

## Self-Esteem Dynamics Regulate the Effects of Feedback on Ambition

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**ABSTRACT** - Researchers examining self-esteem functioning typically consider self-esteem either an affective or competence related trait. However, to capture more precisely the role of self-esteem in behavior we need to view self-esteem both as something people hold and as something they strive for, and determine the relation between these aspects. In the present study the consequences of the dynamic interplay between basic self-esteem and competence related self-esteem for people's ambition when receiving positive and negative feedback were examined ( $N = 40$ ). The results indicate that differences in basic self-esteem determine whether competence as a source of self-esteem entails realistic or unrealistic ambition strategies. Overall, the results suggest that the relation between self-esteem and competence is hierarchical and asymmetrical, such that competence may enhance a good sense of self-esteem but contribute little if basic self-esteem is impoverished. The present view of self-esteem provides a novel framework for further understanding of self-esteem functioning.

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Self-esteem, one's affective or evaluative appraisal of the self, is known to play a major role in human behavior and wellbeing (Crocker & Wolfe, 2001; Diener, 1984; Greenwald, Bellaza, & Banaji, 1988). Typically, studies of self-esteem functioning focus unidimensionally on global self-evaluations or characterize self-esteem as either an affective or competence related trait (Baumeister, Campbell, Krueger, & Vohs, 2003; Kernis, 2005; Koch, 2002; Tafarodi & Swann, 2001; Wood, Heimpel, Newby-Clark, & Ross, 2005). Research on self-esteem related behaviors within this common framework, however, has entailed inconclusive and even controversial results (Mruk, 1999; Zeigler-Hill, 2006). For instance, high self-esteem, generally considered an adaptive and prosocial characteristic (Diener, 1984; Greenwald et al., 1988), has shown associations with violent behavior and unrealistic ambitions (Baumeister et al., 2003; Baumeister, Smart, & Boden, 1996; Locke, 2009). Another dissension related to self-view concerns whether high persistence and motivation after failure signifies an adaptive or maladaptive style (Johnson & Forsman, 1995; McFarlin, 1985).

A part of the backdrop to these kinds of controversies may derive from the premise, common in cognitive approaches to self-esteem, that high self-esteem equals positive self-view (derived from external qualities) while low self-esteem is a consequence of deficiencies and uncertainty of competencies (Baumeister, et al., 2003; Blaine & Crocker, 1993; Koch, 2002; McGuire & McGuire, 1996). Focusing on evaluative schemas within self-concept this view overlooks the part of one's self-regard, which is beyond cognitive control; namely, the early acquired affective-experiential perception of oneself (DeHart, 2002; Epstein, 2006; Forsman & Johnson, 1996; Rogers, 1959). In this respect, to elucidate the relationship between self-esteem and competence and to capture more precisely the role of self-esteem in human behavior, we need to view self-esteem both as something individuals possess and as something they strive for. On these grounds, the present study proposes a dynamic self-esteem model which distinguishes clearly between the early founded experiential self-esteem and self-esteem that is derived from competence, control, or prestige later in development (Forsman & Johnson, 1996; Johnson & Forsman, 1995). We show experimentally that an individual's basic sense of self-worth plays an important role in determining whether external determinants and qualifications, such as competence, can furnish an individual with enduring self-esteem.

### ***Distinguishing Between Self-Esteem and its Competence Related Aspects***

Based on the assumption that different origins of self-esteem give rise to different self-attitudes Forsman and Johnson (1996) developed two independent constructs and measures of self-esteem; namely basic self-esteem and earning self-esteem (by competence and others' approval). This distinction allows for examining experimentally whether the role which competence plays for self-esteem acquisition is dependent on an individual's basic self-acceptance (Demo, 1985; Forsman & Johnson, 1996; Johnson, 1998).

#### ***Basic Self-Esteem***

Basic self-esteem (Forsman & Johnson, 1996) constitutes an indirect and non-evaluative indication of self-esteem. The concept and measure refers to behaviors and attitudes arising from early experiences of secure attachment and warm nurturing coupled with an optimal degree of frustration, widely considered beneficial for developing a realistic self-view and empathy (Bowlby, 1980; Deci & Ryan, 1995; Kohut, 1971; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). The behaviors and attitudes indicating basic self-esteem reflect emotional openness and warmth accompanied by a sense of integrity (see Forsman & Johnson, 1996). As formed via affective experiential rather than rational cognitive processes, basic self-esteem is relatively independent of confirmation derived from competence and social feedback (Epstein, 2006; Forsman & Johnson, 1996; Rogers, 1959). This kind of self-acceptance, including benevolent attitude towards one's limitations and shortcomings, is considered the essence of self-esteem (Deci & Ryan, 1995; Forsman & Johnson, 1996).

#### ***Earning Self-Esteem***

Earning self-esteem (Forsman & Johnson, 1996) refers to a predisposition in an individual to earn self-esteem instrumentally by being hard-working, responsible, and by

exerting influence on the environment (Franks & Marolla, 1976; Harter, 1985). It is widely agreed that these aspects of self are acquired later in development than the experientially based self-esteem (Bosson, Brown, Zeigler-Hill, & Swann, 2003; Epstein 2006). Note that earning self-esteem is not considered a specific type of self-esteem, like state self-esteem (Heatherton & Polivy, 1991) which fluctuates with daily events, but refers to an individual's striving to gain self-esteem from competence issues. Therefore, its role in an individual's general self-esteem, that is, how stable and lasting contra fragile and temporary the resultant 'gain' of this striving might be, is considered to depend upon the level of basic self-esteem. In this respect, earning self-esteem is operationally independent of basic self-esteem but is considered functionally dependent upon the basic trait level (Johnson, 1998; Johnson & Forsman, 1995).

### ***Self-Esteem and Competence – it is in the Eyes of the Beholder***

Successful acts have, particularly in Western societies, long been thought an unquestionable antecedent of self-esteem (Gecas & Schwalbe, 1983; Harter, 1985; Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). Consequently, self-esteem is known to have particular importance for individuals' reactions to evaluative feedback, as drops in self-worth after failure tend to produce a negative affective state (Crocker & Wolfe, 2001; Dutton & Brown, 1997; Ilies, DePater, & Judge, 2007; Moreland & Sweeney, 1984). Yet, effects of evaluative appraisals are known to be particularly strong if one's self-worth is staked on successful acts (Crocker & Wolfe, 2001). However, success is a relative concept; what appears an achievement for one person may be insufficient for another and so goals can be set unrealistically high (Overholser, 1993; Warren, 1976). As noted by James (1890) the degree of self-esteem one can acquire from a particular act is proportional to one's aspiration in regard to that act. However, consider that two people might perceive the objectively similar outcomes of their acts differently (even if the task at hand is equally important for both individuals). Reasonably, the aspirations in which people are engaged can be thought to imply three parts: 1) the goals and standards set beforehand, 2) the effort invested to reach them, and 3) subjective evaluation of the outcome. At least the two latter components require an involvement of one's intrapsychic qualities resulting from an early ego-development (DeHart, 2002; Kohut, 1971). As Horney (1945) pointed out, success and competence are unlikely to improve an individual's self-esteem if the perception of one's own deeds is overcritical due to an impoverished basic self-acceptance. In this regard, inter-individual variation in self-esteem (as a consequence of competence) implies inter-individual variation in goal setting and outcome evaluation that are subsequently dependent upon an individual's basic self-acceptance (Johnson & Forsman, 1995).

On these grounds, the general aim of the present study was to gain support for the assumption that the relation between self-esteem, defined as one's affective-experiential perception of oneself, and competence as a source of self-esteem is hierarchical and asymmetrical. This was examined by investigating the dynamic interplay between basic self-esteem and earning self-esteem (by competence and others' approval) and their joint effects on the way individuals adjust their ambition in response to evaluative feedback.

### ***The Present Study***

Using an experimental approach we examined the ambition strategies of people with different combinations of high and low scores on Basic Self-esteem and Earning Self-esteem (SE) scales (Forsman & Johnson, 1996). In particular, by classification of people in terms of factorial combinations of different levels of basic and earning SE it is possible to identify four groups of people displaying different SE strategies termed, *Enhancing*, *Striving for*, *Maintaining*, and *Renouncing SE* (Johnson, 2010, 2002; Johnson & Forsman, 1995).

People representing these four SE strategies can be described with psychological characteristics derived theoretically (e.g., Deci & Ryan, 1995; Kernis, 2005; Price, 1982; Shrauger, 1975; Silber & Tippet, 1965) and from previous studies of self-esteem functioning (Forsman & Johnson, 1996; Johnson, 2002, 2010; Johnson & Forsman, 1995; Koivula, Hassmén, & Fallby, 2002). On these grounds, Enhancing SE (high basic, high earning) people display type A behavior pattern in terms of high engagement, 'non-toxic' achievement strivings, and self-efficacy accompanied by low levels of neuroticism and test-anxiety. Accordingly, these individuals appear to engage in tasks for enhancing their already high self-esteem and due to this 'inner' buffer challenges are met with little anxiety for failure. In contrast, Striving for SE (low basic, high earning) individuals, typically, display high self-criticism and type A behavior in terms of "toxic" achievement strivings and hostility (Johnson, 2002, 2010). As their self-value is defined by outcomes of their acts the self-esteem they might gain temporarily is fragile. Their strivings are accompanied by feelings of conflict and frustration; challenges are important but also threatening for their self-esteem. Maintaining SE (high basic, low earning) individuals are characterized as stable extraverts; they are affiliation oriented instead of achievement oriented and they lack anxiety for failure. These individuals are fully contented with the high 'inner' self-esteem they hold without needing to enhance it by achievements. Finally, Renouncing SE (low basic, low earning) individuals also lack achievement needs, however, they are characterized as helpless and anxious, exhibiting strong relational needs and dependency.

In the present study, participants, who were extreme representatives of the four SE profiles according their scores on the Basic and Earning SE scales, were free to choose the level of difficulty (indicating ambition) of successive tasks consisting of general knowledge questions. After completing each task and prior to a new choice of task difficulty, each participant was given (false) feedback information by the experimenter as to whether they had performed better or worse than average, regardless of their actual task performance (the actual number of general knowledge questions answered correctly was determined after the experiment had finished).

### ***Hypotheses***

Based on previous research (e.g., Carver & Sheier, 1998; Forsman & Johnson, 1996; Johnson, 1998; 2010; Johnson & Forsman, 1995; Shrauger, 1975; Silber & Tippet, 1965), it was hypothesized that different combinations of basic and earning SE have different behavioral consequences, indicating that the role of competence for gaining self-esteem is dependent on the degree of basic self-acceptance: (i) Enhancing SE (high basic, high earning) individuals were predicted to increase their ambition when receiving success

feedback and lower their ambition somewhat at failure feedback; (ii) Striving for SE (low basic, high earning) individuals were hypothesized to proceed with a high ambition level despite failure feedback, in an attempt to secure their self-esteem defined by acts, but be more careful when success was assured; (iii) Maintaining SE (high basic, low earning) individuals were expected to be unaffected by feedback; and (iv) Renouncing SE (low basic, low earning) individuals were expected to lower their ambition drastically after consistent failure feedback but aspire restrictively after success feedback, as these individuals, consistent with their self-views and in contrast to Enhancing SE persons do not expect success but rather failure (Shrauger, 1975; Wood et al., 2005).

The actual performance was hypothesized to follow these strategies. In particular, and in line with James' (1890) view, Enhancing SE individuals should keep a good level of performance, adaptively higher than their ambition, whereas Striving for SE individuals may risk good results by engaging in generally high ambition (Johnson & Forsman, 1995), that is, their ambition should exceed their ability.

## Method

### *Participants*

Forty undergraduate students (20 men and 20 women) aged from 19 to 41 years ( $M = 24$ ) took part in the experiment. These participants were selected from 390 respondents who had previously completed the Basic and Earning SE Scales. The individuals were selected on the basis that their scores deviated most from the means of each standardized distribution, positively or negatively. On this basis four distinct groups ( $n = 10$ ) of matched individuals (in terms of age, education, and gender) were identified with different combinations of high and low basic and high and low earning self-esteem. Participants received course credit for their contribution.

### *Selection Instruments*

For reasons of expedience, a shortened version of Forsman and Johnson's (1996) Basic SE Scale was used to measure the degree of basic self-esteem containing 20 of the original 38 items. The 20 items used in the present study were selected on the basis of highest multiple  $R$ -squared and highest factor loadings (cf. Forsman & Johnson, 1996). The factor structure refers to emotional warmth/openness, unconditional self-acceptance and self-assertiveness/integrity (e.g., "I can freely express what I feel", "I am satisfied with being the person I am", "I feel inferior to some of my friends", reversed coding, or "I find it easy to say no to other's demands and expectations"). Cronbach's alpha for the 20 items was 0.81. In similar vein, a shortened version of Forsman and Johnson's (1996) Earning SE Scale was used to assess a need to gain or enhance self-esteem by competence and others' approval. Of the original 28 items the shortened version of the Earning SE Scale used in the present study contained 16 items that had highest multiple  $R$ -squared and highest factor loadings (cf. Forsman & Johnson, 1996). The factor structure reflects self-esteem acquisition by being appreciated, having high standards of accomplishment, and exerting influence on others (e.g., "I don't need others' appreciation of what I have done", reversed coding, "I find it troublesome to fail with a task", "I think it's important to succeed if I dedicate myself to something" or "My self-esteem is not affected by the fact that I can decide and exert influence", reversed coding). Cronbach's

alpha for the 16 items was 0.78. Responses to both tests were made on scales ranging from 1 (strongly disagree) to 5 (strongly agree). The two scales were uncorrelated ( $r = 0.04$ ). Both the original scales (e.g., Forsman & Johnson, 1996; Forsman, Johnson, Ugolini, Bruzzi, & Raboni, 2003; Johnson & Forsman, 1995) and the shortened scales (e.g., Johnson, 1998; 2010; Koivula et al., 2002) have shown high reliability indexes and good validity. A measure of social desirability (Strahan & Cerbasi, 1972) was included in the self-esteem questionnaire but was not significantly related to either SE scale.

### **Materials**

Nine sets of 12 general knowledge questions were selected, which provided a gauged series of experimental tasks. The general knowledge questions were compiled and the correct answers found by the first author for present purpose. They covered a diverse range of topics, including music, geography, history, and literature. (e.g., "Who was the first Roman emperor?" or "How many strings are there on a violin?"). Each set of twelve general knowledge questions was collated on the basis of an earlier pilot study in which the difficulty of each question was ranked from relatively easy to very hard.

### **Procedure**

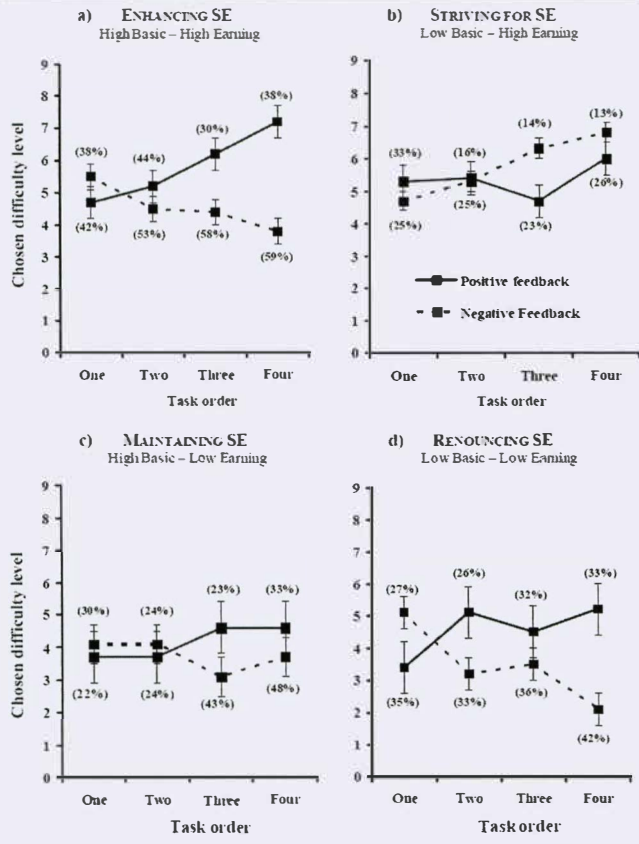
Throughout, the self-esteem classification of the participants was unknown to them and the experimenter. Each participant was tested individually in a quiet room and completed eight sets of twelve general knowledge questions. Questions were presented on paper and answered in writing. Following the completion of each set of general knowledge questions, the experimenter (falsely) informed participants of their performance as compared to the average (obtained in an early study). Of the 40 participants tested, 20 received positive feedback (i.e., were told their performance was above average) after completion of each of the four first tasks, and negative (below average) for the remaining four tasks. The other 20 participants were given negative feedback on each of the first four tasks and then positive feedback. Following the feedback given by the experimenter, participants were free to choose the difficulty level (between 1 very easy to 9 very hard, inclusive) of the next task. The first task given to participants was always of equal (i.e., medium) difficulty and, in this instance, participants were clearly informed that the questions were of medium difficulty before completing the task, irrespective of their actual choice. Thereafter participants were given either harder or easier sets of general knowledge questions in line with their choice of task difficulty. A sufficient number of different general knowledge questions were collated (and in an earlier study ranked from relatively easy to hard), such that participants had the option of repeatedly choosing the same difficulty level. Participants' actual performance was rated after the experiment.

Informed consent was obtained from each participant before the experiment and the procedures used in this experiment were approved by the Ethics committee of The Swedish Research Council prior to the experiment taking place. All participants were debriefed after the final participant had completed their experimental session.

**Results**

The data obtained in the present study are shown graphically in Figure 1. In the first instance it was of interest to determine whether the participants in the defined SE groups differed in their actual performance as indicated by their answers in the first task, which

**Figure 1**  
*Mean Level of Chosen Task Difficulty for Self-Esteem Groups Across the Four Task Occasions*



Note. The mean actual performance (% correct) at each chosen task is shown in brackets. The first task to perform was of the same difficulty (5) for each participant irrespective of their actual choice.

was of medium level for all participants. In this regard, the percentage of general knowledge questions answered correctly, by each participant in the first task, were submitted to an analysis of variance (ANOVA) with two between participants' factors [Basic SE (high, low) and Earning SE (high, low)]. This analysis did not reveal any statistically significant main effects or interaction (all  $p$ s > .05) indicating that participants, irrespective of their scorings on the SE scales, were equally able to answer the general knowledge questions. Due to this result and because the actual performance of participants, in part, depended on their chosen level of task difficulty on the remaining sets of questions, it made no sense to continue further with this particular analysis of participants actual performance. Primary interest is with participants chosen levels of task difficulty. There were no statistically significant order effects regarding the received feedback on the chosen levels of task difficulty ( $p$  > .05).

### ***Self-Esteem and Ambition***

The data representing each participant's chosen level of task difficulty were submitted to an analysis of variance (ANOVA) for mixed design, with two between participants factors [Basic SE (high, low) and Earning SE (high, low)] and two within-participant factors [feedback (positive, negative) and task occasion (one, two, three, four)]. This analysis revealed main effects of Earning SE,  $F(1, 36) = 18.88, p < .001, partial\ Eta^2 = 0.34$ , and feedback,  $F(1, 36) = 8.62, p < .001, partial\ Eta^2 = 0.18$ , together with five significant interaction effects: feedback by task occasion,  $F(3, 108) = 6.39, p < .01, partial\ Eta^2 = 0.15$ , feedback by Basic SE by Earning SE,  $F(1, 36) = 6.86, p < .05, partial\ Eta^2 = 0.16$ , feedback by task occasion by Basic SE,  $F(3, 108) = 4.87, p < .01, partial\ Eta^2 = 0.11$ , and feedback by task occasion by Basic SE by Earning SE,  $F(3, 108) = 8.82, p < .001, partial\ Eta^2 = 0.20$ .

To examine the obtained interaction effects in detail four separate ANOVAs were conducted; one for each SE group each containing two within-participant factors (feedback and task occasion). First, analysis of the Enhancing SE (high basic, high earning; Figure 1a) group revealed a statistically significant main effect of feedback,  $F(1, 9) = 8.16, p < .05, partial\ Eta^2 = 0.48$ , and an interaction between feedback and task occasion,  $F(3, 27) = 13.26, p < .001, partial\ Eta^2 = 0.60$ . Analyses of corresponding simple main effects were conducted to establish the reasons for this interaction. These analyses revealed significant effects of positive feedback,  $F(3, 27) = 4.18, p < .05, partial\ Eta^2 = 0.32$ , and negative feedback,  $F(3, 27) = 5.32, p < .01, partial\ Eta^2 = 0.37$ . Tukey HSD tests showed that, given positive feedback, chosen task difficulty on the fourth task occasion was significantly harder than that chosen initially and harder than that chosen after the first feedback occasion (4.7 and 5.2 vs. 7.2, both  $p$ s < .05). However, given negative feedback, the tasks chosen finally were easier than those chosen initially (3.8 vs. 5.5,  $p < .05$ ). These results were in line with the hypothesis, showing that Enhancing SE individuals increased their ambition substantially when receiving positive feedback but decreased their ambition slightly following negative feedback accompanied by their generally high scores on their actual task performance (see Figure 1a).

Second, analysis of the Striving for SE (low basic, high earning; Figure 1b) group revealed a significant main effect of task occasion,  $F(3, 27) = 6.14, p < .01, partial\ Eta^2 = 0.41$ , along with an interaction between feedback and task occasion,  $F(3, 27) = 4.59, p < .01, partial\ Eta^2 = 0.37$ .

.05,  $partial\ \eta^2 = 0.39$ . Analysis of simple main effects revealed a statistically significant effect of negative feedback,  $F(3, 27) = 8.80, p < .001, partial\ \eta^2 = 0.50$ , but not of positive feedback,  $F(3, 27) = 2.43, p > .05, partial\ \eta^2 = 0.21$ . Further, Tukey HSD tests showed that, given negative feedback, participants' third choice was harder than that chosen initially (6.3 vs. 4.7,  $p < .05$ ), and their final chosen task difficulty was harder than that chosen first and second (4.7 and 5.3 vs. 6.8, both  $ps < .05$ ). These results were in accordance with the hypothesis, indicating that Striving for SE individuals' ambition was not affected by positive feedback whereas they increased their ambition substantially given negative feedback, accompanied with low performance scores (see Figure 1b).

Third, the Maintaining SE (high basic, low earning; Figure 1c) group displayed no significant main or interaction effects (all  $ps > .05$ ), which indicates that these individuals' ambition was unaffected by feedback. This pattern of results was in line with the hypothesis, suggesting that Maintaining SE individuals are indifferent to evaluative feedback.

Fourth, the Renouncing SE (low basic, low earning; Figure 1d) group displayed a statistically significant feedback by task occasion interaction,  $F(3, 27) = 4.65, p < .01, partial\ \eta^2 = 0.34$ . Analysis of simple main effects showed no effect of positive feedback but a significant effect of negative feedback,  $F(3, 27) = 5.79, p < .01, partial\ \eta^2 = 0.39$ . Tukey HSD tests showed that these individuals chosen levels of task difficulty declined severely, reaching the lowest final level of all the SE groups ( $p < .05$ ) when given negative feedback, with their final choice being much easier than that chosen initially (5.1 vs. 2.3,  $p < .01$ ). These results were in accordance with the hypothesis, indicating that the Renouncing SE people's ambition was not influenced by positive feedback whereas negative feedback entailed a dramatic decrease in their ambition, indicating a tendency to give up.

### ***Adjustment of Ambition to Performance***

As the performance and ambition scores were highly interdependent, analyses of self-esteem, feedback, and performance were not considered meaningful to conduct. However, to gain more understanding of the ambition patterns of the SE groups, based on James' (1890) equation (self-esteem = success / pretensions) the individuals' adjustment of their ambition to their actual performance was tested. The performance / ambition ratio scores (standardized scores) were calculated for each participant for each subsequent task choice and performance. For clear interpretation of the results, a within-participant proportional transformation was conducted so that the mean proportional score over all participants was equal to 1.0 (see Greer & Dunlap, 1997). The ratio scores, (i.e. actual performance related to the chosen level of difficulty), were then submitted to an ANOVA with two between participants factors [Basic SE (high, low)] and Earning SE (high, low)] and one within-participant factor [feedback (positive, negative)]. This analysis showed a statistically significant interaction effect  $F(1, 36) = 6.67, p < 0.01, partial\ \eta^2 = 0.15$  between Basic and Earning SE. The ratio scores did not differ significantly as a function of feedback. The only statistically significant difference in the ratio scores appeared between the two high Earning SE groups with different levels of Basic SE, as shown by Tukey HSD test ( $p < 0.001$ ). The total proportional ratio score of Enhancing SE (high

basic, high earning) group showed that their performance was higher than their ambition indicating an adaptive strategy (see Fig. 1a). In contrast, the Striving for SE (low basic, high earning) group had a total proportional score which indicated that their ambition was higher than performance (see Fig. 1c), indicating a maladaptive strategy for the prospect to gain self-esteem from competence (James, 1890). The Striving for SE group was also the only SE group which showed a proportional ratio score under the overall mean of 1.0 (see also Johnson & Forsman, 1995).

### Discussion

The general aim of the present study was to show that the relation between self-esteem (SE) and competence is hierarchical and asymmetrical. This was examined by investigating the dynamic interplay between basic SE and earning SE (by competence and others' approval) and their joint effects on the way individuals adjust their ambition strategies to evaluative feedback. Robust interaction effects found between the basic and earning aspects of self-esteem and feedback overtime show that ambition behaviors were affected by the interplay between these two aspects of self-esteem. Further, testing subsequent simple main effects for ambition strategies in each SE group indicates that the level of basic (non-contingent) self-esteem is important for whether self-esteem strivings by competence turn to be adaptive or maladaptive and, thereby, inform of the prospect to enhance self-esteem by competence.

The results show that negative feedback generally had a greater impact on individuals' ambition behaviors than positive feedback, which conforms to previous research (Blaine & Crocker, 1993; Ilies et al., 2007; Moreland & Sweeney, 1984). However, the present dynamic model of self-esteem provides further indications of the extent and manner by which the ambitions of individuals with different constellations of basic and earning SE are influenced by negative and positive feedback.

By adjusting appropriately their ambition upwards given positive feedback and downwards given negative feedback, Enhancing SE (high basic, high earning) individuals assured a fairly good performance. This was in line with the hypothesis and signifies an adaptive strategy, which informs of a successful self-esteem enhancement by competence. In contrast, Striving for SE (low basic, high earning) people responded to negative, but not to positive, feedback with increased ambition, as hypothesized. This strategy could seemingly signal persons with good self-esteem and autonomy, however, this interpretation is contradicted by their reported low basic self-acceptance and their high ambition accompanied with overall poor results (McFarlin, 1985). Possibly, this strategy was chosen for the sake of self-defense (Carver & Sheier, 1998; John & Robins, 1994) or they insisted to excel. In either case, it made their performance deteriorate and is, therefore, unlikely to furnish these individuals with increased self-esteem.

Maintaining SE (high basic, low earning) individuals were indifferent to evaluative feedback, and so appear secure and contented as they are, which was in accordance with the hypothesis. Individuals with this self-esteem strategy have been found to be relation oriented (Johnson, 2010) and do not need to enhance their self-esteem by competitive and challenging endeavors. Renouncing SE (low basic, low earning) individuals failed to increase their ambition given positive feedback but decreased their aspirations dramatically given negative feedback, as hypothesized. So, contrary to the strategy of

Enhancing SE individuals, more apt to anticipate success, Renouncing SE individuals seem to expect failure, according to their self-attitudes and give up (Moreland & Sweeney, 1984; Wood et al., 2005). A recent study by Johnson (2010) has further shown that individuals with this self-esteem strategy are emotionally dependent and seek self-validation from relational reassurances instead of achievements.

In line with James' (1890) notion, the difference in self-esteem strategies between the two groups who had reported that competence is a source of their self-esteem was further indicated by the way they adjusted their ambition to their performance. Enhancing SE individuals who are engaged by challenges but have an inner buffer against failures proceeded with a fairly good performance by keeping their ambition at a realistic level. This adaptive strategy has a potential to result in a lasting enhancement of general self-esteem by competence. In contrast, Striving for SE individuals, with a high need to excel to gain self-esteem but also a high fear of failure (Forsman & Johnson, 1996) exhibited an ambition which exceeded their ability, making their performance deteriorate. Even if this unrealistic strategy could work momentarily as a defense, it may not lead to their desired self-esteem goals over time (see also McFarlin, 1985). The present results provide support for this hypothesis and offer some clues about one source of generally low self-esteem, characteristic of the Striving for SE individuals.

Overall, the results were interpreted as supporting the general hypothesis suggesting a hierarchical and asymmetric relation between self-esteem and competence aspects: i) Basic self-esteem appears decisive for the behavioral consequences of earning self-esteem (by competence); ii) competence may enhance an already good sense of self-esteem but contribute little if basic self-esteem is impoverished.

In the light of the present model which separates self-esteem and its competence related aspects it appears that a classification of people to 'high self-esteem people' and 'low self-esteem people', based on their global self-evaluations (in terms of ability, popularity, appearance, or uniqueness), fails to identify the qualitative differences mirroring underlying intrapsychic qualities (Epstein, 2006; Zeigler-Hill, 2006). In this respect, it seems that a stable foundation in terms of basic self-esteem provides the individual with a 'buffer' that is beneficial in self-regulation (Carver & Sheier, 1998) and can be termed self-esteem (see also Deci & Ryan, 1995; DeHart, 2002; Epstein, 2006). In support of this view, the present results suggest that people who lack the buffering self-esteem but strive for competence for self-validation are likely to have positive self-views temporarily, when things go well, but due to the low basic self-esteem this 'high' self-esteem is fragile and needs to be defended (Epstein, 2006; Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003). This balancing between a possibility to gain self-esteem by success and threat of failure entails a counter-productive persistence where performance is not related to effort (McFarlin, 1985). Furthermore, the present results shed new light on the notion that personal importance of a domain where success is achieved is decisive for the persons overall self-esteem, advocated by James (1890; see also Crocker, 2002; Tesser, 1988), because it appears that the role of basic self-esteem in regulating the process is important. On this basis, competence as a source of self-esteem is not necessarily costly and detrimental for an individual.

The present results further point out a crucial issue with particular significance for experimental procedures examining behavioral outcomes of self-esteem. Unless self-

esteem is clearly separated from external determinants such as competence, people with a self-esteem structure mirroring Striving for SE in the present model may constitute a part of a group classified as high self-esteem people. However, their seemingly high self-esteem is not in accordance with 'genuine' self-esteem based on accepted knowledge of one's own limits and weaknesses (Forsman, & Johnson, 1996; John & Robins, 1994; Silber & Tippet, 1965).

In this respect, the present model displaying a dynamic, motivationally driven functioning of self-esteem (Johnson, 2010; Pyszczynski et al., 2004) is considered a sound and realistic basis for interpretation of self-related behaviors. Indeed, Norem (1998) argued that defense mechanisms are inevitably an integral part of multiple personality processes where affect and self are involved and have heuristic value when interpreting statistically isolated behavior data.

In the present study, great care was taken to ensure equally matched groups with equally extreme scorers on the scales in each SE group which put limitations for the group sizes. However, the within subject design used and the reasonably robust effect sizes obtained corroborate the findings. Future experimentation, using larger groups, might examine further the behavioral effects of experimental manipulations on self-esteem and the nature of the psychological adjustments the participants are free to make while proceeding with the experiment.

To conclude, the present results provide a novel input to self-esteem research by indicating the actuality of an aspect of self-esteem which is independent of feedback from the environment and the role which this non-contingent self-esteem plays in whether competence and good outcomes may contribute to people's self-esteem. Moreover, the present composite model of self-esteem promises to appear useful for understanding of adaptive and maladaptive manifestations of 'high' self-esteem and their role in various predispositions with importance for wellbeing such as perfectionism, type A behavior, and contingent self-esteem.

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#### Footnote

<sup>1</sup>Greenhouse-Geisser correction (Greenhouse & Geisser, 1959) was used to provide a more conservative analysis, where necessary, to compensate for violations of the sphericity assumption.

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