The Foundation System

Visualization

INTRODUCTION

Perhaps the single most distinguishing difference between the expert and the beginning bridge player is the expert's ability to visualize the distribution of the unseen hands, not only during the play of the hand, but also during the bidding. The expert's mental image of the unseen hands is constantly changing as the auction progresses by a process which seems almost mystical to the novice, but which is really relatively simple and can be mastered by anyone. The expert's advantage is that by constant practice he has honed this technique to the point that the image develops so rapidly that the process appears intuitive; the expert himself may not realize the thought processes which led to the development of that image. This document will attempt to illustrate this mysterious thought process. The main purpose of this chapter is to make newer players aware that visualization of the unseen cards is a fundamental part of the bidding process (as well as of declarer play and defense, of course). Most new players who have been exposed to this chapter seem rather overwhelmed. Do not be dismayed if that is your reaction, too. Visualizations skills will come as you gain experience. And help is on the way. A planned revision of this chapter will allow the user to interact with a computer program which will demonstrate the thought processes described below via a visual display.

The Simplest Case

Suppose you hold xxxx xxxx xxxx x, partner opens 1C, RHO passes, and you have to decide whether to bid 1D, hoping that partner's next bid will be one of a major so that you can pass, or to pass, hoping that partner will not be down too much despite the lack of a club fit. What do we know of the other hands? Let's assume partner has at least 3 clubs and 13+ HCP. Where are the rest of the clubs, and where are the rest of the high cards? There are nine clubs we don't know the whereabouts of. Let's assume for the moment they are evenly divided between the other three hands. This would give partner a 6-card suit and each opponent three clubs. But partner only had ten holes in his hand to hold any missing clubs, while each opponent had thirteen holes, so partner on average should hold only 2.5 of the missing clubs (10/36ths of 9). Anyway, we conclude that partner probably has five or six clubs and the opponents' have six or seven. Now consider the HCPs. Partner's 13 plus your 0 leave 27 HCP to be distributed among the other three hands. If these are evenly divided, partner will have 22 HCP and each opponent will have 9 HCP. Of course, with 22 HCP partner might have opened 2C or 2N, so perhaps he only has 18 or 19, leaving 21 or 22 for the opponents. Now RHO passed over 1C, so he may have only 9 or 10, leaving LHO with 11 to 13. Naturally, these estimates are only that; any one deal could differ substantially from the picture we drew, but if we distributed the missing cards hundreds of times, the average distribution would match these estimates pretty closely, so we conclude that on average no great harm is likely to befall us if we pass 1C.

What if we bid 1D? We have 4 cards in each of the other suits, and partner could have any number between 0 and 5 (unless he is 7600). This leaves 9 cards in each suit to be distributed among the three hands. Again, he has 10 slots available, so we expect him to

have 10/36ths of 9 or 2.5 cards in each side suit., so his expected distribution is 5.5/2.5/2.5/2.5 which translates to a 5332 or 6322 pattern. So there is clear danger of finding no better than a 43 trump fit if we bid 1D. These patterns are only averages, of course, so there is still a fairly good chance that random deviations from the expected 5332 or 6322 pattern would find him with a side 4-card suit, but even then, it is too likely that his excess high-card strength would lead him to jump to an uncomfortable level. Hence we conclude that pass is the best action here.

Let's Try Another One This time you hold ♠xxx ♥Q10x ♦Axx ♣Axxx and hear LHO open a 15-17 HCP 1N. Partner passes throughout while RHO bids 2C, Opener bids 2S, RHO bids 2N, and Opener passes. Since LHO has shown four spades and at least two cards in each other suit, he will have 3 slots available in which to distribute the unknown cards. RHO presumably has four hearts, so he will have 9 slots available, while partner has 13 slots. So on average LHO will receive 3/25 of the unseen cards, RHO will receive 9/25, and partner will receive 13/25. This will be true for the minor suits, but there is an additional complication in the majors, since we are not going to give LHO any of the missing spades, nor RHO any of the missing hearts. So RHO and partner will split the missing spades in a ratio of 9/22 to 13/22, while LHO and partner will split the missing hearts in a ratio of 3/16 to 13/16. We have six spades, four hearts, eight diamonds, and seven clubs to distribute. Note that the total is 25, which equals the number of available slots, proving only that I passed fourth grade arithmetic. Distributing the unknown cards as described in the first example, our image for LHO's hand is 4333, while RHO is 3433 and partner is 3343. We also know at this stage that partner should have 6-7 HCP, since LHO has shown 15 (he declined the invitation) and RHO has shown 8-9 (he invited).

Partner leads the J of spades, and dummy comes down with ♠Kx ♥xxxx ♦QJx ♣K10xx so it is time to reevaluate. Since RHO is 2434 rather than 3433, we need to give partner one more spade and one less club, so we picture partner with 4342, and we can be fairly certain that his high cards consist of either the A or K of hearts along with either the J of hearts or the Q or J of clubs. Now declarer wins the spade Q and leads a low diamond to our A. This suggests that declarer has four diamonds rather than three, so declarer must now be either 4243 or 4342, leaving partner with either 4423 or 4333. We return a spade, won in dummy by the K, and declarer leads a small club to the Q and continues with the club J, which we win. It is now clear that declarer started with three clubs, so he is 4243 and partner is 4423. We now know partner started with AJ or KJ of hearts, so we switch to the heart Q to collect four heart tricks and defeat the contract, since declarer's hand was ♠AQxx ♥Kx ♦K10xx ♣QJx.

Naturally, no one actually takes the time to perform these card allocation calculations at the table, but the expert's thought process moves the unknown cards around by an intuitive process which with experience leads to results similar to those we have calculated so laboriously. The more accurate the opponents' bidding, the closer the expert is able to visualize the unseen hands. The key is practice. As you continue to play, your visualization power will grow more and more accurate.