The example is from Hugh Kelsey's "Winning Card Play".


To acquire 3 tricks Kelsey suggests playing the Ace at trick one followed by the 5 and a low card from the hand no matter which card East is playing. This is based on the reasoning that if the suit breaks 4-2 West is more likely to be in possession of Kx or Qx rather than a small doubleton.

The best line according to the analysis is also the line starting with the Ace.


Figure 1
But on inspecting the distributions an interesting observation is made. The 3 distributions with doubleton 92, 82 and 72 in West are counted as winning distributions and the 2 distributions with doubleton K2 and Q2 in West are counted as losing distributions. In the situation after Ace from North, 7 (or 8,9) from East, 3 from South and 2 from West followed in trick 2 by 5 from North and 8 (or 7,9 ) from East it is therefore a better chance to cover than to play low.

The situation can be explained by use of the Principle of Restricted Choice. From the distributions D2-K987 and K2-Q987 East has the choice between 3 different combinations of cards of equal rank to play in the first two rounds: 7 and 8,7 and 9 or 8 and 9 . The probabilities of these distributions are thereby being reduced to a third. From $92-\mathrm{KQ} 87$ (or $82-\mathrm{KQ} 97,72-\mathrm{KQ} 98$ ) East's choice is restricted to one, namely the only two small cards available. The odds are therefore 3:2 in favour of finding the 9 (or 7,8 ) in West.

The probability for success of the overall playing line by adopting this variation is increased by $1.6149 \%$ to $66.21 \%$ as can be inferred from the percentages of the variants and the percentages for the distributions.

