



Left-handedness in tennis: Tactical, coaching and training considerations.

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ABSTRACT

Left-handedness has been often considered to be an advantage in tennis due to spin and tactical patterns. Recent research indicates that such advantages are minimal at the pro tour level but can still exist at the club level. The advantage has been suggested to be frequency-dependent, where if right-handed players become more accustomed to left-handed opponents, the advantage is neutralised. It is suggested that frequency of training with left-handed opponents with serve and forehand tactical patterns can prepare players better. Recommendations for tactics, training and coaching are made.

Key words: Left-handed tactical advantage, Handedness, Tactical patterns, Spin.

Received: 2 March 2014

Accepted: 4 April 2014

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INTRODUCTION

One of tennis' great debates is whether lefties have an advantage. During the mid-70s, lefties flourished as Connors, McEnroe, Laver, Vilas, Roche, Orantes, and Tanner were among the top players. The dominance of Nadal over Federer also adds to the debate where it is widely acknowledged that Nadal's heavy spin and tactics are Federer's kryptonite.

Loffing, Hagemann and Strauss (2012) recently researched handedness in tennis players with a comprehensive analysis 3,793 male and female club players and WTA and ATP rankings over a 38-year period. It was concluded that left-handers at the ATP level enjoyed an advantage in past years but that advantage has significantly diminished in recent years. WTA players, however, have not showed any advantage for lefties. By comparison, club level players, rankings were slightly skewed in favour of lefties. They suggested lefty advantages were frequency-dependent (meaning the less we see lefties, the bigger the advantage to lefties). It was also suggested that advantage has mostly disappeared due to increased exposure and training.

It is often estimated that about 10% of the world is left-handed. In many sports, it has often been noted that left-handers are more prevalent. Left-handedness represents a tactical advantage in sports such as baseball or ice hockey where 25-50% of professional athletes are left-handed. Notably they are often adapted lefties, much like Rafael Nadal, a natural right-hander becoming left-handed. In other sports, such as golf, lefties are rare due to the lack of left-handed equipment forcing

some lefties to switch. Cultural adaptations have also been noted in traditional countries such as Japan or India where left-handedness is still discouraged and lefties only make up even as low as 4% of the population (Shimizu et Endo, 1983). On the other hand, in socially liberal Belgium and the Netherlands, Perelle and Ehrman found nearly 16% were left-handed (Perelle et Ehrman, 1994). Among primitive cultures, it has been shown that lefties are more common in more violent cultures and rarer in less violent cultures (Faurie et Raymond, 2005). Faurie & Raymond hypothesized that left-handedness has an advantage in a violent confrontation where surprise can mean death.

The recent study by Loffing and co-workers suggest that frequency-dependency is important. That is, as right-handers become accustomed to left-handed combatants, the left-handed advantage diminishes. In addition, if the population of lefties is significantly large enough, that tactical advantage is gone. For example, if 50% of people were lefties, everyone would be equally accustomed to right- and left-handed opponents. Yet one could ask, what might be the maximum left-handed population that can be sustained with a tactical advantage. In the study of primitive cultures, the greatest number of lefties was noted at 22.6% for the Yanomamo tribe in South America (Faurie et Raymond, 2005) The Yanomamos were the most violent tribe studied. Baseball and the Yanomamos enjoy an advantage where lefties are generally not above 25%; this percentage may represent the maximum threshold value at which left-handedness ceases to be as an advantage.

In fact, only in a few combative sports do the numbers of lefties reach over 20% of the playing population. Raymond and co-workers (Raymond, Pontier, Dufour et Møller, 1996) found the highest number of lefties in table tennis, baseball and fencing. Within the sport, the lefties also change depending on positions. The most confrontational position in baseball is the batter-pitcher duel where many resources place the number of lefties at about one-quarter. In addition, some positions geometrically give the left-handed player an advantage, notably first base where in 1941, 67% of MLB first basemen were left-handed (Miller, 2009). In 2002 that number dropped to 36% partly explained by the long ball which downplayed the importance of a left-handed first baseman. The infield play was more important in the early years of baseball (e.g. 1941) than in 2002.

Unlike the ATP Tour, WTA statistics indicate no lefty advantage (Loffing, Hagemann and Strauss, 2012). There could be several reasons. First, the WTA left-handed serves are not as significant spin and pace to be an advantage. Second, in general the WTA backhand and forehand appear more balanced as strengths. Most ATP players have stronger forehands. Comparatively, table tennis demands faster reactions and spin is a more significant tactical advantage.

There are several things a coach can do help prepare both right-handed players and left-handed players for success.

Sparring with left-handed player

Players should practice frequently against left-handed serves. As mentioned, it may be that the magic number is around $\frac{1}{4}$ so that means for a player to be fairly prepared, he or she should practice against competitive left-handed serves for 25% of the practice time. This factor appears not as important for female players. In general, not only practicing against a lefty serve is valuable but also playing out points. Youth players may not produce as much spin which may diminish the left-handed advantage but differences between forehands and backhands can necessitate frequency. If coaching a high school or college team, it is valuable to keep a couple of left-handed players for practices. Most starting players should practice against not only left-handed players in singles, but in doubles as well. It can be valuable to rotate a left-handed player among right-handed sparring partners (even if skill levels may differ) as long as all players efficiently benefit from the experience.

Patterns for practise: controlling a crosscourt rally, angles and slices

Groundstroke patterns discussed here consider right-handed versus left-handed players. Patterns should be practiced with regards to strengths and weaknesses. For most right-handed vs left-handed players, the deuce court crosscourt can be dictated by the right-hander's forehand. The ad court crosscourt pairs the left-handed forehand against the right-

handed backhand. When Stan Wawrinka beat Nadal in the 2014 Australian Open, he used the forehand crosscourt extremely effectively.

Both left-handed and right-handed players should practice their crosscourt forehands especially angles to open the court or force the opponent to slice defensively. Forehand angles are important to create tactical mismatches when facing an opponent with the opposite dominant hand. Figure 1 shows a left-handed combination with a topspin forehand angle that pulls the right-hander off the court and exposes court for the down-the-line shot. Comparatively, for a right-hander vs a right-hander, often a player may try to drive the ball inside-out or down-the-line towards the backhand.

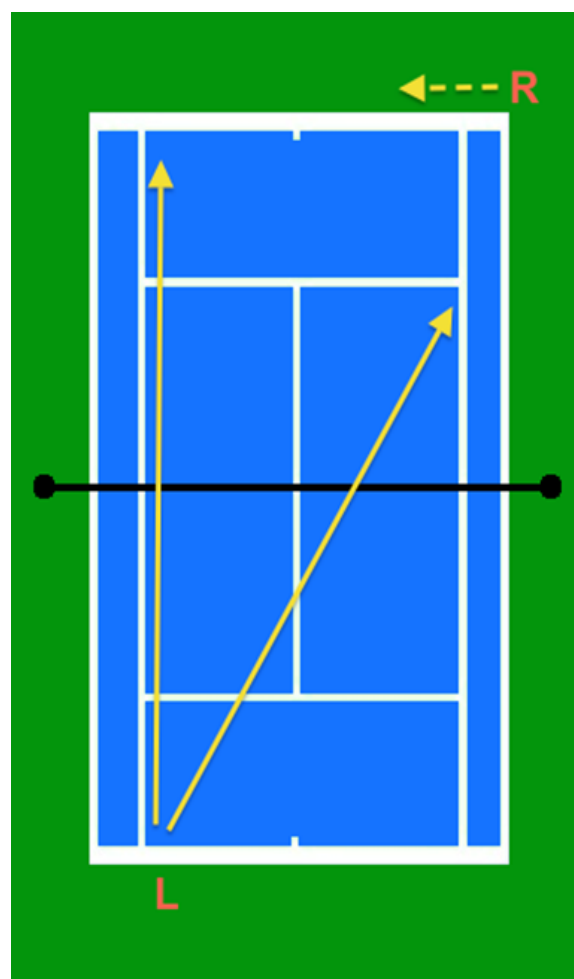


Figure 1. Left-handed tactical combination with the forehand crosscourt angle and down-the-line forehand.

A strong down-the-line backhand can neutralise the forehand advantage. For example, Novak Djokovic can be extremely effective against Rafael Nadal's forehand. When Nadal drives Djokovic into the backhand corner, Djokovic's down-the-line exposes Nadal's backhand. Federer by contrast cannot exploit

Nadal's backhand as effectively with a down-the-line backhand from the ad court corner.

Sometimes two-right handed players engage in a slice crosscourt rally in the ad court. However, a strong right-handed crosscourt backhand slice can also neutral a left-handed forehand especially with a western grip. Obviously, the same is true for the left-handed slice versus the right-handed forehand. Even though the forehand player may seemingly have the mismatch advantage against a weaker backhand, the use of the backhand slice can effectively neutralise a western grip. If the slice crosscourt is strong enough, it may even become an effective approach shot against a western grip with the opposite hand.

Slice serve and patterns

For left-handed players, to increase an advantage, one must obviously increase pace and spin rate to reduce reaction time and comfort level of the opponent. For anyone competing against an opponent with the opposite dominant hand, the slice serve is recommended.

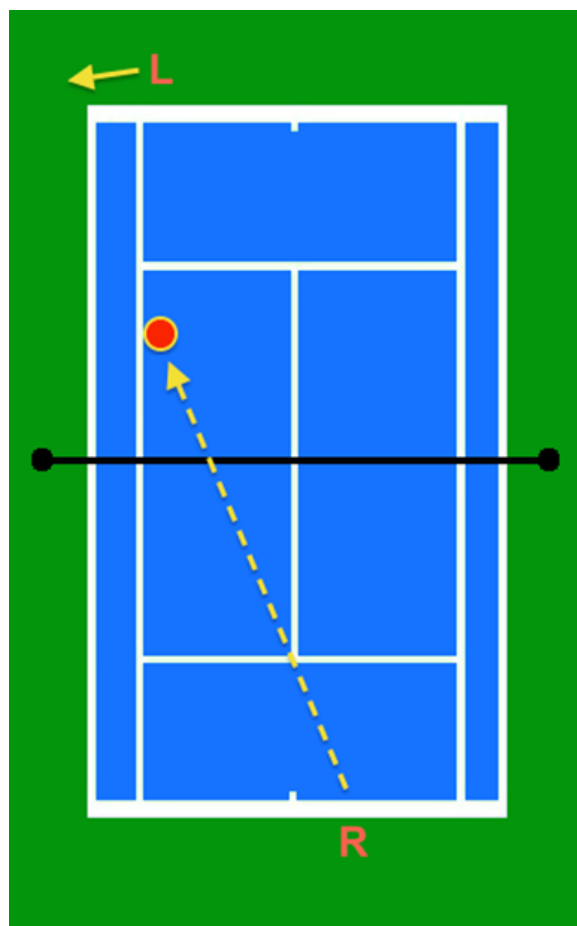


Figure 2. Right-handed slice serve target to the left-handed backhand.

If no left-handed players are available, a right-handed coach may use a technique to imitate left-handed spin on the serve. The right-handed coach can hold the racquet with a western grip. The coach can serve it with almost a normal service motion but moving the racquet from right to left to imitate a lefty's slice serve.

For all players, the slice serve forces the opposite-handed opponent to move more laterally to the backhand and opens the court. Most players have weaker backhands. The coach can place angled targets as shown in Figure 2, about two meters short of the service line to better practice a wide serve. If the backhand is the weaker shot - which is usually true - this tactic can be valuable in opening the court.

In addition, players may practice certain tactical patterns off the serve. For example, a right-hander may serve wide in the deuce court and prepare to drive the forehand inside-out on the next shot. For such a pattern, often there are subtleties as many players may slice from out wide so practice driving the inside-out forehand off a low, slice ball.

Another combination might be a slice serve wide, slice return back, slice approach crosscourt. This pattern can be useful against the receiver on the run with a western forehand grip.

Doubles partner

Many players may find it an advantage to seek a doubles partner with the opposite dominant hand. Many great doubles teams have such combinations: the Bryan brothers, Woodforde-Woodbridge, McEnroe-Fleming, and Navratilova-Shriver. Often teams put the forehands on the outside but they don't need to do so as often having two overheads and two forehands in the middle can be advantageous. Obviously, such teams do not allow for a rhythm in service returns and sometimes the opposing team is not properly prepared.

Mental rehearsal and cues

Mental preparation is important especially for the right-handed player who needs to consciously remind oneself to make tactical adjustments. First, players should develop a game plan and favourite tactical patterns. Players should be conscious of game plans and tactical patterns and review them. Players should incorporate cues that remind them of their plans. When preparing to serve or return, players should incorporate brief cue reminders from time to time. More frequent visualisation of points can also help. For the recreational player who plays twice or less per week, mental cues can be important in facilitating preparation. Given the left-handed population, a right-handed player might face a left-handed opponent in a match once every four to six weeks. If not prepared, the right-hander may fall behind in the first several games. The same may also apply for the lefty-lefty match. Although it appears to be

an equaliser, both left-handed players should still make conscious preparation before the match to get a good start.

Physical training

Physical training for either left-handed or right-handed should be symmetric. Tennis is a highly asymmetric sport, especially on serving and if one favours a forehand or one-handed backhand. Although physical training does not always have a tactical basis, it is always important regarding the asymmetry of tennis. Single- legged or one-sided exercises can be beneficial in assessing physical weaknesses, proprioception balance. It is important to have balanced strength to help avoid injuries. Players should also test their physical weaknesses and imbalances from time to time as tennis is asymmetric.

In addition, physical speed and strength should be trained or improved. Often in adjusting to left-handed players, quick footwork adjustments can be valuable. Players who are faster or stronger can split step and get into position quicker, or more quickly move around a weakness or counter a heavy spin with more racquet head speed or a bigger shot of their own.

Team and group training

Often many training groups remain small, such as three or four students training together. That may not be ideal in creating an environment that supports a variety of styles to prepare against. Club or school teams have the advantage of being a larger group culture. If there are 12 players on the team, there might be one-three left-handed players. The coach should make sure lefties practice serving to all the other players who might face similar competition. A club coach usually has small groups of four, which limits variety. If in a large programme, the coaches may consider, having the few the left handed players rotate to other courts from time to time. Finally for teams, consider having left-handed practice partners who are not on the team since the team's left-handers may be too few or too weak.

CONCLUSIONS

Physical training should be implemented regardless of whether players are preparing for a left-handed player since it is a fundamental part of training. Coaches should ensure all players gain exposure against left-handed players and different styles. Players should be encouraged to develop game plans and tactical patterns that can be effective against left-handed players. Mental rehearsal and cues can be valuable to remind players how to tactically approach their opponents. Finally, before a match, coaches can remind players to be conscious of their game plans.

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