

 **Errata for Blackjack Ace Prediction - UPDATE October 24, 2004**

Page 24, Line 8: Although “Ace Tracking, count tracking and sequence tracking” ...

Page 37, Line 13: “... positive probability ...” In this case, until a card has at least a 1/52 probability of appearing in any given position, its probability can be termed “not positive” in the sense that it has no meaningful, real-world effect.

Page 38, Line 31: The probability of one-card packets becomes: $8/9 - 8/81 = 64/81 = 0.79$.

Page 39, Line 1: three-card packets = $1/81 = 0.01$

Page 41, Line 15: Uncertainty equation:

$$U = - \sum_{i=1}^{52} (1) \log_2(1) = 0$$

Page 63, Table 3-7: The total probability for “Stripping” (12/31) should be replaced with 12/51.

Page 73, Figure 4-4: The post-shuffle diagram on the right fails to show that the two “shuffle weaknesses” end up in the second deck from the top of the final stack (that is, in half-deck segments I and J).

Page 75, equation 4-6:

$$SE_{line} = \sum_{i=1}^n (x_i - x_{line})^2$$

Page 107, Line 1: Replace the words “the insect” with “it”

Page 114, Line 15: At this point we invoke Snyder’s rule of thumb—the player and the dealer share the Aces 50/50. In this case, that means the player and the dealer get *three* additional Aces each. The probability of the Ace “hitting the money” $P(h)$ and the probability of the dealer getting the Ace by accident $P(d)$ become 0.10 while $P(m)$ is reduced from 0.87 to 0.80.

Page 114, Line 25: Assuming $E_1 = +0.51$, $E_2 = -0.34$, $E_3 = -0.005$ $h = 0.10$, $d = 0.10$ $m = 0.80$

$$\begin{aligned} E(X) &= (+0.51 \times 0.10) + (-0.34 \times 0.10) + (-0.005 \times 0.80) \\ &= +0.051 - 0.034 - 0.004 \\ &= +0.0130 \end{aligned}$$

Note, if the dealer *can be prevented from getting the Ace*, the player’s expectation is:

$$\begin{aligned} E(X) &= (+0.51 \times 0.13) + (-0.34 \times 0.07) + (-0.005 \times 0.80) \\ &= +0.0663 - 0.0238 - 0.004 \\ &= +0.0385 \end{aligned}$$

Page 114, Line 28: “Against the two-riffle R&R shuffle *BJAP I* (see Chapter 3), Ace prediction ...”

Page 114, Line 29: The unexplained figure 0.083 is approximately equal to the probability of a “tie” or “push” in blackjack.

Page 115, Line 10: Assuming $E_1 = +0.51$, $E_2 = -0.34$, $E_3 = -0.005$ $h = 0.05$, $d = 0.07$ $m = 0.88$

$$\begin{aligned} E(X) &= (+0.51 \times 0.05) + (-0.34 \times 0.07) + (-0.005 \times 0.88) \\ &= +0.0255 - 0.0238 - 0.0044 \\ &= +0.00 \end{aligned}$$

Page 117, Footnote: In calculating bet size in Chapter 8 it is assumed the dealer is *prevented from getting the Ace*.

Page 152, Reference 77: SNYDER, 2003, p. 97.

