

Errata to Supplemental Material for “Estimation of Monotone Treatment Effects in Network Experiments”

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In the supplement of this paper, it is stated that maximizing (27), which is given by

$$-\sum_{i \neq j} M_{ij} x_i (1 - x_j) + \sum_i x_i \left(b_i + \sum_j M_{ij} \right),$$

is equivalent to (28) which is given by

$$\max_{x \in \{0,1\}^d} -\sum_{i \neq j} M_{ij} x_i (1 - x_j) - \sum_{i: \gamma_i \geq 0} |\gamma_i| (1 - x_i) + \sum_{i: \gamma_i < 0} |\gamma_i| x_i,$$

where $\gamma_i = b_i + \sum_j M_{ij}$. However, there is a sign error; in order for this to be true, (28) should be

$$\max_{x \in \{0,1\}^d} -\sum_{i \neq j} M_{ij} x_i (1 - x_j) - \sum_{i: \gamma_i \geq 0} |\gamma_i| (1 - x_i) - \sum_{i: \gamma_i < 0} |\gamma_i| x_i,$$

and this sign correction should be propagated to the equation that follows (28), which becomes

$$\max_{x \in \{0,1\}^d} -\sum_{i \neq j} M_{ij} x_i (1 - x_j) - \sum_{i: \gamma_i \geq 0} |\gamma_i| (1 - x_i) x_s - \sum_{i: \gamma_i < 0} |\gamma_i| x_i (1 - x_i).$$

This sign error was not implemented in any simulations or data analysis for the paper.

We also clarify that (27) and the objective of (28) differ by a constant term $\sum_{i: \gamma_i \geq 0} |\gamma_i|$, so that maximizing (27) is equivalent to (28) in the sense that they have the same maximizer.

We thank Vittorio Orlandi for discovering this error.