BIDDABLE AND REBIDDABLE SUITS

In 1975 and 1976, using an Altair 8800 (a tiny, slow home computer built from a kit, with no software to speak of), I designed and programmed Jack Gammon, the first backgammon playing machine. I was still a beginner at backgammon, so I brought in an expert to devise strategy for Jack. The expert supplied an algorithm that listed the priorities, each command higher in the list taking precedence over all lower commands. The algorithm went something like this:

1. If you can make a point, do so.
2. If you can make either of two points, choose the better point [a ranking of points follows].
3. If you can hit a blot, do so [if you can hit either of two blots, hit the more advanced].
4. If you can move without leaving any blots, do so.
5. Minimize the number of blots you leave [if two plays leave the same number of blots, minimize the number of shots].
6. Move from the rear.

(Never mind if you don't know backgammon. The algorithm is merely illustrative.)

If you learned bidding from a popular bridge textbook, you may have learned similar algorithms. Here's one for *opening the bidding* from one of the better books, *Modern Bridge Bidding Complete* (1968) by Al Roth and Jeff Rubens:

1. Count your "Roth" Points.
2. If you have more than 21 points, follow the instructions in the chapters on Two-Bids.
3. If you have fewer than 10 HCP, or fewer than 14 points in all, pass.
4. If you have a balanced hand with 16-18 HCP distributed in three or four suits, bid 1NT.
5. If your longest suit has five or more cards, bid it [with two equally long suits, bid the higher].
6. Bid your longer minor [with two equally long minors, bid 1♣ unless the diamonds are significantly stronger].

(I won't discuss errors in the algorithm here.)

Back to the example from backgammon. When I programmed Jack to use the algorithm, the expert was horrified at many of Jack's moves: "That's not what I meant!"

So he changed the algorithm, complicating each command and specifying exceptions. Jack's play improved only marginally. While the expert was adding exceptions to the exceptions in his algorithm, I devised a radically different strategy: *Evaluate Jack's position after every possible play, compare the alternatives, and choose the move that produces the position with the highest rating.*

The evaluation, of course, took into account the hits, points, blots and shots mentioned in the algorithm, plus other features of the position, but it gave no feature priority over any other. Instead, it assigned *weights* (positive or negative) to every feature. Thus, for example, the benefit from making a point might be outweighed by the benefit of hitting *two* blots, or negated by the need to leave several blots in order to make the point.

As soon as I implemented this strategy in the program, the expert noticed a huge improvement in Jack's play. We abandoned our *algorithmic* approach and adopted a *comparative* one. Then, it was easy to improve Jack's play further: (a) by making small changes in the weights; (b) by adding additional features to the evaluation; (c) by taking *interactions* among features into account (e.g. *multiplying* the weight assigned to hitting a blot by a measure of *board strength*).

The Roth-Rubens algorithm, regardless of anything that might be wrong with it, has the merit of being consistent. Some algorithms for *opening the bidding* are inconsistent.

That was true of the classic texts of the early era of contract bridge, which used the concept *biddable suit*. <u>The Official System of Contract Bridge</u> (1933), edited by F. Dudley Courtenay, defined a *biddable suit* as 765432, QJ432, K5432, AJ102, KQ102, AQ32 or better. <u>The Gold Book</u> (1941) by Ely Culbertson weakened, refined and expanded the concept:

A ***conditional biddable suit*** could be as weak as 65432 or Q432, but could only be bid by the *responder* to an opening bid, or by opener if he had either a *second biddable suit* or a hand that exceeded the minimum requirements (Culbertson illustrates with a *4 Honor Trick* hand).

A ***regular biddable suit*** was one as good as 765432, Q5432 or QJ32.

A ***rebiddable suit*** was one as good as 765432, QJ932 or KJ432.

Many hands are too good to pass but lack even a conditional biddable suit, and do not qualify for any notrump bid. (Such hands are especially common for Culbertson, who requires a 1NT opener to have three or four suits stopped.) What is the unlucky holder of a hand like ♠J986 ♥AK9 ♦AK4 ♣A62 to do?

Charles Goren, in his Standard Book of Bidding (1944) and his Contract Bridge Complete (1951), liberalized the standard for a ***biddable suit*** so that 65432, K432 or Q1032 qualified, but his algorithm, like Culbertson's, remained inconsistent, requiring opening bids on hands that could be opened neither in notrump nor in a suit.

At the height of Goren's popularity, however, lesser-known experts were promoting a "Five-Card Major" revolution. More properly, the "Five-Card Major" requirement was indicated as "Do Not Open Four-Card Majors" on convention cards. Goren's revised edition of Contract Bridge Complete in 1963 (which may have been ghost-written for him) leaned slightly in the direction of "Five-Card Majors" by requiring 65432, A432, KJ32, QJ102 or better for a *major* suit to be "biddable" while specifying only that "greater liberties may be taken" for minor-suit openings. This loose language may have left readers wondering what to open with hands like ♠QJ86 ♥K1053 ♦AJ9 ♣K10. Goren's new algorithm was incomplete.

That same year (1963), Edgar Kaplan, who as a young expert in the 1950s had developed the Kaplan-Sheinwold system (characterized mainly by weak notrumps and a rigid 5-card major requirement), wrote Winning Contract Bridge Complete, a textbook to rival Goren's, expounding not his own system but the Standard American of the era. In teaching *opening bids*, Kaplan omitted mention of "biddable suits" entirely. For the first time, *suit length* became virtually the sole criterion for *choice of suit to open* (the *ranks* of two equally-long suits being invoked to break ties).

As the Roth-Rubens algorithm illustrates, future texts followed Kaplan in ignoring the role of *suit quality* (an integral part of the concepts of *biddable* and *rebiddable* suits) in "Which suit to open?" decisions (except to break ties between not-really-long minor suits).

In early September of 2001, the "e-bridge" website featured conflicting articles by Bernie Chazen and Mike Lawrence that addressed *rebid problems* solely in terms of *suit length*.

Chazen's article was headed "Repeating Your Suit Shows a Six-Card Suit," instructed readers to "only rebid 6-card suits" and stated flatly, "The simple rebid of a suit invariably shows a 6-card suit."

Lawrence's article offered many pointers, only one of which dealt with rebids: "If you respond at the 2-level, your partner will rebid his original suit with a five carder more often than not. His rebid does not promise six."

Suit quality plays a role in rebid decisions, but so do other important concepts: *bidding space* and *directionality*. Here is an example from the ACBL's "Instant Matchpoint Game" (September 12, 2001):

(1) Matchpoints, none vul

♠AK976 ♥862 ♦A54 ♣Q6

SOUTH	WEST	NORTH	EAST
…	…	…	pass
1♠	pass	2♣	pass
?			

In a 2-over-1 game-forcing system, analyst Richard Pavlicek recommends 2NT, saying, "Many would prefer 2♠ as a waiting move, but my preference is to bid naturally by shape. Hence, 2♠ would show six cards (rarely, a meaty five) and 2NT is normal with 5=3=3=2 shape."

However, 2NT is an abomination, even in a system that defines it as showing a minimum-range opening. (Most 2/1 GF systems do, but in Standard American this 2NT rebid shows extras.) The lack of a heart stopper is bad enough, but if responder has ♦KJx, ♦Qxx or ♦Qx, then he, not opener, should be declarer in any notrump contract.

2♠ is better, but it is not the best bid; Pavlicek is partly right. The best bid, 2♦, was found by Tim Lolli at a table where I was observing … but shouldn't 2♦ show *four*?

Absolutely not. Opener would have no qualms about bidding 2♦ with this hand over the forcing 1NT response that is used by many (including all 2/1 GF players), nor about opening 1♦ with a 4=4=3=2 hand (I've seen many players open 1♦ on 4=4=3=2 hands with ♦J54 and worse). A 2♦ bid here doesn't "misdescribe" opener's hand any more than these other bids of 3-card diamond suits.

A key principle: *bids that consume little bidding space do not promise much in the suit.*

However, change the problem to:

(2) Matchpoints, none vul

♠AKQ96 ♥862 ♦A54 ♣76

SOUTH	WEST	NORTH	EAST
…	…	…	pass
1♠	pass	2♣	pass
?			

To create Problem 2 from Problem 1, I've swapped black queens without weakening the diamonds. Now 2♠ is best. ♠AKQ96 is no worse than ♠K98742, and much better than the weaker 6-card suits considered "rebiddable" by the "authorities" of fifty or sixty years ago.

Let's change the problem again:

(3) Matchpoints, none vul

♠A9764 ♥Q6 ♦AK5 ♣862

SOUTH	WEST	NORTH	EAST
…	…	…	pass
1♠	pass	2♥	pass
?			

To create Problem 3 from Problem 1, I've swapped the ♠K for the ♦K, swapped clubs and hearts, and changed the response from 2♣ to 2♥. 2NT is wrong, and 3♦, a strength-showing "high" reverse, is out of the question. Here 2♠ is the bid that consumes minimal bidding space, as 2♦ was in Problem 1. The only acceptable alternative is 3♥.

What, raise on a doubleton?

Yes. Traditionally, a 2♥ response to 1♠ shows *five*. With a 3=4=3=3 pattern and a hand good enough for a 2-level response, responder *normally* bids 2♣. *In a pinch*, a high doubleton honor is adequate support for a known 5-card major.

Why is it *normal* to respond in a 3-card club suit rather than a 4-card heart suit?

Because a 2♥ response to 1♠ consumes *maximal* bidding space and therefore promises *much* in the suit bid (the flip side of the key principle stated in Problem 2). A forcing bid that consumes maximal bidding space leaves partner *little choice* of rebids with minimum values.

(4) Form of contest and vulnerability irrelevant

♠7 ♥A974 ♦A83 ♣KQ862

SOUTH	WEST	NORTH	EAST
1♣	pass	1♠	pass
?			

2♣ is clear. Lawrence's statement that opener's rebid of his original suit does not promise six cards is true not only after a 2-level response but also after a 1-level response.

(5) Form of contest and vulnerability irrelevant

♠A83 ♥A974 ♦7 ♣KQ862

SOUTH	WEST	NORTH	EAST
1♣	pass	1♠	pass
?			

To create Problem 5 from Problem 4, I've swapped spades and diamonds. Now 2♠ is just as clear as 2♣ was in Problem 4. The 1♠ response promised *much* in the suit because it consumed much bidding space and may be raised *routinely* with 3-card support.

(6) Form of contest and vulnerability irrelevant

♠7 ♥A974 ♦A83 ♣KQ862

SOUTH	WEST	NORTH	EAST
1♣	pass	1♦	pass
?			

To create Problem 6 from Problem 4, I've changed responder's bid from 1♠ to 1♦. After this minimal bidding-space-consuming response, opener has a wide choice of rebids with minimum values (1♥, 1♠, 1NT, 2♣, 2♦). Though opener *might* have to rebid 2♣ with "a meaty five," his 2♣ rebid *shows six*. Here opener has no real problem, for he is happy to bid 1♥ with his ordinary 4-card suit. That's much better than raising to 2♦ with 3-card support or rebidding 2♣ with five … so much better that it wouldn't occur to most bridge players to bid anything but 1♥.

However, many bridge players would *respond 1♠* instead of 1♦ with ♠J652 ♥J53 ♦KQ1074 ♣5, leading to a terrible partscore in clubs instead of a good partscore in diamonds.

(7) Form of contest and vulnerability irrelevant

♠A872 ♥9543 ♦A109 ♣AJ

SOUTH	WEST	NORTH	EAST
1♦	pass	2♣	pass

?

If playing a system in which a 2NT rebid *shows* a minimum hand, opener can bid 2NT here. However, except in a 2/1 GF system, it's very wrong to have that agreement. Not only does rebidding 2NT shut out responder's easy 2♥ or 2♠ rebid when he has a 4-card major and longer clubs in a game-invitational hand, but it may also put responder to a guess whether to pass or raise. Those who do not play 1♦-2♣; 2NT as forcing use the sequence to show a *wide range* of hands: for those who play a 1NT opening as "a good 15 to bad 18" HCP (the *Bridge World Standard* range), play opener's 2NT rebid here as "a good 12 to bad 15" HCP.

Opener's best bid is 2♦. Then, if the hand belongs in notrump, responder can jump to 3NT with 13 HCP or more … but bid 2NT with 11-12 HCP (*a narrow range of strength)* letting opener make an intelligent decision whether to raise to 3NT or pass.

(8) How many diamonds do you need to open 1♦ and rebid 2♦ over partner's response?

By now, you should know: it depends on *your alternatives*, which depends in turn on *what partner bids*. If he bids *1♥*, you need *six* diamonds to rebid 2♦ (though with ♠983 ♥A ♦AKQ97 ♣8743 you should also rebid 2♦); but if he bids *2♣*, you may sometimes rebid 2♦ on *three*.