1106-91-2283   **Mike Mesterton-Gibbons** and **Tugba Karabiyik*** (`tugbakarabiyik1@gmail.com`), Departmant of Mathematics, Florida State University, LOV 208, Tallahassee, FL 32306, and **Tom Sherratt**. *On the evolution of partial respect for ownership: infinite regress revisited.*

An early prediction of game theory was that Bourgeois (B) respect for ownership can arise as an arbitrary convention to avoid costly disputes; but that its opposite, dispute-avoiding anti-Bourgeois (X), through which owners cede their property to intruders, is also an evolutionarily stable state (ESS). Yet first finders of valuable resources are frequently left unchallenged in nature, whereas evidence for the opposite convention is rare at best. An early rationale for this outcome, that two X-strategists would exchange roles repeatedly over many rounds in a costly "infinite regress," was formalized only recently. This analysis showed that if the fighting cost C and probability w of two individuals meeting again exceed thresholds determined by costs of assuming and ceding ownership, then B becomes the only stable convention; but also that infinite regress does not invariably render X unviable. However, the model allowed only for monomorphic ESSs. Here we extend it to allow for polymorphic ESSs, and explore conditions that favor degrees of partial respect for ownership. In particular, we show that X is never uniquely the ESS; and we identify a pathway through which respect for ownership can evolve from disrespect under increasing C and w. (Received September 16, 2014)