# ECON106/2214 Games and Decisions
# 2016 Term Paper

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## 1 Introduction

## 2 Background

## 3 Analysis

| | | Women | | | |
|---|---|---|---|---|---|
| | | $[A, A]$ | $[A, B]$ | $[B, A]$ | $[B.B]$ |
| Men | $(a, a)$ | $(x, y, x, y)$ | $(x, y, x, y)$ | $(y, x, x, y)$ | $(y, x, x, y)$ |
| | $(a, b)$ | $(x, y, x, y)$ | $(x, x, x, x)$ | $(y, y, y, y)$ | $(y, x, y, x)$ |
| | $(b, a)$ | $(x, y, y, x)$ | $(y, y, y, y)$ | $(x, x, x, x)$ | $(y, x, x, y)$ |
| | $(b, b)$ | $(x, y, y, x)$ | $(y, x, y, x)$ | $(x, y, y, x)$ | $(y, x, y, x)$ |

Table 1: no difference vs no difference

| | | Women | | | |
|---|---|---|---|---|---|
| | | $[H, H]$ | $[H, L]$ | $[H, L]$ | $[L.L]$ |
| Men | $(a, a)$ | $(x, y, x_h, y)$ | $(x, y, x_h, y)$ | $(y, x, x_l, y)$ | $(y, x, x_l, y)$ |
| | $(a, b)$ | $(x, y, x_h, y)$ | $(x, x, x_h, x_l)$ | $(y, y, y, y)$ | $(y, x, y, x_l)$ |
| | $(b, a)$ | $(x, y, y, x_h)$ | $(y, y, y, y)$ | $(x, x, x_l, x_h)$ | $(y, x, x_l, y)$ |
| | $(b, b)$ | $(x, y, y, x_h)$ | $(y, x, y, x_l)$ | $(x, y, y, x_h)$ | $(y, x, y, x_l)$ |

Table 2: difference vs no difference

| | | b | |
|---|---|---|---|
| | | $H$ | $L$ |
| a | $H$ | $(\frac{x_h+y}{2}, \frac{x_h+y}{2})$ | $(\frac{x_h+y}{2}, \frac{x_l+y}{2})$ |
| | $L$ | $(\frac{x_l+y}{2}, \frac{x_h+y}{2})$ | $(\frac{x_l+y}{2}, \frac{x_l+y}{2})$ |

Table 3: women's payoff matrix with change seats

## 4 Conclusion

| | | b | |
|---|---|---|---|
| | | $H$ | $L$ |
| a | $H$ | $((x_h - y)\theta + \frac{x_h+y}{2}, (y - x_h)\theta + \frac{x_h+y}{2})$ | $((x_h - y)\theta + \frac{x_h+y}{2}, (x_l - y)\theta + \frac{x_l+y}{2})$ |
| | $L$ | $((y - x_l)\theta + \frac{x_l+y}{2}, (y - x_h)\theta + \frac{x_h+y}{2})$ | $((y - x_l)\theta + \frac{x_l+y}{2}, (x_l - y)\theta + \frac{x_l+y}{2})$ |

Table 4: women's payoff matrix without change seats

| | | Women | | | |
|---|---|---|---|---|---|
| | | $[H, H]$ | $[H, L]$ | $[H, L]$ | $[L.L]$ |
| Men | $(h, h)$ | $(x_h, y, x_h, y)$ | $(x_h, y, x_h, y)$ | $(y, x_h, x_l, y)$ | $(y, x_h, x_l, y)$ |
| | $(h, l)$ | $(x_h, y, x_h, y)$ | $(x_h, x_l, x_h, x_l)$ | $(y, y, y, y)$ | $(y, x_l, y, x_l)$ |
| | $(l, h)$ | $(x_l, y, y, x_h)$ | $(y, y, y, y)$ | $(x_l, x_h, x_l, x_h)$ | $(y, x_h, x_l, y)$ |
| | $(l, l)$ | $(x_l, y, y, x_h)$ | $(y, x_l, y, x_l)$ | $(x_l, y, y, x_h)$ | $(y, x_l, y, x_l)$ |

Table 5: difference vs difference