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# Games That End in a Bang or a Whimper

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**Abstract.** Using truels, or three-person duels, as an example, we show that how players perceive a multiple-round game will end can make a big difference in whether it ends non-cooperatively (producing a “bang”) or just peters out (producing a “whimper”):

1. If the players view the number of rounds as *bounded*—reasonable, because the game must end in a finite number of rounds—they will shoot from the start.
2. If the players view the number of rounds as *unbounded*—reasonable, because the horizon of the game is infinite—then a cooperative equilibrium, involving no shooting, can also occur.

Real-life examples are given of players with bounded and unbounded outlooks in truel-like situations. Unbounded outlooks encourage cooperative play, foster hope, and lead to more auspicious outcomes. These outcomes are facilitated by institutions that put no bounds on play—including reprisals—thereby allowing for a day of reckoning for those who violate established norms. Eschatological implications of the analysis, especially for thinking about the future and how it might end, are also discussed.

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