Eight Ever, Nine Never

South Deals
Both Vul

♠ Q 9 3
♥ A J 3
♦ A K J 5
♣ Q 3 2

N
W E
S

♠ 8 5
♥ K 9
♦ 10 6 4
♣ K 9 8 7 6 4

West	*North*	*East*	*South*
			Pass
Pass	1 NT[1]	Pass	2 ♠[2]
Pass	2 NT[3]	Pass	3 ♣[4]
All pass			

1. Good 15 to bad 18 HCP.
2. 6+ ♣, any strength.
3. If you were inviting 3 NT on your club suit, I accept.
4. Let's play here.

3 ♣ by South
Lead: ♠ 2

As declarer at 3 ♣, you play small from dummy on the lead of the ♠ 2. East takes the ♠ J, ♠ K, and continues with the ♠ A. You ruff with the ♣ 6, West following.

You start trumps by leading the ♣ 4 - ♣ 10 - ♣ Q - ♣ A. With no attractive return, East chooses a heart. Now what? Would it matter if the return was a diamond or the ♣ 5?

South Deals Both Vul	♠ Q 9 3 ♡ A J 3 ♢ A K J 5 ♣ Q 3 2	
♠ 10 6 4 2 ♡ Q 10 4 2 ♢ Q 9 7 2 ♣ 10	N W E S	♠ A K J 7 ♡ 8 7 6 5 ♢ 8 3 ♣ A J 5
	♠ 8 5 ♡ K 9 ♢ 10 6 4 ♣ K 9 8 7 6 4	

N 3N; NS 4♣; S 2N; NS 2♢; EW 1♠; EW 1♡; Par +600
3 ♣ by South
Lead: ♠ 2

A heart return might appear logical from many holdings. South would bid the same without the ♡ K. The return of the ♣ 5 could be an easy exit with no further clubs, or a dare with the ♣ J. A diamond into the teeth could be abject panic (starting with ♣ AJ5), from a holding such as ♢ 10xxx, or fear of picking off West's hypothetical ♡ K. Ignoring these considerations, what is the right way to play trumps?

The "eight ever, nine never" rule is great when playing an 8-card suit to find a missing card on the second round: the finesse is 50% and the drop at best 40%. However, playing for the drop with "nine never" is 52%, compared to 50%. If you know *anything* favoring the finesse, it is usually correct to do so.

In this case there is a whopping advantage to the finesse, because West contributed the ♣ 10 to the first round of the suit. The rule of "restricted choice" says an opponent who plays one of equal cards was restricted to playing that card. In this case, play that West does not have the ♣ J, having played the ♣ 10. It turns out East is *twice* as likely to have the ♣ J as West. Win the heart on dummy, and lead a club; when East plays the ♣ 5, finesse for the ♣ J, a play with about a 66% chance.

The key is, with ♣ J10, West could have played either card. A smart West randomly plays one or the other, so the chance of this holding is half of the chance of the singleton ♣ 10. If you *know* West always "falsecards" ♣ J from the ♣ J10 doubleton, then the ♣ 10 denies the jack, and the finesse is a 100% play! Of course, when such a West plays the ♣ J, then you should play for the drop, since that is 52%, compared to 50% for the finesse.

One more time: the original chance of singleton ♣ 10 and ♣ J10 was the same. However, when West plays the ♣ 10 randomly from ♣ J10, the chance of the actual holding being ♣ J10 is halved. When West always plays the same card from ♣ J10, then the play of that card is about as likely to be from the doubleton as the singleton, and you might as well go for the extra 2% of the drop. When West plays a card that denies a doubleton, the finesse becomes a sure thing.

With such a holding, I decide which opponent to play for the singleton, such as West on this hand, and then lead the first round through that hand, hoping to catch an honor. I've won lots of tricks on planned restricted choice.

Restricted choice is logically equivalent to the *Monty Hall problem*, described in Wikipedia and other places.

Swap the ♣ 10 and ♣ 9 between West and South, and now (lacking further inferences) the 52% play for the drop is correct. Unlike the ♣ 10, West's ♣ 9 on the first round of trump does not tell you anything useful.