On The Salience of Ethnic Conflict: Web Appendix

Joan Esteban
Instituto de Análisis Económico, Barcelona

and

Debraj Ray
New York University

November 2007

PROPOSITION 6. *Suppose that all preferences over final outcomes are strict. Assume the conclusions in Propositions 2, 3 and 4; i.e.,*

[P.2] *The poor ethnic majority prefer ethnic conflict to class conflict.*

[P.3] *The rich ethnic majority prefer ethnic conflict to class conflict whenever the poor ethnic majority prefer class conflict to peace.*

[P.4] *The rich prefer peace to class conflict.*

Then it is possible to have ethnic conflict or peace, but never class conflict, as an equilibrium outcome of the alliance formation game.

In addition, if the conditions of Proposition 5 hold, so that the poor prefer class conflict to peace, then ethnic conflict is the unique outcome of the alliance formation game.

Proof. Divide up the proof into different steps.

[S.1] *The poor prefer class conflict to peace.* In this case, we claim first that peace cannot be an equilibrium outcome following *any* history.

By our description of the game, if peace is an equilibrium outcome following some history, then the poor-H would be able to make a proposal with probability one at some point between that history and the end of the game. Suppose that the poor-H propose a terminal class alliance to the poor-M.

If the poor-M accept, the resulting outcome is class conflict. If they reject, then the outcome following this new history is either ethnic conflict, class conflict or peace. By assumption, the poor prefer class conflict to peace. Moreover, we assert that the poor-M prefer peace to ethnic conflict. To see this, note that by [P.2], the poor-H prefer ethnic conflict to class conflict and by [S.1], they prefer class conflict to peace. So the poor-H prefer ethnic conflict to peace. It is easy to see that in this case, the opposite must be true of poor-M, which proves the assertion.

It follows that class conflict is the best outcome for poor-M. By [D], they should accept the offer.

We have therefore created a profitable deviation for poor-H, a contradiction.

With this claim in hand, we show that the unique equilibrium outcome of the game is ethnic conflict. For if not, then by the claim, for some equilibrium path (corresponding to a particular realization of the proposer protocol) the outcome is class conflict. Now, the poor-H prefer class conflict to peace, so by [P.3], the rich-H prefer ethnic conflict to class conflict. They also prefer peace to class conflict by [P.4]. So class conflict is the worst outcome for rich-H. By [D], it follows that the poor-H must initiate or accept the proposal for class conflict.

Suppose, instead, that the poor-H deviate by not initiating (or rejecting) such a proposal and by proposing ethnic conflict to the rich-H when they next have the opportunity to propose. Because peace is unavailable by the Claim, and the rich-H prefer ethnic to class conflict ([P.3]), they will accept this proposal. We have therefore constructed a profitable deviation for poor-H, a contradiction.

[S.2] *The poor prefer peace to class conflict.* In this case, we claim first that class conflict cannot be an equilibrium outcome following *any* history.[1] For if this were false, either the poor or the rich groups must agree to form a class alliance. It cannot be the former, because class conflict is the worst outcome for the poor-H (use [P.2] and [S.2]). By [D], they must prefer to postpone this outcome to a later stage in the bargaining.

As for the rich, consider two subcases. First, assume that the rich-M prefer ethnic conflict to class conflict. From [P.4], it then follows that class conflict is the worst outcome for the rich-M, so that they will not accept or initiate such a proposal. Now suppose that the rich-M prefer class conflict to ethnic conflict. In that case, *ethnic* conflict is the worst outcome for the rich-M, so that they will not accept or initiate such a proposal. Given this, the rich-H will never agree to the formation of a class alliance: by rejecting any offer for class conflict and all subsequent offers, it can guarantee peace, which it prefers (by [P.4]) to class conflict.

Therefore the equilibrium outcome in case [S.1] is ethnic conflict and case [S.2] it is either peace or ethnic conflict.

If in addition, the conditions of Proposition 5 hold, then case [S.1] is in force, and the unique equilibrium outcome must be ethnic conflict. ∎

---

[1] In the knife-edge cases, ruled out by assumption, in which the poor are exactly indifferent between peace and class conflict, it is possible to construct an equilibrium with class conflict. Assume that the rich-H strictly prefer peace to ethnic conflict. Now suppose that one of the poor groups propose first. It proposes class conflict to the other poor group, and the proposal is accepted. In every subgame following an initial rejection of this proposal, every other proposal is rejected. This is an equilibrium, but it is fragile to the slightest degree of strict preference.