

The pitches they couldn't master

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The Athletic

The ritual repeated itself each spring for the better part of a decade at Camelback Ranch. Dodgers ace Clayton Kershaw would pick the brain of fellow left-hander Hyun-Jin Ryu about changeups. Ryu possessed one of the better changeups in the sport, an 80 mph pitch that disarmed right-handed hitters.

"I think he asked me every year," Ryu said last year, adding, "When we played last, he would fool around with the changeup grip. But he was so good, he didn't need it."

Kershaw has won a World Series, an NL MVP, five ERA titles and three Cy Young Awards, yet the pursuit of the changeup has vexed him for the entirety of his professional career. After the Dodgers drafted him in 2006, team officials pushed Kershaw to use the pitch, hoping it would round out an arsenal that included a deceptive fastball and an overhand curveball. In the minors, Kershaw faced mandates to throw certain numbers of changeups per game; he tried to counteract the directives by throwing them all in the first inning.

Kershaw coveted the pitch but could never master it. The same is true of Justin Verlander and the splitter, Logan Webb and the cutter, Pablo López and the screwball. In the modern game, there's a misperception that a pitcher looking to add a pitch can pop into the lab, tinker with the grip until they've dialed in the spin and velocity coordinates, and, voila, it's theirs.

It's not that easy. This spring, The Athletic asked 12 front-line MLB starters about their white whale. They all have been All-Stars or Opening Day starters. They have enough to be great. But they still want that one pitch.

Logan Webb, Giants: Cutter

Webb was a bit agitated in the visiting dugout at Fenway Park last Wednesday as Boston starter Kutter Crawford carved up the Giants with cutters and four-seam fastballs. "Literally the two pitches I wish I could throw," Webb said later. In the minors, Webb threw four-seamers and curveballs, unsuccessfully, until the Giants lowered his arm slot. He blossomed into an ace and the 2023 NL Cy Young runner-up by throwing sinkers, changeups and sweepers, with the occasional four-seamer — "which just looks like a s--- two-hitter," he said — to left-handed hitters.

All along, Webb wanted a cutter, something hard to run in on, lefties and away from righties. During offseason workouts, he hounded Dodgers starter Walker Buehler and White Sox reliever Dominic Leone for tips on how they throw their cutters. He has experimented with every grip.

"I've tried for five years now," Webb said, "and I just can't figure it out."

Sonny Gray, Cardinals: Four-seam fastball

The other 2023 Cy Young runner-up, Gray is 34 and has a 0.89 ERA, yet he's still unsatisfied by his kitchen-sink pitch mix that includes three fastballs, a signature curve, a changeup and the best sweeper in baseball. Gray says the pitch he has yet to master is... the one he throws most often. Sort of. The four-seamer is Gray's most-used pitch, but it's not the shape he is seeking.

"I can't figure out the hoppy four-seam," Gray said.

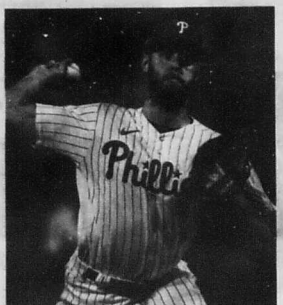
He knows why. A four-seamer with "hop" — meaning it maintains its plane longer than expected, giving the illusion of rise — requires a pitcher to promote his arm outward. Gray's wrist supinates, in the opposite direction, as he releases a pitch. But that hasn't stopped Gray from trying. He attempts that hoppy four-seam about once a week, like in a bullpen last week.

"I don't know how to throw that," he reported afterward.

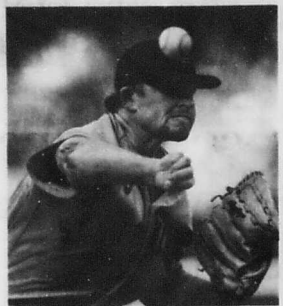
Spencer Strider, Braves: Sinker

The ride that makes Strider's high-velocity four-seamer one of the best in the game is also why he wanted to junk the pitch. He grew up understanding good fastballs most. His didn't. At Clemson, Strider would get a swing-and-miss on an elevated heater and think, "Shoot,

Twelve Major League Baseball aces on the one that got away.



Philadelphia Phillies pitcher Zach Wheeler can't throw a knuckleball because he says his fingernail would rip off.



"I just can't figure it out," San Francisco Giants pitcher Logan Webb says of throwing a cutter.

I got away with one there.

For years, he fiddled with a sinker, figuring that was the solution. "Every time it moved," Strider said, "I thought, there we go, now it's there!"

But the sinker never had consistent shape or results. It wasn't until seeing his Trackman data while rehabbing from 2019 Tommy John surgery, Strider said, that he discovered he'd been fighting his body's natural inclination for backspin and ride. He wasn't getting lucky with his four-seamer; he was pitching with his strength. "You can't see ride on TV," he said. "The hitters can tell you it's happening, but that's a hard concept to understand as a 12-year-old."

Strider, who underwent season-ending elbow surgery in April, wouldn't mind having a plus sinker in his toolbox. But in hindsight, he said, it's a good thing he didn't scrap the four-seamer before realizing why it worked.

Justin Steele, Cubs: Splitter

At his locker this spring, Steele held a ball in his left hand. When he releases the ball, his wrist turns inward (supinates). He's naturally on the left side of the ball, which makes his fastball cut and his slider move more. Anything running inside on a right-handed hitter, Steele said, is an easy pitch to pick up. Anything going the other way — sinker, splitter, changeup — is a challenge.

Last season, Steele finished fifth in NL Cy Young voting throwing 96.5 percent four-seamers and sliders. He threw 48 sinkers and 28 changeups. He continues looking for an ideal changeup grip. His current one — spreading his fingers fairly far apart and trying to get up. Anything going the other way — splitter grip. Seeing fellow Cubs lefty Shota Imanaga's splitter only makes Steele want one more.

"I'd kill to have a good one," Steele said.

Dylan Cease, Padres: Splitter

"Splitters," Cease said, "are undoubtedly nasty."

That's why a starter with some of the best stuff in the majors, who has returned to the Cy Young Award conversation with a 2.55 ERA and 303 WHIP in San Diego this season, spent time this offseason testing Blue Jays starter Kevin Gausman's splitter grip. Cease primarily throws three pitches — four-seamer, slider, knuckle-curve — so even

an average splitter would have diversified his portfolio, he said. "If you have a pitch that goes this way, one that goes that way, and one that goes down, you've got three different windows you're hitting."

But the split didn't stick.

No matter what Cease tried, the pitch didn't have the right action. "I didn't figure it out," Cease said, "so I banged it."

Undoubtedly nasty. Unfortunately evasive.

Kevin Gausman, Blue Jays: Curveball

As splitter usage spikes, Gausman's grip has become one of the most studied and stolen grips in baseball. He's happy to share. It took five years of tinkering before Gausman got the splitter right.

Before that, back when he was a youngster in the Orioles rotation, Gausman asked veterans what he'd needed to take another step forward. "All of them were like, hey, you need a more consistent breaking ball," Gausman recalled. He worked on a cutter, a slider, a curve. Different grips. Different mentalities. But he couldn't quite harness any of those pitches. Gausman throws a slider about 10 percent of the time, but wants the options a better breaking ball would provide. He's jealous of teammate Chris Bassitt's (at least) eight pitches.

"I'll get into spots where I'll be out there and know, man, if I could throw the slow, Bassitt breaking ball, I have a guy set up for it perfectly," Gausman said.

Pablo López, Twins: Screwball

With mid-90s velocity and a traditional five-pitch mix — four-seamer, sinker, sweeper, curveball, changeup — López has something for every situation. He has pitches for righties and lefties. He can go to any quadrant of the strike zone. He has the command to pick any pitch in a deep count. But as a younger starter he dreamed of acquiring a particular pitch that would leave his right hand and break inside on right-handed hitters.

"I used to fantasize about the screwball," he said. López combed YouTube for high-velocity Dodgers lefty Fernando Valenzuela's famed screwball. Then he pulled up videos of Brent Honeywell, who was a top Rays prospect at the time. Watching Honeywell, who has since dealt with arm



Los Angeles Dodgers pitcher Clayton Kershaw has never been able to get a handle on the changeup.



Seeing fellow lefty Shota Imanaga's splitter only makes Chicago Cubs pitcher Justin Steele want one more.

injuries and is now a Pirates minor leaguer, López worried he'd hurt himself throwing screwballs. "The way he would pronate made me feel a little uncomfortable."

So, López never actually attempted a screwball. But he still fantasizes about it.

Corbin Burnes, Orioles: Sinker

Since diversifying his pitch mix and transforming from one of the worst relievers in the majors in 2019 to a perennial Cy Young Award candidate, Burnes doesn't need another reinvention. His cutter grades out as one of the best pitches in baseball, and his slider, curveball and changeup all have been plus pitches in the recent past. But if Burnes could snap his fingers and upgrade his arsenal with one more pitch, he'd pick a better sinker.

The sinker, Burnes' primary pitch in 2020, is now used almost exclusively as a fourth pitch for righties. He typically targets the outside corner for a called strike, but when it runs over the plate it gets hammered.

Whether a new or tweaked pitch will stick, Burnes said, comes down to confidence. "If it's called and you're like, 'OK, I can get a swing-and-miss on this pitch,' that's a pitch you can take into a game. If it's like, 'Eh, if I time everything up perfectly I can do it,' you don't want to bring it into a game."

Zack Wheeler, Phillies: Knucklecurve

Wheeler answered this prompt two ways: the pitch he wants to master, and the one he did. "A knuckleball."

Really? "I mean, it would be cool to throw one. But I can't. My fingernail would rip off."

2. "Back in the day, it was a curveball. Across 10 seasons in the majors, Wheeler has thrown 2,679 curveballs, according to Statcast. He always had a pretty good one. But it wasn't until a few years ago, Wheeler said, that he had the consistency and confidence to command it in any count. Before that, some curves came out like curves, and others backed up on him. "It's just finding that happy place and not babying it," he said. "Finishing through it and ripping it. Having the curve that you want on it."

Hitters are batting .388 on Wheeler's curveball this season. "It's pretty fun to play with,"

he said.

Charlie Morton, Braves: Knuckleball

"I think everybody is capable — from a 5-year-old to an 87-year-old — of throwing a pitch," Morton said. "But, is it any good?"

Morton is a thinker, and also a starter whose late-career evolution led him to two All-Star seasons and two World Series. His curveball is one of the best in the game. His sinker is a plus. His changeups with heavy drop. His four-seamer isn't hoppy but comes in hard. There's a lot he could change. He could tweak his cutter to move more. He could lower his arm slot. He could throw a slider or splitter. He could adopt Greinke's cephus.

But Morton's broader point is: It's hard to judge a pitch on its own. It's important to consider what a new pitch would add to the mix. That's why Morton wants a knuckleball. Everyone messes with knuckleballs while playing catch. It's a delightfully weird pitch that has saved some careers.

"What's the harm in learning a knuckleball?"

Shane Bieber, Guardians: Changeup

Matt Blake, now the Yankees' pitching coach, was Shane Bieber's Cape Cod League instructor in 2015, when Bieber was flinging 89 mph fastballs, a well-commanded slider and a pedestrian changeup. When they worked together again at Double A in Cleveland's organization, Blake urged Bieber to workshop his changeup so he'd have another pitch to keep big-league hitters guessing.

Every year, Bieber tweaked the changeup. It never became an essential part of his repertoire, peaking at 8.5 percent usage in 2020, his Cy Young Award season in which he could have conquered hitters with a knuckleball or palmball or softball.

This winter, ahead of a contract year, Bieber went to Driveline and unearthed the changeup formula he had long sought. He stopped trying to dial back velocity, he said, and embraced "trying to get it to fade and power down."

Delicious dividends. "Yeah, or just stupidity for a decade," Bieber joked.

In Bieber's first two starts this season the changeup carried a whiff rate of 41.7%. He let it be 10% of the time. It paired with his cutter and slider, giving another option that dove away from lefties or barreled in on righties. After years of modifications and trials and rests, at last, he had made his changeup.

Just as it seemed Bieber had mastered the changeup, he had Tommy John surgery. The white-whale pitch and all that progress went back on the shelf.

Clayton Kershaw, Dodgers: Changeup

When Kershaw developed a slider in 2009, he had found his third pitch. It became his primary weapon, less hallowed than the curveball but far more effective. Yet he continued to try to throw changeups. He'd come to Camelback Ranch each spring saying his changeup had improved. "Maybe I'll throw one this year," Kershaw said in 2017. He'd toss changeups in every bullpen session during the season. "He would always work on stuff," former teammate Zack Greinke said in 2022. "Like he'd work on fastballs away, and he'd work on his changeup all the time. And then when the game came, he would never do it."

Kershaw threw the changeup twice in 2020, 11 times in 2021 and 15 times in 2022, according to Brooks Baseball. In 2023, Kershaw flared once more with expanding his usage. He flung 10 changeups in the first four months of the season. But after he returned from the injured list in August, while nursing a damaged shoulder that would eventually require surgery, he returned the changeup to his pocket.

Kershaw has offered various explanations over the years. His hands aren't big enough, he once said. And his natural motion involves supination, which prevented him from commanding the pitch to his standard.

"I can't pronate," Kershaw said. "I don't know how to do it. I don't get it."

— The Athletic's Zack Meisel, Katie Woo, Dan Hayes, Chad Jennings, Kaitlyn McGrath and Matt Gelb contributed reporting.