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Albion University College

Allison Filippetti

Gender Differences in Reward Allocation

Albion

Abstract

Fifty-six subjects were used to study gender differences in reward allocation under three conditions. The conditions used were competitive, cooperative and neutral. There were sixteen subjects in the competitive condition, twenty-two subjects in the cooperative condition and eighteen subjects in the neutral condition. Each subject was assigned either a same gender partner or an opposite gender partner upon entering the testing situation. Each subject was either instructed; to work with his/her partner (cooperative) on a word search task, to work independently, not sharing his/her answers with his/her partner (competitive) or simply to complete the word search task (neutral). The subjects had 2 minutes to complete the task. The results were collected and each subject was then asked to complete a questionnaire. After completing the questionnaire, each subject was told that they had performed better than their partner and was asked to divide 7 points between themselves and their partner. A factorial ANOVA was used to analyze the results. No significant differences were found between males and females, between subjects' perceptions or the between the three conditions.

Gender Differences in Perceived Competitiveness
in Reward Allocation

Introduction

Reward allocation is an important issue in today's society. The term reward allocation refers to how people divide a reward between members of a group. There exist two frequently employed rules for dividing rewards. One is based on the principle of "equity" in which a reward is a direct reflection of a person's contribution to something. The second principle is that of "equality": rewards are evenly divided amongst all members, regardless of inputs (Adam (1965) as cited in Leventhal and Lane (1970)). Both of these principles were employed in experiments in which subjects were asked to divide a reward among members of a group (Leventhal & Anderson (1970); Leventhal & Lane (1970); Major & Adam (1984); Martin & Hewitt (1988); Olejnik, Tompkins & Heinbuck (1982); Reis & Jackson (1981) and Shapiro (1975)).

The issue of reward allocation appears in many facets of everyday life. Parenting strategies, teacher assessment and pay equity can each be linked to this issue. Under various circumstances, adopting one principle over the other can prove beneficial. In a classroom situation, a teacher may wish to encourage good future performance by giving pupils rewards that

over-represent their performances (inequity). Realizing their efforts do not go unnoticed, the children may be more apt to try to outperform their previous work. It could also prove beneficial for parents to distribute privileges using a similar strategy. Children can be made to understand that their allowances or privileges are direct reflections of their behaviour (equity). By understanding that they have some control over the benefits they reap, the children will be encouraged into behaving appropriately if they wish to maintain their rewards. The area of pay equity is another in which the issue of reward allocation has some significance. The research findings in the area of reward allocation suggest that there are differences in how genders allocate rewards. If this is true, persons contributing equally to a project may not receive a fair distribution because of the allocator's gender or the allocator's perception of the situation.

Although the principles on which allocations are based have been identified, why persons adopt these strategies is still unknown. Males tend to divide rewards according to equity or inequity, in their

favour and females according to equality or inequity in the other person's favour (Martin and Hewitt, 1988).

Explanations which have been offered to explain why genders adopt different allocation strategies have not proven to be sufficient. Reis and Jackson (1981) suggested that males act according to self interest and females act in an effort to maintain harmony. Similar explanations have been offered by Martin and Hewitt (1988), Leventhal and Anderson (1970), Major and Adam (1984) and Olejnik, Tompkins and Heinbuck (1982).

Martin and Hewitt (1988) suggested that males are more interested in maximizing their input and females in keeping peace. Leventhal and Anderson (1970) suggested that females try to be more accommodating and males to act according to self interest. The explanation offered by Major and Adams (1984) was that males are greedy and value the reward and females are generous and interested in keeping peace. Olejnik, Tompkins and Heinbuck (1982) suggested that males are more exploitative and assertive and females are more accommodating.

These results have not been consistently found across all individuals or situations (Reis and Jackson, 1981). The inconsistencies of these findings lead one

to believe that gender alone does not determine how one will allocate rewards. Other possible factors which may affect how rewards are allocated are whether the partners know each other, whether they have had prior contact with one another or whether they will have future contact with one another (Shapiro, 1975).

Another explanation which has been offered as a possible reason for differences in how genders allocate is that of the competitiveness of the situation. Olejnik, Tompkins and Heinbuck (1982) suggested that males' preference for allocating according to equity is generally associated with the competitiveness of the task. The more competitive the situation is perceived to be, the more likely a male subject will be to allocate rewards according to equity or inequity in his favour.

The previous research suggests that there are differences in how genders allocate rewards. These differences do not appear innate in the genders but rather appear to be influenced by situational variables (Major and Adams, 1984). The situational variable of perceived competitiveness will be studied. The more competitive a situation is perceived to be, the greater will be the difference between how each gender

allocates. No gender differences will be seen when perceived competitiveness is minimal.

Method

Subjects

The subjects were 56 undergraduate students at Algoma University College. Thirty six of the subjects were female and 20 were male.

Procedure

The 56 subjects were divided into 3 groups. The three groups were the competitive group, the cooperative group and the neutral group.

Each of the groups were tested independently of the others. When the subjects entered the testing situation, they were assigned to a desk and thereby a partner who was either the same or opposite gender. The desks were arranged in 3 columns, 2 desks wide, with 4 rows in each.

In the competitive condition, subjects were led to believe that they were competing against the person they were seated beside. The subjects were told that they would be competing against the person sitting next to them and it would be in their best interest to keep

their work covered. In the cooperative situation, subjects were told that it would be in their best interest to cooperate with their partner because their combined performance would determine how they did in relation to the other pairs. In the neutral condition subjects were instructed to complete the word search task to the best of their abilities.

After 2 minutes of working on the word search task (see Appendix A), the answers were collected and the subjects were told that the tasks would be scored. Each subject was then given a questionnaire (see Appendix B) to complete. After completing the questionnaire, each subject went one by one into a separate room where he/she was informed that he/she had performed better than his/her partner on the task. Each subject was then instructed to divide 7 points between himself/herself and his/her partner based on the information they were given.

Results

A between subjects factorial ANOVA was used in the analysis of the results. Rewards allocated by the subjects to themselves were compared by gender, condition, perception and their interactions (see Table

1). No significant results were found for condition ($F_{2,30} = 1.13, p > 0.3375$), gender ($F_{1,30} = 0.38, p > 0.5424$), perception ($F_{2,30} = 0.34, p > 0.7134$), gender and perception ($F_{1,30} = 0.53, p > 0.4736$), and condition and gender ($F_{2,30} = 0.41, p > 0.6663$).

INSERT TABLE 1

In an effort to determine allocation trends, mean scores were calculated for the genders, conditions, perceptions and their interactions (see Table 2).

INSERT TABLE 2

Although the mean scores for the conditions demonstrate the desired trend, subjects will take less reward when the condition is cooperative and more reward when it is competitive, the differences were not significant. When the mean scores of the gender and condition interaction were plotted (see Figure 1), the female subjects did not follow the desired trend. Females were expected to take an equal share of the reward (3.5 points) when the condition was cooperative and an unequal share, in their partners' favour, when

the condition was competitive but in reality, females did take an unequal share, in their own favour, for both conditions.

INSERT FIGURE 1

Males were expected to take a greater share of rewards overall than females. This did not occur (see Table 2). The male subjects' mean allocation score was 4.025 and the females' mean allocation score was 4.250. When the condition and gender interactions were plotted (see Figure 1), the male subjects did show the desired results but not to any level of significance. Males were expected to favour inequality, in their own favour, in both the competitive and cooperative conditions and to a greater degree in the competitive condition. Both males and females in the neutral condition were expected to allocate points depending on their perceptions of the condition.

Subjects' allocations were also expected to depend on their perceptions of the condition. When they perceived the condition to be competitive, males were expected to take a greater share of the reward than females who perceived the condition to be competitive.

When the subjects perceived the condition to be neutral, no gender differences were expected. When the condition was perceived to be cooperative, males were still expected to take more reward than the females and the females were expected to allocate equally.

INSERT FIGURE 2

As can be seen in Figure 2, most of the expected results did not occur but, when the condition was perceived to be neutral, the expected result did occur. The difference between the males' and females' allocation was not statistically significant, therefore there was no difference between their allocations when the condition was perceived as neutral. When the perception was one of competition, females took a greater share of the reward than the males and the females did not allocate according to inequity in their partners' favour. When the females perceived the condition to be cooperative, they allocated inequitably in their own favours.

Discussion

Several explanations can be offered as to why the expected results did not occur. The small sample size was one issue that may have contributed to the non significance. Fifty-six subjects was not an adequate number to be partitioned into three conditions and further divided into males and females. The unequal numbers in the groups was adjusted for in the analysis so this should not have had any effect.

Had the conditions been accurately perceived, there should not have been a difference in the allocations according to perception and condition. Subjects under each of the conditions did perceive the condition to be different than what it actually was. This suggests that the conditions may not have been adequately portrayed to the subjects. The competitiveness and the cooperativeness of the conditions was not effective enough to make the subjects believe it. One interesting finding brought out when the perceptions were studied was that no males perceived any of the conditions to be cooperative perhaps this is why allocations of male subjects did not differ between the competitive and the cooperative conditions.

Frequently subjects questioned their performance when they were told that they had performed better than their partner. Some subjects refused to believe this information because they had seen their partner's answers and knew that their partner had found more words than them. Because they did not see their own performance as superior to their partners, they may have allocated differently. In the future, it is suggested that both superior and inferior performers be represented so to control for this.

Subjects may not have taken a greater share of the reward for themselves because the reward held little significance for them. Had the reward been more tangible (money), it may have been more significant and the desired results may have been seen.

Future research in this area should be directed towards differences in how males and females perceive situations and the different allocations that will result because of this. It may prove important to make the reward something of significance for the subjects. By finding settings where cooperation or competition is already evident, it may help the subjects to perceive the conditions accurately which too could bring about

the desired results. Large sample sizes are also a must.

References

Leventhal, G.S., and Anderson, D. (1970). Self interest and maintenance of equity. Journal of Personality and Social Psychology, 15, 57-62.

Preschool children performed a task and were told their performances were superior, equal or inferior to their partners'. Picture seals served as rewards. Subjects divided the seals between themselves and a fictitious partner. Boys in the superior condition took more than boys in the equal condition, girls did not. In the inferior condition, neither boys nor girls took less than half of the reward.

Leventhal, G.S., and Lane, D.W. (1970). Sex, age and equity behaviour. Journal of Personality and Social Psychology, 15, 312-316.

College students with fictitious partners worked on a task to receive a monetary reward. Subjects were told their performances were either superior or inferior to their partners'. They had to divide the reward between themselves and their partner. Males in the superior condition took more than half of the reward and in the inferior condition they took less than half. Females took half of the reward when their performance was superior and much less than half when their performance was inferior.

Major, B., and Adams, J.B. (1984). Situational moderators of gender differences in reward allocations. Sex Roles, 11, 869-880.

The four variables studied were; expectation of future interaction, sex of co-worker, type of reward and type of allocation decision. Subjects were asked how they would allocate money or points between themselves and a same or opposite gender co-worker with an inferior performance. Females allocated both types of reward more equitably than males. Males and females allocated more equitably with a same gender co-worker than with an opposite gender co-worker when future interaction with the co-worker was expected. Both males and females allocated points more equitably than money.

Martin, K.C., and Hewitt, J. (1988). Sex differences in reward allocation. Perceptual and Motor Skills, 67, 981-982.

Subjects were presented scenarios where one person did two thirds of the work. Some subjects were asked to imagine they were the high productive worker and others were asked to imagine that they were an impartial observer. No differences were seen when subjects acted as impartial observers. In the imagined high productive scenario men gave themselves more than women did.

Olejnik, A.B., Tompkins, B., and Heinbuck, C. Sex differences, sex role orientation, and reward allocations. Sex Roles, 8, 711-720.

One hundred four male and female undergraduates participated in this study. They were instructed to allocate rewards to pairs of children for performance in team and competitive situations. Their appeared to be differences in how individuals allocated to the team and competitive partners.

Reis, H.T., and Jackson, L.A. (1981). Sex differences in reward allocation: Subjects, partners and tasks. Journal of Personality and Social Psychology, 40, 465-478.

The researchers felt that the sex differences in previous research were the result of the use of masculine sex-linked tasks. Males allocated equitably and females equally with the same gender partners on the masculine task. On the sex appropriate task, both genders allocated equitably.

Shapiro, E.G. (1975). Effect of expectations of future interactions on reward allocation in dyads: Equity or equality. Journal of Personality and Social Psychology, 13, 873-880.

When future interaction was expected, superior performers divided equally. When no future interaction was expected, rewards were divided according to equity. Inferior performers divided rewards according to equity regardless of expectations of future interactions.

Appendix A

Word Search Task

Group_____

Subject_____

Find as many words as you can using the following letters... A E I O N P T R S. Each word must be at least three letters in length. Each letter can only be used once per word. Single and plural forms of the same word count only as one. You have two minutes to complete this task. Do not begin until you are instructed to do so.

A E I O N P T R S

Appendix B

Questionnaire

Group _____

Subject _____

Please answer each of the following questions by
circling the appropriate choice.

1. On a scale from 1 to 5 (very easy.....very hard),
how difficult did you find the task? 1 2 3 4 5
2. Did you feel you had enough time to complete the
task? YES NO
3. On a scale from 1 to 5 (very poor.....very good),
how do you think you did on the task?
4. How do you think your performance compares with
your partner's? BETTER SAME WORSE
5. Did you find the experimental situation
COMPETITIVE, NEUTRAL or COOPERATIVE?

Table 1

Dependent Variable: SCORE

Source	DF	Sums of Squares	Mean Square	F Value	Pr>F
Model	25	12.2307	.48923	.74	.7799
Error	30	19.9077	.66359		
Corrected Total	55				

R-Square	C.V.	Root MSE	SCORE Mean
0.380562	19.53671	0.8146111	4.1696429

Source	DF	Mean Square	F Value	P>F
COND	2	0.74746472	1.13	.3375
GENDER	1	0.25198775	0.38	.5424
PERC	2	0.22666124	0.34	.7134
COND*GENDER	2	0.27315571	0.41	.6663
GENDER*PERC	1	0.34961884	0.53	.4736
COND*GENDER*PERC	2	0.86151835	1.30	.2879

Table 2

Level of Condition	N	Mean
comp	16	4.31250000
coop	22	3.97727273
neut	18	4.27777778

Level of Gender	N	Mean
f	36	4.25000000
m	20	4.02500000

Level of Perception	N	Mean
comp	18	4.19444444
coop	7	4.21428571
neut	31	4.14516129

Level of COND	Level of GENDER	N	Mean
comp	f	12	4.41666667
comp	m	4	4.00000000
coop	f	13	4.07692308
coop	m	9	3.83333333
neut	f	11	4.27272727
neut	m	7	4.28571429

Table 2 (con't)

Level of GENDER	Level of PERC	N	Mean
f	comp	12	4.20833333
f	coop	7	4.21428571
f	neut	17	4.29411765
m	comp	6	4.16666667
m	neut	14	3.96428571

Figure Caption

Figure 1.

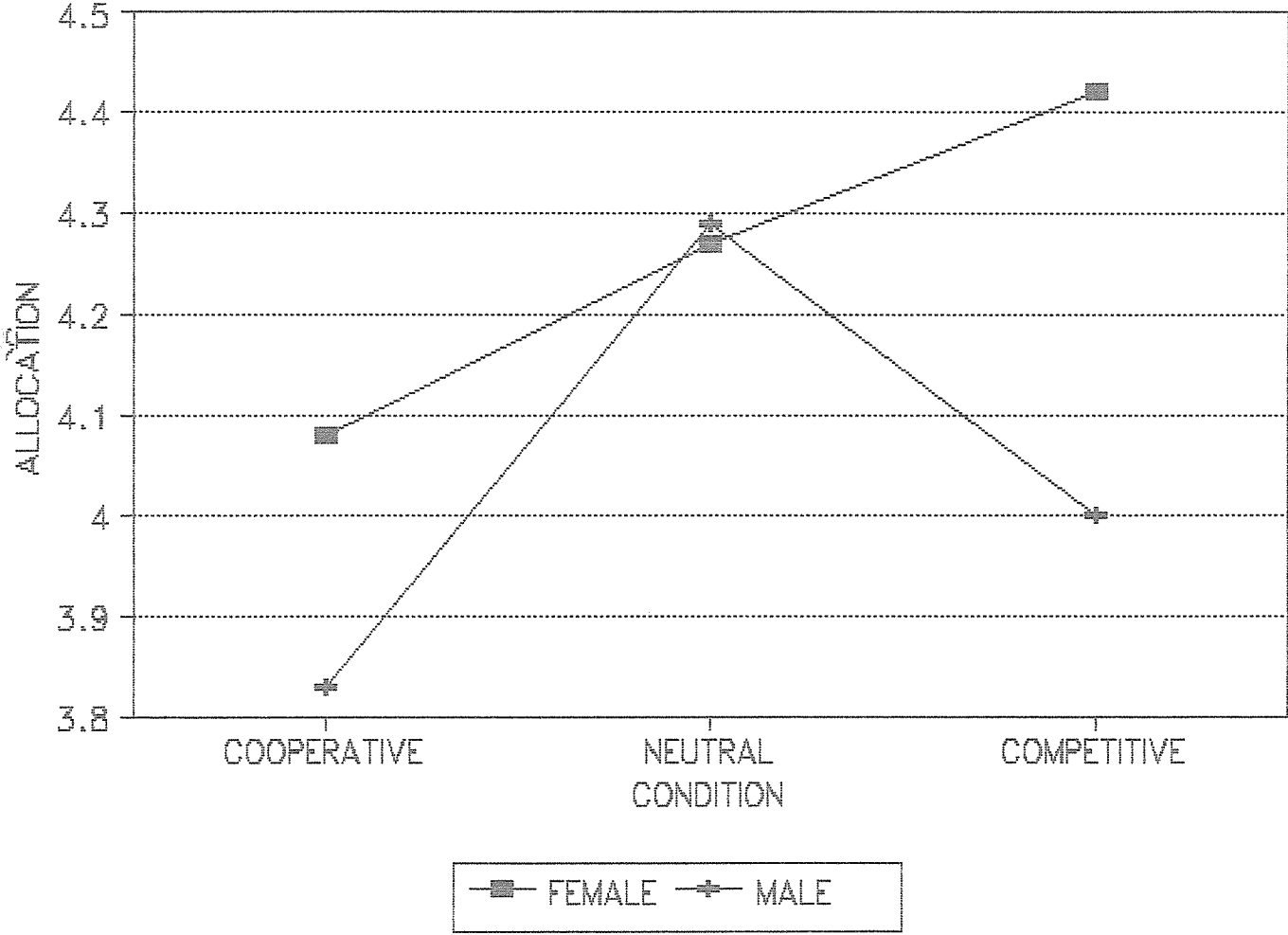
The mean allocation of points to the self according to the three conditions.

Figure Caption

Figure 2.

The mean allocation of points to the self according to
the subjects' perceptions of the conditions.

FIGURE 1



PSYC 4105; Self-Evaluation Form

Please Complete Form and Submit it with Final Copy of Thesis:

Your Name: Allison Galipetti

As you know, a single grade must ultimately be assigned covering all the work done this year in this course. I am asking for your opinion to assist in this process.

Basis for Evaluation:

As described in the Course Outline, the principal activities/ assignments for this course were:

- a) discussion of topics and designs
- b) preparation of research proposal
- c) execution of data-collection
- d) statistical analysis of results
- e) preparation of final written version of Thesis
- f) oral presentation at AUC Thesis Conference

The grade is to be a "balanced weighting of the above factors, with greatest emphasis on the final product."

Scale:

Grades will be assigned on a numerical scale corresponding to the following categories:

80 - 100: Exceptional Performance; normally this involves not only mastery of required work, but original and independent application of knowledge.

70 - 79: Good Performance; thorough understanding, competent work.

60-69: Satisfactory: note that for a Thesis, grades in this range indicate performance which meets ordinary undergraduate standards, but is not at an "Honors" level.

50-59: Minimally Competent Performance: not satisfactory for the course, but still deserving of academic credit.

Your Evaluation:

Based on the assignments and scale above, please indicate the numerical grade corresponding to:

- 1) The **HIGHEST** grade you realistically think you might get. 85
- 2) The **LOWEST** grade you realistically think you might get. 78
- 3) The grade you would assign to your work: 82