

51st Hicar APBF Championships
21st Hicar APBF Youth Championships

Riviera Hotel, Seoul, Korea May 28, 2017 ~ June 7, 2017

KOREA CONTRACT
BRIDGE LEAGUE  Hyundai Insurance



Daily Bulletin 2 – Editors Brian Senior and Cathy Chua

From Cathy: for those looking for a bridge fix, there is an article from Brian about the English Spring Foursomes. But our feature is a special report on how AI (Artificial Intelligence) is taking the games world by storm – just this week AlphaGo crushed the best player in the world in a three game match. That’s quite something in Korea, where Baduk (as it is known here) is hugely popular – it’s the number one ranked country, with China and Japan behind. What’s happened so far? What does it all mean for bridge?

Is Australian bridge star Sartaj Hans right in his judgement:

I think bridge players vastly overestimate how superior ‘human’ skills are. They live in this la-la land view of ‘In chess you can see all the pieces and calculate all the way; in bridge so much is unknown’. If they nailed down chess and defeated Kasparov, what chance does bridge have?

Manny Rayner is an AI expert and serious games player, here at the tournament, who gives us an exclusive ‘what you need to know’ account of the fascinating developments in this field. He’s worked around the world including NASA where he developed speech recognition for astronauts. He has not met HAL.

Got a story to tell?

Please let us know!

See us on the second floor in the office
or the playing area or email us at:

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BBO matches 29 May 2017:

09:00 – 11:00

Open: China Macau vs Korea 1

Juniors: Korea vs Philippines

11:30 – 13.30

Open: Japan vs Thailand

Ladies: Chinese Taipei vs Korea 1

15:00 – 17:00

Open: Kuwait vs Singapore

Seniors: Korea 1 vs Thailand

17.30 – 19.30

Seniors: Japan 1 vs Australia 1

Girls: Indonesia vs China

Silicon versus carbon: is bridge next?

Manny Rayner

Ke Jie, the world's undisputed best Go player, just lost 3-0 in his match against AlphaGo, the revolutionary new AI from Google's now world-famous Deep Mind team. What could this mean for bridge players? We try to draw a line from the past to the future...

The past: Deep Blue versus Garry Kasparov, 1997



May 11, 1997. Kasparov resigns the sixth game and loses the match.

People started thinking about chess computers very early on – Alan Turing, the father of computing, wrote a paper about the idea in 1953 – but it was a while before the computers started playing well. This resulted in some unfortunate predictions. The philosopher Hubert Dreyfus published a book in 1972 called *What Computers Can't Do*, where he argued that grandmaster-level chess was an example of a task that was impossible for a computer, even in principle. Dreyfus's reasoning wasn't as silly as it seems now. He looked at what human chess players did, and said that it wasn't a matter of following rules, but of using judgement and understanding: since computer programs can only follow rules and have no judgement or understanding, they can't play high level chess.

In fact, Dreyfus turned out to be wrong about chess requiring judgement and understanding. People play chess that way, because our brains are wired much better for judgement and understanding than for deep calculation, but as computer hardware got faster it turned out deep calculation was also a perfectly good way to play

chess. The programmers found that every time the machine's hardware speed doubled, the program's Elo rating went up about 50 points. So for a while, they concentrated on building hardware that could calculate moves as quickly as possible. The culmination of this line of work was Deep Blue, the machine which won the famous match against Garry Kasparov in 1997. Some people said Deep Blue played 'just by brute force', which wasn't really fair. The programmers put in some clever ideas. The 'evaluation function' (the program's rough estimation of position quality in a position with no immediate tactics) was learned from looking at tens of thousands of master games. Also, when the machine was following its opening book, it thought about how good the players were whose moves it was copying, and was allowed to vary from them if it thought it had calculated a better line. But in the end, Deep Blue was the machine that first beat the World Chess Champion because it could calculate more quickly than any of the others, so 'brute force' wasn't totally unreasonable either.

The present: AlphaGo versus Lee Sedol and Ke Jie, 2016-2017



May 25, 2017. Ke Jie visibly shaken after losing the challenge match to AlphaGo.

Strategy game players hated to feel that they were inferior to computers, so they quickly switched over to explaining that chess was the wrong test. It just happened to be the case that chess was simple enough that it could be done by doing a large search. But other games, like Go, wouldn't crack that easily. Things happen much more slowly in Go, there are far more possible moves at each turn, and the Dreyfus arguments about judgement and understanding got wheeled out again in a slightly different form. Here, Dreyfus seemed to have been right, at least up to a point: you couldn't play Go just by calculating, there was too much to calculate.

But in fact, Dreyfus was wrong, and in a much more interesting and fundamental way than had first appeared. As neural net programming made progress and the Deep Learning revolution started in the early years of the 21st century, it turned out that computers *could* in fact develop judgement and understanding. They didn't need to have their rules painstakingly programmed by human beings: a deep learning neural net in effect develops its own set of rules, by looking at data. The AlphaGo program learned to play by watching master games, then by playing more games against itself and learning from them. Deep

Blue had only learned to optimize an evaluation function which had been constructed by people, but AlphaGo went much further. It learned both the 'evaluation function', this time more or less on its own, and also the 'move generation function', the rules it uses to choose the next move. So AlphaGo thinks in quite a human-like way. It looks at the position, and using its accumulated experience (you might as well call it 'judgement') it immediately sees that one of a small number of moves is likely to be the right one. It calculates out a small number of continuations, and at the end of each one it uses its evaluation function (more 'judgement') to estimate how well it will be doing if it reaches that position. Then based on those carefully focussed calculations, it makes its choice.

The hard part is putting in the 'judgement', which comes from the deep learning. The Deep Mind team, who are world leaders in neural net technology, were able to solve this extremely difficult problem and advance computer Go from weak master level to World Champion level. Last year, AlphaGo beat Lee Sedol, one of the world's three top players, by a decisive 4-1 score. It has just beaten Ke Jie, the undisputed top player, by a clean sweep.

The future: Bridge ?? versus ??, 20??

Well: is bridge next? We can of course take the Dreyfus line and say that bridge is different because, unlike chess and Go, it requires *real* human judgement and understanding. But given what's happened so far, this seems optimistic. From the point of view of the AI engineer, the thing that makes Bridge hard is that each player has only partial information, so the search space includes all the possible distributions of the unknown cards. That means a lot more to think about. But as we saw with Go, a very large search space doesn't mean that machines can't do it.

There have been a couple of false starts. GIB, which every bridge player knows, was supposed to become the world's best bridge player a little after the Deep Blue breakthrough. GIB can basically do double-dummy analysis perfectly. It handles partial information by generating a hundred or so layouts that fit what it already knows, doing double-dummy on all of them, and then picking the choice which works in the largest number of layouts. It does bidding by using rules that tell it what the allowed bids are in a given situation, generating layouts that fit the bidding,

then again making the choice that works in most layouts.

As GIB's inventor Matthew Ginsberg discovered, this doesn't give you more than a strong amateur player. But if you applied deep learning methods and the same kind of hardware as AlphaGo uses (it runs on a network containing hundreds of processors), I think you would see a huge increase in strength. There are plenty of online hand records to train the neural nets. The 'move generation function' would be one net, which looks at the current situation and gives you the plausible candidates for next bid or play. The 'evaluation function' would be another net, which looks at a layout and estimates how likely each contract is with single-dummy play – basing everything on artificial double-dummy play is one of the reasons why GIB's judgement has never been that great. If you have enough processors to use, you wouldn't just be limited to creating a hundred layouts to model what you don't know.

You could create more layouts to model the other player's uncertainties too, and in effect think about what they are thinking.

Of course, this sketch is simplistic. Building a world-class bridge AI would probably be a big software project that required dozens of person-years of expert effort. But all the pieces now seem to be there. It took 44 years to get from Turing's initial paper on computer chess to Deep Blue, and it took another 20 years to get from Deep Blue to AlphaGo. My guess is that it will take significantly less than 20 years to get to the point where a deep learning system will beat the best human bridge players. It's mainly a question of finding someone who has a strong enough desire to make it happen and enough money to pay for the work. Well: it isn't hard to think of a person who's very rich, has access to hundreds of highly talented AI experts, and likes bridge. I'm starting to wonder why this hasn't already happened.



Is Gates secretly funding an AlphaBridge?!

What might be the effect on the bridge world, if a world-class bridge AI emerges? Looking at what's happened in chess, it probably would be more good than bad. Since everyone who can afford a basic laptop now has access to a world-class chess player, chess has taken off in many countries where the game was hardly played before. All grandmaster chess tournaments are now broadcast online with reliable real-time computer commentary, so amateurs can follow what's going on. And, a development that might

interest bridge players, chess AIs are good at unmasking cheats. Since the machines know what the right move is in most positions, they can spot when someone is playing too well and give statistically significant evidence that something funny is going on. The US chess master and computer expert Ken Regan has been a pioneer in this field.

In fact, when you think more about it, a strong AI might be exactly what bridge needs...

English Spring Foursomes

Brian Senior

The Spring Foursomes is the best weekend teams event in Britain, played over five days and with a dual elimination format – knockout but each team has two lives so can afford to lose one match. The event is held in Stratford, birthplace of Britain's best-known playwright, William Shakespeare, so for an overseas visitor it offers a perfect opportunity to combine a strong bridge competition with sightseeing and even the possibility of watching one of Shakespeare's plays performed at one of Stratford's three theatres. These were a few of the more interesting deals.

Avoidance Play

Sometimes it is crucial to keep one opponent off lead. Doing so often involves a technique called an Avoidance Play. 13-year old Liz Gahan showed that she is already familiar with this technique, bringing home her thin no trump game on this deal.

Board 7	♠ A K 9	
South Deals	♥ A 6 4 2	
Both Vul	♦ 10 6 5	
	♣ A J 8	
♠ Q 8 2		♠ 10 6 5 4
♥ Q 7 3		♥ K J 5
♦ 9 4 3 2		♦ A J 7
♣ 9 4 2		♣ K 7 3
	♠ J 7 3	
	♥ 10 9 8	
	♦ K Q 8	
	♣ Q 10 6 5	

West	North	East	South
Plackett	Bakhshi	Jourdain	Gahan
			Pass
Pass	1 ♥	Pass	1 NT
Pass	2 NT	Pass	3 NT
All pass			

Jasmine Bakhshi, daughter of regular England Open team player David, opened 1♥ then invited the no trump game and Gahan accepted. The lead was a diamond to the ace and Patrick Jourdain returned the jack to declarer's king. Gahan took the club finesse, the jack losing to the king, and Jourdain cleared the diamonds. Now Gahan led the nine of hearts and ran it. Jourdain won with

the king rather than the jack, a thoughtful play – if West held the queen-eight he would be able to win the second defensive heart trick and gain the lead to cash the thirteenth diamond – and returned a low spade. Declarer misguessed, her jack being beaten by the queen. She won the ace and cashed three rounds of clubs then led the ten of hearts and again ducked the trick to East. The three-three heart split meant that Gahan had nine tricks and her contract.

By no means everyone managed to make nine tricks on this deal, those falling short including at least one sometime English international player.

Percentage Play?

It is important to know your percentages in bridge but it is even more important to apply those percentages correctly. This deal also came up in Stratford.

Board 14	♠ Q J 7 6 5	
East Deals	♥ 5	
None Vul	♦ Q 10 8	
	♣ Q J 10 7	
♠ 10 3		♠ A 9 2
♥ A K Q		♥ J 10 6
♦ 9 7 6 5 3		♦ A J
♣ 9 6 2		♣ A K 8 4 3
	♠ K 8 4	
	♥ 9 8 7 4 3 2	
	♦ K 4 2	
	♣ 5	

West	North	East	South
		1 NT	Pass
3 NT	All pass		

There would be no story had South led a spade, and both South players did give serious consideration to doing so, but eventually both chose a heart. Declarer won and led the two of clubs and North followed with the seven. Now came the parting of the ways.

Janet De Botton covered with the eight and was no doubt charmed when it held the trick. It was a simple matter to clear the clubs and four

clubs, three hearts and two aces gave her nine tricks and her contract for +400.

In the other room the professional East knew his percentages and went up with the ace at trick two. He could no longer make the contract. He argued, correctly, that there were three possible honour singletons and only two possible small singletons, hence to play a top card on the first round, ready to lead back to the nine on the second round should South drop an honour, was the correct percentage play.

I suggested that the appearance of the seven from North should make a difference and this was dismissed as 'oh, it could be a falsecard'. Well, I think that the majority of players would follow with the five from HH75 and that the appearance of the seven does make a difference. So I'm with Janet. I think she played correctly and out-performed the pro at the other table, fully deserving her 10-IMP swing.

Lucky Trump Split

Round 2
Board 15 ♠ J 8
 South Deals ♥ A Q 4
 N-S Vul ♦ A 10 9 6 4
 ♣ A K Q

♠ K 10 7 6 4 2		<table style="border: 1px solid black; width: 40px; height: 40px; margin: auto;"> <tr><td style="text-align: center;">N</td></tr> <tr><td style="text-align: center;">W</td></tr> <tr><td style="text-align: center;">E</td></tr> <tr><td style="text-align: center;">S</td></tr> </table>	N	W	E	S		♠ A
N								
W								
E								
S								
♥ —				♥ K 10 8 6 5 2				
♦ J 8 5 3 2				♦ K Q				
♣ J 10				♣ 8 7 4 2				

	♠ Q 9 5 3		
	♥ J 9 7 3		
	♦ 7		
	♣ 9 6 5 3		

West	North	East	South
			Pass
Pass	2 NT	Pass	3 ♣
3 ♠	Pass	Pass	Dble
Pass	4 ♦	Pass	4 ♥
All pass			

N/S had a misunderstanding on this deal, South intending the double of 3♠ to be for penalty but North reading it as take-out. This led to South declaring a pretty horrible heart game – undoubled as East showed superhuman restraint. You might think that the six-zero trump split would doom the contract but actually it proved to be the only trump division which allowed declarer to bring it home.

West led the jack of clubs and dummy went down, with N/S exchanging a few words about each others interpretation of the auction. Declarer thought for quite a while after winning the first

club and, seeing no likely way to come to ten tricks, continued with two more clubs. When West showed out on the third club but failed to ruff, pitching a spade, declarer saw that he had a chance after all. He played ace then ruffed a diamond, cashed the nine of clubs and exited with a spade to the bare ace. Down to nothing but trumps, East returned a low heart to dummy's queen. Declarer ruffed a diamond, ruffed a spade with the ace and led another diamond and could not be prevented from making another ruff for his tenth trick.

A curious deal where a five-one break would have doomed the contract while a six-zero split made it impregnable.

Another Australian who played a major role in teams at the APBF over many years and died recently is Felicity Beale. She won four times: 1973, 1984, 1990 and 1995. Other appearances were in 1971, 1978 1982, 1986, 1987, 1994, 1997, 1998 and 2007.



Felicity Beal, right, with her long-time partner Di Smart in 2014



2017 APBF Championship

WBF President Opening's Speech

Mrs. Esther Sophonpanich, APBF President, Mme. Yoon Kyung Kim, KCBL President, Mme. Chen Zelan, President of the International Mind Sport Association, Mr. Patrick Choy, WBF Vice President, Authorities, ladies and gentleman, dear friends, good evening.

I am very pleased and honored to be here with you at the Opening Ceremony of the 51st APBF Championships and 21st APBF Youth Championships, and I wish to express my gratitude for this invitation.

It is my great pleasure to offer on behalf of the World Bridge Federation and personally my greetings to the authorities, officers, journalists, staff-officials and the players participating.

I would like to congratulate the Korean Contract Bridge League, which hosts this competition. I am pleased also to congratulate the entire APBF and the Organizing Committee, being sure that this event will be a great success rewarding the excellent work done by them with passion and dedication.

I am confident that Seoul will welcome and host the participants in accordance with its high standards of culture, history and hospitality, which have already been experienced in the 2005 edition of this championship.

This year the Championship is particularly significant since it celebrates the 60th Anniversary of APBF, which first started in Manila in 1957 as Far East Bridge Federation and it is particularly to open this window and to realize our dream. It is significant that players coming from abroad, representing Australia, Bangladesh, India, Kuwait and New Zealand are also participating, honoring this anniversary.

I am very pleased and proud to call to the podium Mme. Esther Sophonpanich, APBF President, and award her with the WBF Honor Plaque.

This night, this occasion, gives to me the opportunity to remark another extraordinary event, the admission of Bridge to the 2018 Asian Olympic Games. I want to express once again our gratitude to the Indonesian Bridge Federation,

the Indonesian Olympic Committee for the excellent job done, and to Sheik Al Sabah, President of the Olympic Committee of Asia, who we met in Kuwait, together with our friend Numan Al Turki. Sheik Al Sabah gave us a great help in supporting the admission of Bridge in the final ballot.

But there is a man who with his enthusiasm, dedication and strong belief, with his terrific job, gave to us the chance to open this window and to achieve our dream. I believe that without him this extraordinary opportunity could not have materialized. This man is our great friend Bambang Hartono who is here with us today and he deserves our standing applause. I am very proud, on behalf of the WBF, of the entire bridge community everywhere in the world and personally to award him with WBF Gold Medal.

Dear bridge players, I wish you to enjoy in peace and harmony, this great bridge event, which represents an ideal step for our beloved discipline towards the 2018 Asian Olympic Games.

Ad majora

3RD Asia Cup Bridge 2018 Coxes Bazar, Bangladesh

- Delegates meeting & Captains meeting will be on 31st March.
- Play from 1st April to 10 April with closing dinner.
- There will be 5 selected hotels within 10 minutes' walking distance. Room rate will be \$ US 50-80 including breakfast.
- From Airport to hotel free transport both ways.
- Further details such as hotel names, contact persons for reservations will be provided ASAP.

Format of the tournament will be as same as 51st APBF

All players & official can provide two months in advance the list of their participants in order to allow us to get for them a special visa upon arrival. This will not unfortunately apply to Pakistan whose players have to regularly apply for a visa at least three months in advance.