.36	.12
		High	.37	.000
	Medium	High	.38	.07
<i>Week 10</i> (Tukey HSD)	Low	Medium	.50	.43
		High	.48	.003
	Medium	High	.56	.16

Table 15. Post hoc Analyses for the Performance of Low, Medium and High Self-handicappers Across Assignments 1, 2, Final Course Grade and Overall Grade.

Dependent Variable	Groups		SE	Sig.
Assignment 1 (Tukey HSD)	Low	Medium	2.8	.85
		High	3.0	.49
	Medium	High	3.0	.23
Assignment 2 (Tukey HSD)	Low	Medium	3.6	.84
		High	3.8	.68
	Medium	High	3.8	.36
Final Course Grade (Tukey HSD)	Low	Medium	2.6	.84
		High	2.7	.15
	Medium	High	2.7	.05
Overall Grade (Tukey HSD)	Low	Medium	2.4	.53
		High	2.4	.53
	Medium	High	2.5	.10

Table 16. Post hoc Analyses for the Performance of Low, Medium and High Procrastination Subscale Groups Across Assignments 1, 2, Final Course Grade and Overall Grade.

Dependent Variable	Groups		SE	Sig.
Assignment 1 (Dunnetts T3)	Low	Medium	2.9	.25
		High	2.5	.006
	Medium	High	2.5	.51
Assignment 2 (Tukey HSD)	Low	Medium	3.5	.30
		High	3.7	.05
	Medium	High	3.8	.61
Final Course Grade (Tukey HSD)	Low	Medium	2.4	.07
		High	2.6	.001
	Medium	High	2.6	.17
Overall Grade (Tukey HSD)	Low	Medium	2.3	.53
		High	2.4	.01
	Medium	High	2.5	.13

Table 17. Post hoc Analyses for the Performance of Low, Medium and High Achievement Anxiety Subscale Groups Across Assignments 1, 2, Final Course Grade and Overall Grade.

Dependent Variable	Groups		SE	Sig.
Assignment 1 (Tukey HSD)	Low	Medium	2.8	1.0
		High	3.0	.69
	Medium	High	3.1	.68
Assignment 2 (Tukey HSD)	Low	Medium	3.6	.78
		High	3.8	.87
	Medium	High	4.0	.53
Final Course Grade (Tukey HSD)	Low	Medium	2.6	.96
		High	2.8	.33
	Medium	High	2.9	.23
Overall Grade (Tukey HSD)	Low	Medium	2.4	.98
		High	2.5	.91
	Medium	High	2.6	.84

Table 18. Post hoc Analyses for Affect (Positive and Negative) and Positive Motivation of Low, Medium and High Self-handicappers.

Dependent Variable	Groups		SE	Sig.
Positive Affect (Tukey HSD)	Low	Medium	2.0	.85
		High	2.3	.28
	Medium	High	2.3	.56
Negative Affect (Tukey HSD)	Low	Medium	2.1	.24
		High	2.3	.000
	Medium	High	2.4	.009
Positive Motivation (Tukey HSD)	Low	Medium	.93	.46
		High	1.0	.23
	Medium	High	1.1	.83

Appendix A9: Study 2; Analyses on *Achievement Anxiety* Subscale for Performance Measures

Table 19. Descriptive Statistics for the Performance of Low, Medium and High Achievement Anxiety Subscale Groups.

	Group	N	Mean	SD	SE
Assignment 1	Low	29	63.8	9.5	1.8
	Medium	24	64	11.5	2.3
	High	18	61.3	8.9	2.1
Assignment 2	Low	29	63.2	12	2.2
	Medium	24	65.6	11.6	2.4
	High	19	61.3	8.9	3.8
Final Course Grade	Low	29	64.2	8.9	1.7
	Medium	24	65	10.1	2.1
	High	19	60.2	9.2	2.1
Overall Grade	Low	26	64.9	9.1	1.8
	Medium	25	67.4	6.8	1.4
	High	22	62.2	10	2

Table 20. ANOVA for the Performance of Low, Medium and High Achievement Anxiety Subscale Groups.

Dependent Variable	Df	F	Sig.
Assignment 1	2, 70	.44	.65
Assignment 2	2, 71	.60	.55
Final Course Grade	2, 71	1.5	.22
Overall Grade	2, 72	2.2	.12

Appendix B1: RASH-II Scale

Please indicate (by circling the appropriate number) the degree to which you agree with each of the following statements as a description of your study habits.

1. I usually find myself easily distractible when I am trying to work.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

2. I sometimes find myself blanking out while taking exams.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

3. I am good at concentrating on the material while studying.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

4. Sometimes I feel so pressured by school work that I find it hard to accomplish anything.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

5. Problems that I have no control over always seem to appear when I need to study.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

6. I tend to get quite interested in whatever I am studying.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

7. My weekends are usually wasted as far as school is concerned.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

8. I lack the discipline to give my best effort in school.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

9. My emotions often get in the way of my getting anything done.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

10. I have mental blocks against certain subjects.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

11. I wish others didn't have such high expectations of me.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

12. It often turns out that I waste time studying the wrong material.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Appendix B2: General Performance Expectations Measures

Please think about your most important goal(s) beyond this year/post-graduation in terms of your career and further training.

1. Considering your career beyond this year/post-graduation, how important is it for you to do well in psychology?

Not at all											Very
important											important
1	2	3	4	5	6	7	8	9	10		

2. What grades do you need to achieve in psychology to realise your career goal(s) beyond 2000/postgraduation? (please circle)

- Mainly PPs
- Mainly CRs
- Mainly DNs
- DNs and above

3. How likely is it that you will achieve these grades?

Not at all											Very
likely											likely
1	2	3	4	5	6	7	8	9	10		

Appendix B3: Claimed Handicap Scale

1. Mental fatigue

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

2. Work stress

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

3. Feeling "burnt out"

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

4. Carrying too many competing obligations

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

5. Physical fatigue

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

6. Late nights

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

7. Feeling “off colour”

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

8. Domestic stress

0	1	2	3	4
Not at all		Moderately		Very
Likely		Likely		Likely

Appendix B5: Claimed Handicap Scale Instructions

1. Instructions prior to handing in Assignments 1 and 2:

A number of factors are known to impair performance on assignments. Some of these factors are listed below. Please estimate how likely each of these factors is to impair your performance (mark) on the assignment you just handed in.

2. Instructions for Package two (Generic Measure):

A number of factors are known to impair performance on academic tasks. Some of these factors are listed below. Please estimate how likely each of these factors is to impair your general study/work performance.

Appendix B6: Specific Performance Expectation Measures

Please read the following questions carefully and answer them in relation to how you feel about the assignment you just handed in.

1. Please indicate what mark you expect to get

F- F F+ E- E E+ D- D D+ C- C C+ B- B B+ A- A A+
(please circle)

2. Please indicate the mark *below which* you would consider to have failed in your own terms

F- F F+ E- E E+ D- D D+ C- C C+ B- B B+ A- A A+
(please circle)