



N.3 September 2004 (by Luigi Salemi)



QUESTION



Play 3 N.T. with

♠ 432

♥ AK

♦ 65432

♣ T86

North

♠ AK65

♥ 32

♦ AK7

♣ AJ97

South

West attack with 4 of Heart (4<sup>^</sup> Card of Suit).

You have only 7 sure levee. Other 2 you can from Diamonds 3-2 or Finesse repeat on Clubs Honours.

You now know that Hearts 4/5 (4 on left) change probability of Division of Diamond and of Division of the Honours of Clubs. You do not find this value, then I put it for you:

Diamonds 3-2 (2 Cards in East or in West)	70,6%
2 Honours of Clubs in East	20,5%
Honours of Clubs in East ed in West	53,0%
2 Honours of Clubs in West	26,5%

The best line of play?



ANSWER (Easy)



If you repeat finesse on Honours of Clubs you win in the 73,5% of case, then .. you put Ace and King of Diamonds and win in the 70,6%, if Diamonds not are 3-2 (29,4%) you play small Clubs of the Hand, after of the Dummy you finesse other

Honours. You win also if 2 Honours of Clubs are in East (the 20,5% in case Diamonds not are 3-2).

Then you win in  $70,6\% + 20,5\% \times 29,4\% = 76,63\%$

Now you can to ask: "It is sure that Diamonds not 3-2 not modify probability of the division of the Honours of Clubs". It is not!



ANSWER (Medium)



What wants to say that a Event has one probability of TOT%? It wants to say that if, to parity of conditions, 100 tests are made the Event will take place TOT approximately times, if 1000 tests are made will take place approximately 10 x TOT times and so on. Much greater one is the number of the tests the much best one will be the approximation of the probability.

And now we turn upside down the reasoning: if, on a considerable number of tests, the Frequency of an Event is TOT% then, with good approximation, the Probability of the Event is TOT%.

And here it enters "The MILL" (AnalisiLG.exe), that is a program that test million identical same times the situation and counts how many times an Event verification. The program download from the page of the "Circle Bridge Catania", if you have not still made it is reached the moment.

After to have installed it and under way it comes to you asked to insert the Cards of Line NORD/SUD, fact this you can add the eventual acquired information in phase of Bidding or Play. In our case we will have to indicate that we have ascertained that the Hearts are 4/5 (4 on the left).

To follow we can insert until 4 various lines of Game that we want to put to comparison, in our case these are alone 2:

[Play Line A: Repeat Finesse on Clubs]

*Clubs K in\_East !!* (King of Clubs in East)

*Clubs Q in\_East !!* (Queen of Clubs in East)

[Play Line B: Diamonds 3-2 or 2 Honours of Clubs in East]

*Diamonds in\_East\_or\_in\_West 2^ !!* (2 Cards of Diamonds in East o in West [3-2])

*Clubs K Q in\_East !!* (King and Queen of Clubs in East)

The written ones in italics are those to supply to the Program in order to place the conditions, to part the syntax rigidity is enough SelfClear and perhaps they did not need of the ulterior explanation between round parentheses. Conditions placed on various Lines are from meaning in cascade (ex.: King of Clubs in East OR Queen of

Clubs in East), the double quantity point "!!" it designates the end of the Line. Perhaps it is not an immediate syntax, but I assure to you that hardly you have taken a hand to us is much easy one.

It does not remain other to make that to put in execution the Program (GRAPHICAL Panel) and to attend the result.

Few time after appear the response:

Line of Game A: 73.5x% (the "x" indicate one factor of approximation of the order of the 0,05, remembered that the Frequency approximates the Probability, BUT NOT NEVER IDENTICAL). Absolutely online with how much calculating.

Line of Game B: 77,6x%. A point percentage in more of the waits? The motivation resides in the previous observation: the bad Division of the Diamonds influences, in one favorable direction to we, the division of the Honours of Clubs.

**Attention: that follows, because of content particularly HARD, is destined only to a public adult.**

♠♥ ANSWER (Hard) ♦♣

In effects we find of forehead to one crossroad: or we throw MILL because not work (what that would sorry to me very many) or must justify in scientific way the result. I try the second one.

Place that the 4/5 Hearts are this is the Table of the Division of the Diamonds and the relative probability of both the Honours of Clubs in East

Diamonds		% 2 Honours of Clubs in East
Division	%	
0- 5	0,90	4,6
1- 4	10,18	9,1
2- 3	32,58	15,1 (Diamonds 3-2, not use)
3- 2	38,01	22,7 (Diamonds 3-2, not use)
4- 1	16,29	31,8
5- 0	2,04	42,5

and the account begins them goes as it follows:

$$70,6\% + 0,9\% \times 4,6\% + 10,18\% \times 9,1\% + 16,29\% \times 31,8\% + 2,04\% \times 42,5\% = 77,61\%$$

And this show some consequence:

- a) Also a simple question is terribly complicated to estimate with odds

b) "The Mill" seems to succeed makes to find the just solution us with a limited number of difficulty

A friend who plays better than me (what for nothing difficult) makes me to observe that he gains himself even if there is a single Honour of Clubs in the West; these in fact will have, its badly degree, to make before taken in the suit and this will allow us to Finesse the residual Honour in East

♠♥ ANSWER (Super) ♦♣

Therefore the just conditions for placing in the indication of the line of game B are:

[Play Line B: Diamonds 3-2 OR Honours of Clubs in East OR Honour of Clubs singleton in West]

*Diamonds in\_East\_or\_in\_West 2^ !!* (Diamonds 3-2)

*Clubs K Q in\_East !!!* (King and Queen of Clubs in East)

*Clubs K in\_West 1^ !!* (King of Clubs singleton in West)

*Clubs Q in\_West 1^ !!* (Queen of Clubs singleton in West)

With a factor of win of 78,4x%. And this is definitive (until when I will not meet someone that plays still better).