The Law, SST Rule, and ODR

By Neil H. Timm

Why do pairs prefer to play a Strong Club System instead of the 2/1 System? The answer is simple, playing a Strong Club System the bid of 1♣* limits the HCP in the hand to 15/16/17 depending on system agreements and all other 1-level opening bids have a limited range; normally from 11 to the agreed upon top limit. Most final contracts result in part score contracts (about 70%). Strong club systems are geared toward part scores rather than games and slams. Based upon responders bid, the opening bidder knows immediately whether the pair should play in a part score or game.

This is not the case playing 2/1 where the one-level suit bid is between 12 and 19HCP and it may take many bids to determine whether to play in a part score, game, or slam. In addition, many more conventions are needed when playing 2/1 (e.g., reverses and strong jump shifts).

Strong Club Systems and Precision have more strengths than weaknesses; however, neither are perfect; I have written about these systems before, follow the link:

https://www.bridgewebs.com/villages/Why%20fail.pdf

In Timm (2022), "The Optimal Modified 2/1 – Club System" I define a new hybrid system using a strong club 1♣* bid with 2/1 agreements for most other bids.

To help pairs who play either 2/1 or any Strong Club System, I want to review formula for the "Law of Total Tricks", The Short Suit Total (SST) Rule, and the Offense to Defense Ratio (ODR) that are useful in any competitive auction.

The Law of Total Tricks

In his book, Larry Cohen (1992) "To Bid or Not to Bid," Cohen states the Law of Total Tricks as: the Total Number of Tricks available on any deal is approximately equal to the total Number of Trumps. The total number of trumps means the combined total of cards in both sides' best trump fit. For example, if North-South's best (longest) fit is a 5-4 spade fit, and East-West's best (longest) fit is a 4-4 diamond fit, then the Total Number of Trumps would be 9+8, or 17. Now for the Rule: Never outbid the opponents at the three-level with sixteen trumps. But, always outbid the opponents at the three levels with eighteen trumps. With seventeen trumps, it is usually right to outbid them on the three levels, if not vulnerable.

Note: The comment "with 10 trumps in a major suit partnership fit, it is often correct to bid to the 4-level" is due to Marty Bergen, it is not the Law.

Let's look at the Law in more detail, for example with only sixteen trumps and both sides vulnerable Cohen shows that it is better to let the opponents play in three hearts

and for you not to bid three spades when both sides have only 16 trumps. He calls this "chart logic". To see this more clearly let's look at the chart, assuming nobody doubles.

Both Sides Vulnerable with 16 Trumps

Contract played in three spades		Contract played in three hearts	
Our Tricks won	Our Score	Their Tricks won	Our Score
10	+170	6	**+300**
9	+140	7	**+200**
8	-100	8	**+100**
7	-200	9	**-140**

From the chart, we see no matter how the trumps break, when both are vulnerable, that it is better to allow the opponents to play the contract in three hearts.

Rule: When both are vulnerable do not compete to the three level with only 16 trumps.

Or, given that both sides have eight trumps between them, both can be expected to make eight tricks, making either two hearts or two spades. This being the case, you must bid to the three level in hearts; however, do not compete to the three level in spades when both sides are vulnerable ---- this is the "LAW"!

In Larry's new book "Following the Law" the sequel To Bid or Not to Bid, he has a simple formula that may be used when both sides are **vulnerable.**

Formula: ∑Trumps – 11 = ∑ Bids

Where the symbol ∑ denotes "SUM OF"; thus, applying the formula 16 -11 = 5. The bids of 3♥ + 2♠ = 5 so do not bid to the level of three spades.

Important Note: The formula should only be used when both sides are vulnerable.

What happens when both sides are non-vulnerable? Again, we may make a chart, again assuming no doubles:

Both Sides Non-vulnerable with 16 Trumps

Contract played in three spades		Contract played in three hearts	
Our Tricks won	Our Score	Their Tricks won	Our Score
10	**+170**	6	+150
9	**+140**	7	+100
8	-50	8	**+50**
7	**-100**	9	-140

From the chart we see that by competing to the three level, when both sides are non-vulnerable, succeeds in three out of four cases. Thus, while the formula fails, we may always use chart logic and bid to the three level when non-vulnerable when having only16 trumps.

What if the spade bidder is vulnerable and the heart bidder is non-vulnerable. Then we have the following chart, again assuming no doubles.

Spade (V) and Hearts (NV) with 16 Trumps

Contract played in three spades Contract played in three hearts

Our Tricks won	Our Score	Their Tricks won	Our Score
10	**+170**	6	+150
9	**+140**	7	+100
8	-50	8	**+50**
7	-200	9	**-140**

And finally, suppose the heart bidder is vulnerable and the spade bidder is not. Then we have the following chart with no doubles.

Spade (NV) and Hearts (V) with 16 Trumps

Contract played in three spades Contract played in three hearts

Our Tricks won	Our Score	Their Tricks won	Our Score
10	+170	6	**+300**
9	+140	7	**+200**
8	-50	8	**+100**
7	**-100**	9	-140

From the charts we have the following rule.

Rule: Never compete to the three level when both sides are vulnerable or with unfavorable vulnerability with only 16 trumps. However, with favorable vulnerability or both non-vulnerable, compete to the three-level playing three spades over three hearts.

The above rules are based upon our chart analysis and bidding the majors. What if one side is bidding a major and the opponents are bidding a minor? Again, when both sides are vulnerable, we may use the simple formula. Looking at an example, suppose the opponents open the bidding 2♦ and your partner bids 2♥ followed by a bid of 3♦ by the opponents. Should you bid 3♥ with three hearts?

Applying the formula there are probably 9 (diamonds) + 8 (hearts) = 17 trumps and 17-11 = 6. Thus, bid 3♥ over 3♦.

However, suppose the bidding went:

RHO	YOU	LHO	PARTNER
2♦ (weak)	pass	3♦	X
Pass	?		

Now what do you bid? At equal vulnerability bid your three-card major. However, if they are vulnerable and you are not, pass.

The next logical question you must ask yourself is what happens when both sides have 17 trumps in the majors? This is more complicated. However, let's begin with a logic chart assuming no doubles.

Both Sides Vulnerable with 17 Trumps

Contract played in four spades Contract played in four hearts

Our Tricks won	Our Score	Their Tricks won	Our Score
10	**+620**	7	+300
9	-100	8	**+200**
8	-200	9	**+100**
7	**-300**	10	-620

Both Sides Non-vulnerable with 17 Trumps

Contract played in four spades Contract played in four hearts

Our Tricks won	Our Score	Their Tricks won	Our Score
10	**+420**	7	+150
9	-50	8	**+100**
8	-100	9	**+50**
7	**-150**	10	-420

The charts suggest that if the opponents can win only 8 or 9 tricks in four hearts that we should not bid four spades winning the same number of tricks.

Based upon 10,000 deals, the likelihood of winning 10 tricks occurs about 10% of the time while winning 8 or 9 tricks occurs almost 33% of the time. Hence, it is best to complete to the four level and bid four spades over four hearts with only 17 trumps. However, if you were to apply the formula, 17-11=6 it would suggest that one not compete to the four level. You will be down at least one trick.

Rule: With 17 trumps (vulnerable or non-vulnerable), one may sometimes complete to the four level when bidding spades over hearts.

Rule: With 17 trumps, never bid to the four level of a minor over a three-level major suit bid with equal or unfavorable vulnerability.

When bidding four spades over four hearts and both sides vulnerable, the formula suggested that one not compete at the four level. However, by considering hand shape (distribution), double fits, and poor honor combinations, one may adjust the "Formula" for the law to better decide whether to bid or pass. Let's see how it works.

1) For hands with poor honor combinations subtract one trick; however, with good honor combinations add one trick.

2) For a double fit in two suits, add one trick; but, for no second fit subtract one.

3) For balanced (flat) hands, subtract one trick; however, for non-balanced hands add one trick.

4) For poor trump quality, subtract one trick (no A/K/Q); however, with a high honors or good intermediaries add one trick.

Taking these factors into account the formula becomes:

Adjusted Formula: ∑Trumps – 11 + positive factors – negative factors = ∑ Bids

Adding the adjustments to the formula allows one to apply it in more situations since if the factors allow one to reach the 19 "trumps" level observe that 19 – 11 = 8, allows each to bid to the four level (e.g., 4♥ over 4♣/4♦, or 4♠ over 4♥, but not 5♥ over 4♠).

We now look at an example. You hold the following hand knowing the opponents hold nine hearts and both are vulnerable.

♠J8765 ♥QJ2 ♦J762 ♣Q

Applying the formula with no adjustment 18 – 11 = 7 you expect to be down only one so you might bid four spades if you were to make no adjustments. However, with spades as trumps subtract one (-1) for no high honor, for poor honor combinations outside of trump subtract one (-1), for the unbalanced hand add +1.

Using the new formula with adjustments we have that 18 – 11 -2 +1 = 6. You should not bid to the four level even with 10 trumps!

Do not apply the law without considering adjustments.

We look at a second example from Larry Cohen's new book. Your partner opens 2♥ and you hold the following hands:

1) ♠K104 ♥K876 ♦QJ3 ♣QJ4

2) ♠K43 ♥KJ76 ♦QJ43 ♣54

In both situations you have 10 trumps with say 18 total trumps, 18 -11=7 so do you bid 4♥ over 3♠?

Let's look at each of the hands. With hand (1) you have the King of trump (+1), but many Q's and J's in the other suits (-1), and a flat hand (-1) thus 18 – 11 -2 +1 = 6, do not compete to the four level!

With hand (2) you also have the King of trump (+1), a flat hand (-1), but fewer minor honors in the other suits; thus, 18-11-1+1=7, compete to the four level.

To read more on adjusting the Law of Total Tricks, read Larry Cohen's (1994) book "Following the Law the Total Tricks Sequel."

Mike Lawrence and Anders Wirgren's (2004) "I Fought the Law of Total Trick," published by Mikeworks, show that hands that agree with the LAW diminish as the number of trumps increase. With sixteen trumps, it is right only 44.1% of the time, but with seventeen or eighteen trumps, the Law is right only 36% of the time. They show that it isn't the number of trumps that is important, but distribution which the Law ignores. It is the partnership short-suit total (SST) that determines how well the trumps will work.

The Lawrence and Wirgren's LAW is: Estimate the short-suit total (SST) between the hands and subtract it from thirteen. With 19-21 HCP between two hands (about half the high card points); your winner's equal thirteen minus your SST. Say your side has the SST of four (a doubleton in each hand), 13-4=9, you can expect to take nine tricks. BID TO THE THREE-LEVEL. With 22-24 HCP, you have one extra trick; with 25-27 HCP, you have two extra tricks, etc.

Let's look at an example from Lawrence and Wirgren, page 153.

			♠	AKJQ102			
			♥	J9874			
			♦	54			
			♣	3			
♠	765					♠	43
♥	32			N		♥	65
♦	AKQ106			W E		♦	J987
♣	J98			S		♣	AKQ102
			♠	J98			
			♥	AKQ10			
			♦	32			
			♣	7654			

In this example, both opponents have 20HCP and both sides have nine card trump suits. The simple "Law" says that there should be 18 tricks, the sum of the total number of trumps. However, south can make nine heart tricks and west can make only eight tricks in diamonds. The simple Law fails; however, applying the formula we have those 18-11=17 tricks. When we apply the Lawrence and Wirgren formula, North-South has 20 HCP and with a SST of four (two in diamonds and two in clubs). So, 13-4=9 tricks. East-West has the same HCP total, but less distribution. Now 13-5 (two in hearts and three in spades or clubs) = 8. While the simple total trump formula fails, the formula, for this example hand, works as does the Lawrence and Wirgren's formula. However, **Shape is the key, not the total number of trumps.**

Short Suit Total Rule (SST) Rule

When opening one of a major, a splinter bid shows 3/4 card support for the major suit bid and 13+ Working points. If the SST in both hands is known to be between 0-3, one may apply the SST Rule to determine the number of tricks.

Opener adds his HCP to 13 and with 19-21 total points in both hand 13-SST=the number of possible tricks. Note if both hands contain a void 13-0= 13, a grand slam with only 19-21 points.

If the total points are between 22-24 you gain one more trick. And with 25-27 you gain two more tricks.

The effective use of the SST Rule occurs when pairs use direct splinters, ambiguous splinters and mini splinters which show a singleton or void in a bid suit.

Offense to Defense Ratio (ODR)

In a competitive auction it is often difficult to determine whether a hand is better suited to offense (declare) or defense (defend). Do we bid on, pass, or double the opponents?

The decision depends on estimating the hands potential Offense to Defense Ratio (ODR) which is the ratio of the expected offensive tricks to defensive tricks a hand may generate.

Meaning of ODR

- High ODR: A hand is better played as a declarer — it may generate more tricks in a suit and is likely to score well if it fits well with partner.
- Low ODR: A hand is better played as a defender — it is difficult to make many tricks in a suit and may be better to pass or double for penalty.

A simple example illustrated the concept of ODR.

The hand ♠AKQJ10xx ♥xx ♦xx ♣xx will generate 7 tricks in hearts and only 2 tricks in any other suit. Its ODR is 7/2=3.5. Conversely the hand: ♠xxxxxxx ♥Ax ♦Ax ♣Ax with generate only 3 offensive tricks. Its ODR is 3/10=0.30.

We clearly see that honors in long suits makes a hand offensive while honors in short suits make a hand more defensive. We may classify a hand:

ODR	Hand Type	Implication
>2	Very Offensive	Bid aggressively, sacrifice freely
~1.5-2.0	Offensive	Lean toward bidding
~1.0	Balance	Use Judgement

The ODR is the ability to estimate the trick-generation potential of a hand in combination with partner's using the Optimal Point Count (OPC) method of hand evaluation in combinations with appropriate adjustments cleaned from the bidding auction called Adjusted Optimal Count (AOC) which I discuss in Chapter 6 in Timm (2022), pp. 114-148. In summary it is a three-step process.

To open 1M requires 12-17**HLD** points; however, for a suit overcall in a competitive auction one needs 12-17**AOC** points for a 1-level bid and for a 2-level overcall bid one needs 15-17**AOC** points. Evaluation of AOC points is a 3-step process:

(1) Starting Points **HLD**
(2) Adjustments for Opponent's suit length and Honors Held in their suit

(3) Adjustments for Honors in 3 or 4 suits Outside the Opponents' suit

Do not let vulnerability influence your decision or use the commonly used Culbertson's rule of "2 or 3" (i.e., do not go down more than 2 -tricks vulnerable or more than 3-tricks non-vulnerable). Use the Adjusted Optimal Count. Recall that the adjustment was:

Overcall Suit Adjustments

Deduct -1 point for 3-cards in the opponent's suit
Deduct -2 point for 4-cards in the opponent's suit
Deduct -3 point for 5-cards in the opponent's suit

Add +1 for a singleton in the opponent's suit (i.e., 2D becomes 3D)
Add +1 for a void in the opponent's suit (i.e., 4D becomes 5D)

The opponents open 1♥ open and you hold:

♥xx	No adjustment
♥xxx	-1**L** point
♥Axx	-1**L** point = 3.5 points (4.5-1**L**)
♥Axxx	-2**L** point = 2.5 points (4.5-2**L**)
♥Kxxx	-2**L** point = 1.0 points (3.0-2**L**)
♥x	+1**D** so total =3**D**
♥ -	+1**D** so total =5**D**

A second factor that effects an over call bid are honors in and outside the opponent's suit. The honors in 3 and 4 card suits and lone honors help to determine whether your hand is more defensive than offensive orientated.

Overcall Honor Adjustments

(1) Honors in Opponent's Suit

Kxx/Kxxx (K alone) deduct -1 point (regardless of position) with KJx
or Kx no adjustment
K with Q -1 when before opponents' suit
+1 when after opponents' suit
Qxx/QJx no adjustment

J without a 10 -0.5 (e.g., Jxx/Jxxx J alone); otherwise, no adjustment

(2) Honors in 3/4 card side suits

Kxx/Kxxx alone -1 point with Q/J no adjustment
Jxx/Jxxx alone -0.5 with 10 no adjustment

(3) No other honor adjustments

A simple overcall at the one-level requires 12-17**AOC** points and includes 2 zones 12/14 for a 1-level bid and 15/17 for a 2-level bid.

Playing "traditional" 2/1, many use the rule that a simple, non-jump, 1-level overcall bid requires only 7-17H points and a 5-card suit and with 18+, one must X and bid.

Offensive versus Defensive Power

In a competitive auction one must decide when your hand is offensive or defensive. With offensive power a person is more likely to overcall with a direct bid or a transfer depending on your agreement. While if the hand is not offensive but defensive, has more defensive than offensive power, then you should not bid but defend or double the opponent's contact penalty.

Let's look at two hands

(A) ♠KQJ108 ♥A5 ♦K10 ♣54 (B) ♠Q10987 ♥K10 ♦AKJ3 ♣54

Hand (A) has 18**HLD** and may generate 5 to 5.5 tricks, but against a club contact maybe only 3. However, it is clearly an offensive hand.

Hand (B) has only **15HLD** even though the honors in each hand are identical: an Ace, 2 Kings, a Queen, a Jack and two 10's. Clearly a defensively orientated hand.

The OPC value in general tends to decrease for hand that is more defensive than offensive.

Dealer West N-S All Non-Vulnerable

		♠	-		
		♥	AQ9876		
		♦	K7		
		♣	QJ1087		
♠	KJ10732	N		♠	9654
♥	64	W	E	♥	7
♦	AQ7	S		♦	J1032
♣	K9			♣	A653
		♠	AQ8		
		♥	KJ52		
		♦	9432		
		♣	654		

West has 16.5**HLD** (3+1+1+2**L**+4.5+2+3) and opens 1♠.

North has 20.5**HLD**[4+4.5+2+2**L**+3+2+1+1+1**L**] -1(for ♦K) +1 (Spade Void) =20.5**AOC** and bids 2♥.

East has a spade fit with 4-spades and 10.5**HLDF= +** 2 spade fit +2 Singleton♥ + 2(J10x) +4.5 so bid 2♠.

South with 4-hearts and 15.5**HLDF** bids 4♥. All pass, but now, but East next bids 4♠. Now what?

North with the spade void has no defense against 4♠ and bids 5♥ which is doubled for a good N-S result since E-W can make 4♠. East/West can make 10 tricks in spades and North/South only 9 tricks in hearts. So, bid to the 5-level (5♥) for down 1.

Offense to Defense Ratio (ODR) Calculation

For the example, Offense to Defense Ratio using the Optimal Point Count (OPC) is defined as:

ODR=**HL** in 4 and 5+ suits/**HD** in the 3 or less card suits

North ODR=(4.5+2+2**L**+5) / (3+4) =13.5/7 =1.92

and for West ODR=(5+2**L**) / (4.5+2+3+1**D**) = 7/10.5=0.66.

Observe also that the **AOC** for west is 16.5**HLD** -1 for the lone ♣K = 15.5**AOC.** Since North-South 20.5**AOC >** 15.5**AOC** for West-East, N/S has more Offense than W/E.