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Benefit of Hitting Second Serve Like the First

By JOHN BRANCH

Robin Soderling played [Andy Roddick](#) this month in Cincinnati, a match between two of the top servers in tennis. At one point, Soderling hit a 138-mile-per-hour ace. He missed his next big serve and followed it with a second attempt that crossed the net at 85 m.p.h. Roddick hammered it back to win the point.

It happens throughout every match — players uncork a first serve with as much force as possible, confident in the knowledge that another chance awaits. And on the second serve, they hit a much different, more timid, perceptibly slower serve.

The ball is more likely to go in. The subsequent rally, however, is also far more likely to be lost.

And the question persists: would players have a better chance of winning the point, even after factoring in the sure rise in double faults, by going for it again on the second serve — in essence, hitting two first serves?

The answer is yes, over time, for many of the top players.

“I’ve been saying this for 35 years,” said Bill Tym, a former Vanderbilt coach who has guided several professional players and is in the [United States Professional Tennis Association](#) hall of fame. “It’s entirely psychological.”

The topic riles him. Juniors are taught that the most important aim of the second serve is to get it in play, he said, and even top players never shake the mind-set.

“It’s an insidious disease of backing off the second serve after they miss the first serve,” said Tym, who thinks that players should simply make a tiny adjustment in their serves after missing rather than perform an alternate service motion meant mostly to get the ball in play. “They are at the mercy of their own making.”

Generally, the [top men’s players](#) make about 65 percent of their first serves and 90 percent of their second serves. But when the first serve goes in, most win about three-quarters of the points, often on aces. On second serves, the win-or-lose proposition is about 50-50.

The numbers skew a bit lower for the women, but the proportions are about the same.

Nine of the top 20 men as of the Aug. 2 rankings would be better off statistically or virtually unaffected by using their first-serve technique on the second serve. The list includes Novak Djokovic, Nikolay Davydenko, Fernando Verdasco and many of those with dominating first serves: Soderling, Roddick, John Isner and Sam Querrey.

Yet only on occasion — perhaps with a big lead in a game, like 40-love — do any dare to strike a full-strength second serve.

“You need to at least give yourself a chance to win the point,” Querrey said.

The women who could be better served by hitting two first serves include [Serena Williams](#), [Jelena Jankovic](#), [Victoria Azarenka](#) and [Maria Sharapova](#).

“You don’t want to give up free points,” said Jankovic, who puts in 88 percent of her second serves but loses more than half those points. “You don’t want to give gifts away by making all these double faults.”

That is the dominant thought. You cannot win a point if you do not put the ball in play. But you can lose one.

“Yes, you do have in your subconscious that you might make a double fault, so you just want to go for safe shots,” Djokovic said.

In other words, players would rather limit their risk to double faults and take their chances in a rally, even if it means they are more likely to lose the point.

“People prefer losing late to losing early,” [Daniel Kahneman](#), a Noble Prize-winning psychologist and professor emeritus at Princeton, wrote in an e-mail.

Some of Kahneman’s best-known research, with Amos Tversky, focused on decision-making and people’s aversion to risk, even when given identical potential outcomes.

“Imagine a game in which you have a 20 percent chance to get to the second stage and an 80 percent chance to win the prize at that stage,” Kahneman wrote. “This is less attractive than a game in which the percentages are reversed.”

Either way, a player would have a 16 percent chance of winning the prize. Similar math can be applied to tennis. But something else is involved, too.

“The psychological cost of a double fault may be worse than losing a volley,” Kahneman wrote.

That is probably true. Double faults are a core statistic in tennis, often cited as a sign of

mental weakness. The more practical side of a player's psyche, however, focuses on how tennis points are counted. It can take four points to win a game. Or lose one.

"Two double faults in a row and you're love-30," Roddick said. "If sports were played on a stat sheet, you know, the look of it would probably be a lot different. One thing you're not putting into consideration with the numbers is nervous tension.

"You know, it's a lot easier on a black-and-white piece of paper with a number. Most people don't serve a ton better under pressure. So if you're digging yourself a hole — love-15, love-30 — it's a totally different ballgame. That can't be explained by numbers, I don't think."

At Wimbledon in June, Isner and Nicolas Mahut played the longest known tennis match in history. Each held serve in the fifth set until Isner finally broke Mahut and won, 70-68.

Isner had a record 113 aces and only 10 double faults. A few ill-timed double faults from either player, and the match would certainly not have lasted more than 11 hours over three days.

Isner's first serve can be an overpowering 140 m.p.h., and when it goes in (68 percent of the time this year, through Aug. 2), he wins 76 percent of the points. He leads the men's tour in aces.

His second serve, which his coach, Craig Boynton, called one of the best ever, sometimes reaches 120 m.p.h. and kicks off the surface with a lot of spin. It goes in about 92 percent of the time, and Isner wins 55 percent of those points.

Isner would win a slightly higher percentage of points using his first serve every time. But that does not allow for nuances like confidence, the opponent, the surface, the score or fatigue. Second serves are usually hit with more English and less velocity, to safely clear the net and bounce high.

"You don't want to be serving second-serve percentages in the 70s, because it might be one game that all those 30 percent come," Boynton said. "You have a game where you don't get a second serve in, percentage-wise you still might be serving in the 80s or 90s, but now you're down a break. You've got to manage it better."

Strategy cannot be based solely on statistics, in other words.

"What you're doing is bringing some very concrete, black-and-white information, and then saying, Now, don't be emotional about it," Boynton said. "You've got two polar aspects colliding."

Sometimes at 185 m.p.h. Sometimes at 85. Either way, the numbers do not always add up.

