

Where are my matchpoints?

The mathematics of scoring a 400-table Pairs game

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AFTER nearly twenty years as organiser of the three Australia-Wide Pairs events, there is still one question that I get asked more than any other: "We won our club session, so why are we not the highest-ranked pair from our club?"

For example, it is common for a pair to score 62% in their club session, but once the event has been scored across the field, they score 58%. Meanwhile, another pair from the same club, who scored 58% in the club session, ends up on the national leaderboard with a 62% score. Invariably, I get phone calls from twenty different clubs telling me that I've made a mistake with the scores.

There's no mistake. The truth is, in a three-table or four-table game, there is not much difference between 58% and 62%. In a three-table game you play 25 boards, with each board being worth 4% of your score. And you either score the whole 4% (a top board), or none of it (a bottom board), or half of it (an average board). Occasionally you get a shared top for 75% of the matchpoints on the board, or a shared bottom for 25%, but there is no middle ground between an average and a shared top; every score is rounded to the nearest 25% (that is, a full 1% of your final percentage score).

Imagine you score +650 in 4♣, while both of the other tables defend 4♠ doubled for +800. That's a zero for you. However, imagine one pair drops a trick and scores only +500. Your own table result hasn't changed, but now you have an average, and an extra 2% on your total score. That's the difference between a final score of 58% and 60% right there, caused just by one trick on one board at one table... and you weren't even at the table where it happened.

Here is an example of one club's scores from this year's Australia-Wide Restricted Pairs. These were the results that the players saw when they went home at the end of their three-table session:

Rank	Pair	Score
1	Ros & Roy	65.0%
2	Dan & Jerry	62.0%
3	Petra & Leonard	59.0%
4	Alan & Fenella	58.0%
5	Brian & Jen	29.0%
6	Larry & Jill	27.0%

The two least-experienced pairs in this field would have walked away feeling pretty discouraged by this result, but in reality things were not as bad as they looked. Once the event had been scored up across the full 400-table field, the results were very different:

Rank	Pair	Score
1	Alan & Fenella	64.2%
2	Ros & Roy	56.8%
3	Petra & Leonard	52.0%
4	Dan & Jerry	49.4%
5	Brian & Jen	41.6%
6	Larry & Jill	36.1%

The leaders' 65% and 62% scores had dropped to 56.8% and 49.4% respectively, while Alan and Fenella's fourth-placed 58% had been upgraded to a clear 64.2% win. The two lowest scores had become a far more encouraging 36.1% and 41.6%.

So, how do we explain these enormous changes in everyone's scores?

Here is an example of the kind of thing that can happen to you in a three-table game:

```
Board 9 ♠ 4 2
N/EW ♥ K 10 5 4 2
      ♦ A 5 4 2
      ♣ Q 10

♠ K 9 7 6      ♠ Q 3
♥ 9 3          ♥ A Q 7 6
♦ K 9 8 3      ♦ Q 10
♣ K 8 6        ♣ 9 7 5 4 2

      ♠ A J 10 8 5
      ♥ J 8
      ♦ J 7 6
      ♣ A J 3
```

When Alan and Fenella sat North-South, South opened 1♠, North responded 1NT, and the contract made seven tricks for +90. Is making 1NT a good result or a bad result for North-South?

The answer is simple: it depends on what happened at the other two tables. Here is the actual scoresheet:

```
2♥ by North +110
2♠ by South +110
1NT by North +90
```

Making 1NT was a bottom board for Alan and Fenella, and a top for their opponents Dan and Jerry in the East-West seats. The other two North-South pairs did better than 1NT, receiving a generous defence against 2♥ and 2♠ from the two inexperienced pairs in the field (who were both sitting East-West).

Objectively, of course, +90 is an excellent score for North-South, and a poor score for East-West (who could have made 1NT themselves). The bottom board Alan and Fenella received within their club game was just one of those random fluctuations that are out of one's control in a small field.

By the time the board had been played at 400 tables across the country, nearly half of the North-South pairs in 1NT had gone down. More importantly, many pairs failed to stop so low, going down in contracts at the two-level. Far from being a bottom board, making 1NT received a fairer score of 78%, the expected reward for achieving the best realistic score that North-South could ever have hoped for on the board.

This one board was enough to upgrade Alan and Fenella's score by 3%, accounting for a large part of their move from 58% to 64%. Meanwhile, their opponents

Dan and Jerry's 100% score on the board was really just 22% in the wider community, contributing to their ultimate drop from 62% to below average.

That's a total swing of 6% in the gap between these two pairs, caused solely by the results from just two other tables. And that's just one board.

Once you introduce another 400 tables into the mix, the results from those two rogue tables become insignificant, and both pairs get to see how they measure up against a wider variety of players.

Here's another example:

```
Board 22 ♠ 9 5 4
E/W ♥ A K Q 10 5
      ♦ 9 6 5
      ♣ 10 4

♠ Q J 6      ♠ 7 3
♥ 7 6        ♥ 9 8 4
♦ J 3        ♦ A K 10 8 4 2
♣ K J 9 8 6 3 ♣ A 2

      ♠ A K 10 8 2
      ♥ J 3 2
      ♦ Q 7
      ♣ Q 7 5
```

Alan and Fenella sacrificed in 3♠ on this board, conceding -50 to avoid defending 3♦. Is this a good score?

Here is the scoresheet:

```
2♠ by South 140
3♠ by South 140
3♠ by South -50
```

This was another zero, with neither of the other East-West pairs finding their four minor-suit winners to beat 3♠.

There are a lot of possibilities on this board, and you need to get a decent sample size in order to know what the 'normal' result will be. Double dummy, the par contract is 3♠ doubled (with -100 for one off beating the pairs who defend 3♦ for -110). But in practice no one ever doubles these contracts, so -50 is a perfectly normal score - even better than -100, and certainly not worth a bottom. It's no surprise that when the board was scored across 400 tables, North-South emerged with exactly an average board for -50, and another 2% boost to their score.

The given examples are from a three-table game; of course the fluctuations will be smaller in a larger game. In a

seven-table game with 28 boards, for example, there are more than three times as many matchpoints available, so the impact of each action at every other table will be worth 0.6% of your score rather than 2%. Not insignificant, but small enough to mean that your final score will be a reasonable reflection of your own work, rather than being dominated by what happened at the other tables.

In a 400-table game, of course, every matchpoint is truly insignificant. All of the random fluctuations have been reduced to tiny fractions, and your result will be determined only by what happens at your own table.

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The random fluctuations that occur in small games are swings and roundabouts; some of them work for you and some against you. However, the fluctuations are not really random; in fact, they are almost predictable. The above examples illustrate one of the least-understood principles in duplicate bridge scoring. In 2006 I wrote an article in this magazine called *Myths About Matchpoints*, which used the following analogy:

Have you ever been to the races, or placed a bet on the Melbourne Cup? Many people think that when they bet on a race, they are competing against the bookie (or the TAB).

The truth is, when you win money on a horse race, you are not winning it from the bookie. The bookie will make a profit whatever happens. When you win a bet on a race, your profit is being funded by the other (losing) punters.

How does this apply to bridge? Well, who are your opponents at the bridge table? It may seem like the players to the left and right are the opponents, but in a Pairs game this isn't true.

The players at your table are not the ultimate factor in determining your matchpoint score. Your actual opponents are the players sitting in your seat at all the other tables. They are the ones you need to out-perform if you want a good score.

The practical result of this: if the players sitting in your direction at other tables are very strong players, they will be

monopolising the very small number of matchpoints that are available in your room. You may play perfectly, but unless you can actually outscore the other strong players, you will be sharing your top boards with them, and struggling to score more than 75% on any given board.

However, in a 400-table game, there are hundreds of matchpoints available on each board. Even if forty other pairs match your top score, that's still a 90% matchpoint score on the board. Even if you don't get the actual best result on a board, any above-average effort is guaranteed to be well-rewarded in a large field. For this reason, if you are playing in a strong field at your club, your national score will tend to be higher than the score you received at the club.

The opposite applies if the other players in your club (in your direction) are very weak. You may have scored a lot of easy 'tops' in your club due to the poor play of the other pairs in your direction, but these pairs will be eclipsed by the other tables from around Australia. Now your national score will be a lot lower than you expect it to be; many of your top boards may not actually be tops after the rest of the country has had their say.

One fascinating feature of the Australia-Wide Pairs event is the Results Booklet that is published online after the event. The booklet is customised for each player; among other features (such as a commentary on how the field could have done better on each board), the booklet also shows you exactly how your score was calculated. Anyone with an Excel spreadsheet (or with a calculator on their iPhone and a child in high school) can calculate their own score from the raw data.

Most clubs also have a web site where the same information is supplied for their club game. This gives players the ability to compare their local matchpoint score and their national matchpoint score on every board, seeing exactly where and why the differences occur. I strongly recommend that players take advantage of this opportunity; having a thorough understanding of how your score is calculated can only be good for your game. ♦♦