

**Corrections and Updates for Osborne and Rubinstein’s
“Bargaining and Markets” (Academic Press, 1990)¹**

2005/2/20

Corrections

<i>Page, Line</i>	<i>Correction</i>
6	Interchange “below” and “above” in the second line of the caption of Figure 1.1.
17	The argument in the first five lines of the page is correct, but not as clear as it might be. Replace from “If Player i prefers a to a^* ...” with: “Suppose that Player i prefers a to a^* and $u_i(a^*)/u_i(a) < u_j(a)/u_j(a^*)$. Then there exists $0 < p < 1$ such that $u_i(a^*)/u_i(a) < p < u_j(a)/u_j(a^*)$, so that $u_i(a^*) < pu_i(a)$ and $u_j(a) > pu_j(a^*)$, contradicting the definition of a^* . Hence $u_i(a^*)/u_i(a) \geq u_j(a)/u_j(a^*)$, so that $u_1(a^*)u_2(a^*) \geq u_1(a)u_2(a)$.”
18, –8	Replace “apples” with “applies”.
55, 12	Replace “Player 1” with “Player 2”.
60, –1	Replace “ δm_2 ” with “ $\delta^2 m_2$ ”.
62, 14–15	Replace “ η^* ” with “ η ”.
66, 15–18	Delete the sentence beginning “Binmore and Osborne (1990)”.
97	In the definition of consistency replace the sentence starting “If only one of the strategies ...” with “If $p_H(h) \neq 0$ and only the strategy of Player 2_H rejects x^{T+1} and counteroffers x^{T+2} then $p_H(h') = 1$; if $p_H(h) \neq 1$ and only the strategy of Player 2_L rejects x^{T+1} and counteroffers x^{T+2} then $p_H(h') = 0$.” [The current text is inconsistent with NDOC.]
97, –2	Replace “him” with “her”.
99, 9	Insert “of” after “equilibrium”.
100	In state L the acceptance criterion for Player 2_H should be $x_1 \leq c_H$, not $x_1 \leq c_L + c_H$. The same change should be made in Table 5.2 (page 103), Table 5.3 (page 110), and Table 5.4 (page 111).

¹We are grateful to Pierpaolo Battigalli, John Hillas, and Shmuel Zamir for pointing out errors. In particular, the first error on page 97 and the confusions on pp. 104–105 were pointed out by John Hillas.

<i>Page, Line</i>	<i>Correction</i>
104, -16	Replace “ T ” with “ \bar{T} ”.
104, -5, -1	Replace “from period $t + 1$ on” with “subsequently”. [After a deviant proposal there is an <i>immediate</i> switch to another state. Though formally correct, the description starting on line -13 may be misleading; if, for example, Player 1 is offered an agreement in which she obtains slightly less than one then there is a switch to a state in which she <i>accepts</i> that proposal.]
104, -3	Replace “agreement on $x^* = (\xi^*, 1 - \xi^*)$.” with “agreement on $x^* = (\xi^*, 1 - \xi^*)$ in the case that Player 1 is the first to make an offer.”
110, 111	Replace “ $c_L + c_H$ ” in the last column and sixth row of Tables 5.3 and 5.4 with “ c_H ”.
117, 2	Replace “his reservation value” with “his opponent’s reservation value”.
141, -9	Omit first “a”.
169, 4	Replace “respond” with “propose”.
187, -7	Replace “9.3” with “9.2”.
201	Delete the reference “Binmore, K. G., and M. J. Osborne (1990) ... [66]” at the top of the page.

Updates

Admati and Perry (1988) is now

Admati, A. R. and M. Perry (1991), “Joint Projects without Commitment”, *Review of Economic Studies* **58**, 259–276.

Anbarci (1989) is now

Anbarci, N. (1993), “Noncooperative Foundations of the Area Monotonic Solution”, *Quarterly Journal of Economics* **108**, 245–258.

Ausubel and Deneckere (1988) is now

Ausubel, L. M. and R. J. Deneckere (1992a), “Durable Goods Monopoly with Incomplete Information”, *Review of Economic Studies* **59**, 795–812.

Ausubel and Deneckere (1989b) is now

Ausubel, L. M. and R. J. Deneckere (1992b), “Bargaining and the Right to Remain Silent”, *Econometrica* **60**, 597–625.

Bikhchandani (1989) is now

Bikhchandani, S. (1992), “A Bargaining Model with Incomplete Information”, *Review of Economic Studies* **59**, 187–203.

Binmore, Osborne, and Rubinstein (forthcoming) is now

Binmore, K. G., M. J. Osborne, and A. Rubinstein (1992), “Noncooperative Models of Bargaining”, pp. 179–225 in R. J. Aumann and S. Hart (eds.), *Handbook of Game Theory with Economic Applications* (Volume 1), Amsterdam: North-Holland.

Carlsson, H. (1988) is now:

Carlsson, H. (1991), “A Bargaining Model where Parties Make Errors”, *Econometrica* **59**, 1487–1496.

Casella and Feinstein (1988) is now:

Casella, A., and J. S. Feinstein (1992), “A Note on Bargaining and Inflation”, *Economics Letters* **38**, 393–398.

Casella and Feinstein (forthcoming) is now:

Casella, A., and J. S. Feinstein (1990), “Economic Exchange during Hyperinflation”, *Journal of Political Economy* **98**, 1–27.

Chatterjee, Dutta, Ray, and Sengupta (1987) is now

Chatterjee, K., B. Dutta, D. Ray, and K. Sengupta (1993), “A Non-Cooperative Theory of Coalitional Bargaining”, *Review of Economic Studies* **60**, 463–477.

Chatterjee and Samuelson (1989) is now:

Chatterjee, K. and L. Samuelson (1990), “Perfect Equilibria in Simultaneous-Offers Bargaining”, *International Journal of Game Theory* **19**, 237–267.

Chikte and Deshmukh (1985) is now:

Chikte, S. D. and S. D. Deshmukh (1987), “The Role of External Search in Bilateral Bargaining”, *Operations Research* **35**, 198–205.

Clemhout, S., and H. Y. Wan, Jr. (1987) is now:

Clemhout, S., and H. Y. Wan, Jr. (1988), “A General Dynamic Model of Bargaining—The Perfect Information Case”, pp. 293–305 in *Advances in Optimization and Control* (H. A. Eiselt and G. Pederzoli, eds.), Springer-Verlag, Berlin.

Cramton (1987) is now:

Cramton, P. C. (1992), “Strategic Delay in Bargaining with Two-Sided Uncertainty”, *Review of Economic Studies* **59**, 205–225.

Fernandez and Glazer (1989a) is now:

Fernandez, R. and J. Glazer (1991), “Striking for a Bargain between Two Completely Informed Agents”, *American Economic Review* **81**, 240–252.

For Fernandez and Glazer (1989b), see:

Fernandez, R. and J. Glazer (1990), “The Scope for Collusive Behavior among Debtor Countries”, *Journal of Development Economics* **32**, 297–313.

Fernandez and Rosenthal (forthcoming) is now:

Fernandez, R. and R. W. Rosenthal (1990), “Strategic Models of Sovereign-Debt Renegotiations”, *Review of Economic Studies* **57**, 331–349.

Fershtman (1986) is now:

Fershtman, C. (1990), “The Importance of the Agenda in Bargaining”, *Games and Economic Behavior* **2**, 224–238.

Green (1989) is now:

Green, E. J. (1991), “Eliciting Traders’ Knowledge in ‘Frictionless’ Asset Market”, Staff Report 144, Federal Reserve Bank of Minneapolis. [To appear in proceedings of international conference on game theory, Indian Statistical Institute, New Delhi, 1990.]

Groes and Tranæs (1989) is now

Hendon, E. and T. Tranæs (1991), “Sequential Bargaining in a Market with One Seller and Two Different Buyers”, *Games and Economic Behavior* **3**, 453–466.

Haller (1988) is now:

Haller, H. (1991), “Wage Bargaining as a Strategic Game”, pp. 230–241 in R. Selten (ed.), *Game Equilibrium Models III: Strategic Bargaining*, Berlin: Springer-Verlag.

Haller and Holden (forthcoming) is now:

Haller, H., and S. Holden (1990), “A Letter to the Editor on Wage Bargaining”, *Journal of Economic Theory* **52**, 232–236.

Harrington (1989) is now:

Harrington, Jr., J. E. (1990), “The Role of Risk Preferences in Bargaining when Acceptance of a Proposal Requires Less than Unanimous Approval”, *Journal of Risk and Uncertainty* **3**, 135–154.

Howard (1988) is now:

Howard, J. V. (1992), “A Social Choice Rule and Its Implementation in Perfect Equilibrium”, *Journal of Economic Theory* **56**, 142–159.

McLennan and Sonnenschein (1989) is now:

McLennan, A. and H. Sonnenschein (1991), “Sequential Bargaining as a Noncooperative Foundation for Walrasian Equilibrium”, *Econometrica* **59**, 1395–1424.

Muthoo (1989b) is now:

Muthoo, A. (1992), “Revocable Commitment and Sequential Bargaining”, *Economic Journal* **102**, 378–387.

Muthoo (1989c) is now:

Muthoo, A. (1993), “Sequential Bargaining and Competition”, *Economic Theory* **3**, 353–363.

Muthoo (1989d) is now:

Muthoo, A. (1990), “Bargaining without Commitment”, *Games and Economic Behavior* **2**, 291–297.

Muthoo (1989e) is now:

Muthoo, A. (1991), “A Note on Bargaining Over a Finite Number of Feasible Agreements”, *Economic Theory* **1**, 290–292.

Okada (1986) is now:

Okada, A. (1991a), “A Two-Person Repeated Game with Long-Term Contracts”, pp. 34–47 in R. Selten (ed.), *Game Equilibrium Models III: Strategic Bargaining*, Berlin: Springer-Verlag.

Okada (1988a) is now:

Okada, A. (1991b), “A Noncooperative Approach to the Nash Bargaining Problem”, pp. 7–33 in R. Selten (ed.), *Game Equilibrium Models III: Strategic Bargaining*, Berlin: Springer-Verlag.

Perry and Reny (1989) is now:

Perry, M. and P. J. Reny (1993), “A Non-cooperative Bargaining Model with Strategically Timed Offers”, *Journal of Economic Theory* **59**, 50–77.

Peters (1987) is now:

Peters, M. (1991), “Ex Ante Price Offers in Matching Games: Non-Steady States”, *Econometrica* **59**, 1425–1454.

Ponsati-Obiols, C. (1989b) is now:

Ponsati-Obiols, C. (1992), “Unique Equilibrium in a Model of Bargaining over Many Issues”, *Annales d’Economie et de Statistique* **25–26**, 81–100.

Rubinstein (1988) is now:

Rubinstein, A. (1991), “Comments on the Interpretation of Game Theory”, *Econometrica* **59**, 909–924.

Sákovics (1989) is now:

Sákovics, J. (1993), “Delay in Bargaining Games with Complete Information”, *Journal of Economic Theory* **59**, 78–95.

Samuelson (1989) is now:

Samuelson, L. (1992), “Disagreement in Markets with Matching and Bargaining”, *Review of Economic Studies* **59**, 177–185.

Shaked (1987) is now

Shaked, A. (1994), “Opting Out: Bazaars versus ‘Hi Tech’ Markets”, *Investigaciones Económicas* **18**, 421–432.

Stahl (1987) is now:

Stahl, D. O., II (1990), “Bargaining with durable offers and endogenous timing”, *Games and Economic Behavior* **2**, 173–187.

van Damme, Selten, and Winter (1989) is now:

van Damme, E., R. Selten, and E. Winter (1990), “Alternating Bid Bargaining with a Smallest Money Unit”, *Games and Economic Behavior* **2**, 188–201.