Errata

Welfare Economics and Social Choice Theory (2nd edition)

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- Chapter 1
  - "they know that they like" should be "they know what they like"
  - "your don't know" should be "you don't know"
  - "x_k ad x_{k+1}" should be "x_k and x_{k+1}"
  - In the section on uncertainty,m last example: $l_2 = (0.1, 0.2, 0.7)$ is the correct lottery instead of (0.1, 0.7, 0.2).
  - In the solutions to Exercise 2, part 2 should be "yes, the best set is a singleton: team A."
- Chapter 2
  - "negative quality of a good" should be "negative quantity of a good"
  - Missing 0 in the definition of the set of allocations a
  - Solution to exercise 1: In the solution, the equation should be $3(10 - x_{11}) = 2(10 - x_{12})$ which along with the equation $3x_{11} + 2x_{12} = 48$ gives the point (29/3, 19/2) where 1's indifference curve intersects the Pareto locus, instead of the incorrect (9, 8.5).
- Chapter 3

  - "until supply equals demand for both goods, that is, until the desired bundles $\hat{x}_1$ and $\hat{x}_2$ of the two traders coincide." should be "until supply equals demand for both goods, that is, until the desired bundles $\hat{x}_1$ and $\hat{x}_2$ of the two traders clear the markets."
  - "whether it is or is not" has a missing opening paren: "(whether it is or is not"
  - "Combining (iii) with Observation 2," should be "Combining (iii) with Observation 1,"
  - In the definition of convex indifference curves: u_{i1} where the subscript should be simply i, and also the inequality of utilities should be $u_i(z_i) \geq u_i(y_i)$.

- Chapter 5

  - In "If firm k produces goods j as an output" "goods" should be "good"
  - Typo in example: only occurs in y1. The original vector was (-3, 3,-6) and the correction should be (-1,3,-6). Then, now, z1=(-2,4,-6) cannot dominate y1.
  - Typo in the solution for exercise 5.1.a: In the solution, one possible set of production vectors for firm 1 is given as (1/4, -1/27, -27/8), but the correct vector is (3/4,-1/27.-27/8). Thankfully, this does not change the solution in the part (c): in other words, the allocation where firm 1 uses 1 unit less of labor and firm 2 uses 1 unit more still produces the net output of good 1 which is strictly higher as compared to the initial plan.

- Chapter 6

  - Delete the following sentence, which makes the example confusing: "either you get exactly three affirmative RSVP's, or more than three, or less than three. Indeed,"

- Chapter 7

  - "a quantity g of the second good" should be "a quantity g of the first good" and actually I would delete all references to the gift g in this example, because it makes it unnecessarily confusing.

- Chapter 8

  - "$(t_i, t_2$" should be "$(t_1, t_2$" just a typo in the subscript.
  - Rewrite the proof of the Clarke-Groves demand-revealing tax scheme using notation as in the slides.

- Chapter 13

  - Typos in Table 13.1: In the fourth row and fourth column for individual 1, his preference is given as yxz but it should be yzx. In the fourth row and first column for individual 2, his preference is given as xyx, but it should be xyz. In the fourth row and third column for individual 2, his preference is given as yzx, but it should be yxz.

- Chapter 14

  - Solution to Exercise 1:

    It can be written much shorter: recall from the text that $v_i \geq 0$ for all i.

    Case 1. Suppose $\sum_{j \neq i} \tilde{v}_j < C$.

1.1: Suppose $v_i + \sum_{j \neq i} \tilde{v}_j \geq C$. Then, by telling the truth, agent i is pivotal and changes the public decision from "no bridge" to "bridge." Her after-tax utility from doing so is

$$v_i - \frac{1}{n-1} \sum_{j \neq i} \tilde{v}_j - C + \sum_{j \neq i} \tilde{v}_j,$$

while from lying, the only relevant constraint to check is her utility is "no bridge" results after her announcement, and that is

$$-\frac{1}{n-1} \sum_{j \neq i} \tilde{v}_j.$$

The difference of the first minus the second is at least zero because $v_i + \sum_{j \neq i} \tilde{v}_j \geq C$.

1.2: Suppose $v_i + \sum_{j \neq i} \tilde{v}_j < C$. Then, by telling the truth, the bridge would not be built and he would get a utility

$$-\frac{1}{n-1} \sum_{j \neq i} \tilde{v}_j.$$

If she were to lie, the relevant constraint is to check what would happen were the bridge built after he lie, and that would be

$$v_i - \frac{1}{n-1} \sum_{j \neq i} \tilde{v}_j - C + \sum_{j \neq i} \tilde{v}_j.$$

The difference between the first and the second expression is positive, given the inequality in this case 1.2.

Case 2. Suppose $\sum_{j \neq i} \tilde{v}_j \geq C$. Then the bridge would be built regardless of i's announcement, and i's tax would be $\frac{1}{n-1} \sum_{j \neq i} \tilde{v}_j$, also independent of i's announcement. In particular, i has no incentive to lie either.

Now that we know that agents tell the truth, if the bridge is built, even if the tax collections are the lowest possible, i.e., when no agent is pivotal, the tax revenues would be

$$\sum_i \frac{1}{n-1} \sum_{j \neq i} v_j = \sum_i v_i \geq C.$$

- Chapter 15
  - Typo M^* should be m^* in the proof of Maskin's Theorem 1 (necessity).