

LAWRENCE DIAMOND

# MASTERING HAND EVALUATION

UNDERSTANDING THE PRINCIPLES OF  
PARTNERSHIP BIDDING



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*For BumJr and all of his brothers: Vladimir, Petrushka, Fidelio, Feivel, Amadeus, Cherubino, Tamino, Belmonte, Apollo, Sergei, Post Auto, Paddington, Sasha, Misha, and Cookie Jar.*

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# Preface

This book is a presentation of hand evaluation methods in contract bridge, taking into account sources from the existing literature, and adding the author's advice based on many years of study. It is intended for intermediate and advanced students of the game. Although the emphasis is on team play, some of the conclusions (for example, when to invite 3NT with a balanced hand) apply to matchpoints as well.

To test the recommended methods, a database of 121,004 hands played in events scored at international match points (IMPs) has been assembled. In the database, 75,438 hands have been taken from major team competitions, including world and North American team championships, along with prestigious pairs competitions scored at IMPs, such as the Cavendish and Cap Gemini. In addition, 45,566 hands were collected from 'high-level' practice matches played on Bridge Base Online (BBO). Passed out hands were excluded. In each of the practice match hands, at least one world champion was at the table. Double Dummy Solver,<sup>1</sup> a program created by Bob Richardson, was helpful in downloading BBO hands.

For each hand in the database, multiple point count and losing trick count methods were computed. The makeable contracts based on double dummy play were also determined

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<sup>1</sup> Bob Richardson, "Download DD Solver 10" <http://www.bridge-captain.com/downloadDD.html> (accessed 09/12/2014).

and stored together with the actual results at the table. Makeable contracts were calculated using DDS by Bo Haglund,<sup>2</sup> in conjunction with the program Deal 3.1.9, created by Thomas Andrews.<sup>3</sup> Where necessary, additional hands for evaluation were generated using Deal 3.1.9.

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<sup>2</sup> Bo Haglund, "Download Information for Bridge Double Dummy Solver DDS and Sudoku Programs" <http://privat.bahnhof.se/wb758135/> (accessed 09/12/2014).

<sup>3</sup> Thomas Andrews, "Deal 3.1: A Bridge Hand Generator" <http://bridge.thomasoandrews.com/deal/> (accessed 09/12/2014).



## Chapter 1. Introduction

The vocabulary of bridge is limited to the 35 bids between 1♣ and 7NT along with Pass, Double, and Redouble. The rules of bridge do not allow you to add meaning by the manner in which you make a bid. However, the route you take to the final contract can provide vital inferences as to your values. World-class players know that the best method of hand evaluation is imagining hands consistent with partner's bidding and then mentally playing out the hand to determine the best final contract. Many computer programs that play bridge try to do just that. They simulate dozens (or hundreds) of hands consistent with partner's bidding and, after filling in possible hands for the opponents, use a double-dummy algorithm to determine the percentage chance of making a part-score, game, or slam. The method is sound if you are able to *precisely* predict partner's hand.

To be a good bidder, you need to accurately describe your hand to partner. When you put down the dummy, you want partner to say “thank you, that's exactly what I thought you had.”

Good partnership bidding is a conversation between two players *who are on the same wavelength*. The keys to having great partnership rapport are: (1) both players should understand the principles of accurate hand evaluation (not *just* the 4-3-2-1 point count we all learned as beginners, but what cards are *pure gold* and what cards are *wastepaper* based on the previous bidding), and (2) both partners must

apply the essential elements of bridge logic. In particular, both partners need to be aware of the objectives at each stage of the auction, always asking, “Why is partner bidding the hand this way?”

Bridge logic includes certain fundamental concepts. For example, reaching game quickly in a forcing auction often indicates that you have minimal values with no interest in slam (although certain jumps in game-forcing situations are best used as ‘picture bids’ that precisely describe the suits where you have controls). Often, taking a slower route to game indicates more than minimum values, thereby suggesting the possibility of slam.

Another aspect of bridge logic is that invitational bids ask you to evaluate your hand *with respect to the values you have already shown*. Suppose that you and your partner play that 2♣ is a strong forcing bid and a 2♥ response is a “bust” with 0-4 high-card points (HCP). If the 2♣ opener forces to game and keeps making forcing bids despite the fact that you have already shown a terrible hand, it is not a form of torture (although it may feel like it). Partner is asking you to reevaluate your limited assets in light of how they fit with what the opener has shown. A queen in a suit that partner bid naturally is worth *much* more than the 2 HCP assigned to it. One really *useful* card is a ‘maximum’ for a hand known to contain 0-4 HCP and may be all partner needs for slam. On the other hand, a king and a jack in a suit that partner is known to be short in are likely to be nearly worthless. Those values do not constitute a good holding even though 4 HCP is the top of your range.

Good bidding requires a hierarchy of objectives during the auction. The goal of the auction is to answer the questions “which suit, if any, is the trump suit” and “how high should we bid” (i.e., part-score, game, a small slam, or a grand slam). During the bidding, when one of these questions is answered, priority shifts to the other question. In any system that requires two-way communication, both partners need to be aware of which question has priority at any given moment. Both players need to be aware of whether or not partner has a limited hand or one that is still unlimited.

In bidding systems designed for two-way communication (rather than pure relay systems), once you have limited your hand, your partner becomes the ‘captain’ of the auction. The captain can either bid to the final contract immediately, or make a forcing bid asking for further information. If the ‘captain’ is asking for further information, the ‘crew’ knows that there is still doubt as to either strain (the trump suit or stoppers for NT) or level.

If the trump suit has not been established, then partner may be probing for a further description of your distribution. If it is clear that the partnership belongs in NT, but partner is still asking questions, the reason is likely to be a worry that one or more suits may be unstopped, and the probe is for a stopper (or partial stopper) in a specific suit.

If the trump suit has clearly been established, and the captain is still asking questions, then the question has to do with level. If a game force has not been established, then, as far as you are concerned, partner is inviting game (although it

may turn out that partner has slam intentions). The captain is asking for a *reevaluation* of your already limited values. Do you have fully working values, partially wasted values (for example, in suits bid by the opponents), or something in between?

If the question is ‘should we play a game or stop in a part-score,’ and some of your values are likely to be wasted, you decline partner’s invitation (returning to the trump suit or bidding NT at a minimum level). If all of your values are working, you accept partner’s invitation by showing where your values are held (important if partner is interested in slam) or bidding game. If you have some known useful values, along with a king or queen that is questionable (because you don’t know partner’s length in that suit) then you would like to make a non-committal bid expressing those values, asking partner to decide if this value in another suit is useful (although, for tactical reasons, many modern experts forego this approach when playing IMPs, and just bid such games in order to hide their values and make the defense more difficult).

Knowing when to go beyond game and explore slam can win or lose bundles of IMPs. This is especially true when your values are based on distribution rather than high cards. An abundance of controls (aces, kings, singletons, and voids) are required to make slams with a limited number of ‘points.’ The trump jack may be a particularly useful card, but unsupported queens and jacks in short suits may be wasted values that do not contribute to your overall trick-taking potential.

To become a better bridge player, should you concentrate your efforts on studying new conventions or learning how to evaluate your hand? As Jeff Rubens stated in his classic book, *The Secrets of Winning Bridge*, “clearly it is better to concentrate on the science of hand evaluation because if you are good at it, you will obtain consistently good results using any reasonably sensible system.”<sup>4</sup>

In the chapters that follow, we will explore useful methods of hand evaluation. Although no single method is perfect, don’t be fooled by those players who tell you that all formulas are useless and what you really need is *judgment*. Hand evaluation really is a science, and ‘judgment’ can be quantitated.

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<sup>4</sup> Jeff Rubens, *The Secrets of Winning Bridge* (New York: Dover Publications, 1980), 2.

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## ADVANCE YOUR PARTNERSHIP COMMUNICATION

Getting to good games, slams, and staying out of poor contracts is an important aspect of bridge. The best way to improve your bidding is not to add a new convention but to improve your hand evaluation skills. In *Mastering Hand Evaluation: Understanding the Principles of Partnership Bidding* you will learn about the science of hand evaluation, going far beyond 4-3-2-1 high card points. Enhance your ability to recognize good cards and discover the magic of the 30-point deck.

Popular point count and losing trick count methods are examined and tested using a database of over 121,000 hands from championship play as well as practice matches with at least one world champion at the table. Improvements to the best methods are introduced based on the results.



**LAWRENCE DIAMOND** (USA) is a Gold Life Master with multiple Bracket 1 and Flight A wins. In 2014, he ranked 265th on the Barry Crane Top 500 list.