

The Fundamental Theorem of Poker

There is a Fundamental Theorem of Algebra and a Fundamental Theorem of Calculus. So it's about time to introduce the Fundamental Theorem of Poker. Poker, like all card games, is a game of incomplete information, which distinguishes it from board games like chess, backgammon, and checkers, where you can always see what your opponent is doing. If everybody's cards were showing at all times, there would always be a precise, mathematically correct play for each player. Any player who deviated from his correct play would be reducing his mathematical expectation and increasing the expectation of his opponents.

Of course, if all cards were exposed at all times, there wouldn't be a game of poker. The art of poker is filling the gaps in the incomplete information provided by your opponent's betting and the exposed cards in open-handed games, and at the same time preventing your opponents from discovering any more than what you want them to know about your hand.

That leads us to the Fundamental Theorem of Poker:

Every time you play a hand differently from the way you would have played it if you could see all your opponents' cards, they gain; and every time you play your hand the same way you would have played it if you could see all their cards, they lose. Conversely, every time opponents play their hands differently from the way they would have if they could see all your cards, you gain; and every time they play their