

PLEASE USE THE CAR PARK – KEEP THE ROAD AREA CLEAR FOR THOSE WHOSE MOBILITY IS NOT AS GOOD AS YOURS

# Newsletter

Summer 2013



I am pleased to report that our initiative of asking members to arrive no later than 6.50pm, so that we can get any announcements, presentations etc out of the way and the director can set the movement in good time for play to start promptly at 7pm, seems to be working. As I have explained previously it is not always possible to play a simple Mitchell movement and therefore players can expect some Howells or Hesitation Mitchell movements and when these occur it is incumbent on us all to play a little quicker so we can finish no later than 10.30pm.

Gill and David will shortly be taking charge of us on Wednesday evenings as a welcome addition to our director team. Congratulations to them and thanks for undertaking the study and examinations necessary to qualify. It is inevitable that not all director decisions are popular, but members must please understand that directors are owed respect and courtesy, as well as our gratitude, for ensuring fairness at all times. In the rare circumstances where a player genuinely feels a director's decision is wrong, the player should lodge (if possible) an immediate appeal which can be heard on the night, or failing that follow the process as set out on our web site.

Talking of Laws and Regulations – the new announcing rules are now in effect. Most of you have received these but for completeness I enclose a separate sheet if you receive this newsletter by email.

**DID YOU KNOW?** In the past this section has been predominantly devoted to explaining some of the Laws but in this edition I have set you a small quiz! PLEASE DO NOT TURN PAGE OR SCROLL DOWN until you have given this some thought . . . . . (that is why the question is here and not farther down the page!!)

How many possible 52 card bridge deals are there?

How many possible permutations of the Auction are there?

If you have no idea of either – which is the greater?

(by the way – do read the full answer; the note at the end is mind blowing!!)

**FORTHCOMING:** The Individual Championship started in May and finishes in October. This Championship is a wonderful opportunity to partner different members through the Summer months and relax a bit! **On 21st August we hold both our Ladies & Mens Pairs Championships – if you haven't yet found a partner please do so asap!!!**

Our next **Swiss Pairs** will be held on **25 SEPTEMBER** - and this advance notice is so that you can all put the date in your diaries now as this is always a great evening and not to be missed.

**HELP and SUPPORT:** Your Committee is always appreciative of those members who do help out but we still need more of you – PLEASE – to assist with opening up. Please contact Doug if you can help - if only for a week.

**CHRISTMAS:** I know it is a long way off but we need to think about what we want to do by way of a "Christmas Event". In the past we have had members bring their own food with the club providing wine etc but more popular in recent years has been for the club (or some of its members) to supply sausage rolls and mince pies, along with a glass of mulled or other wine. If you have other suggestions for this year please let me know asap (no later than beginning September). Please also let me know if you want strictly normal bridge, or whether you would like normal bridge but with a few exceptional hands included to test your patience and – hopefully – make you smile.

**CONVENTION CARDS:** Whilst we would like everyone to have a convention card when they play, we don't insist on it for those who play simple or basic Acol. If you play a more complicated system eg Acol with lots of gadgets / conventions; or other systems such as Multi 2D ; strong club ; blue club ; 5 Card majors ; 2 over 1 etc then do please have a convention card at the table and recognise that whilst at PDBC we allow all systems up to Level 4, we are a broad range of abilities and if you do play systems other than basic Acol it is only courteous to explain that when you join the table or when you meet your next opponents.

**Thank you for your support**

The number of possible 52-card bridge deals is: 53,644,737,765,488,792,839,237,440,000

The number of possible auctions is:

128,745,650,347,030,683,120,231,926,111,609,371,363,122,697,557

That is a great number indeed; it seems that auctions outnumber bridge deals by a factor of

2.4 quintillion to one! (that's 18 zeros)

Let us see how this monster figure is derived.

After a bid of 7 Notrump, there are seven possible continuations:

- P P P
- P P Dbl P P P
- P P Dbl Rdbl P P P
- P P Dbl P P Rdbl P P P
- Dbl P P P
- Dbl Rdbl P P P
- Dbl P P Rdbl P P P

These terminal patterns accrue after any bid is made and there is no subsequent overcall. I refer to them collectively as the Basic Matrix.

After a bid of 7 Spades, any one of the basic follow-ups may occur. Additionally, within the Basic Matrix, any of the three final passes in any of the seven sequences (shown in red) could be replaced by 7 Notrump, after which the same patterns would apply, with no further variations. (Replacing earlier passes would be redundant.) The possible sequences:

$$\begin{array}{r} 7 \quad \text{basic matrix} \\ + 21 \times 7 \quad \text{7-notrump bids} \\ \hline 154 \quad \text{Total} \end{array}$$

This total also can be represented as:  $(7 \times 1) + (7 \times 21) = 7 \times 22$

Now consider a bid of 7 Hearts. Again the Basic Matrix applies, as well as any of the twenty-one final passes that could be replaced by either of two higher-ranking bids:

$$\begin{array}{r} 7 \quad \text{no further bidding} \\ + 21 \times 7 \quad \text{7-notrump overcall} \\ + 21 \times 154 \quad \text{7-spade overcall} \\ \hline 3388 \quad \text{Total} \end{array}$$

Substituting from the 7-spade calculation, this totals:  $(7 \times 22) + 21 \times (7 \times 22) = 22 \times (7 \times 22) = 7 \times 22^2$

By continuing in this manner, a nice pattern emerges which can be extrapolated to all thirty-five opening bids:

$$\begin{array}{l} 7 \text{ Notrump opening} = 7 = 7 \times 22^0 \\ 7 \text{ Spades opening} = 154 = 7 \times 22^1 \\ 7 \text{ Hearts opening} = 3388 = 7 \times 22^2 \end{array}$$

**Thank you for your support – if you have a new or changed email address please let me know**

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$$1 \text{ Club opening} = 7 \times 22^{34}$$

The combined total for all opening bids can be summed as:  $7 \times (1 + 22 + 22^2 + \dots + 22^{34})$

There is a handy-dandy formula for summing the powers  $0 \rightarrow x$  of integer  $n$ .

It is:  $(n^{x+1} - 1) \div (n - 1)$ .

Application of this formula to our summation yields:  $(22^{35} - 1) / 3$ .

We're not quite finished. The above calculation must be multiplied by 4 to accommodate any number of **initial passes**. Finally, the unique case of a **passout** is included.

Our grand total becomes  $(22^{35} - 1) \times (4 / 3) + 1$ . Rearranged for simplicity, we have:

$$(4 \times 22^{35} - 1) \div 3$$

Who would have guessed that the number of bridge auctions would be a function of the powers of 22?

*Note:* In case you still lack a full appreciation of the size of that number, consider this hypothetical comparison:

- The number of grains of sand on the earth is estimated as  $10^{20}$  to  $10^{24}$ . Assuming the maximum, that's 100 million  $\times$  100 million  $\times$  100 million grains.
- There are an estimated  $10^{11}$  stars in our galaxy, and an estimated  $10^{11}$  galaxies in the visible universe.
- Speculating that our own galaxy is of average size, that's 10 million  $\times$  10 million  $\times$  100 million total stars.
- Envision an average of 12 earth-like planets orbiting every star in every galaxy.

Under those conditions, if you were to count **all the grains of sand in the entire universe**, the total **still would fall short** of the number of possible bridge auctions!

For the less astronomically minded, I offer this equivalent:

- If each of earth's 7 billion humans could simultaneously operate 7 billion computers, each of which could spit out 7 billion unique bridge auctions every second, it still would take more than a trillion years to complete a listing!

Yes, the total is approximately equal to the odds against your number coming up a winner on 30 consecutive spins of a roulette wheel. So the next time your partner suggests that your bidding system is ready, you might refer her/him to this article!

Yes, I appreciate that this mind-boggling concept can be difficult to reconcile; after all, it's just five different denominations on seven levels, right? I submit that the doubter might glean a better understanding with this empirical test: Just start with, say, 7 Clubs, and start listing all the iterations on paper. If you can manage to record an average of three auctions per minute amidst all your other activities, you will be nearly finished within a year. Then go back and start the bidding at 6 Notrump. Plan to spend 22 years this time.

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[the above is taken from taken from Ted's Bridge World - <http://tedmuller.us/Bridge/Software.htm> - a great web site for all sorts of things not just bridge. Click on the link and scroll down and click on Bridge]

Thank you for your support