

Choice: its role in the emergence of the self-serving
attribution bias in a dyadic context.

Roy O'Neill

1625045

Submitted in partial fulfilment of the requirements of the BA Hons in Psychology at Dublin
Business School, School of Arts, Dublin

Supervisor: Dr Jonathan Murphy

Head of Department: Dr Sinead Eccles

Course code: A8RS010

March 2014

Department of Psychology

Dublin Business School

Acknowledgements

I would like to thank Dr Jonathan Murphy for his guidance and support in completing this study, Dr Patricia Frazer for her final year project lectures and all the participants who took part in the experiment.

Abstract

The purpose of this study was to examine to what extent choosing one's partner for a dyadic task would affect the emergence of the self-serving attribution bias. Twenty participants from a sample of convenience took part in an interdependent-outcomes creativity test, received bogus success or failure feedbacks based on pooled results and were asked to make a causal attribution of who they thought was responsible for the outcome of the task. No significant results were found however suggesting that the act of choosing one's partner may attenuate the need for a self-serving bias.

Contents

Acknowledgements	1
Abstract	2
Introduction	4
Bias	4
Enhancement	5
The Self-serving Bias	7
Self-esteem	8
Autonomy and Choice	9
Mere-ownership Effect	10
Past research of the Self-Serving Bias	11
Rationale and Hypotheses	12
Methods	16
Participants	16
Design	16
Materials	16
Procedure	17
Results	20
Descriptive Statistics	20
Inferential Statistics	21
Discussion	25
Summary	25
Further research	27
Limitations	28
Conclusion	30
References	31
Appendix	36

Introduction

1.1 Biases

A bias is a tendency that inhibits fair or impartial judgment usually based on some form of prejudice. In terms of cognition, biases can lead to impulsive or thoughtless attitudes, decisions or behaviours. It is usually socially beneficial to conduct oneself without the influence of any pre-formed biases, but it is not uncommon for a social group to be galvanized by a common bias. A tame example of this would be a group of individuals being able to reinforce the strength of their group by having a common biased opinion of a particular sporting team.

However, people also have personal biases based on their opinion of themselves or their self-concept. These biases can lead to the indulgence of a variety of techniques where the function is to uphold one's self-concept. For example the backfire effect is a type of confirmation bias that occurs when one's reaction to their beliefs being challenged with strong oppositional evidence is to reinforce and strengthen their original belief (Sanna, Schwarz, & Stocker, 2002). Or to give a more ecologically valid example that most people have surely been the victim of at some point, may be when a friend tends to overestimate just how much you agree with them when they are arguing with another friend. This occurrence is known as the false consensus bias (Marks, & Miller, 1987) and is notorious for landing many an impartial observer between a rock and a hard place.

There are extensive amounts of biases all with similar functionalities; however the current study aims to add another perspective into the manipulation of the well-researched self-serving bias or SSB. The SSB refers to one taking credit for personal success and making external attributions for personal failure. This study will examine, to what level, choice

affects the SSB. Previous research has found, with conflicting results, the effect that choice has on the SSB, therefore the aim of the current study is to attempt to make clearer the relationship between the SSB and conditions where choice is a factor.

The experiment is attempting to recreate real world settings where it is often the case that an individual has to choose another individual to help in a common goal. Are self-serving tendencies extended onto this chosen individual as a result of this? Are we more likely to defend a poor performing politician, for example, if we voted them in rather than accept that it is partly our fault for choosing them to be in that position in the first place? Is it the case that in choosing our romantic partners that we see them in a gentler light than other people because we chose to be our partner, and therefore our self-serving tendencies extend onto them?

The current study aims to give a general answer to questions such as these.

1.2 Enhancement

When people self-enhance they are engaging in a self-deception with the purpose of enhancing their self-esteem and projecting a better version of the self to others. Sedikides and Strube (1995) describe self-enhancement as when “people process, remember, and judge self-referent information in ways that maximize the positivity of the self-concept”. This is part of typical human discourse that occurs, when an individual’s self-esteem comes under threat through means of failure or criticism, for example (Beauregard, & Dunning, 1998). There are many behavioural and cognitive strategies that occur for the purpose of self-enhancement. Mnemic neglect, or selective memory as is more commonly known, refers to

the selective forgetting of specific autobiographical memories that do not compliment one's self-concept but recall more easily, memories that regard and reinforce a more positive self-concept. As such we can postulate that memory is self-protective when important self-referent traits are under threat. (Pinter, Green, Sedikides, & Gregg, 2011).

Another self-enhancing technique is selective acceptance and refutation. This technique involves regarding flattering or self-enhancing information as factual and accurate while not considering information that is critical, pejorative or in any other way harmful to the self-concept as valid.(Ditto & Boardman, 1995). It is noteworthy that the denial rooted construct of selective acceptance and refutation can also extend into matters of health, where an individual might refute any information regarding their health being under threat (Renner, 2003).

These same strategies of enhancement are also used to fulfil the similar agenda of self-protection. The difference in enhancement and protection is largely just a matter of semantics. The goal of self-protection is solely to keep the self-concept intact, whilst the goal of self-enhancement is to augment the self-concept as well as protect it even in instances where there is no threat to it.

The most prolific, obvious and widely researched method of self enhancement and protection is the Self-serving attribution bias (SSB).

1.3 The Self-Serving Bias

The self-serving bias was first articulated by Heider (1958) as a means to describe the process of self enhancement and protection of one's own ego and self-concept. There are several examples of a naturally occurring SSB through a range of different settings, for example: a student may blame a lecturer or the exam format for their lack of academic success but would be quick to praise their dedicated study habits or intelligence when they do well. We see examples of the SSB in excess when considering sports. It is quite common for example, to hear a player or a manager of a soccer team, blame a loss on the conditions of the pitch or mistakes made by the referee. Self-serving biases are even more abundant in individual sports, especially if we consider the sport of boxing. The losing boxer (provided he is not unconscious) will be quick to find external attributions, such as the judges, to blame for a loss, but in victory he will attribute the win to his superior performance. SSB can extend onto friends and groups as Cialdini et al (1976) showed when they looked at how college students tried to enhance their self-esteem by associating themselves with successful peers: "People make their non-instrumental connections with positive sources because they understand that observers to these connections tend to evaluate connected objects similarly". Furthermore they were able to show that when a subject's self-esteem was threatened in the eyes of an observer that they would publicly associate themselves with positive successful sources as a means of self-enhancement.

Schlenker and Miller (1977) gave an early example of SSB being tested in a group atmosphere with the results expectedly showing that people in groups will most likely attribute efforts in successful scenarios to themselves and attribute failures to other members of the group. The current study aims to find similar results.

There are a wide variety of motivators that determine the presence of a SSB that have been explored. Campbell and Sedikides (1999) were able to highlight fourteen distinct motivators for the self-serving bias when integrated with self-threat. The idea of one's self-concept being threatened is the very purpose for a SSB to manifest, as it manifests to protect the self from a threat such as negative feedback. As such a variety of factors arise that can enhance the potential threat level.

The existence of the SSB has been subject of debate with some earlier work focusing on whether it is "fact or fiction" (Miller & Ross, 1975; Weary-Bradley 1978; Zuckerman 1979). However with the body of evidence collected from these studies and others like it, it is widely regarded as being a genuine occurring process of self-enhancement techniques. Much of the experimental work in testing individual self-serving tendencies involves a similar method. This usually involves the participant taking part in a task which they are led to believe is testing some form of mental processing; be it intelligence, creativity, problem-solving ability etc. Many factors need to be considered and controlled for in this approach. Task importance, for example, (where the result of the task is deemed valuable by the participant) needs to be controlled, as Miller (1976), showed how the SSB would manifest at a greater level when participants regard the task as important. On completion of the task the participants would be given bogus feedback and asked what the causal attributions for their results were. They may display a SSB by attributing internal attributions to success and external attributes to failure. However in some cases, where dyadic or group tasks are used, the other-serving bias (OSB) can manifest (Johnston, 1967; Berger, Forsyth, & Mitchell, 1981).

1.4 Self esteem

"The self-concept is what we think about the self; self-esteem is the positive or negative evaluations of the self, as in how we feel about it." (Smith & Mackie, 2007)

In terms of self enhancement there is almost a contradiction of purpose when it comes to self-esteem. The motivation for self-enhancement is usually only present among those with already high self-esteem and is lacking or completely absent among those with low self-esteem (Baumeister, Tice, & Hutton, 1989). People with low self-esteem seem ambivalent when it comes to enhancing their esteem to the degree where they often avoid the opportunity to do so (De La Ronde & Swann, 1993). Instead individuals look for confirmation of their self-esteem status be it high or low.

With this in mind research has shown that participants with high self-esteem will score differently than participants with a low self-esteem. This is due to the higher self-esteem individuals having a higher regard for their own abilities and traits and therefore having more to protect when their self-concept comes under threat through negative feedback. This self-protection comes in the form of a SSB (Baumeister et al., 1996). These high esteemed individuals will also self-enhance in successes by attributing these successes to their own hard work or ability etc.

1.5 Autonomy and Choice

Autonomy is the ability to make choices for oneself of their own free will (or the illusion of free will) and is a key construct in how we maintain a healthy mental framework. We require the ability and freedom to make decisions for ourselves, any restriction on this can impinge on our mental health to a point where correlations have been made between restrictions on autonomy and mental disorders such as anxiety and depression (Robins, Bagby, Rector, Lynch & Kennedy, 1997). A high level of autonomy therefore is needed along with a low level of control to maintain a healthy mental structure. Control, in this sense, refers to pressures to perform be they; external or internal, real or imagined. (Deci, & Ryan, 1987).

With consideration to the freedom of autonomy and the restrictions of control, Knee and Zuckerman (1996) looked specifically at how these conditions affected behaviour. An increase in self-enhancing/protecting behaviours was found when levels of autonomy were restricted, and that self-enhancing techniques lapsed when autonomy was high. They linked these findings to individual's self-esteem in that higher autonomous situations leads to a lower threat to one's self-esteem and as such do not demand a need to self-enhance and manifest a self-serving bias. They concluded that self-determination results in a less defensive approach to stressful situations, therefore according to this evidence; when choice becomes a condition a lower self-serving bias should manifest.

1.6 The mere-ownership effect.

“The mere-ownership effect refers to an individual's tendency to evaluate an object more favourably merely because he or she owns it.”(Beggan, 1997). There have been various studies into the mere-ownership effect; Hoorens and Nuttin (1993) were able to show mere-ownership at work through the “name-letter effect”, which involves people favouring objects whose names contain the same letters as their own name, which they saw as an ownership of those letters. Beggan (1992), in his research, evidenced how people view objects they own as being associated with the self and as such use self-enhancing techniques in regards to these objects. Consequently, this mere-ownership effect should be taken into account when considering the SSB in the current study. It is possible that in selecting their partner for the dyadic task that a mere-ownership association will take place in that the participant may feel an ownership over their selected partner and responsibility in how they perform. The task performance of the partner may become more central to the self as the studies on mere ownership and close relational tasks (Campbell & Sedikides, 1999; Sedikides, Campbell,

Elliot, Reeder, 1998) would suggest. “Thus, the mere ownership effect illustrates the importance of the self in mediating how people interpret the world” (Beggan, 2007).

1.8 Research on the Self-Serving Bias

Previous research has successfully displayed different instances of the SSB in an individual context (Campbell et. al 1999; Johnston 1967). Duvall and Silvia (2002) for example studied how self-awareness had an adverse effect on peoples self enhancement strategies. Campbell and Sedikides (1998) used independent outcomes tasks to test how self-threat is a factor in the manifestation of the SSB. These strategies work well, however in the current study the dyadic method will be used. The SSB has been shown to occur in a relational context using dyads (1998, 1999; Johnston 1967; Wolosin, Sherman & Till 1973). Having a partner gives the participant another external attributor to blame in failure (Tennen & Affleck, 1990; Snyder, Higgins, & Stucky, 1983) or ignore in success by taking credit for themselves, and so allows for the SSB to be efficiently examined. As is often the situation in a natural setting, people tend to blame others for mistakes or failures rather than themselves (Alicke 2008), as we have established this is a self-protective behaviour that occurs as part of the SSB manifesting.

One such factor was that of *task-choice*. While considering the work of Feys(1991) and Hoorens and Nuttin (1993) they established that: “according to this mere ownership (or mere belongingness to self) hypothesis, due to a hypothesized pervasive attachment to themselves, people are expected to rate the attractiveness of their own belongings and attributes higher than they would if the same items did not belong to them.” the idea that a participant who has the ability to choose the experimental task rather than having the experimenter choose it for them will regard the task more *central to the self* and therefore increase the potential threat to the self, resulting in an accentuated SSB. However task choice was found to be inconsistent

with Campbell and Sedikides' self-threat model. Many cases where task choice was implemented actually showed a reduced SSB, perhaps due to the increased autonomy that a participant might feel due to choosing their task as autonomy had been linked with a lowered SSB (Knee & Zuckerman, 1996). These findings lead to a requirement of further research into the area of how choice can affect the SSB. The action of choosing itself, not just that of choosing a task, creates this experience of autonomy and makes the task more central to the self. How that choice affects participants and their self-enhancing tendencies is what this study aims to investigate.

Self-serving biases as mentioned previously have a dual function. They operate to either protect the self against negative outcomes that may threaten self-esteem or to enhance positive outcomes to reinforce high self-esteem, however there is an abundance of evidence that points to greater influence and prevalence of self-protection, which implies that individuals are more motivated to avoid the bad than to embrace the good (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). This complies with earlier research by Klein (1992) that showed when distortion of information takes place, as it does when considering the SSB; the distortions were significantly stronger in connection with bad things than they were with good things.

1.8 Rationale

In light of the previous studies that used a dyadic format to expose the SSB, the current study will implement a similar method by means of a dyadic task, random bogus feedback and the use of deception.

Inter-dependent dyadic task. It has been established that when a participant is part of an unclosed dyad and receives negative feedback for their dyad's task performance, they will attribute most, if not all, failures in task performance to their partner in order to maintain their

self-esteem (self-protection). Furthermore, in cases of success and positive feedback for their dyads task performance, they ignore their partner's contributions and instead attribute the dyads success to themselves (Self-enhancement) (Campbell & Sedikides, 1998, 1999; Sedikides, Campbell, Elliot, Reeder, 2000)

This setting gives participants greater attributional options to make or ignore and thus, allows for instances where a SSB is present to be more evident to the experimenter allowing for a more efficient method recording data. In terms of the social psychology aspect of this study the context of the task allows for ecological conditions to be examined insofar as how frequently people tend to shift the blame on others (Forgas, Bower, & Moylan, 1990) and withhold the credit for themselves.

Deception is commonly used in social psychology to great effect and justifiable findings. The best, and most famous example of this being Stanley Milgram's (1963) obedience to authority where he allowed participants to believe they were working with another participant in order to see to what extent they would obey an authority figure in causing physical harm to this second participant via electric shock. The current study reflects this method of deception only so far as it leads participants to believe the experiment they are taking part in is testing for creativity in groups where as it is in fact examining the SSB. The subjects will not come under any physical or mental trauma and will be debriefed after all data has been collected.

For the experiment to be conducted without any faults or mishaps that may influence results, participants were kept naïve of what the experiment was in fact testing. They were lead to believe that, that their creativity was being examined via their participation in the face-valid task called the Lange-Elliot creativity task (Campbell, Sedikides, Reeder, & Elliot, 1998) where participants must generate as many uses for a given object within the allotted

timeframe. Their scores would be then pooled with their task partners to give an overall creativity rating representative of both participants. They were also told that results from the Lange-Elliot test also determined innovative thinking and ability to generate useful ideas. Essentially, the importance of scoring high in the test was emphasized thoroughly by the experimenter to try and convey that they should regard their result as important to them.

Hypotheses

1st hypothesis:

The aim of this research is to explore, to what extent, the self-serving bias will manifest when subjects choose their partner for a dyadic task. If we apply choice as a condition then how will it affect the SSB? There are two possibilities: i) the increase in autonomy that this condition creates, based on previous research, should subdue any self-enhancement tendencies and show little or no sign of a self-serving bias. ii) However, there is a possibility that in choosing their partner the participant may feel a responsibility for them through the mere-ownership effect, the partner becoming a temporary extension of their self-concept, which may accentuate the SSB. This leads the studies first hypothesis being a two a two-tailed hypothesis that states: *there will be a significant difference between how the SSB is manifested in individuals that have a choice in task partner to those who do not have a choice in task partner.*

2nd Hypothesis

Offerman (2002) showed how the SSB is more likely to manifest in response to a situation where there is a negative implication made and less likely when given positive regard. This

research is concurrent with the previously mentioned studies by Baumeister, Bratslavsky, Finkenauer and Vohs (2001), and Klein (1992). In regards to this sum of evidence we can predict that in the current study, where randomly assigned, bogus negative feedback is given to a number of participants, that these participants will be more likely to self-protect in the form of the SSB. Therefore, the second hypothesis predicts that: *individuals who receive negative feedback (fail) will show a greater level of SSB than those who receive positive feedback (pass).*

3rd hypothesis

A high self-esteem accentuates the SSB and a low self-esteem attenuates the SSB. Therefore all participants will complete a questionnaire to measure their self-esteem (Rosenberg self-esteem scale, 1965) before completing their task. This is so we can gauge to what level the factor of self-esteem plays in the manifestation of SSB and interpret how it influences the results of the current study. Studies carried out by Baumeister, Tice and Hutton (1989) and De La Ronde and Swann (1993) among others show that the higher an individual's self-esteem is the greater their need to self-enhance or self-protect is. We know that higher self-esteem individuals will show SSB more than low self-esteem individuals. In consideration of this *the third hypothesis predicts that partner choice, when controlling for self-esteem will affect the manifestation of the SSB.*

The significance of self-esteem and its role in the SSB has been stated. However it is possible that when given a choice of partner, participants may get a temporary boost in self-esteem (Koivula, Hassmen, & Fallby, 2002) and score themselves higher in the Rosenberg Self-Esteem scale. The possibility of this occurring will be controlled for.

Methods

2.1 Participants

This experiment utilized convenience sampling by taking multi-disciplinary college students from Dublin business school as well as numerous participants from outside the college setting. There were 20 participants in total, which allowed for 10 participants to be tested in each condition. The mean age was 23.35 with the eldest participant being 26 and the youngest being 18. Because of the narrow age gap between participants it would not have been prudent to control for age and so was not used as a variable.

2.2 Design

A 2(task condition: choice, no choice) x2 (feedback type: pass, fail) between-groups design was used while also controlling for self-esteem. The primary dependent variable was the self-serving bias itself, which was determined by calculating the mean score of two scales: The first scale measured how a participant attributed the responsibility for the task outcome and the second scale measured the participant's attribution of who made the most positive contribution to the task.

2.3 Materials

For the Lange-Elliot Creativity task, participants were asked to list the uses for various items that were selected for the dyad at random by the experimenter. The items included were: an empty plastic bottle, a candlestick, a brick and a tennis ball.

An answer sheet was provided to participants when completing the task and a separate four page booklet was also provided that contained the measures for self-esteem and SSB

In measuring the self-esteem of the participants the Rosenberg Self-Esteem scale was used which generally has high reliability: test-retest correlations are typically in the range of .82 to .88, and Cronbach's alpha for various samples are in the range of .77 to .88.

The SSB was measured using two scaled items; a responsibility item and a positive contribution item. Both items were scaled with endpoints ranging from 1 (other participant) to 10 (myself). This allowed participants to attribute the result of the dyadic task according to who they believed was most responsible.

2.4 Procedure

Participants were gathered in groups of four and told that they would be participating in the Lange-Elliott creativity task, a dyadic task that helps to examine creative ability in groups and also reflects one's ability to think innovatively and generate good ideas. Each participant was asked to introduce themselves to the group giving their name and age, what they were studying or working as, where they thought their greatest strengths or abilities lay and finally if they work well in groups. The intended function of this was to give each participant enough information about their three fellow participants so they could make an informed decision on who to choose to take part in the task with.

Dyads were made to allow for both conditions (Choice and No choice) to be tested twice each per gathering. Two of the four participants would be tested in the choice category and the other two in the no choice category. The experimenter decided at random which participants were given a choice in partner and which were not given a choice in partner.

Once a dyad was assembled both participants would be taken into a separate room to complete the task. The task follows a similar methodology to that of the Lange-Elliot creativity task used by Campbell et al. However it is adapted slightly to fit the requirements of the current study. Participants are instructed to produce as many uses as possible for an object. The dyads final combined score is determined by adding together the total amount of unique scores which would then be compared to a large normative sample. Dyads are given 1 minute and 30 seconds to list as many uses as they can. Once time is up both answer sheets are collected by experimenter for scoring. As the answers are being tallied participants are asked to fill out the Rosenberg self-esteem questionnaire provided in their booklet. Once scores are tallied participants are given feedback by being told whether they passed or failed. The feedback given was determined at random and reflected the dyads performance. Once the dyad had received their feedback they were asked to rate their and their partner's performance on the 10-point scale. This was done by asking the two key questions: 1) who was the most responsible for the outcome of the task? 2) Who made the greatest positive contribution to this test?

The extraneous variable of self-esteem was controlled for while also examining to see if participants rated their self-esteem higher after being given a choice

The experiment employs the use of deception in two distinct ways:

1. **Bogus feedback** is given to each participant. They will be told by the experimenter that they have scored either very low in the task and have hence failed the task, or they are told they have scored very high and have passed. This maximizes the impulse for protection or enhancement of the self-esteem. Bogus feedback eliminates the presence of

any mediocre results that may not evoke the necessity for a SSB and subsequently may only produce neutral responses.

2. **The true purpose of the experiment will not be disclosed to the participants.** If a participant is aware of what the experiment is testing they may alter their performance, and disregard their natural biased tendencies, ironically when considering the current study, as a means of self-protection. The Lange-Elliott creativity task was devised as a means to provoke self-serving bias response and not creativity as participants are led to believe.

Careful steps needed to be taken to ensure that all participants remained naïve to the true purpose of the experiment. These steps bordered on the tedious but were necessary and successful in gathering data that had not been influenced by any outside factors, only by the conditions created in the experiment.

It was necessary that none of the participants knew each other prior to the experiment as it may affect how they chose their partner and how they rated them at the end of the experiment (Campbell, Sedikides, Reeder, & Elliot, 1998, 2000). To minimise the chances of this students from different years and classes were selected. The Glenroyal Leisure Club in Maynooth Co. Kildare was also used a source of gathering participants. The club has approximately 3,500 members so ensuring that a group of four people had no previous significant interactions with each other was not overly difficult.

If a participant chose a task partner who had already previously completed the task this participant would complete the task for a second, or if chosen by both participants, a third time. However, these participants' scores would not be recorded and only their original data would be used for analysis. Whomever a participant chose to assist them in the creativity task

was never explicitly communicated to any other member of the group. A participant's partner choice was only known by the participant and the experimenter. When the experimenter gave a participant a choice in partner it was communicated as being a privileged position as others do not get to choose their partner. No communication between participants was permitted before during or after the task. The only communication that was to take place prior to debriefing was their initial description of themselves that they addressed to the group. Once all testing was complete and all necessary data collected participants were fully debriefed and informed of the true nature of the experiment.

In order to combine the two attribution items, first the positive contribution score reported by participants in the failure condition was reversed. This transformed positive outcome item and the responsibility item were then averaged to form a combined measure of outcome responsibility. This method is identical to the method used by Sedikides and Campbell (1999, 2000) and is an efficient and accurate measure of the SSB.

Results

3.1 Descriptive statistics

20 participants took part in an interdependent outcomes task measuring Self-serving bias. 10 were male and 10 female.

Table 1.1

	Variable	Frequency	Percent	Valid %	Cum. %
Partner choice	Choice	10	50	50	50
	No choice	10	50	50	100
Feedback	Pass	9	45	45	45

Fail 11 55 55 100

Table 1.1 above displays the descriptive statistics for the nominal variables used in the experiment. The other variable being tested is Self-Esteem which has a mean of 13.80 ($M=13.80$), and a standard deviation of 2.26 ($SD=2.26$).

3.2 Inferential statistics

1st Hypothesis.

An independent samples T-test was conducted for the first hypothesis which predicted that when given a choice in task partner; ones manifestation of the self-serving bias would differ greatly from those who are not given a choice in task partner.

Table 1.2

Variables	Groups	Mean	SD	t	df	p
SSB	Choice	5.70	1.4	.20	18	.84
	No Choice	5.60	.74			

The Choice condition ($M= 5.70$, $SD= 1.4$) was found to have higher levels of SSB than the No choice condition ($M= 5.60$, $SD=.74$). The 95% confidence limits show that the population mean difference of the variables lies somewhere between -.95 and 1.15. An independent samples t-test found that there was a statistically no significant difference between SSB levels

of Choice and No Choice conditions ($t(18) = .20, p = .84$). Therefore the null can be accepted.

2nd hypothesis.

The second hypothesis predicted that there would be a difference in levels of SSB between groups that were given positive results of the creativity task and those who received negative results with negative scores producing a greater SSB.

Table 1.3

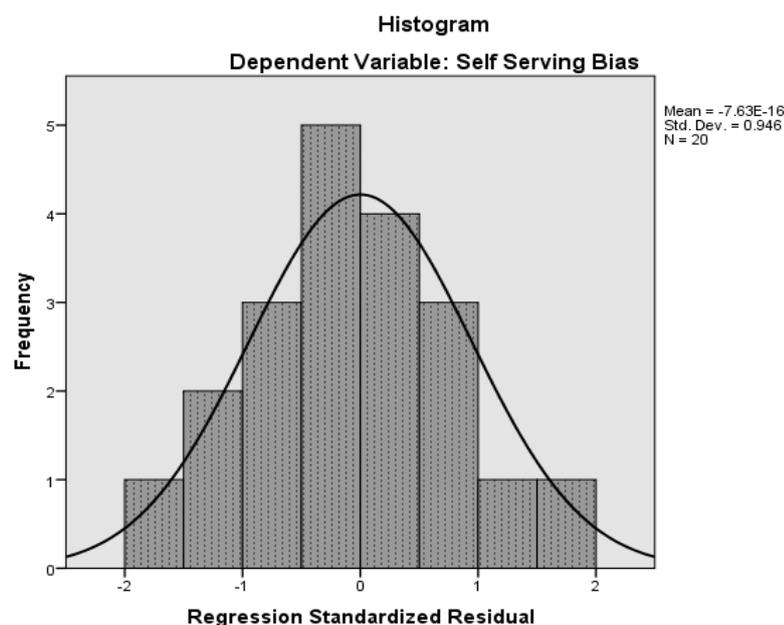
Variables	Groups	Mean	SD	t	df	p
SSB	Pass	5.61	1.19	-.14	18	.89
	Fail	5.68	1.05			

The fail group ($M= 5.68, SD= 1.05$) was found to have higher levels of SSB than the pass group ($M= 5.61, SD=1.19$). The 95% confidence limits show that the population mean difference of the variables lies somewhere between -1.13 and $.986$. An independent samples t-test found that there was a statistically no significant difference between SSB levels of Pass and Fail groups ($t(18) = -.14, p = .89$) Therefore the null can be accepted.

3rd hypothesis

The third hypothesis predicts that partner choice, when controlling for self-esteem will affect the manifestation of the SSB. Multiple regression was used to test whether partner choice and self-esteem were predictors of self-serving bias. The results of the regression indicated that two predictors explained 11% of the variance ($R^2 = .11$, $F(2, 17) = .06$, $p > .001$). It was found that partner choice did not significantly predict self-serving bias ($\beta = .072$, $p > .001$, 95% CI = $-.999 - 1.304$). Self-esteem cannot in this case be considered as being a predictor of the self-serving bias as it was approaching significance ($\beta = .073$, $p > .001$, 95% CI = $-2.13-.278$).

Graph 1.1: Histogram

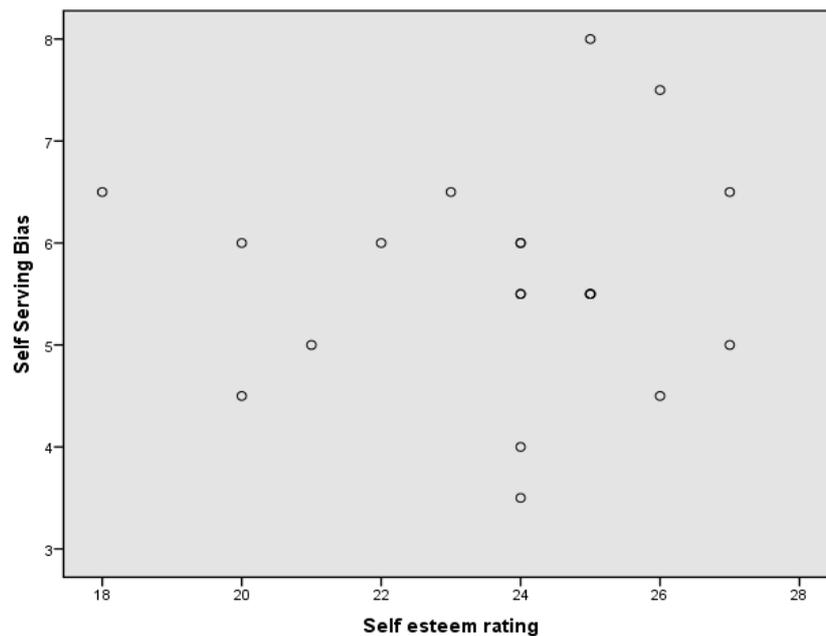


The above histogram (graph 1.1) displays how the results of the third hypothesis were normally distributed.

Most likely self-esteem would have shown to be more significant in a larger population. The relationship between self-esteem and self-serving bias was further investigated using Pearson

product-moment correlation coefficient. There was a slight, positive correlation between the two variables, $r=.03$, $n=20$ $p < .05$ with high levels of self-esteem associated with higher levels of SSB. This is illustrated in the scatter plot Graph 1.2 below

Graph 1.1, Scatter Plot. Correlation of SSB and Self-esteem



Furthermore the possibility of being given a choice of task partner leading to a temporary boost in self-esteem was investigated by using Pearson's correlation coefficient. There was only a small negative correlation present between the two variables, $r = -.21$, $n=20$, $p < .05$. This tells us that when a participant is given the choice of task partner that their self-esteem is not increased and allows the experiment to be executed with confidence that self-esteem measures will not be skewed

Discussion

4.1 Summary

The goal for the current study was to examine the nature of the SSB. Primarily, how does the tendency to use the self enhancement/protective technique of self-serving bias differ when given a choice of partner in a dyadic task? Would the blame be shifted to the partner in failure and would the credit be monopolised in success? The conflicting research on how the manifestation of the SSB is influenced by choice was the main reason behind carrying out the study. Some studies noting how a choice gives an individual more influence over the environment and so it becomes more central to the self, causing an increased SSB. While other studies claimed that the element of choice in an environment increases the feeling of autonomy for an individual, lowering the chance for self-threat which has been linked with an attenuated self-serving bias.

The first hypothesis stated that there would be a significant difference between how the SSB is manifested in individuals that have a choice in task partner to those who do not have a choice in task partner. An independent samples T-test was used but it did not generate significant results. Therefore the study failed to define how partner choice can affect the manifestation of a SSB. The manifestation of the SSB when it did occur in the current study could have been influenced by other factors. Based on the results we can assume that choice, in this instance does not have an effect on SSB. Choosing ones partner should lead to a mere-ownership effect taking place in regards to the task partner. The outcome of the task and performance of the partner should have been more central to the self-based on the research by Feys (1991) and Hoorens and Nuttin (1993). If this had occurred the potential for self-threat could have led to an accentuated SSB as suggested by Campbell and Sedikides (1999). We can postulate that due to the results of the experiment that a mere-ownership effect did not occur and so neither did an accentuated SSB.

Alternatively, the opposing research by Knee and Zuckerman (1996) would suggest that had an increase of autonomy occurred with the ability to choose ones task partner, a decreased SSB would have been evident. However there was no evidence to suggest this occurred either as scores for SSB were evenly distributed showing mostly neutral scores among participants. It is possible that the lack of extreme scores that would suggest either greatly accentuated or greatly attenuated levels of SSB is due to partner choice constraining the participant's ability to deny responsibility for failure (Arkin, Gleason, & Johnston, 1976).

The second hypothesis predicted that there would be a difference in levels of SSB across different feedback types. Again, there were no significant results, suggesting that whether a participant passed or failed the creativity task had no bearing on their SSB. This fails to support the numerous different studies that give evidence to that negative outcomes enhance the SSB. Offerman (2002), Baumeister, Bratslavsky, Finkenauer and Vohs (2001), and Klein (1992) all suggest that a self-protective mechanism is very powerful when an individual is confronted with negative outcomes. The data from the current study would suggest that those who fail ($M=5.61$) tend to show a higher SSB than those who pass ($M=5.68$) although it is worth noting that this difference is minute and that there were 2 more participants in the fail condition ($N=11$) than in the pass condition ($N=9$).

The third hypothesis predicted that levels of self-esteem would correlate with SSB. However this was not the case in the current study. This data does not enhance any of the previous research carried out by Miller and Ross (1975), Baumeister et al (1996), Blaine and Crocker (1993). This was a surprising result as it had been extensively researched before to gather a body of evidence that suggests that self-esteem is strongly correlated with self enhancement and self-protective techniques.

The nature of the current study and what it aims to accomplish could be considered slightly invasive. When a participant is asked to score their task partner on how they think they performed, they are being asked to make a judgement of someone who they do not know.

This judgement isn't particularly harmful but some people may not be comfortable with making one at all. As such they may purposely give neutral answers i.e. circling numbers 5 or 6, on the responsibility and positive contribution scales. It is also not unreasonable to consider the possibility that participants feared their results and judgements would be made known to the rest of the group despite the experimenters numerous assurances that they would not. Greenberg, Pyszczynski, and Solomon (1982) were able to show that self-serving attributions are often more prevalent in private settings and are avoided in public settings. This, they suggest, is due to the idea that other people will make negative assumptions about someone who is perceived to be self-enhancing. Therefore it is possible that participants gave more neutral answers to avoid any possible future scrutiny, which in turn affected the results of this study.

4.2 Further research

Further research into how choice affects the SSB is still needed. Task choice had been explored previously but this is the first study that asks how, when choosing a partner to be tested with, does the SSB manifest in the same way? As there is little research in this area there are a variety of ways to refine the study.

A larger population would be required. This would help to increase the ecological validity of the experiment. The population in the current study was mainly made up of students who were of a similar age. Participation in this experiment was voluntary, it was also necessary to

have a group of four people who did not know each other. This caused some difficulty as most participants were taken from similar sources i.e. Gym and DBS. Hence, in being particular about ensuring participants were strangers, the size of the population suffered as a result.

For further research to be conducted in this area a helpful method would be to examine participants individually and forgo the group element. An individual setting may eliminate the affect that a group or public setting has on an individual as suggested by Greenberg, Pyszczynski, and Solomon (1982). Employing the use of actors to be chosen to by the subject is a suggestion that may enhance the validity of the experiment also.

The phoney Lange-Elliot creativity test was chosen as it garnered successful results in its original use by its creators. It was pitched to participants as a test of creativity and intelligence which are important qualities in most people's eyes. However participants may not have considered this particular task as being a bearing on how they see themselves or their creative and intellectual ability. The potential for self-threat may not have been as present as it needed to be. Future research should be conducted to control for these elements.

4.3 Limitations of study

In light of the results of this study many limitations should be noted. The self-serving bias is a naturally occurring unconscious response to success or failure. As such to attempt to recreate it in an obvious lab setting, even with the use of deception, may not have been the most effective strategy. A more naturalistic setting similar to the much larger scaled study done by Cialdini et al (1976) would generate a more honest and natural response from participants.

The only age restriction was that participants must be over the age of eighteen. However, the population for the experiment was taken from a college and a gym. Considering time restrictions and the necessity to gather a group of four people the maximum age was 26. So the population was not representative of a broader age range.

This study did not explore the effect that gender, as a variable, has on the SSB as it had already been well established that males tend to show a stronger tendency to manifest the SSB than females do (Campbell & Sedikides, 1998). This has been attributed to men having higher success expectancies (Rosenfield & Stephan, 1978) and to men having higher global self-esteem (Harter, 1993)

The study could have been more thorough by looking at some of the multiple extraneous variables that may be moderators of the SSB. Self-efficacy and possibly empathy may have been factors in participants rating of their task partner. Empathizing with another individual may lead to one not using them as a causal attribution for failure. This premise could contribute in forming a useful hypothesis for future research into the SSB.

As autonomy has been suggested to influence SSB, a measure of locus of control may have been useful in this study. However the study did control for the variable of self-esteem which is the basis for self-enhancing tendencies (Baumeister et al., 1996).

The use of deception was successful as there were no instances where participants were suspicious of the study or if there were other motives they were not made aware of. After debriefing every participant responded positively to the studies actual motivations and were

happy to have learned about self-enhancing tendencies. Many participants mentioned that they will try to be more self-aware and monitor their bias tendencies towards themselves making an effort to try to be more impartial in future. One particular participant who scored exceedingly high on both self-esteem and SSB measures commented that he needed to pay more attention to how “narcissistic” he can be. This was a satisfying occurrence as part of the motivation for conducting this study was to enlighten people on how personal biases work and can have a negative influence on behaviour and forming opinions and relationships.

4.4 Conclusion

The overall results of the study did not show a significant correlation between choice and SSB in a relational context as the results were inconsistent with the studies cited in the introduction. This leaves room for further research into the matter to try and generate some consistency for the broader notion that choice effects SSB.

The purpose of the study was to find a relationship between choice and SSB; however, there was another motive in executing these experiments which was to educate people on the tendency for bias as well to elaborate on the existing research. In this vein the research was semi-successful.

References

- Alicke, M. D. (2008). Blaming badly. *Journal of Cognition and Culture*, 8(1-2), 1-2.
- Arkin, R. M., Gleason, J. M., & Johnston, S. (1976). Effect of perceived choice, expected outcome, and observed outcome of an action on the causal attributions of actors. *Journal of Experimental Social Psychology*, 12(2), 151-158.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of general psychology*, 5(4), 323.
- Beauregard, K. S., & Dunning, D. (1998). Turning up the contrast: Self-enhancement motives prompt egocentric contrast effects in social judgments. *Journal of Personality and Social Psychology*, 74(3), 606.
- Beggan, J. (2007). Mere ownership effect. In R. Baumeister, & K. Vohs (Eds.), *Encyclopedia of social psychology*. (pp. 559-561). Thousand Oaks, CA: SAGE Publications, Inc.
- Beggan, J. K. (1992). On the social nature of nonsocial perception: The mere ownership effect. *Journal of Personality and Social Psychology*, 62(2), 229.
- Blaine, B., & Crocker, J. (1993). Self-esteem and self-serving biases in reactions to positive and negative events: An integrative review. In *Self-esteem*(pp. 55-85). Springer US.
- Campbell, W. K., & Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A meta-analytic integration. *Review of general Psychology*, 3(1), 23

Campbell, W. K., Sedikides, C., Reeder, G. D., & Elliot, A. J. (2000). Among friends? An examination of friendship and the self-serving bias. *British Journal of Social Psychology, 39*(2), 229-239.

Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of personality and social psychology, 34*(3), 366.

Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of personality and social psychology, 53*(6), 1024.

Ditto, P. H., & Boardman, A. F. (1995). Perceived accuracy of favorable and unfavorable psychological feedback. *Basic and Applied Social Psychology, 16*(1-2), 137-157.

Feys, J. (1995). Mere ownership: Affective self-bias or evaluative conditioning?. *European journal of social psychology, 25*(5), 559-575.

Forgas, J. P., Bower, G. H., & Moylan, S. J. (1990). Praise or blame? Affective influences on attributions for achievement. *Journal of Personality and Social Psychology, 59*(4), 809.

Forsyth, D. R., Berger, R. E., & Mitchell, T. (1981). The effects of self-serving vs. other-serving claims of responsibility on attraction and attribution in groups. *Social Psychology Quarterly, 59*-64.

Hoorens, V., & Nuttin, J. M. (1993). Overvaluation of own attributes: Mere ownership or subjective frequency?. *Social Cognition, 11*(2), 177-200.

Johnston, W. A. (1967). Individual performance and self-evaluation in a simulated team. *Organizational Behavior and Human Performance, 2*(3), 309-328.

Klein, W. M. (1992). Constructing Social Reality: Greater Bias for Negative than for Positive Behaviors?.

Koivula, N., Hassmen, P., & Fallby, J. (2002). Self-esteem and perfectionism in elite athletes: effects on competitive anxiety and self-confidence. *Personality and individual differences, 32*(5), 865-875.

Marks, G., & Miller, N. (1987). Ten years of research on the false-consensus effect: an empirical and theoretical review. *Psychological Bulletin, 102*(1), 72.

Milgram, S. (1963). Behavioral study of obedience. *The Journal of Abnormal and Social Psychology, 67*(4), 371.

Miller, D. T. (1976). Ego involvement and attributions for success and failure. *Journal of Personality and Social Psychology, 34*(5), 901.

Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction?. *Psychological bulletin, 82*(2), 213.

Offerman, T. (2002). Hurting hurts more than helping helps. *European Economic Review, 46*(8), 1423-1437.

Pinter, B., Green, J. D., Sedikides, C., & Gregg, A. P. (2011). Self-protective memory: Separation/integration as a mechanism for mnemonic neglect. *Social Cognition, 29*(5), 612-624.

Renner, B. (2003). Hindsight bias after receiving self-relevant health risk information: A motivational perspective. *Memory, 11*(4-5), 455-472.

Robins, C. J., Bagby, R. M., Rector, N. A., Lynch, T. R., & Kennedy, S. H. (1997). Sociotropy, autonomy, and patterns of symptoms in patients with major depression: A

comparison of dimensional and categorical approaches. *Cognitive Therapy and Research*, 21(3), 285-300.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press

Sanna, L. J., Schwarz, N., & Stocker, S. L. (2002). When debiasing backfires: accessible content and accessibility experiences in debiasing hindsight. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28(3), 497.

Schlenker, B. R., & Miller, R. S. (1977). Egocentrism in groups: Self-serving biases or logical information processing?. *Journal of Personality and Social Psychology*, 35(10), 755.

Sedikides, C., & Strube, M. J. (1995). The multiply motivated self. *Personality and Social Psychology Bulletin*, 21(12), 1330-1335.

Sedikides, C., Campbell, W. K., Reeder, G. D., & Elliot, A. J. (1998). The self-serving bias in relational context. *Journal of Personality and Social Psychology*, 74(2), 378.

Smith, E. R., & Mackie, D. M. (2007). *Social psychology*. Psychology Press/Taylor & Francis (UK).

Snyder, C. R., Higgins, R. L., & Stucky, R. J. (1983). *Excuses: Masquerades in search of grace*. New York: Wiley.

Swann Jr, W. B., De La Ronde, C., & Hixon, J. G. (1994). Authenticity and positivity strivings in marriage and courtship. *Journal of personality and social psychology*, 66(5), 857.

Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American psychologist*, 38(11), 1161.

Tennen, H., & Affleck, G. (1990). Blaming others for threatening events. *Psychological Bulletin*, 108(2), 209-232.

Wolosin, R. J., Sherman, S. J., & Till, A. (1973). Effects of cooperation and competition on responsibility attribution after success and failure. *Journal of Experimental Social Psychology*, 9(3), 220-235.

Appendix**Gender:****Participant no:****Condition:****Task item:****Result:**

The following booklet will record a number of factors pertaining to the experiment.

Please read carefully and fill out every question.

All information will remain confidential.

Briefing & Consent Form

- You are taking part in the Lange-Elliot creativity task.
- This task displays how performance is affected when working in a team.
- The creativity task is an inter-dependent outcomes task.
- This means that the total amount of item uses that both you and your partner record are tallied together as one score.
- Your individual contributions, or those of your partner, cannot be identified by the experimenter.
- Unique answers contribute a greater amount to your final score.
- If you have any questions please ask the experimenter.

Participants have the right to withdraw from the research at any time for whatever reason. Participants can also request at any time to have their response data removed from record.

There are no risks associated with participation. Any inconvenience involved in taking part will be limited.

The nature of this study requires participants to be naive to the exact research question, as information about the research may influence your behaviour and responses. For this reason we can only inform you that we are conducting research on creativity in an inter-dependent setting.

All individual information collected as part of the study will be used solely for experimental purposes. They will be stored safely and will not be publicly displayed or published without prior consent.

Contact Details

If you have any further questions about the research you can contact:

Ph: Email:

Researcher: Roy O Neill

Supervisor: Dr Jonathan Murphy

I have read and understood the attached Information Leaflet regarding this study. I have had the opportunity to ask questions and discuss the study with the researcher and I have received satisfactory answers to all my questions

I understand that I am free to withdraw from the study at any time without giving a reason and without this affecting my training

I agree to take part in the study

Participant's Signature: _____ Date: _____

Participant's Name in print: _____

Rosenberg Self-esteem Survey

Self-esteem has a direct effect on one's ability to work in a team. As such it is necessary to control for this factor in the current study.

Please fill out the following Self-esteem survey as honestly as possible.

Circle the score that applies most to you.

Take your time and consider each statement.

All results will remain confidential.

		Strongly agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1	I feel that I am a person of worth, or at least on an equal plane with others.	1	2	3	4
2	I feel that I have a number of good qualities.	1	2	3	4
3	All in all, I'm inclined to feel that I am a failure.	1	2	3	4
4	I am able to do things as well as most other people.	1	2	3	4
5	I feel I do not have much to be proud of.	1	2	3	4
6	I take a positive attitude toward myself.	1	2	3	4
7	On the whole, I am satisfied with myself.	1	2	3	4
8	I certainly feel useless at times.	1	2	3	4
9	I wish I could have more respect for myself.	1	2	3	4
10	At times, I think I am no good at all.	1	2	3	4

Do not turn over page until prompted by Experimenter. Thank you.

Circle the score that most applies.

Please answer as honestly as possible.

All answers will remain confidential

Who was the most responsible for the outcome of the task?

Other Participant	1	2	3	4	5	6	7	8	9	10	Myself
------------------------------	---	---	---	---	---	---	---	---	---	----	---------------

Who made the greatest POSITIVE contribution to this test?

Other Participant	1	2	3	4	5	6	7	8	9	10	Myself
------------------------------	---	---	---	---	---	---	---	---	---	----	---------------