Correction: "Hand down, Man down." Analysis of Defensive Adjustments in Response to the Hot Hand in Basketball Using Novel Defense Metrics

Peter Csapo, Markus Raab

There is an error in the first sentence of the "Imperfect streaks consisting of hot (cold) streaks with up to one miss (hit)" portion of the "Method" subsection of the "Phase 2: How Do the Analyzed Metrics Change in Relation to Streakiness?" section. The correct sentence is: As hypothesized above, hot (cold) streaks might end with difficult (easy) shot attempts, and a key question about the traditional definition of the hot hand is whether a miss off a difficult FGA is sufficient for a hot streak to be considered as ended in a player’s and an observer’s mind.
Table 1 has been corrected for improved readability. Please see the corrected Table 1 here.

| Shot type                  | Dunk/layup | Hook | Floater | Regular jump | Turnaround/fade-away |
|----------------------------|------------|------|---------|--------------|----------------------|
| **FG%**                    | 49.49      | 40.83| 39.10   | 36.60        | 34.90                |
| **FGA**                    | 33,338     | 4,014| 4,639   | 44,440       | 7,625                |
| **Dribbles**               | 0          | 1    | 2       | 3            | 4                    |
| **FG%**                    | 45.07      | 38.79| 37.61   | 36.56        | 37.74                |
| **FGA**                    | 44,959     | 15,344| 11,148 | 5,232        | 17,373               |
| **Shot clock**             | ≤ 5 sec.   | 6–19 sec. | ≥ 20 sec. |              |                      |
| **FG%**                    | 34.45      | 41.15| 52.11   |              |                      |
| **FGA**                    | 16,197     | 66,413| 11,446 |              |                      |
| **Shot location**          | Lower part of paint | Upper part of paint/ high post | Mid-range wing and corners | Three pointers |                      |
| **FG%**                    | 46.73      | 38.67| 37.04   | 35.87        |                      |
| **FGA**                    | 42,969     | 11,698| 18,261 | 20,925       |                      |
| **Pre-ball acquisition (1)** | Offensive rebound | Steal or loose ball | Transition | Cut | Screen set on ball | Post up |
| **FG%**                    | 51.18      | 45.18| 44.37   | 42.53        | 42.41                | 42.25  |
| **FGA**                    | 6,051      | 2,605| 14,843  | 12,038       | 7,889                | 10,460 |
| **Pre-ball acquisition (2)** | Screen set off ball | Screen received off ball | Defensive rebound | Spot up or isolation | Off double screen |                      |
| **FG%**                    | 39.90      | 39.30| 38.36   | 37.14        | 36.42                |
| **FGA**                    | 1,020      | 7,733| 1,533   | 29,733       | 151                  |
Table 2 has been corrected for improved readability. Please see the corrected Table 2 here.

Table 2. Effect of Defense on the FG% and Number of FGA Based on Shot Location and Number of Statistically Significant Differences ($p < .05$) in Multiple Comparisons.

| Location cluster               | Number of defenders | Shot defense type | Open | Guarded | Pressured | Contested | Altered | Block/ GT/ foul |
|--------------------------------|---------------------|-------------------|------|---------|-----------|-----------|---------|-----------------|
|                                | 1 defender          | 2 defenders       | 3+   | defen- |            |           |         |                 |
|                                |                     |                   |      | der    |            |           |         |                 |
| Lower part of paint            | FG%                 | 50.68             | 41.87| 41.89  | 91        | 81.25     | 69.78   | 49.59           | 43.03           | 14.62           |
|                                | FGA                 | 23,687            | 15,718| 3,564  | 1,622     | 1,573     | 10,850  | 13,913          | 2,324           | 12,687          |
|                                | Sig. comparisons    | 2                  | 1    | 1      | 5         | 5         | 5       | 5               | 5               | 5               |
| Upper part of paint/high post  | FG%                 | 38.81             | 37.78| 40.8   | 45.26     | 45.11     | 40.44   | 39.22           | 26.67           | 13.57           |
|                                | FGA                 | 9,634             | 1890 | 174    | 1,065     | 1,166     | 2,154   | 6,405           | 75              | 833             |
|                                | Sig. comparisons    | 0                  | 0    | 0      | 3         | 3         | 3       | 3               | 2               | 4               |
| Mid-range wing and corners     | FG%                 | 37.46             | 34.5 | 30.83  | 44.29     | 43.03     | 41.52   | 37              | 20.79           | 12.62           |
|                                | FGA                 | 15,805            | 2,336| 120    | 1,454     | 1,478     | 2,917   | 11,067          | 101             | 1,244           |
|                                | Sig. comparisons    | 1                  | 1    | 0      | 3         | 3         | 3       | 5               | 4               | 4               |
| Three pointers                 | FG%                 | 35.71             | 31.69| 31.25  | 41.65     | 38.83     | 33.61   | 34.09           | 3.7             | 13.82           |
|                                | FGA                 | 20,241            | 871  | 16     | 3,359     | 3,101     | 2,428   | 11,844          | 27              | 369             |
|                                | Sig. comparisons    | 1                  | 1    | 0      | 4         | 4         | 4       | 4               | 4               | 4               |
| Total                          | FG%                 | 41.65             | 40.25| 41.46  | 53.35     | 49.8      | 57.05   | 40.58           | 41.23           | 14.38           |
|                                | FGA                 | 69,367            | 20,815| 3,874  | 7,500     | 7,318     | 18,349  | 43,229          | 2,527           | 15,133          |
|                                | Sig. comparisons    | 4                  | 3    | 1      | 15        | 15        | 13      | 17              | 15              | 17              |

doi:10.1371/journal.pone.0124982.t002
Table 3 has been corrected for improved readability. Please see the corrected Table 3 here.

Table 3. Results from One-Way ANOVAs Conducted in Phase 1.

| Metric                               | One-way ANOVA          | p       |
|--------------------------------------|------------------------|---------|
| Shot type                            | $F(4, 94,051) = 372.263^{**}$ | < .01  |
| Dribbles                             | $F(4, 94,051) = 126.749^{**}$ | < .01  |
| Shot clock                           | $F(2, 94,053) = 436.968^{**}$ | < .01  |
| Shot location                        | $F(3, 94,052) = 330.493^{**}$ | < .01  |
| Pre-ball acquisition                 | $F(10, 94,045) = 56.937^{**}$ | < .01  |
| Number of defenders                  |                        |         |
| Lower part of paint                  | $F(2, 42,966) = 166.933^{**}$ | < .01  |
| Upper part of paint / high post      | $F(2, 11,695) = .524$   | .592   |
| Mid-range wing and corners           | $F(2, 18,258) = 4.821^{**}$ | < .01  |
| Three pointers                       | $F(2, 21,125) = 3.013^{*}$ | .049   |
| Shot defense                         |                        |         |
| Lower part of paint                  | $F(5, 42,963) = 2,491.334^{**}$ | < .01  |
| Upper part of paint / high post      | $F(5, 11,692) = 55.132^{**}$ | < .01  |
| Mid-range wing and corners           | $F(5, 18,255) = 83.881^{**}$ | < .01  |
| Three pointers                       | $F(5, 21,122) = 34.681^{**}$ | < .01  |

* $p < .05$

** $p < .01$

doi:10.1371/journal.pone.0124982.t003
Table 5 has been corrected for improved readability. Please see the corrected Table 5 here.

| Metric                  | Attribute            | Hot (≥ 3 hits) | Cold (≥ 3 misses) | Δ hot—cold |
|-------------------------|----------------------|----------------|-------------------|------------|
| **Shot type**           |                      |                |                   |            |
| Dunk/ layup             | 132                  | 17.14%         | 421               | -29.27%    |
| Hook                    | 25                   | 3.25%          | 32                | -28%       |
| Floater                 | 46                   | 5.97%          | 61                | -7.5%      |
| Regular jump            | 446                  | 57.92%         | 312               | 23.52%     |
| Turnaround/ fade-away   | 121                  | 15.71%         | 81                | 6.78%      |
| **Dribbles**            |                      |                |                   |            |
| ≥ 1                     | 509                  | 66.10%         | 566               | 3.70%      |
| ≤ 5 seconds             | 185                  | 24.03%         | 138               | 8.81%      |
| 6–19 seconds            | 545                  | 70.78%         | 642               | 0.0%       |
| ≥ 20 seconds            | 40                   | 5.19%          | 127               | -8.81%     |
| **Shot clock**          |                      |                |                   |            |
| ≤ 5 seconds             | 220                  | 28.57%         | 527               | -29.53%    |
| 6–19 seconds            | 146                  | 18.96%         | 124               | 5.29%      |
| ≥ 20 seconds            | 198                  | 25.71%         | 105               | 14.14%     |
| **Shot location**       |                      |                |                   |            |
| Lower part of paint     | 220                  | 28.57%         | 527               | -29.53%    |
| Upper part of paint/ high post | 146                  | 18.96%         | 124               | 5.29%      |
| Mid-range wing and corners | 206                  | 26.75%         | 151               | 10.10%     |
| Three pointers          | 198                  | 25.71%         | 105               | 14.14%     |
| **Pre-ball acquisition move** |          |                |                   |            |
| Offensive rebound       | 18                   | 2.34%          | 61                | -4.39%     |
| Steal/ loose ball       | 26                   | 3.38%          | 27                | 0.40%      |
| Transition              | 143                  | 18.57%         | 219               | -5.57%     |
| Post up                 | 95                   | 12.34%         | 111               | 1.00%      |
| Screen received off ball| 73                   | 9.48%          | 76                | 1.10%      |
| Spot up/ isolation      | 264                  | 34.29%         | 210               | 11.13%     |
| Off double screen       | 0                    | .00%           | 2                 | -2.22%     |
| **Number of defenders** |                      |                |                   |            |
| 1                       | 596                  | 77.40%         | 637               | 7.17%      |
| 2                       | 161                  | 20.91%         | 234               | -4.89%     |
| 3+                      | 13                   | 1.69%          | 36                | -2.28%     |
| **Shot defense type**   |                      |                |                   |            |
| Open                    | 41                   | 5.32%          | 93                | -4.93%     |
| Guarded                 | 66                   | 8.57%          | 61                | 1.85%      |
| Pressured               | 140                  | 18.18%         | 224               | -6.51%     |
| Contested               | 444                  | 57.66%         | 421               | 11.25%     |
| Altered                 | 25                   | 3.25%          | 34                | -5.0%      |
| Block/ GT/ foul         | 54                   | 7.01%          | 74                | -1.15%     |

doi:10.1371/journal.pone.0124982.t004

Reference

1. Csapo P, Raab M (2014) “Hand down, Man down.” Analysis of Defensive Adjustments in Response to the Hot Hand in Basketball Using Novel Defense Metrics. PLoS ONE 9(12): e114184. doi:10.1371/journal.pone.0114184 PMID: 25474443