Corrections for Version 1.0 of Solution Manual for Osborne and Rubinstein's "A Course in Game Theory" (MIT Press, 1994)

2005/1/17

We thank James Dow, Juan Dubra, Robert Golanski, and Al Roth for pointing out errors.

Page, Line	*Correction*
iv, 4	Replace "Szynter" with "Sznyter".
xi	The errors are now available as Postscript and PCL files at `http://www.socsci.mcmaster.ca/~econ/faculty/osborne/cgt/`
2	In the second line of footnote 1, "positive" should be "position".
4, −5	Replace $\leq$ (at the end of the line) with $\geq$.
8	In the fourth line of the second paragraph of the solution to 35.2, $F(v-\epsilon)$ near the end of the line should be $F_i(v-\epsilon)$ and in the following line "$F_i(v)-F_i(v-\epsilon)>0$ for all $\epsilon>0$" should be "$F_i(v)>\lim_{\epsilon\downarrow 0}F_i(v-\epsilon)$".
9	Replace "player i" on line 5 of the solution to 36.1 with "player 1", and replace the second p_ℓ^* on line 7 with p_k^*.
12	Replace "$x<z$" on the second line below the strategic game with "$z<x$".
14	The solution to 63.1 is correct, but (i) only one round of elimination is needed (every action other than $\frac{1}{2}$ is weakly dominated by the action $\frac{1}{2}$), and (ii) in fact $\frac{1}{2}$ is the only action that survives iterated elimination of *strictly* dominated actions (on the first round *Out* is strictly dominated by $\frac{1}{2}$, and in every subsequent round each of the remaining most extreme actions is strictly dominated by $\frac{1}{2}$).
18	In the next-to-last line of the solution of 76.1, replace "$\rho(X\|F)$" by "$\rho(X\cap F)$".
24	The set of histories in the solution to 103.1 should include $\varnothing$.
25, 5	Replace "is in either $Y(y)$ or $N(y)$" with "is either $Y(y)$ or is in $N(y)$".
25, 9	Replace "is in either $Y(y)$ or $N(y)$" with "is either $Y(y)$ or is in $N(y)$".
25	The set of histories in the solutions to 103.2 and 103.3 should include $\varnothing$.
25	Replace the last line of the solution of 103.2 with "perfect equilibrium in which player 1 chooses *Continue* and each player names M, with payoff profile (M^2, M^2)."
25	In the solution to 103.3, H denotes both the set of histories and an action in *Matching Pennies*; one or other piece of notation should be changed.
29, 8	c_2 near the end of the line should be c_1.

36 In the solution to 145.1 change the conditions defining the output function from "if $q = S_\ell$" to "if $q = S_\ell$ or P_i" and from "if $q = P_j$" to "if $q = P_j$ for $j \neq i$".

38, 6 Replace $u_i(a^T)$ with $(1 - \delta)u_i(a^T)$.

43 In the next-to-last line of the solution of 182.1, replace "$(a'_1, a^*_2, \ldots, a^*_n)$" by "$g(a'_1, a^*_2, \ldots, a^*_n)$".

44 The following proof that f is not Nash-implementable is more direct than the one in the manual. Suppose that a game form G with outcome function g Nash-implements f. Then $(G, \succsim)$ has a Nash equilibrium, say (s_1, s_2), for which $g(s_1, s_2) = a$. Since (s_1, s_2) is a Nash equilibrium, $g(s_1, s'_2) \precsim_2 a$ for all actions s'_2 of player 2, so that $g(s_1, s'_2) = a$ for all actions s'_2 of player 2. That is, by choosing s_1, player 1 guarantees that the outcome is a. Since $a \succsim'_1 b$, it follows that $(G, \succsim')$ has no Nash equilibrium (t_1, t_2) for which $g(t_1, t_2) = b$. We conclude that f is not Nash-implementable.

50 In the last display, replace "$\hat{a}'$" on the left-hand side by "a'".

51 In the first line of the solution of 229.1, replace "two" by "three". Add the following equilibrium to the list of equilibria:

- **Strategies** $\beta_1(c) = 1$, $\beta_2(r) = 1$, $\beta_3(e) = 1$.

  Beliefs $\mu_1(a) = 1$, $\mu_2(a, c) = \mu_2(b, e) = \frac{1}{2}$, $\mu_3(b) = 1$.

59 On line 4, replace "$(w - |S|)$" by "$(w + 1 - |S|)$".

60 In the first line of the solution of 261.1b, insert "nonnegative" before "feasible". In the fourth line add, after the period: "Now, if x is in the core then $x_i \geq 0$ for all $i \in N$, since $v(S) \geq 0$ for all S." Delete the "Now" at the beginning of the next sentence.

69 The solution to Exercise 289.2 is not correct: the coalition T that is constructed is not *minimal* winning. Currently we do not have a correct proof. (The result is taken from Peleg (1968), who provides a proof based on the standard definition of the nucleolus.)

69, −3 After "and w by" replace each "v" by "w".

75 Modify the start of the Note at the beginning of the solution to 312.2 to read "In the first and second printings. . . ".