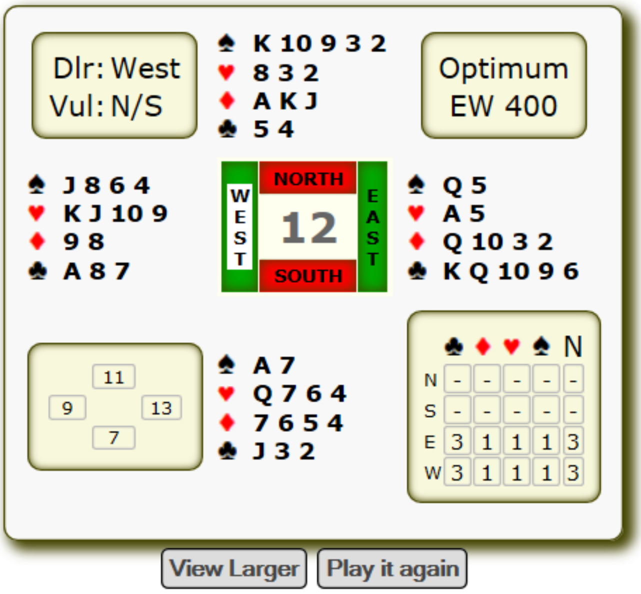
♠♥ Do you know the Theory of Vacant Places (AKA Vacant Spaces)? ♦♣



Board No 12 N/S Vul Dealer West								
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NS	EW	Bid	By	Tks	+Sc	-Sc	+	-
1	14	3♣	E	8	50		26	2
2	16	2♣	E	7	50		26	2
3	10	2♣	E	8		90	16	12
4	12	3♣	E	9		110	5	23
5	15	2♣	E	8		90	16	12
6	9	3♣	E	9		110	5	23
7	11	2♣	E	8		90	16	12
8	13	2♣	E	8		90	16	12
17	30	2♥	N	6		200		28
18	32	2♠	N	7		100	8	20
19	26	2♣	E	8		90	16	12
20	28	1NT	E	9		150	2	26
21	31	2♣	E	8		90	16	12
22	25	2♣	E	7	50		26	2
23	27	2♣	E	8		90	16	12

On Thursday, 1st December 2016, Board 12 was a part-score which was mostly played in clubs by East-West. A sort of nondescript hand which probably did not get much attention at the time it was played or in the many apres-session reviews!

But it is an interesting deal nonetheless. It was played fifteen times. One intrepid North played in 2♥ and scored a bottom for making six tricks. Another North played in 2♠, making seven tricks, and didn't fare well with the matchpoints. One East was allowed to play in 1NT and scored nine tricks and a second-top! Twelve East-West pairs played the hand in clubs…three of them at the three-level, where one failed and the other two made their contracts and scored well with matchpoints. Seven pairs bid 2♣ and made the requisite eight tricks.

I suspect that the bidding differed quite substantially at various tables. Did North always open 1♠? Did East always overcall 2♣, and if so, did South make a Negative Double? And what did West do?

Anyway, the interesting aspect about the hand is why only two pairs made nine tricks in clubs and how two pairs only made seven tricks in the same denomination.

The play of this hand is determined by the approach that the defence takes! On a heart lead ten tricks CAN be made…win with ♥A, finesse ♥J at trick two and then discard a spade on ♥K at trick three. Now lead a diamond. North will win with ♦K and can switch to a small spade which South will win with ♠A. South can continue with a spade which declarer will ruff. Now, declarer plays three rounds of trumps ending in dummy and leads another diamond. North can win with the ♦A but declarer's ♦Q10 will take two further tricks. This gives declarer a total of ten tricks by way of five trumps, three hearts and two diamonds but is based on unlikely plays!

Furthermore, if declarer wins the first heart in dummy and plays a second heart to the now stiff ♥A in hand they can then play a club to dummy's ♣8, cash ♥K for a spade discard and then lead a diamond. Play then proceeds as before. But again this sequence involves a play that is unlikely to be found at the table, i.e. finessing dummy's ♣8 for an entry to the table whilst also retaining ♣A an entry later to play a second diamond from dummy! But if declarer wins the first heart in dummy and does not play as outlined above then he will eventually be short-trumped and will lose at least four tricks. Even though diamonds are well placed for declarer (North's ♦AKJ positioned UNDER declarer's ♦Q1032) declarer does not have the requisite entries to be able to lead diamonds TWICE from dummy and will end up losing a minimum of three diamonds and a spade.

And on a trump lead declarer will be able to play diamonds twice from dummy, being careful to win third trump with dummy's ♣A. The ♣A and ♥K provide the requisite entries to enable declarer establish ♦Q10 as winners and thereby make a total of nine tricks.

On a diamond lead North may cash the top two honours and play a third round only to find declarer winning it with ♦Q and declarer can then make nine tricks via five trumps, two diamonds and two hearts. And indeed declarer could finesse the ♥J for a total of ten tricks! But that never materialised!

On the other hand, if North wins the first diamond they will have the opportunity to find the potentially lethal switch to a small spade, although it won't look like an attractive option from their perspective!

If the defenders attack spades by leading ♠A and another or, if North finds the switch to a small spade after winning the first diamond, then the defence can cash the first four tricks, (two top spades and two top diamonds) and then North can continue with a third spade at trick five.

And this is where the crux of the matter arises. If East ruffs the third spade with a club other than the ♣K or ♣Q then South will overruff with the ♣J and eight tricks will be the maximum.

And that was what happened at one table. Declarer, in a contract of 3♣ initially insisted that the contract had to fail because South had ♣Jxx and if declarer ruffed with the ♣K (or ♣Q) and then played the remaining two top clubs it would establish South's ♣J and the contract would fail by a trick.

It was then suggested that the third spade could be ruffed with ♣K (or ♣Q) whereupon the other honour could be cashed in hand and declarer could then FINESSE against South's remaining ♣Jx. But declarer was not satisfied and responded that how were they to know that the club finesse would work. And it was suggested that it mightn't BUT that the theory of **Vacant Places** could be used as a guide and that, on this hand at least, it would point declarer in the right direction.

And then the theory of **Vacant Places** (AKA **Vacant Spaces**) was explained. The theory is used in bridge to help declarer determine which opponent he should play for a missing key card. The theory is quite simple.

'***The theory of vacant spaces states that when the distribution of one or more suits is completely known, the probability that an opponent holds a particular card in any other suit is proportional to the number of vacant spaces remaining in his hand'***.

Thus in the case of this hand, once three rounds of spades have been played, North is known to hold five spades and therefore has eight vacant spaces whereas South is known to hold only two spades and hence has eleven vacant spaces. Thus, in the light of Vacant Spaces, the odds are in favour (11 to 8) of South having the ♣J.

It is a simple theory, and as with any odds used at the bridge table, it is simply that… odds, or percentages, in favour of one player or the other holding a specific card. But as with all odds it comes with no guarantee!

In this instance, declarer, upon ruffing the third spade with the ♣Q, can cash the ♣K in hand and then lead a club towards dummy's holding, which is now ♣A8. If South follows low to the first and second round of clubs the odds favour finessing based on the Vacant Places already known in respect of the North and South hands.

It is a simple and rudimentary calculation but in the absence of anything else it can be a useful guideline.

Be aware…but use with care! !

Paul J Scannell,
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