Are positive self-perceptions and expectancies really beneficial in an academic context?

C Ochse
University of South Africa

ABSTRACT
The main aim of this study was to discover interrelations between university students’ self perceptions, expectancies, and academic achievement. A sample of 645 Unisa students was divided into three groups: Overestimators, Realists, and Underestimators. The data revealed that, compared to Underestimators, Overestimators (a) expected significantly higher marks; (b) were significantly more confident about their expectations, and (c) perceived themselves to have significantly more ability. Although Overestimators had more positive psychological profiles than Underestimators, they gained significantly lower marks than Underestimators (47% and 76% respectively) in the examinations. In strong contrast to major psychological theories the results suggest that, in a university context, (a) poor performance is not associated with negative self perceptions and low expectancies, and (b) overoptimistic self perceptions and high expectancies may in fact be maladaptive. Indeed these results suggest that humble self assessments may be more conducive to success.

An article entitled “Alarming drop out rate” in the Sunday Times (2/7/2000) drew attention to the fact that “One in three students at some South African universities and technikons are dropping out ... costing the government about R1.5 billion a year in subsidies, and draining the institutions of millions ... . Some [institutions] reported drop out rates from 10% to 27% and up to 40% for 1999 first year students. Reasons included wrong degree choices, a poor school system and financial hardship”.

Not only do tertiary institutions have relatively high drop out rates: they also have relatively high failure rates (especially in the case of undergraduates). This not only affects us as taxpayers, it also has negative consequences for the unsuccessful students themselves as it may affect their chances of finding lucrative employment.

Unfortunately, some of the factors that contribute to student drop out and failure (such as poor academic background) are difficult, if not impossible, to rectify at a tertiary level. But various major psychological theories have appeared to offer some hope. These theories (which include expectancy value theory; self concept theory; efficacy theory and self worth theory) suggest that mutable cognitive factors such as self perceptions and expectations of success have a significant impact on motivation and achievement.

In short, these theories suggest that success or failure is not solely determined by actual ability or lack thereof. Our performance is also determined by our perceptions of our ability (whether accurate or inaccurate) and our expectancies, which influence our motivation, and persistence. Indeed, unsuccessful students may be handicapping themselves by believing they have little ability, and not expecting to be successful. They are likely to be doubtful and uncertain, which undermines their concentration. They are likely to reduce their efforts or even give up completely when they encounter problems. As Graham (1989:120) suggested, “Far too many minority children perform poorly in school not because they lack basic intellectual capacities or specific learning skills but because they have low expectancies [and] feel hopeless”.

The implication is that we can improve the performance of poor students by helping them to gain more positive self perceptions, expectations and confi...
dence. In turn, these positive beliefs will augment their motivation, encourage them to work harder and be more successful. And it is probably on the basis of such suggestions, that motivational programs and self help books have recently been aimed at helping people to succeed through bolstering their perceptions of their own capabilities expanding upon the idea that “you can achieve anything as long as you believe in yourself”.

Previous research has indeed supported the idea that perceptions of ability (rather than ability per se) are important. For example, it has been found that self perceptions of high ability are positively related to persistence and motivation. A number of authors (including Bandura 1982, Boekaerts 1991, Chapman, Lambourne & Silva 1990, Martin & Debus 1998, and Sanna & Pusecker 1994) have come to similar conclusions, suggesting that the self perceptions influence achievement through various cognitive and motivational processes. As Bandura (1989:40) put it: “a striking common characteristic of people who eventually achieved eminence in their respective fields was an inextinguishable sense of self efficacy that enabled them to override innumerable rejections of their early work”.

In some contrast to these suggestions, however, a previous study I conducted on the motivation of a sample of 621 students (Moore 1998) pointed to a problem that constantly strikes Unisa (University of South Africa) lecturers, even without conducting formal research: Unsuccessful students seem to have unrealistically high expectations about their future success. Furthermore, because of their optimistic expectations, they tend to be extremely surprised, disappointed, and even angry when they do not succeed academically.

This contrast between personal experience and twentieth century theory gives rise to the question of how students’ perceptions of their own ability and their expectations actually relate to their academic performance. Baumeister (1989) suggests that researchers should examine the quantity of optimism before predicting whether it is functional or dysfunctional. And, as Gollwitzer and Kinney (1989) advise, optimism should be examined within the context in which it occurs to determine whether it is adaptive or maladaptive.

The aim of my study was to examine it in the context of academic performance in a tertiary educational institution.

**METHOD**

**Sample**

Questionnaires and pre paid envelopes for replies were sent (in September 1999) to Unisa students enrolled for the third year course in Psychology (N = 1,980).

In total 726 questionnaires were completed and returned by students. As 11 were discarded because they were too incomplete, the sample then consisted of 715 subjects. (Discrepancies in the numbers of subjects given in the following tables of descriptive statistics can be attributed to single isolated items of missing data. For example, the totals relating to “confidence” are higher than the numbers in the realistic and unrealistic subgroups as certain students failed to reveal what marks they expected.)

**Measures employed**

Before their final examinations, students were asked to complete a questionnaire which contained the following questions (among others which are beyond the scope of this article):

- (Roughly) what do you think your average mark will be for the exams in psychology this year? ..........%
- How sure are you of getting this much?

<table>
<thead>
<tr>
<th>100% sure</th>
<th>75% sure</th>
<th>50% sure</th>
<th>25% sure</th>
<th>0% sure</th>
</tr>
</thead>
</table>

To measure their perception of their own ability to master psychology they were also asked whether they strongly disagreed; disagreed; were uncertain; agreed, or strongly agreed with the following statements

- I am confident that I can perform as well as or better than other students in this course.
- I have no talent for psychology (reverse scored).
- I am above class average.
- I think my ability for doing psychology is above average.
- I think my psychology marks will be above average.

(These items were interspersed with other statements which have little relevance for the present article.)

The reliability (Cronbach a) of this compact 5 item “perception of ability” scale was 0.76.

After the examinations, subjects were assigned to three groups according to the difference between the mark they had expected and the mark they actually gained:

1. The group called “Overestimators” consisted of
students whose expected mark was nine or more marks higher than the mark they subsequently obtained (N = 259).

2. The group called “Realists” consisted of students whose expected mark was between nine marks above and nine marks below the mark they subsequently obtained (N=272).

3. The group called “Underestimators” consisted of students whose expected mark was nine or more marks lower than the mark subsequently obtained (N=114).

Academic achievement was measured by averaging the students’ marks for the subsequent examinations in three third level Psychology courses (Social Psychology, Research Methodology, and Psychopathology). The average mark for the examinations obtained by this sample of students was 58.92 per cent and the standard deviation 14.03.

Please note: Data were analysed using Analyses of variance (anovas) and Least Squares Means for Scheffe post hoc comparisons to determine significant differences between group means (all anovas were calculated at \( p = < 0.01 \) level).

**HYPOTHESIS TESTS AND RESULTS**

**Hypothesis 1:** There is no significant difference between the academic performance of Overestimators, Realists, and Underestimators

The null hypothesis was rejected. An anova and post hoc Scheffé test revealed that Underestimators achieved significantly higher marks than both Realists and Overestimators. As Table 1 shows: Underestimators achieved a distinction average (17.47% above class average); Realists passed on average (4.93% above class average); Overestimators failed on average (11.46% below class average).

The relatively poor marks obtained by Overestimators may be attributed to circularity between the definition of Overestimators and marks obtained. If every student expected the same mark then, by definition, Overestimators would gain lower marks than Underestimators. But further findings support the contention that the relation between over estimated expectations and relatively poor performance should not be merely attributed to such circularity.

**Hypothesis 2:** There is no significant difference between the marks expected by Overestimators, Realists, and Underestimators

The null hypothesis was rejected. An anova and a post hoc Scheffé test revealed that, on average, Overestimators expected significantly higher marks than both Realists and Underestimators did (although they actually gained lower marks) (see Table 2).

**Table 1**

<table>
<thead>
<tr>
<th>N</th>
<th>Mean %</th>
<th>Std Dev</th>
<th>Scheffé grouping*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underestimators</td>
<td>114</td>
<td>76.39</td>
<td>A</td>
</tr>
<tr>
<td>Realists</td>
<td>272</td>
<td>63.85</td>
<td>B</td>
</tr>
<tr>
<td>Overestimators</td>
<td>289</td>
<td>47.46</td>
<td>C</td>
</tr>
</tbody>
</table>

Critical value \( F = 4.64 \) Minimum significant difference = 2.77

*Means with different letters are significantly different at the 1% level

**Table 2**

<table>
<thead>
<tr>
<th>N</th>
<th>Mean %</th>
<th>Std Dev</th>
<th>Scheffé grouping*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overestimators</td>
<td>289</td>
<td>68.06</td>
<td>A</td>
</tr>
<tr>
<td>Realists</td>
<td>272</td>
<td>64.20</td>
<td>B</td>
</tr>
<tr>
<td>Underestimators</td>
<td>114</td>
<td>62.06</td>
<td>B</td>
</tr>
</tbody>
</table>

Critical value \( F = 4.64 \) Minimum significant difference = 2.61

*Means with the same letter are not significantly different at the 1% level
Hypothesis 3: There is no significant difference between the confidence levels of Overestimators, Realists, and Underestimators

The null hypothesis was rejected. An anova and post hoc Scheffé test revealed that Overestimators were significantly more confident than Underestimators about the accuracy of their estimations of their future performance (as shown in Table 3).

An inspection of the data computed from a different angle reveals that as confidence levels decreased so did overestimations (See Table 4).

What is notable is that students who were 100 per cent confident overestimated their future performance on average by over 12 per cent whereas those who were the least confident underestimated their future performance by 7 per cent.

Furthermore it was found that, in contrast with less confident students, those who declared themselves to be highly confident about their expectations not only (a) expected higher marks, and (b) were more inclined to overestimate their success (ie were more unrealistic) but also perceived themselves to have higher ability (see Table 5).

These findings accord with those of Zeleznik, Hojat, Goepp, Amadio, Kowlessar and Borenstein (1988), who found that students who were highly confident regarding the correctness of their answers to a series of multiple choice questions were more unrealistic than those who were only slightly or moderately overconfident. They also found that highly underconfident students achieved higher grades than those who were slightly or moderately underconfident. These findings may be partly elucidated by Lichtenstein and Fischhoff (1977), who found that, up to a point, increasing knowledge decreases confidence and suggest there may be some truth in the adage: “The more you know the more you realise what you don’t know”.

Hypothesis 4: There is no significant difference between Overestimators, Realists, and Underestimators with regard to their perceptions of their own ability

The null hypothesis was rejected. An anova and a post hoc Scheffé test revealed that Overestimators had significantly higher scores regarding their perceptions of their own ability than Underestimations did (see Table 5).
SUMMARY OF FINDINGS RELATING TO OVERESTIMATIONS, REALISTS AND UNDERESTIMATIONS

On average, Overestimators
- expected significantly higher marks than both Realists and Underestimators did;
- were significantly more confident about the accuracy of their expectations than Underestimators. Furthermore, it can be seen from Table 4 that confidence levels increased with overestimations;
- perceived themselves to have higher levels of ability to master psychology than Underestimators did;
- actually gained lowest marks of the three groups (11.46% below class average).

These results are in strong contrast to theory and research findings which suggest that poor performance is likely to be associated with negative perceptions of one’s own ability; lack of confidence, and low expectancies for success.

It may be argued that the findings relating to Overestimators in this study reflect a response bias. Their highly positive self reports may be affected by a desire to give what they believe to be socially desirable responses. They may perhaps have been encouraged by the dictum “if you believe in yourself then others will too”. Furthermore, cultural factors may influence the tendency of various groups to respond in certain ways to a survey such as this one. For example, it has been found that blacks are more inclined than whites to give socially desirable and extreme responses in Likert type questionnaires (Bachman & O’Malley 1984). There are also other explanations for inflated self reports. As Maclver (1987) points out, significant others tend to tell students, especially those who are unsuccessful, that they can do better, thus instilling the belief that their ability is higher than what their performance suggests.

On average, the Realistic group
- expected lower marks than Overestimators did;
- were less confident than Overestimators, but more confident than Underestimators about the accuracy of their expectancies;
- perceived themselves to have a lower level of ability than Overestimators did and a higher level of ability than Underestimators did;
- obtained on average a mark 4.93% above the class average.

Overall, this looks like a balanced group, whose perceptions of themselves and the required academic standards nicely match the reality of their academic performance. Again the moderate nature of their scores may be attributed to a response bias which inclines them to give “central or moderate” responses to subjective questions. But this suggestion does not hold up against the objective fact that they also obtained “central or moderate” marks in the examinations.

On average, Underestimators
- were significantly less confident than Overestimators about the accuracy of their expectations;
- had less favourable perceptions of their own ability than the Overestimators did;
- gained the highest marks (17.47% above class average).

At first glance it may appear that this most successful group has a tendency to be cautious, and give modest responses to questions relating to their self perceptions. Although it consisted mainly of white females, their relatively humble responses may not necessarily reflect feminine modesty (or a tendency to make what females might consider to be socially desirable responses). Their modest opinions of their own capacities may indeed reflect their high standards.

IMPLICATIONS

The above findings relating to Overestimators, Realists and Underestimators present clearly consistent patterns of negative relations between optimistic self perceptions and academic achievement. These patterns lend little support to some of the theories that gained popular acclaim in the twentieth century and spawned a number of programmes for empowering...
people through bolstering their self perceptions and confidence.

There is, of course, much to be said for such programmes for people whose performance depends largely on self confidence, such as entrepreneurs or sportsmen whose lack of confidence makes them too cautious to take risks or for politicians and salesmen who lack the confidence to sell themselves or their products. But there is little evidence in the findings of the present study to suggest that self confidence will be translated into real academic achievement. Indeed, these findings suggest that accurate or even under optimistic self assessments may be more conducive to academic success. Interventions aimed at promoting students’ perceptions of their own actual ability should be therefore be approached with caution. It may be wiser to encourage unsuccessful students by showing them how to develop their potential.

Overoptimism may reflect ignorance of standards required and result in complacency, inappropriate preparation, or carelessness in students who have insufficient knowledge to know what they should know but don’t know. It takes a learned under estimator like François Voltaire (1764/1976:521) to recognise that “The more I read, the more I meditate; and the more I acquire, the more I am enabled to affirm that I know nothing”.

When academic outcomes fall short of overoptimistic expectations students may feel frustrated and angry and develop a negative attitude towards learning and the academic institution. Indeed, as Griffin and Tversky (1992) remark, the benefits of overconfidence may be purchased at a high price. It therefore appears that, despite the fact that so much research has attested to the value of illusory optimism, in an academic context educators should reconsider the importance of accurate self perceptions.

The main challenge is to achieve this without destroying students’ self esteem. It would hardly be feasible or acceptable to quell overoptimism by deliberately demolishing a person’s positive self concept. This is surely not the way to go about improving performance. As George Bernard Shaw (1903/1974:489) pointed out, “It is easy terribly easy to shake a man’s faith in himself. To take advantage of that to break a man’s spirit is devil’s work”. To avoid the negative consequences of overconfidence, students should therefore be encouraged to have enough optimism to sustain their hope for future success, motivation, persistence and activity level (even perhaps in another field).

This may be facilitated by helping students diagnose their particular difficulties and weaknesses in terms of the requirements of their courses and helping them to realise what they do not know. “Education is learning what you didn’t know you didn’t know” (Ralph Waldo Emerson 1831/1987:229).

REFERENCES


Lichtenstein, S & Fischhoff, B 1977. Do those who know more also know more about how much they know. Organizational Behaviour and Human Performance 20:159 183.


