

WHY WOMEN PUTT WORSE THAN MEN

Experts debate the stats, the empirical evidence and the future by Matthew Rudy



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WHEN MICHELLE WIE CAME REMARKABLY close to making the cut at the PGA Tour's Sony Open in Hawaii in 2004, missing by a shot as a skinny, 6-foot-tall 14-year-old, the undercurrent of commentary had one consistent (if politically incorrect) thread.

She played like a man.

Even back then, Wie could hit almost any full shot a male tour player could, from a 285-yard drive to a 170-yard 8-iron. It seemed she would get the first real chance to test how much the dividing line between the men's and women's games could be blurred by a powerful, athletic player who happened to have two X chromosomes.

But six years later, Wie is now farther away from the PGA Tour than she was as a ninth-grader. She hasn't played with the men since 2008, when she missed the cut by nine shots at the Reno-Tahoe Open. She finally joined the LPGA Tour full-time in 2009.

Strength differences between men and women are a matter of biology, but it turns out that one of the main reasons Wie—or any other female player—hasn't challenged the men has nothing to do with muscle. In the months leading to the Hawaii event in 2004, Wie says she spent virtually no time on her putting. "When I was a junior, all I wanted to do was hit balls, and that's what I did," she says. "It wasn't until I turned pro that I realized how important putting was, and now I've changed completely around."

'I've seen only a couple of women who were as good as the bottom male tour player.'—STAN UTLEY

Wie's meandering path toward putting proficiency is a good starting point for a discussion on why women don't seem to putt as well as men, at least at the tour level. The experts contacted for this story are nearly unanimous in the belief that women *could* putt as well as men. But the real-world deficit that exists comes from a number of factors, such as a lack of practice, limited access to quality instruction and the different competitive profiles of men and women.

THE STATISTICS MAKE A CLEAR CASE

THE MOST STRIKING STATISTICAL difference in 10 years' worth of accumulated data from male and female tour professionals isn't the 30-yard edge in driving distance. It's how much better the men putt. The best male putters take about half a stroke less per round on the greens than their female counterparts. If that doesn't sound like a major skill difference, consider that the men play on faster surfaces with more contour and tougher hole locations. Go farther down the putts-per-round list and the gap gets wider—more than a

full shot for players ranked 100th, and almost two shots at No. 150. That's a significant gulf, and one that can't easily be explained away by analysis of parallel statistics like greens hit in regulation—a stat often held up as a reason LPGA players would have worse putting numbers. The thinking goes, tour players who hit more greens usually have more total putts because they're hitting more putts from farther away from the hole after their approach shots. The more greens a player misses, the more chances he or she has to chip up close to the hole for a more makable putt. The most accurate LPGA Tour players are slightly more likely to hit greens than the most accurate PGA Tour players are, but taken as a whole, male tour players hit more greens. That—coupled with the slower, less-severe greens on the LPGA Tour—suggests that women should be more competitive with the men in putting.

Another stat called putts per green in regulation measures only the number of putts a player takes after hitting a par 3 in one shot, a par 4 in two or a par 5 in three. This stat shows that when women are putting for birdie, they don't make as many as their male counterparts. And though the top-ranked male and female in putts per green in regulation are closely matched, the men out-putt the women significantly as you go down the list.

Statistics from a single event provide only a snapshot, but an analysis of the

PGA VS. LPGA TOURS (2009)

PUTTS PER ROUND		
RANK	PLAYER	TOTAL PUTTS
1	BRAD FAXON	28.00
1	INBEE PARK	28.36
50	BO VAN PELT	28.75
50	LAURA DAVIES	29.70
100	Y.E. YANG	29.19
100	MEG MALLON	30.30
150	K.J. CHOI	29.63
150	HEATHER BOWIE YOUNG	31.45

PUTTING AVERAGE		
RANK	PLAYER	PUTTS PER GREEN
1	STEVE STRICKER	1.726
1	LORENA OCHOA	1.746
50	HUNTER MAHAN	1.758
50	JEE YOUNG LEE	1.805
100	STEWART CINK	1.775
100	JAMIE HULLETT	1.855
150	TODD HAMILTON	1.800
150	MICHELLE ELLIS	2.000



DRILL: RIGHT HAND ONLY
Swinging one-handed forced Paige Mackenzie to load and release the putter—not turn her shoulders or shift her body—to move the ball. Practice long putts this way.



DRILL: PUSH THE SHAFT
Mackenzie used to go short back and long through. By stopping the shaft after impact, Stan Utley teaches a bigger backstroke and more energy at the ball, not into the finish.

putting results from the U.S. Open in 2007 and the U.S. Women's Open in 2010—both played at Oakmont Country Club—reinforces the conclusions above. Niclas Fasth led the men's championship in putts per round with 28.50. The best women, Brittany Lang and Amy Yang, averaged more than a putt per round worse with 29.75. Only five male players who made the cut putted worse than the women's four-round

CASE STUDY

THE PAIGE MACKENZIE PROJECT

Paige Mackenzie's first two years on the LPGA Tour (2007-'08) were a serious reality check. "I realized that no matter how good you hit it, you're never going to score low if you don't make putts," says Mackenzie, who during the '08 season missed lots of greens (102nd on tour) and putts per green hit in regulation (T-119th). Halfway through '08, she started working with Stan Utley. We've been tracking their progress since.

Mackenzie used to putt with a wide stance, swinging the putter straight back and through with a pronounced shoulder turn—fundamentals she learned from a childhood instructor. "Her technique made it difficult to be excellent," Utley says. "She's a great athlete, and she wasn't taking advantage of her instincts and feel."

Utley retooled Mackenzie's stroke, focusing on swinging the clubhead end with the arms and hands versus shifting the grip end back and forth with the shoulders. Mackenzie dramatically improved in '09, both in greens in regulation (19th) and putts per green hit in regulation (T-51st). At left are two of the drills she has worked on.

average of 32.38—even though the winning score on the more difficult men's setup was five over, compared with three under for the women.

Data measuring amateurs' putting is less comprehensive than that from the professional tours, but Golf Digest Professional Advisor Peter Sanders says his research shows a similar gap in putting between men and women in the middle-handicap range. On his website,

shotbyshot.com, Sanders collected performance data from thousands of rounds over a three-year span, then adjusted it to account for differences in course difficulty. He found that men one-putted from four to 10 feet 41 percent of the time compared with 37 percent for women. Also, men three-putted from 15 to 40 feet 13 percent of the time compared with 17 percent for women. Those are significant differences among amateurs.

Statistics tell only part of the story, but teachers who have played and taught on tour say the anecdotal evidence supports the numbers. "I've seen only a couple of women who were as good as the bottom male tour player," says short-game teacher Stan Utley, who played 20 years on the PGA Tour and now teaches players on every major circuit. "The skill set just isn't there."

Dave Stockton won two majors on the PGA Tour and three on the Champions Tour, and works with Phil Mickelson and Morgan Pressel, among other players. He says that many female tour players don't have the short memory that confident putters need to succeed. "Emotionally, I think the women are smarter and more honest, but they're also more fragile," he says. "Women remember."

Craig Shankland, a former PGA Teacher of the Year who has played in several majors and has taught LPGA players for 30 years, says good putting is all about adapting. "The best players see the conditions and deal with them," Shankland says. "I don't see women doing that as well. The good players see things others don't, adapt and move on. The others blame things around them."

But not everyone agrees. Pia Nilsson, the top-ranked female on Golf Digest's 50 Best Teachers in America ranking, says, "In the amateurs we teach, many of the women are terrific putters. I think the differences come from handicap, not from gender."

Nilsson goes on to say, "If the women tour players were able to putt consistently on the quality of surfaces the men play on, their stats would look very similar. The depth of the tours is different, but there is lots of talent on the LPGA. At the top, the women are just as good at putting as the men."

PRACTICE ISN'T A PRIORITY

IF STRENGTH DOESN'T MATTER in putting, why do women generally putt worse than men? Ben Hogan hated putting, but he would have been pleased by the consensus reached by experts we spoke to in biomechanics, evolutionary psychology, sport psychology and golf instruction.

The secret is apparently in the dirt.

Dr. K. Anders Ericsson has spent almost 20 years studying how experts in music, chess and sports develop their elite skills. In activities that aren't reliant on size or strength, Ericsson believes it is how and what a player practices—and for how long—not any innate talent or advantage related to gender that determines top-line ability.

In other words, you are how you train.

"There's no gene that would give one person, male or female, an advantage over another in a certain skill," says Ericsson, who is a professor of psychology at Florida State University. "We have centuries of experience in music and how those skills are acquired, and it doesn't seem to be a big leap to say that if a woman can play the violin as well as

aim," he says. "But if you don't aim to reproduce your best effort, practicing more doesn't have any benefit."

Shankland, who is based at LPGA International Golf Club in Daytona Beach, Fla., and Maroon Creek Club in Aspen, Colo., says that in the putting and short-wedge areas, there is no comparison between the tours. "The women don't hit the ball as close, and they don't put the same priority on making birdies," he says. "Putting has become a down-the-list priority, and it shows. Someone who putts well has worked hard at it their whole life."

A variety of recent scientific studies conducted on the development arc of concert musicians suggest that when Wie decided in 2005 to ramp up her putting practice, she had already missed a crucial window in reaching her putting potential—even though she was only 15. Ericsson says that it's probably too late. "The reality is that if you don't start as a child, with access to world-class instruction from the beginning, it's unlikely that you'll reach the international level." Beginning intensive musical-skill training early in life, notes Ericsson, starts the clock on that decade of focused practice sooner and stimulates the brain to produce more

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a man, she can putt as well as a man."

Ericsson says that a violinist, chess player or golfer needs a decade of focused practice using the correct fundamentals—"multiple hours a day"—to have a chance to reach the world-class level. (In his book *Outliers*, Malcolm Gladwell cites Ericsson's research in his discussion of the 10,000-hour rule.) And the broad template for that training is similar for a person learning any of those three skills. The goal, Ericsson says, is to identify the ideal motions and strategies and measure how close you come to them. "In putting, the goal is to consistently produce an effective stroke. If you can re-create the ideal shot, you know where to change your

myelin, the substance that transmits nerve impulses to other parts of the body. He says that skills practiced at this time seem to be easier to learn, and learners have the potential to perform them at a higher level of expertise.

Utey cheerfully admits that the last science textbook he opened was at the University of Missouri in the early '80s but says Ericsson's research gives a technical underpinning to his experience as a young player. "When I was a little kid, it was astronomical how much I practiced," says Utey, who grew up near a nine-hole course in West Plains, Mo. "At our club, we had a big light over the putting green. I spent thousands of hours chipping and pitching and putt-

ing, and I vividly remember hitting thousands of putts from a foot-and-a-half. I practiced succeeding."

The gap between top male and female putters starts widening at the junior-golf level, for a variety of competitive, emotional and economic reasons. Hank Haney's International Junior Golf Academy in Hilton Head Island is a feeder system for leading college programs nationwide. Three recent academy students have earned cards on the LPGA Tour, including In-Kyung Kim, who was eighth on the LPGA Tour money list in 2009. Haney says he sees the putting-performance gap long before players get to the professional tours. "The best 16-year-old girl we have in the academy shoots scores that are similar to the scores the best 16-year-old boy shoots, but it's not because of putting," Haney says. "She's giving some away on the green. She just hasn't hit the same number of putts—and that's what it comes down to. You can have a great stroke, but you can only read putts and develop touch by putting a lot. There's no shortcut."

A lot of the practice that junior boys get on the putting green comes as a result of how they mature physically compared to girls, and how they need to play to stay competitive with their peers. "As the most competitive junior boys get older, they can start to attack the golf course," says Kevin Weeks, a prominent short-game instructor with a dozen PGA Tour players and two dozen top juniors on his client list. "They start driving it up by the green and reaching par 5s in two, and they get used to making birdies. I don't see many girls who can overpower a course like that. They have to pick their spots and play more conservatively."

THE MATTER OF MOTIVATION

BECAUSE BIRDIE-FILLED shootouts aren't a significant part of the competitive landscape for junior and college females, it seems they spend more time practicing skills that are rewarded, like driving accuracy and precise fairway-wood shots. "For the

guys, there are a lot of players who are really good at an early age. If you're not shooting under par, you're not going to win. You have to be ready for that," says Bob Rotella, Ph.D., who has worked with dozens of world-class male and female players in 30 years as a sport psychologist. "For the best girls, the biggest problem is how easy it is for them to win. They're just not pushed as hard." The comparative lack of depth on the female side makes it possible for good ball-strikers to win with mediocre putting skills.

Annika Sorenstam saw it in her own game while she was at the University of Arizona. She dominated, winning seven tournaments, including the NCAA individual title as a freshman in 1991, and she did it with indifferent putting. She knew she would have to improve to be competitive as a pro. "It wasn't my strength, so I changed my ratio from 80-20 long game to 30-70," she says. "At my peak, I putted for almost two hours a day." Even that wasn't enough when comparing her with the men. In 2003, Sorenstam played in the PGA Tour's Colonial Invitational. She led the field in driving accuracy in that event before missing the cut, but she was last in putts per round (or would have been, compared with players who made the 36-hole cut). Later, she practiced with Orlando-area neighbor Tiger Woods to soak in his putting and short-game training regimens, and then she worked with Stockton to improve her pre-putt routine. "We got her to start taking her practice strokes up near the ball while she looked at her line, something she had never done," Stockton says. "The next year, she won 11 times."

LPGA Tour player Paige Mackenzie won the Pac-10 championship and the NCAA West Regional as a senior at the University of Washington in 2006. She made it through tour qualifying school that fall but struggled in her rookie season, making nine cuts in 19 starts. "In college, I didn't have to be a great putter to win tournaments," says Mackenzie, who is working with Utey as part of a Golf Digest experiment (see *The Paige Mackenzie Project on page 91*). "I practiced as much as I needed to win tournaments. I can remember playing

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putting games with the guys' team and getting destroyed. I didn't know why that happened, but the truth is, it did."

The competitiveness of Mackenzie's male counterparts—and their delight in collecting bets from her—also partially explains some of the discrepancy in putting stats on the two tours. "Men are hard-wired to want to win any competition there is," says Dr. Satoshi Kanazawa, an evolutionary psychologist at the London School of Economics. "Golf is evolutionarily novel, but it tricks men's minds in a deep-seated way. Throughout evolutionary history, women have been attracted to winners of competitions. A man believes that if he wins, he's going to get laid."

Making putts so you can, um, make whoopee might be a little Freudian, but top male players are competing against larger fields and more skilled opponents, for potential payouts that dwarf those on the LPGA Tour. The 100th player on the PGA Tour money list made \$800,000 in 2009, and the 100th on the LPGA Tour made less than \$80,000. "There are a lot more jobs for men," Utey says. "Women almost can't afford to put in the same effort, because the industry doesn't afford them the time it takes to try that hard."

A LACK OF TOP-TIER INSTRUCTION

ACCESS TO QUALITY teaching—another tenet of Ericsson's training template—is problematic for all but the best LPGA players. Some top putting instructors command \$3,000 to \$5,000 retainers upfront, and 1 or 2 percentage points of their players' earnings for the season. That's tip money for Phil Mickelson, but a deep-breath commitment for an LPGA player struggling on the fringes.

"The financial component is obvious," says Haney, who traveled 110 days a year as Tiger Woods' teacher from 2004-'09. "The caliber of instruction out on the

LPGA isn't as good because it can't be. You've got parents and caddies giving advice, or players listening to the guy they took lessons from in high school. It's not that all that advice is terrible. It's just that the average PGA Tour player can have his choice of teachers and fly him around week to week if he wants."

It might not be as big of an advantage forever. A stream of promising junior girls have started working with short-game instructors over the past few years—courtesy of parents who have run the numbers on the cost of a college education. Utey has been teaching one nationally ranked high school player for four years—"since before she had time to develop a bad stroke," he says, laughing. "Most girls who are coming up are trying to beat only who's there. They get only as good as the girls in the past. But if you raised a girl to compete with the boys, and her goal was to beat them, the sky is the limit, in terms of putting."

Former USGA Technical Director Frank Thomas has putter-fitted and taught players since 2000 through his company, Frankly Golf, and says proper fitting and hard work with the right instruction would put the best women putters on the same level as the best men. "You're just looking at two populations with different skill sets, and one is more skilled than the other," says Thomas, who was the USGA's chief equipment overseer for 26 years. "The women have to catch up, and I think they will, soon."

As far as Weeks is concerned, one already has. He has analyzed more than 100 tour players' strokes in his studio at Cog Hill outside Chicago. But he says the best one he has measured belongs to a 17-year-old girl he has been teaching since she was in eighth grade. "She has a putting green in her basement and practices two hours a day," Weeks says. "If somebody had to make a 10-footer to save my life, and I couldn't take it myself, I'd want her to putt it. There's no reason she can't be as good as the best putter on the PGA Tour."