

# Errata

## Publication I

### page 4, column 2, paragraph 5, lines 30-32:

The risk of injury is described by a cost  $C > 0$ , which affects both agents. The constant  $C$  is called the *cost of conflict*.

### Correction (to be replaced by):

The risk of injury is described by a *cost of conflict*  $C\Delta T$  that affects both agents. Here,  $C > 0$  is a constant.

### page 4, column 2:

**Table I.** The game matrix for the spatial evacuation game.

	Impatient	Patient
Impatient	$C, C$	$-\Delta u(T_{ij}), \Delta u(T_{ij})$
Patient	$\Delta u(T_{ij}), -\Delta u(T_{ij})$	$0, 0$

### Correction (to be replaced by):

**Table I.** The game matrix for the spatial evacuation game.

	Impatient	Patient
Impatient	$C\Delta T, C\Delta T$	$-\Delta u(T_{ij}), \Delta u(T_{ij})$
Patient	$\Delta u(T_{ij}), -\Delta u(T_{ij})$	$0, 0$

**page 5, column 1, paragraph 1, lines 1-8:**

Then the game matrix only depends on the parameter  $C/\Delta u(T_{ij})$ . When  $0 < C/\Delta u(T_{ij}) \leq 1$ , the game played is PD, and the only Nash equilibrium is (Impatient, Impatient). If  $C/\Delta u(T_{ij}) > 1$ , the game played is HD, and there are two pure strategy Nash equilibria (Impatient, Patient) and (Patient, Impatient). There is also a mixed strategy equilibrium, where the strategy Impatient is played with probability  $\Delta u(T_{ij})/C$ , and the strategy Patient with probability  $1 - \Delta u(T_{ij})/C$ .

**Correction (to be replaced by):**

Note from Eq. (3) that  $u'(T_{ij}) \simeq \Delta u(T_{ij})/\Delta T$ . Then the game matrix only depends on the parameter  $C/u'(T_{ij})$ . When  $0 < C/u'(T_{ij}) \leq 1$ , the game played is PD, and the only Nash equilibrium is (Impatient, Impatient). If  $C/u'(T_{ij}) > 1$ , the game played is HD, and there are two pure strategy Nash equilibria (Impatient, Patient) and (Patient, Impatient). There is also a mixed strategy equilibrium, where the strategy Impatient is played with probability  $u'(T_{ij})/C$ , and the strategy Patient with probability  $1 - u'(T_{ij})/C$ .

**page 5, column 2, paragraph 1, lines 2-8:**

We will suppose that  $\Delta T = 1$ s. Then the parameter  $C/\Delta(T_{ij})$  appearing in the game matrix is

$$\frac{C}{\Delta u(T_{ij})} \simeq \frac{T_0}{T_{ij} - T_{ASET} + T_0}. \quad (7)$$

Note that whether the game played is PD or HD, depends only on the value of  $T_0/(T_{ij} - T_{ASET} + T_0)$ . Thus the game only depends on the estimated evacuation time  $T_{ij}$ , since  $T_0$  and  $T_{ASET}$  are constants. When  $T_{ij}$  increases, the game turns from HD to PD.

**Correction (to be replaced by):**

Then the parameter  $C/u'(T_{ij})$  appearing in the game matrix is

$$\frac{C}{u'(T_{ij})} = \frac{T_0}{T_{ij} - T_{ASET} + T_0}. \quad (7)$$

Note that whether the game played is PD or HD, depends only on the value of  $T_0/(T_{ij} - T_{ASET} + T_0)$ . Thus the game only depends on the estimated evacuation time  $T_{ij}$ , since  $T_0$  and  $T_{ASET}$  are constants. When  $T_{ij}$  increases, the game turns from HD to PD.

## Publication II

### page 2, column 2, paragraph 6, lines 27-30:

The risk of injury is described by a cost  $C > 0$ , which affects both agents. The constant  $C$  is called the *cost of conflict*.

### Correction (to be replaced by):

The risk of injury is described by a *cost of conflict*  $C\Delta T$  that affects both agents. Here,  $C > 0$  is a constant.

### page 2, column 2:

	Impatient	Patient
Impatient	$C, C$	$-\Delta u(T_{ij}), \Delta u(T_{ij})$
Patient	$\Delta u(T_{ij}), -\Delta u(T_{ij})$	$0, 0$

### Correction (to be replaced by):

	Impatient	Patient
Impatient	$C\Delta T, C\Delta T$	$-\Delta u(T_{ij}), \Delta u(T_{ij})$
Patient	$\Delta u(T_{ij}), -\Delta u(T_{ij})$	$0, 0$

### page 3, column 1, paragraph 3, lines 18-20:

Let us now go back to Eq. (2). If we for simplicity assume  $\Delta T = 1$ , we have  $\Delta u(T_{ij}) \cong u'(T_{ij})$ . So, the cost of being overtaken is approximately  $u'(T_{ij})$ . Let's make another assumption about  $u(T_{ij})$ .

### Correction (to be replaced by):

Let us now go back to the cost of being overtaken  $u'(T_{ij})\Delta T$ .

**page 3, column 1, paragraph 6, lines 36-39:**

Now, substitute  $\Delta u(T_{ij}) = u'(T_{ij})$  in the game matrix, and divide it by  $u'(T_{ij})$ . This does not affect the equilibria of the game. Finally, substitute  $u'(T_{ij}) = T_{ij}/T_{ASET}$ .

**Correction (to be replaced by):**

Now, divide the game matrix by  $\Delta u(T_{ij})$ , and substitute  $\Delta u(T_{ij})/\Delta T = u'(T_{ij})$ . This does not affect the equilibria of the game. Finally, substitute  $u'(T_{ij}) = CT_{ij}/T_{ASET}$ .

**page 5, column 2, paragraph 2:**

$$\sum_{j \in N_i} \frac{T_{ASET}}{T_{ij}} + (|N_i| - |N_i^{Imp}|) \leq |N_i^{Imp}|, \quad (5)$$

**Correction (to be replaced by):**

$$\sum_{j \in N_i^{Imp}} \frac{T_{ASET}}{T_{ij}} + (|N_i| - |N_i^{Imp}|) \cdot (-1) \leq |N_i^{Imp}|, \quad (5)$$

**Publication III****page 9, paragraph 4, lines 16-19:**

The random force  $\xi_i$  in Eq. (4) is decomposed  $\xi_i = \xi_i \eta_i$ , where the magnitude  $\xi_i$  is drawn from a truncated Gaussian distribution with mean zero, standard deviation of  $0.1m_i \text{ m/s}^2$ , and it is truncated at three times of the standard deviation. The components of the direction vector  $\eta_i = (\eta_i^1, \eta_i^2)$  are drawn from uniform distributions on the intervals  $[\cos(0), \cos(2\pi)]$  and  $[\sin(0), \sin(2\pi)]$ , respectively.

**Correction (to be replaced by):**

Finally, the components of the random force vector  $\xi_i$  follow a truncated normal distribution with zero mean, standard deviation  $0.1m_i \text{ m/s}^2$ , and are truncated at three times of the standard deviation.