

Extreme Performance in Test Cricket: Batting v Bowling

One difficulty in judging the most remarkable cricketing performances lies in the different basis of batting and bowling figures. The challenge is to put batting and bowling on the same scale, without using arbitrary conversion formulas or weighting factors. It can be done.

The difficulty begins with properly ranking bowling performances; we must take into account both wickets taken and runs conceded. Take an example: while standard lists would list a bowler taking 11 for 150 above a bowler taking 10 for 30, most would agree that the latter is the more remarkable return. There is a way to quantify this statistically, based on the observation that bowling returns follow a 'normal distribution' or Bell Curve. For each specific number of wickets, there is a separate Bell Curve, and the remarkable thing is that each of the curves has much in common; at five wickets or above, they all peak at 110-135 runs and have similar spreads or standard deviations of around 35-40. The difference is in the height of the curves, reflecting increasing rarity as the number of wickets climbs.

Using these observations, different bowling performances can be matched according to how rare they are. For example, the analysis of all Tests since 1966 shows that the following match returns are similar in terms of rarity: 7 for 35, 8 for 50, 9 for 65, 10 for 80, 11 for 100, 12 for 125, and 13 for 150+. These are equivalent, in terms of rarity, to a batsman scoring about 225 runs in a match. [Note that taking 14 or more wickets, regardless of runs conceded, is always rarer than the above, and will always have a rarity value higher than 225, as will a bowler taking 13 wickets for less than 150 runs.]

By expanding this analysis, to cover all performances, any bowling performance can be matched with its batting equivalent, based on rarity value. The calculation can be reduced to a statistical formula based on normal distributions. We can now create a ranked table of extreme performances, putting batting and bowling on the same scale. Batting performances are untouched, a simple total of runs scored.

If we start by looking at pure batting or bowling performances over a whole match, the list is:

The Most Extreme Batting and Bowling Performances: Test Cricket since 1966

Score

456	1. GA Gooch	333 & 123		Eng v Ind, Lord's 1990
426	2. MA Taylor	334* & 92		Aus v Pak, Peshawar (Niaz) 1998/99
424	3. KC Sangakkara	319 & 105		SL v Ban, Chittagong 2013/14
414	4. CA Walsh		13/55 (7/37 & 6/18)	WI v NZ, Wellington 1994/95
400	5. BC Lara	400*		WI v Eng, Antigua (St John's) 2004
394	6. ND Hirwani		16/136 (8/61 & 8/75)	Ind v WI, Chennai (Chepauk) 1987/88
393	7. RAL Massie		16/137 (8/84 & 8/53)	Aus v Eng, Lord's 1972
381	8. GD McGrath		10/27 (6/17 & 4/10)	Aus v WI, Brisbane ('Gabba') 2000/01

380	9. GS Chappell	247* & 133	Aus v NZ, Wellington 1973/74
380	10. ML Hayden	380	Aus v Zim, Perth (WACA) 2003/04
378	11. DL Underwood	13/71 (5/20 & 8/51)	Eng v Pak, Lord's 1974
375	12. BC Lara	375	WI v Eng, Antigua (St John's) 1994
374	13. DPMD Jayawardene	374	SL v SAf, Colombo2 (SSC) 2006
370	14. RJ Hadlee	15/123 (9/52 & 6/71)	NZ v Aus, Brisbane ('Gabba') 1985/86
362	15. GC Smith	277 & 85	SAf v Eng, Birmingham (Edgbaston) 2003

Batting performances outnumber bowling in such lists because recognised batsmen outnumber bowlers. In an extended list, the ratios of batting to bowling remains relatively steady all the way down, even if looking at the Top One Thousand or more.

It must be stressed that these are pure statistical assessments, with a minimum of adjustment factors or arbitrary weightings. If you are looking for "The Greatest", there are many other factors to consider: too many, perhaps, for now, but it might be feasible to build on these rankings by bringing in some of these factors.

One advantage of putting batting and bowling on the same scale is that all-round performance can now be included, simply by adding up the totals. The all-round list looks like this

Combined Score			
481	1. GA Gooch	333 & 123, 1/26	Eng v Ind, Lord's 1990
441	2. TM Dilshan	162 & 143, 4/10	SL v Ban, Chittagong 2008/09
432	3. IT Botham	114, 6/58 & 7/48	Eng v Ind, Mumbai (Wankhede) 1979/80
426	4. MA Taylor	334* & 92	Aus v Pak, Peshawar (Niaz) 1998/99
424	5. RJ Hadlee	54, 9/52 & 6/71	NZ v Aus, Brisbane ('Gabba') 1985/86
424	6. KC Sangakkara	319 & 105	SL v Ban, Chittagong 2013/14
414	7. CA Walsh	7/37 & 6/18	WI v NZ, Wellington 1994/95
404	8. ST Jayasuriya	340, 3/45	SL v Ind, Colombo4 (RPS) 1997
401	9. Mushtaq Mohammad	201, 2/15 & 5/49	Pak v NZ, Dunedin 1972/73
400	10. BC Lara	400*	WI v Eng, Antigua (St John's) 2004
395	11. ND Hirwani	1, 8/61 & 8/75	Ind v WI, Chennai (Chepauk) 1987/88
393	12. RAL Massie	0, 8/84 & 8/53	Aus v Eng, Lord's 1972
390	13. DL Underwood	12*, 5/20 & 8/51	Eng v Pak, Lord's 1974
388	14. M Muralitharan	30, 7/155 & 9/65	SL v Eng, The Oval 1998
382	15. GS Chappell	247* & 133, 0/27	Aus v NZ, Wellington 1973/74
381	16. GD McGrath	0, 6/17 & 4/10	Aus v WI, Brisbane ('Gabba') 2000/01
380	17. Imran Khan	39, 8/58 & 6/58	Pak v SL, Lahore (Gaddafi) 1981/82
380	18. ML Hayden	380	Aus v Zim, Perth (WACA) 2003/04
377	19. GStA Sobers	174, 5/41 & 3/39	WI v Eng, Leeds (Headingley) 1966
375	20. BC Lara	375	WI v Eng, Antigua (St John's) 1994

For those interested in earlier performances, the highest rating of all goes to Jim Laker's 19 for 90 at Old Trafford in 1956, equivalent to a score in the region of 550. This, of course, is far beyond any recorded batting figure, but perhaps this is fair enough, since Laker's return also stands as an all-time record for first-class cricket, and no one else has taken more than 17 wickets in a first-class (11 a side) match.

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September 2015