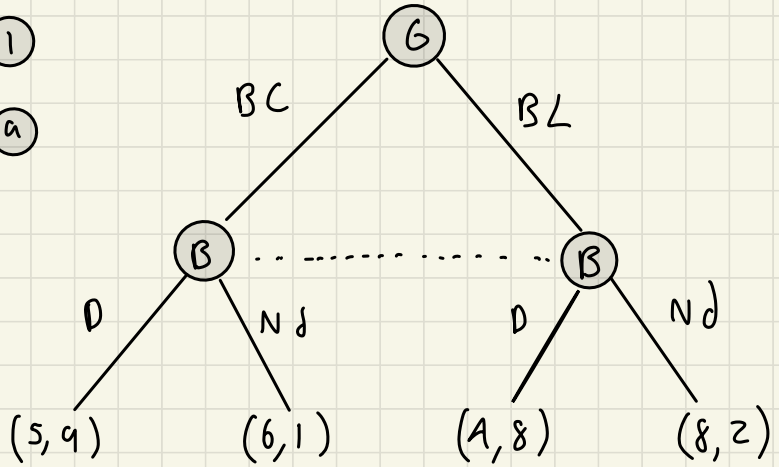
Andro
Asatashvili

1

a



B

G	DD	DNd	NdD	Nd Nd
BC	5, 9	5, 9	6, 1	6, 1
BL	9, 8	8, 2	4, 8	8, 2

b

Puras

	DD	DNd	NdD	Nd Nd
BC	5, 9	5, 9	6, 1	6, 1
BL	9, 8	8, 2	4, 8	8, 2

DD ≻ NdNd

	DD	DND	NDD
BC	5, 9	5, 9	6, 1
BL	4, 8	8, 2	4, 8

$NE = \{(BC, DD)\}$ por estr. puras

Mixtas

		q: DD	r: DND	m: NDD
p	BC	5, 9	5, 9	6, 1
1-p	BL	4, 8	8, 2	4, 8

$$U_G(p; q, r, m) = 5pq + 4(1-p)q + 5pr + 8(1-p)r + 6pm + 4(1-p)m$$

$$= 5pq + 4q - 4pq + 5pr + 8r - 8pr + 6pm + 4m - 4pm$$

$$= p(5q - 4q + 5r - 8r + 6m - 4m) + 4q + 8r + 4m$$

$$= p(q - 3r + 2m) + 4q + 8r + 4m$$

$$U_B(q, r, m; p) = 9pq + 8(1-p)q + 9pr + 2(1-p)r + pm + 8(1-p)m$$

$$= 9pq + 8q - 8qp + 9pr + 2r - 2rp + pm + 8m - 8pm$$

$= q(9p + 8 - 8p) + r(9p + 2 - 2p) + m(p + 8 - 8p)$

$= q(p + 8) + r(7p + 2) + m(-7p + 8)$

rq

$7p + 2 - p - 8 = 6p - 6 > 0$

$p > 1 \quad \therefore \quad q > r \quad si \quad p \in [0,1]$

q domina a r

qm

$p + 8 + 7p - 8 = 8p > 0$

$p < 0 \quad \therefore \quad q > m \quad si \quad p \in [0,1]$

q domina a m

rm

$7p + 2 + 7p - 8 = 14p - 6 > 0$

$p > 6/14 \quad \therefore \quad r > m \quad si \quad p\left[\frac{6}{14}, 1\right]$

$m < r \quad si \quad p[0, 6/14]$

No se domina

→ Batman siempre busca defender

2

(2)

(a)

(1)

	a	b
A	2, -2	-2, 2
B	-2, 2	2, -2

No hay NE por puras

(b)

		q	1-q
		a	b
p	A	2, -2	-2, 2
1-p	B	-2, 2	2, -2

$$U_1 = 2pq - 2(1-p)q - 2(1-q)p + 2(1-p)(1-q)$$

$$= 2pq - 2q + 2pq - 2p + 2pq + 2 - 2q - 2p + 2pq$$

$$= p(2q + 2q - 2 + 2q - 2 + 2q) - 2q - 2q + 2$$

$$= p(8q - 4) - (4q + 2)$$

$$U_2 = -2pq + 2q(1-p) + 2(1-q)p - 2(1-q)(1-p)$$

$$= -2pq + 2q - 2qp + 2p - 2qp - 2 + 2p + 2q - 2pq$$

$$= q(-2p + 2 - 2p - 2p + 2 - 2p) + 2p + 2p - 2$$

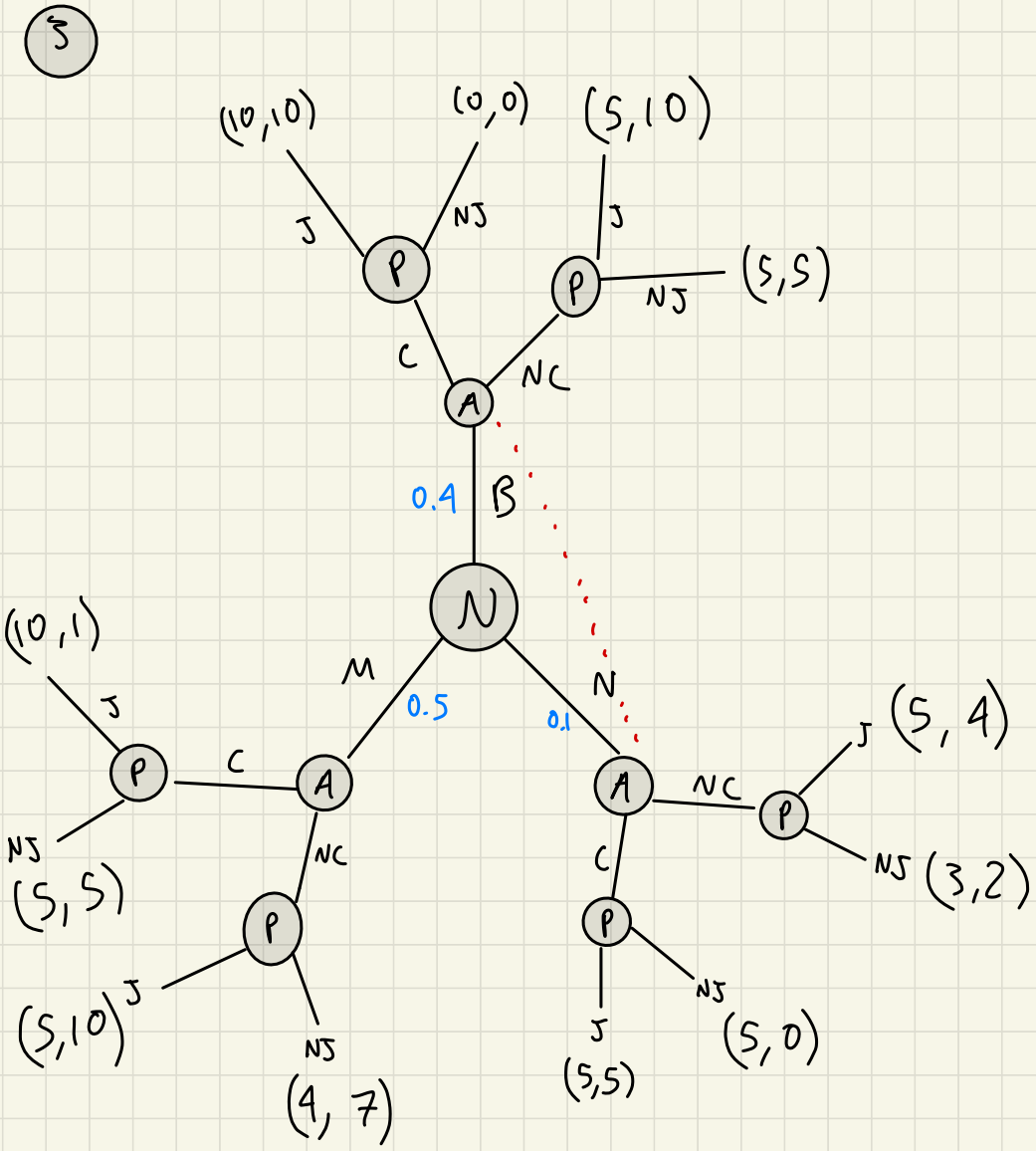
$$= q(-8p + 4) + 4p - 2$$

$\therefore$

$$Br_1 = \begin{cases} p = 1 & si \quad q \in (1/2, 1] \\ p \in [0,1] & si \quad q = 1/2 \\ p = 0 & si \quad q \in [0, 1/2) \end{cases}$$

$$Br_2 = \begin{cases} q = 1 & si \quad p \in [0, 1/2) \\ q \in [0,1] & si \quad p = 1/2 \\ q = 0 & si \quad p \in [0, 1/2) \end{cases}$$

$\therefore$ NE si $q = p = 1/2$


S
(10,10)
(0,0)
(5,10)
J
NJ
J
P
P
(5,5)
NJ
C
NC
A
0.4
B
N
(10,1)
M
0.5
N
0.1
J
C
A
NC
J
(5,4)
P
P
NJ
(5,5)
NJ
(3,2)
NC
C
P
P
(5,10)
J
NJ
J
NJ
(5,0)
(4,7)
(5,5)