Basketball players, coaches, and fans agree: a person is more likely to make a shot after they’ve successfully completed one or multiple consecutive shots than after they’ve had a miss. Players therefore know to “feed” the teammate who’s “hot.” Coaches know to bench the one who’s not. This understanding is dittoed for the batter who’s on a hitting streak, the poker player who’s drawing strong hands and the stock picker who has a run of soaring successes. In life, as in sports, it pays to go with the hot hand.

But as psychologists Thomas Gilovich, Robert Vallone and Amos Tversky revealed in a seminal 1985 report, the basketball hot hand is one of those universally shared beliefs that, alas, just isn’t so. When they studied detailed individual shooting records from the National Basketball Association (NBA) and university teams, the hot hand was nowhere to be found. Players were as likely to score after a miss as after a make.

When told Gilovich’s team’s cold facts about the hot hand in a July 27 interview, Stephen “Steph” Curry, an all-time NBA three-point shooter, looked incredulous. “They don’t know what they’re talking about at all,” he replied. “It’s literally a tangible, physical sensation of “all I need to do is get this ball off my fingertips, and it’s gonna go in….” There are times you catch the ball, and you’ve maybe made one or two in a row—and … the rim feels like the ocean. And it’s one of the most rewarding feelings.”