SCRAMBLE STAYMAN

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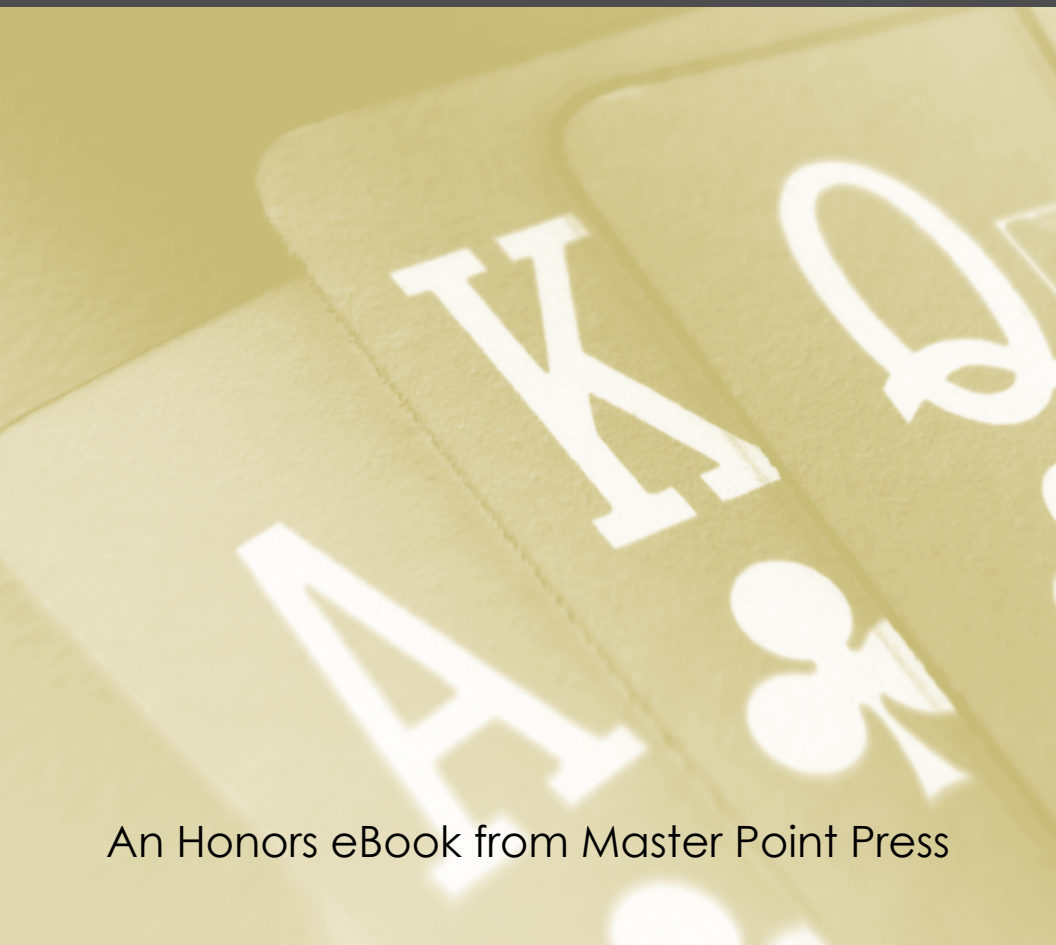

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Introduction

Hey pard we seem to be leaving a lot of 4-4 major fits on the table!

Your Hunch

Partner opens a weak 1NT (12 to 14). You have your usual dreck. Your hand has less than invitational strength, lacks a long biddable suit, has a shape along the lines of 4-3-4-2 or 2-4-5-2 or 3-4-1-5. It might be this hand:

♠ K 7 6 5
♥ Q 10 2
♦ 3
♣ K 7 6 4 2

For most experienced weak notrumpers, that's an automatic pass, but as you finger the green card you suspect, and not for the first time, there may be a good chance 1NT is far from optimum. Suppose partner held four spades, like here?

♠ A Q 4 2
♥ K 9
♦ J 9 8 2
♣ Q J 8

———

♠ K 7 6 5
♥ Q 10 2
♦ 3
♣ K 7 6 4 2

On a good day, 4♠ will make, and any spade contract will usually outscore 1NT. Or, partner has opened 1NT with five hearts (your agreement permits) like so:

♠ A Q
♥ K 9 8 7 3
♦ J 9 8
♣ Q J 8

———

♠ K 7 6 5
♥ Q 10 2
♦ 3
♣ K 7 6 4 2

4♥ has decent play, and some number of hearts will be a big improvement over 1NT.

How about this layout?

♠ A 9
♥ A J 7 4
♦ J 9 8 7
♣ Q J 8

———

♠ K 7 6 5
♥ Q 10 2
♦ 3
♣ K 7 6 4 2

That heart Moysian (4-3 fit) should have excellent play in 2♥, with a good chance of scoring better than 1NT. I can see a lot of tricks on a cross ruff, or maybe by setting up clubs.

Opener might even have this fortuitous specimen, where you will be very unlucky not to make a spade game.

♠ A Q 4 3 2
♥ K 9
♦ J 9 8
♣ Q J 8

———

♠ K 7 6 5
♥ Q 10 2
♦ 3
♣ K 7 6 4 2

So by sitting for 1NT with that hand, you are surely missing out on some terrific major-suit fits, which generally will play and score better in 2♥ or 2♠ than 1NT. Nonetheless you pass, because *that's what every bridge authority has been telling you to do since the dawn of bridge time. It's conventional bridge wisdom!* The reason? If you ask about majors with Stayman, and partner as usual has the wrong hand, then what are your options? Opposite 12-14 with K765 QT2 3 K7642, you start 2♣ and opener disappoints with 2♦, now what? You're too weak to undertake a 2NT contract (even if you could force partner to pass it). You aren't comfortable with 3♣ as a secondary option, although it won't always be a poor contract. You're not even sure what to do when he rebids 2♥. So you are told not to ask for a major in that position.

Still, you cannot shake your hunch that maybe it is not optimum to routinely sit for 1NT, that with at least some suitable responding hands you should strike out in search of a major-suit fit. Not every search will succeed, but you speculate you will encounter more good than harm.

Unfortunately you have zero facts at your disposal. Nada. Zilch. *You have no idea what trump fits you might find. You don't know how often you will land in those contracts, or how they would score compared to 1NT. You cringe at what 'horrors' might await if you cannot negotiate a major fit.* As far as you know, nobody has taken a thorough look at outcomes for that position. All you have is your uninformed hunch.

This book does two things. For the big picture, we thoroughly parse your hunch by analyzing tens of thousands of deals, and answer the questions raised in the previous paragraphs. Then we illustrate our findings with a *challenge* match. Spoiler: It turns out your hunch was bang on.

The Proposed Solution

We will institute a simple 'scramble' for a major-suit fit. We have called the new routine *Scramble Stayman*, because it begins with 2♣, and works alongside plain vanilla 2♣ Stayman. It happens to incorporate elements of 'Crawling Stayman' (CS), not by design but because CS emerges from the analysis. The holdings for Scramble Stayman come around much more often than they do for CS, because we scramble with many more hand types, and over a much wider range of responder strength. We *deconstruct and validate* CS along the way. If you are not playing at least (54)xx CS, you should very seriously consider it.

Weak notrumpers love the damage which 1NT inflicts on their opponents, but they overlook (or resign themselves to) the degrading of their own part-score bidding.

A common lament for weak notrump fans is this. My 1NT opener pre-empts *three* 'opponents'. As I score up my +90, I note with some satisfaction the opponents seem to be cold for 2♥. We shut them out with our opening 1NT, yeaaah. When the board results are published, I see a few pairs did manage 110 the other way. Alas (once again) my hard-fought +90 is a sub-average result because other pairs our way found their 4-4 spade fit. 2♠ makes easily, and outscores 1NT. The 1NT opener both wins and loses again!

So although opening with an anti-field 1NT range has many benefits, it is frustrating to miss out on better-scoring partial contracts because you pre-empted *yourself*. I wondered if there was some way responder might mitigate. Could we scramble for 8+ major-suit fits and *if not successful, settle into 'acceptable' if not 'good' contracts*? Would landing in the good spots more than compensate for having to settle for less desirable ones? Several questions come to mind.

- What kind of responder hand is suitable to scramble? Since our primary goal is finding a major-suit fit, surely a 5-4-2-2 hand would qualify, and 3-2-4-4 not, but what about the likes of 4-3-5-1 or 1-4-4-4 or 4-2-5-2 or even 4-3-4-2?
- What form would the search take? How would it co-exist with regular Stayman?
- Ultimately, which kinds of contracts will result, and how often? Lacking a major-suit fit, then what? What are the chances of landing in a 'good' spot?
- Most importantly, overall will the scramble pay off in improved IMP and matchpoint scoring?

The Challenge Match

On a more intimate scale, to better bring to life our big picture analysis, we've prepared a challenge match. Our analysis is very persuasive, but it's edifying to see actual bridge hands play out. The match will serve as confirmation by example.

What do we mean by 'match'? Our broad analysis identified a simple fit-finding algorithm. The bold match challenger scrambles out of 1NT to play wherever those bidding rules take him. The conservative guy sticks to 1NT at 'the other table'. We randomly deal a batch of suitable hands each with double dummy results (similar to tournament or club hand records). The challenger scrambles to the optimum reachable fit, and we compare scores for that contract with scores for 1NT. You need a very large number of hands to squeeze out all randomness, beyond the capability of a challenge match. The analyses in this book use samples of several thousand. However for illustrative purposes in this match, a sampling of 100 random deals should point us in the right direction.

Any really curious/sceptical reader can actually validate for himself, playing his 'personal' challenge match. Reader will need either a commercial double-dummy dealer, or access to a large number of tournament/club hand records, the kind which includes a double dummy analysis of who makes what. Browse those records for suitable deals, determine the scramble contract, and 'play out' the match by comparing scores for the scramble contract with 1NT.

The scramble position arises much more often for weak notrumpers. They open 1NT more frequently (12-14 comes along about twice as often as 15-17, and 11-14 nearly *thrice* as often), and their sub-invitational range is also wider (0 to

10 or so, compared to about 0 to 7, also about twice as frequent). Since the methods I will introduce have greater utility for weaker notrump ranges, much of this book will focus on 12 to 14 in opener, and 8 or 9 in responder.

Strong notrumpers should note the concept works equally well for, say, 15 to 17 opposite 5 or 6.

We would find that *any* responder strength would benefit from a scramble, not just the focus range.

Distribution Descriptions

Throughout the book we use the following distribution descriptions:

- '4432' represents any hand with four of one suit, four of another, etc.
- '4-4-3-2' shows specific holdings in spades-hearts-diamonds-clubs.
- '4-4-xx' shows four spades and four hearts, with any minor-suit holdings.
- '(42)xx' represents either 4-2-xx or 2-4-xx.
- '(42)(52)' shows 4-2-5-2 or 4-2-2-5 or 2-4-5-2 or 2-4-2-5.

Qualifying for the Scramble

A scramble initiated by responder will eventually terminate in a *scramble contract*, either 2♥ or 2♠ if we can connect with a major fit, or 3♣ and 3♦ as fallbacks. Under some circumstances responder will pass 2♦, more on this later. We cannot end the scramble with 2NT because responder almost assuredly will be too weak for that contract to be playable (if responder is invitational or better, his 2♣ call will be standard Stayman with 'normal' follow-ups, not the scramble adaptations, see later how the two methods *mesh*).

We are confident (54)xx holdings will scramble to good contracts, but nowhere have seen hard evidence, and we have no idea what is the 'value' of the scramble, how often and to what extent it will pay off. We speculate that 4-4-xx might fare well, but have no proof. We have a hunch that at least some unbalanced hands with a four-card major will benefit, but could be wrong. And we're totally clueless what might happen when we fail to find an eight-card major fit.

Ideally we could access a magical software solution that would (1) deal thousands of suitable hands for opener and responder (2) test various algorithms to find the optimum scramble strategy (3) do the scrambles (4) play each deal in both 1NT and the scramble contract (5) compare the results and arrive at some conclusion. Alas that remedy does not exist, so we must be creative, and tackle the issue piecemeal.

To illustrate what data we expect to garner from our plan of attack, here is a very small sample of results pitting 1NT against 2♠ when there is a 4-4 fit. When completed, the full study will include thousands of deals for many different trump fits in many different scramble contracts.

2♠ vs 1NT With a 4-4 Spade Fit

(1) 2♠ Score	(2) 1NT Score	Diff (1)-(2)	2♠ IMPs Won	2♠ MPs Won
+170	+150	+20	+1	+1
+140	-50	+190	+5	+1
-100	-100	0	0	0
+110	+90	+20	+1	-1
-50	+90	-140	-4	+1
+140	+120	+20	+1	+1
+140	-100	+240	+6	+1
+110	-50	+160	+4	+1
+110	+120	-10	0	-1
+110	-100	+210	+5	+1

At IMPs, scrambles win +19

At Matchpoints, scrambles win 7, tie 1, lose 2

For these 10 deals, 2♠ outscored 1NT by an average of 1.9 IMPs. Although the sample size is tiny, it's beginning to point to a win for 2♠. When matchpointing, 2♠ beats 1NT seven times, ties once, and loses twice. How realistic do those numbers look to you? As you will see later, a more exhaustive analysis favours 2♠ even more convincingly.

Our initial task is to consider which kinds of hand should responder consider to scramble?

How Do We Do the Scrambles?

To help answer these questions, we enlist the help of a commercial double dummy solver (DDS). The DDS will deal 'suitably constrained' hands to opener and responder, and 'play' all deals in every strain. The DDS plays 'perfectly' both offence and defence. It finds all killing leads, every position knows whether the spot lead is from singleton or doubleton, and declarer drops all stiff offside kings. You've seen a DDS in action, they generate hand records for club and tournament results.

In addition, we need better 'reporting' than the solver offers. The DDS deals and plays out the deals, but it cannot step through the scramble motions to determine the scramble contract; it wasn't designed for that. So we simply designed and built an *extension, an augmentation* to the DDS. We won't bore you with the details, suffice to say the author programmed Bridge Buff, an early bridge-playing program.

With the augmented DDS, we do this:

- We shuffle deals with appropriate constraints for the opener and responder hands.
- We apply the scramble algorithm (in effect, 'bidding' the hands) to arrive at a scramble contract.
- We compare the double dummy score for the scramble contract with the score for 1NT.
- We measure the scoring difference in both IMPs, and a matchpoint metric.
- We repeat for thousands of hands.
- We like the result so much we share it in a book.

It is a valid application of DDS to compare results between 1NT and the scramble contract. We're not evaluating human playing computer, we're comparing DDS playing some suit contract with DDS playing the same cards in 1NT. That difference *is a reasonable proxy* for the difference in results for human play. DDS play will be stronger than most human play, but DDS suit-play is not relatively stronger than DDS notrump-play, or vice versa. The DDS and human scoring differences should be acceptably close for our purposes.

By the way, Richard Pavlicek on his great website, has convincing evidence (http://tinyurl.com/doubledummy) that top-flight human players do in fact play very nearly at DDS levels, even better! How could expert declarers play better than DDS? Well the human declarers are not faced with those killing double dummy leads. The DDS leader 'sees' all the cards. I hear that human opponents sometimes make unfortunate leads, so the human declarer benefits from that.

First we must decide what is an appropriate hand for opener to bid 1NT. We're focusing on weak notrumps, so we will begin by looking at opener with 12-14 HCP. Obviously we will include 4333 and 4432 hands, as well as 5332 holdings with a five-card minor. The modern trend is to include five-card majors in 1NT, so we will follow suit (although we investigate *not* including them later). We will also include (42)(52) shapes.

We don't know yet with certainty which hands are suitable for responder, that is one of our objectives, so we will take a look at a wide variety of them. Where should we start looking for *scramble-worthy* shapes? I'm not a good guesser, so how about we examine *all* responder shapes? As a baseline preview, we can apply the scramble *to each*

and every pattern, barring obvious single-suiters and two-suiters.

Scramble Results for Various Specific Shapes

The following table summarizes comparisons of scramble contracts vs 1NT, for those various responder holdings. Throughout the tables, hands with interchanged minors, say 1-4-5-3 and 1-4-3-5, produce the same results (but see later for passing 2♦). The sample size for each is several thousand, so the margin of error is inconsequential.

For an IMP table (International Match Point), see Appendix II. For example, if the scramble contract is 2♥ making with an overtrick, scoring 140 compared to 90 for 1NT, that 50 point gain is worth 2 IMPs.

The matchpoint gains are a simple measure of which contract scores higher. The above-mentioned 2♥ contract would score one 'win'. Had 2♥ failed, it would score one 'loss'. About 10% of comparisons are 'ties', which reflect equal downtricks. A scoring difference of less than 20 (+110 compared to +120, say), is a matchpoint 'win' but an IMP 'gain' of zero. The incidence of ties is strongly correlated with responder's range. That is, there will be more (fewer) ties when responder is weaker (stronger).

For each of the following holdings, opener has a hand suitable to open a weak 1NT. Responder with a specific shape and 8-9 HCP scrambles to one of 2♥, 2♠, 3♣ or 3♦. These tables summarize the net aggregate score for those contracts compared to 1NT. 'Win' is the percentage of times the scramble contract scores higher than 1NT.

Specific Responder Shapes

Responder Shape	IMPs	--- Matchpoint % --- Win	Tie	Lose	Include?
5-4-x-x	+2.1	76	7	17	Y
4-5-x-x	+2.5	82	5	13	Y
4-4-3-2	+0.9	59	13	28	Y
4-4-4-1	+1.9	71	8	21	Y
4-4-5-0	+2.6	79	4	17	Y
4-3-3-3	-1.4	30	14	56	N
4-3-4-2	+0.0	47	15	38	N
4-3-5-1	+1.3	63	10	27	Y
4-3-6-0	+1.8	66	7	27	Y
4-2-4-3	-0.7	41	13	46	N
4-2-5-2	+0.8	58	12	30	Y
4-2-6-1	+1.5	67	9	24	Y
4-1-4-4	+0.1	53	10	37	N
4-1-5-3	+0.7	58	10	32	Y
4-1-6-2	+1.5	67	9	24	Y
4-0-5-4	+0.8	61	9	30	Y
3-4-4-2	+0.1	49	14	37	N
3-4-5-1	+1.3	65	10	25	Y
3-4-6-0	+2.0	70	5	25	Y
3-2-4-4	-2.9	21	12	67	N
3-2-5-3	-1.5	29	13	58	N
3-2-6-2	-0.2	43	13	44	N
2-4-4-3	-1.7	35	11	54	N
2-4-5-2	+0.4	55	11	34	Y
2-4-6-1	+1.5	66	9	25	Y
2-3-4-4	-2.4	25	11	64	N
1-4-4-4	-1.3	41	7	52	N
1-4-5-3	+0.4	53	10	37	Y
1-4-6-2	+1.2	66	9	25	Y

INTERMEDIATE

Don't Settle for 1NT

Partner opens 1NT (15 to 17). Your hand has less than invitational strength, lacks a long biddable suit, has a shape along the lines of 4-3-4-2 or 2-4-5-2 or 3-4-1-5. It might be this hand:

♠K 7 6 5 ♡J 10 2 ♢3 ♣Q 9 6 4 2

They tell you to pass that holding, even though in passing you will leave many fine major-suit fits on the table. This book argues you should hunt down those fits. Two times out of three, the contracts you scramble to will matchpoint better than 1NT, and they will gain an average of about one IMP per hand.

Scramble Stayman examines (1) which types of hands qualify to scramble, (2) the scramble technique to use (beginning with 2♣, and overlaying standard Stayman) and (3) how the various scramble contracts score compared to 1NT, measured over thousands of hands. The book features a 100-board 'match' between one player staying in 1NT, and another scrambling to a (usually) better contract, which the scrambler decisively wins.

DOUG BENNION is the creator of Barbara Seagram's software, *Practice Your Notrump Bidding* and *Practice Your Slam Bidding*, published by Master Point Press. He wrote and published Bridge Buff, a popular early bridge-playing program, and Visual Deal, a popular early deal generator. He is also the author of several *Bridge World* articles.

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