

Days' End Jitters, and Wickets Falling in Pairs.

You would be hard pressed to find a leading batsman who likes starting an innings, or even batting at all, during the last few overs of a day's play. The same applies to starting an innings just before a scheduled break in play. Batsmen and captains must believe that it is a difficult time to bat – otherwise we wouldn't see the use of the nightwatchman – but is it actually true? What do the stats say about batting in the last overs, as opposed to early on the next day?

One way to look at this is to examine how difficult it is for teams that have to start an innings in that 'difficult' short session of batting at the end of the day. Do batsmen really struggle in that situation?

There is a perception that bowlers have a distinct advantage in this phase of play, and declarations late in the day are still tried regularly. Captains have recently declared even on the first day in order to apply some sort of pressure in the final overs: Australia at Hyderabad in 2012/13, and South Africa at Adelaide in 2016/17. Neither instance resulted in any wickets, and both teams went on to lose the match. Australia lost the Hyderabad match by an innings, the first time a team had done so after declaring an innings.

To look at this statistically, I took 95 cases of teams batting six overs or less at the end of a day of more than 80 overs, on days 1, 2 and 3, since 1998. I compared them to the results for teams starting an innings at a more 'normal' time (many hundreds of cases). I subdivided the results into teams batting 1 to 2 overs, 3 to 4 overs, and 5 to 6 overs. The table compares the average number of wickets falling under the two scenarios: end of day start versus normal start.

Average number of wickets falling early in an innings.

Number of overs	End of Day Start	Normal Innings
1 to 2	0.22 wickets (avge)	0.20
3 to 4	0.47	0.39
5 to 6	0.38	0.58

There is a slightly elevated chance of getting a wicket if you leave a team four overs or less to bat at the end of the day. However, this advantage is reversed when there are five or six overs remaining. Overall, the effect is weak, and the fluctuations are probably due to chance and the somewhat restricted sample size. It is very hard to see any significant advantage to putting a team in to bat for the last few overs of the day, although captains might still discern a marginal benefit.

Looking on a broader scale, stats were collected on the number of wickets falling in the last few overs of a day, as against the numbers of wickets in the first few overs of the following day, regardless of whether or not a new innings began. Comparison can be tricky, so once again I selected Tests with 80 or more overs on each of the first three days and lasting well into the fourth day, since 2007. The comparison was limited to the first three days, plus the morning of the fourth. Tail-end wickets (8th, 9th and 10th) were excluded, because the interest was in recognised batsmen, and to avoid days where stumps was called early when teams were all out. As it happened, exactly 200 Tests met the criteria.

Generally, the numbers of wickets falling towards the end of a day were very similar to the number falling early on the next. There were a total of 368 wickets in the last 10 overs of days 1, 2 and 3 in the Tests covered, as against 375 wickets in the first 10 overs of days 2, 3 and 4. Looking at windows of five overs, there were 192 in the last five overs of days 1, 2 and 3, versus 189 wickets in the first five overs of days 2, 3, and 4.

No significant effect there. However, some effects emerge, when we look more closely at the very end of the day:

Window	End of day	Beginning of next day
± 10 overs	368 wickets	375 wickets
5 overs	192	189
3 overs	121	104
1 over	37	29

So it would appear that there is an elevated chance of getting out in the last 1-3 overs of the day, compared to the first three overs of the following day. But does that mean the batsmen's fears are justified? Not very. The actual chance of getting out in the last over is no different to the general incidence in the last 10 overs, or the first 10 overs the next day. The difference arises because there is an unusually low incidence of dismissal very early in the next day, perhaps the effect of bowlers warming up. Within a few overs of play starting, the incidence of wickets rises to normal levels.

There may be other effects; for one thing the effect was a little stronger on Day 3 than on Days 1 and 2. This may be real, or a statistical blip, since there is a risk of subdividing the data too much. The same problem arises when looking at specific teams or bowlers. Slice and dice stats enough and you can 'prove' almost anything, but you may be simply looking at chance fluctuations.

The Lunch Effect

In a similar way, I looked at wickets falling immediately before and after lunch. In this case we are looking at wickets on the same day, namely Days 1, 2 and 3. I did not exclude wickets 8, 9, and 10 in this calculation, so the numbers are somewhat higher.

Wickets falling before and after lunch

Window	Before Lunch	After Lunch
± 5 overs	230 wickets	231
3 overs	144	137
1 over	64	47

Once again, there is little effect to speak of, except in the very last over before lunch, where the number of wickets is elevated, while the first over after lunch is normal. While it is something to ponder, the statistical significance may be doubtful. It is possible that the effect is elevated by umpires calling lunch after a wicket falls, when there might have been another over without the wicket. Declarations at lunch (or stumps) will tend to be followed by reduced numbers of wickets immediately afterwards, as the new innings will start with recognised batsmen.

Another common ploy that tries to take advantage of any lunch effect is to change bowlers for the last over before lunch, sometimes bringing on a part-time bowler. When I studied this, I found over 700 cases of this being tried. However, when compared to the (more numerous) cases of no bowling change being made, it fell a bit flat. The no-change cases had a strike rate of 85 balls per wicket in the last over before lunch, while the change bowlers took slightly fewer wickets, with a strike rate of 88.

The stressful part about batting at the end of the day, or just before lunch, is that it seems to be all risk and little reward. Getting out in the final overs brings more misery than survival brings happiness. The stress is mostly psychological, however, and batsmen, for the most part, seem to be able to weather it.

Breaking Partnerships: What Happens Next

How often do you see a long partnership where the eventual dismissal of one player is followed closely by another wicket? Whenever it happens, it is almost guaranteed that a commentator will remark that it is commonplace. One prime example is Sanath Jayasuriya and Roshan Mahanama, who batted unbeaten through two full days of a Test in 1997, and then got out within two balls of one another, on a score of 615. Anecdotally, one could find many similar – if not quite so extreme – cases.

However, more often than not, a very big partnership just makes it easier to continue scoring. The table below shows how follow-up partnerships perform after partnerships of various sizes. The calculation is limited to partnerships involving top-order or middle-order batsmen. Unbroken following partnerships have been treated like 'not outs' in calculating averages.

Effect of Partnership Size on Following Partnerships

Range	Following Partnership (Average)	% of following partnerships under 10 runs
20-49 Partnerships	39.9	28%
50-99 Partnerships	43.9	25%
100-199 Partnerships	47.8	23%
200-299 Partnerships	51.6	25%
300+ Partnerships	56.8	14%

Wkts 1-5 only, in Tests since 1967.

The effects are similar if you restrict the data to innings where the not out batsman from the previous partnership was first out (data is not shown, but quite similar to the above table). In fact, after large partnerships, it is the new batsman who is the more likely to be the next wicket to fall, by a ratio of 54:46. There is no tendency for a batsman in a big partnership to quickly follow his partner back to the pavilion.

The trends here are clear. The bigger the partnership, the bigger the next partnership is likely to be, and the chances of the next partnership failing declines. Players in long partnerships are not prone to losing their wickets in pairs.

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