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Comments on "Ranking The Three Ws of West Indies Cricket"

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Abstract.

The legendary Three Ws of West Indies cricket − Worrell, Weekes and Walcott – were born in successive years in a small area in Barbados who grew up to form the greatest middle-order batting unit in Test cricket history. Their batting performances were so close that it defied all statistical odds. They have been immortalized in the writings of cricket authors and peers, most of whom had refrained from ranking their batting in order. In the public, however, debate raged as to who was the greatest batsman among them. In an attempt to settle that issue, this author formulated two mathematical schemes in an earlier paper in this journal. In the batting average scheme, there was a three-way tie. In the outstanding performances scheme, this tie was finally broken with difficulty, returning the final verdict: Weekes in the first place, followed narrowly by Worrell and Walcott in that order. This paper follows up with a third composite scheme and an omission from the last paper, but upholds the earlier verdict.

Introduction

The ***Three Ws of West Indies Cricket − Frank Worrell***, ***Everton Weekes*** and ***Clyde Walcott −*** were born in successive years within a small area of Bridgetown, Barbados, in reverse alphabetical order (cf. [1]). They were unrelated and different in physical makeup but grew up to represent Barbados and West Indies cricket teams in the middle-order batting line-up. Each was regarded as the world's best batsman at some point of his career − Worrell in the late 1940s; Weekes in the early 1950s; and Walcott in the mid-1950s [1]. Their batting achievements were so similar that debate raged among the cricket enthusiasts as to who was the greatest batsman of the three. Most cricket authors, however, called them ***inseparable*** and refrained from placing them in order of greatness. Keith Sandiford and Arjun Tan made a detailed comparative batting analysis of the Three Ws, but could not arrive at a definitive conclusion as to how to rank them in order of merit [2]. The first analytical schemes

to rank the Three Ws were reported in this journal five years ago [3]. Two schemes of ranking the Three Ws' were considered: (1) A ***batting average scheme***; and (2) An ***outstanding batting performances scheme***. In the first scheme, the batting averages were considered in both First Class and Test cricket, in common Test series, in home and overseas Tests, and against opponent nations. ***Rank indices*** for each batsman in the various categories were assigned and the batsmen were ranked according to their total rank indices. In the second scheme, the most outstanding batting performances of the three players were considered and the players were ranked according to their ***frequency***. Since then, the author has received comments and questions from interested readers of that article. In this paper, a few relevant issues are addressed.

Batting Average Scheme

Before the advent of one-day cricket, there were two categories of cricket matches: ***First Class cricket*** and ***Test cricket***. First class matches are those of duration of 3 days or longer, whereas Test matches (normally between international teams) are those of 5 days duration or longer. The First Class batting average A_{FC} of a player is defined as:

$$A_{FC} = \frac{R_{FC}}{W_{FC}} \tag{1}$$

where R_{FC} is the total runs made and W_{FC} is the number of times dismissed in First Class matches. Likewise, the Test batting average of a player is:

$$A_T = \frac{R_T}{W_T} \tag{2}$$

where R_T is the total runs made and W_T is the number of times dismissed in Test matches. Finally, the batting average in ***First Class matches other than Test matches*** (OFC) is, from Eqs. (1) and (2):

$$A_{OFC} = \frac{R_{FC} - R_T}{W_{FC} - W_T} \tag{3}$$

Some readers of reference [3] reported that two total rank indices in Table II of that reference did not add up to 32. This is found to be due to ***typographic errors*** in the first row of that table. The corrected indices are now shown highlighted in Table I of this paper. The total rank indices now all add up to 32.

Composite Scheme Based Upon Three Variables

A notable deficiency of the batting average scheme is the absence of ***aggregate runs*** (R) and ***centuries*** (C) made by the batsman, the other two major batting data in the game of cricket. Amongst these three major variables, the batting average and centuries are normally of the same order of magnitude, but the aggregate is about two

orders of magnitude greater than the other two. For this reason, the ***square root of the aggregate runs*** ($\sqrt{R} = B$) has been taken as the third variable to rank a batsman [4]. The ***Composite Batting Measure*** (Δ) is defined as the ***geometric mean*** of the three variables A, B and C [4]:

$$\Delta = \sqrt[5]{A\sqrt{R}C} = \sqrt[5]{ABC} \tag{4}$$

Thus, for Test cricket:

$$\Delta_T = \sqrt[5]{A_T\sqrt{R_T}C_T} = \sqrt[5]{A_T B_T C_T} \tag{5}$$

whereas, for Other First Class cricket:

$$\Delta_{OFC} = \sqrt[5]{A_{OFC}\sqrt{R_{OFC}}C_{OFC}} = \sqrt[5]{A_{OFC}B_{OFC}C_{OFC}} \tag{6}$$

The ***Composite Batting Measures*** of the Three Ws are calculated using Eqs. (5) and (6) and the ***Composite Batting Indices*** determined and entered in Table II. Interestingly again, the total Composite Batting Indices for all Three Ws from Test and OFC cricket add up to 4 – yet another tie!

Outstanding Batting Performances Scheme

In this scheme, the outstanding batting performances of the Three Ws are sorted out and compiled in Table III. (Note that the asterisks in the table indicate not outs or unbeaten innings.) They include the following: 500-run partnerships; 500 runs between dismissals; 500 runs in a Test series; Five 'hundreds' (centuries) in a season; Five double centuries in a season; Five consecutive Test centuries; and Five centuries in a Test series. This scheme has been called ***The 500s and Five Hundreds scheme***! The outstanding performances of the Three Ws listed in are counted and entered in Table III. The Three Ws are ranked straight according to their total counts.

Keith Sandiford is a pre-eminent scholar on West Indies cricket in general and the Three Ws in particular. It was he who insisted that outstanding achievements in cricket could be more important than just averages. His work has unveiled the occurrence of another Five Hundreds which was missing from Table III [5]. This is now included in the amended Table III as highlighted. The results now show an unambiguous final rankings of the three batting greats: 1. Weekes; 2. Worrell; and 3. Walcott. The author is happy to report that this ranking is not in disagreement with Sandiford's own opinion.

Final Remarks

Batting numbers notwithstanding, it is generally held by cricket authorities that there were four distinct phases of relative batting greatness amongst the Three Ws. In the

earliest phase, it was: 1. Worrell; 2. Weekes; 3. Walcott. Weekes soon surpassed Worrell to make it: 1. Weekes; 2. Worrell; 3. Walcott. Then Walcott passed Worrell to make it: 1. Weekes; 2. Walcott; 3. Worrell. Finally, Walcott surpassed Weekes to make it: 1. Walcott; 2. Weekes; 3. Worrell. Worrell and Walcott both occupied all three positions (1, 2 & 3), but Weekes was never relegated to position 3. This qualitative observation solidifies the conclusions of the Outstanding Performance scheme. Noted cricket author Christopher Martin-Jenkins concurs: ***Weekes was the best of the three, but only if by a small margin*** [6].

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Table I. Batting Rankings of The Three Ws Based upon Averages			
	Worrell	Weekes	Walcott
Other First Class Batting Rank Index	2	1	3
Test Batting Rank Index (BRI)	1	3	2
BRI England in West Indies (1947-48)	3	2	1
BRI West India in England (1950)	3	2	1
BRI West Indies in Australia (1951-52)	3	2	1
BRI West Indies in New Zealand (1952)	3	1	2
BRI India in West Indies (1952-53)	1	3	2
BRI England in West Indies (1953-54)	1	2	3
BRI Australia in West Indies (1954-55)	1	2	3
BRI West Indies in England (1957)	3	1	2
BRI against England	3	2	1
BRI against Australia	1	2	3
BRI against India	1	3	2
BRI against New Zealand	3	1	2
BRI in West Indies	1	2	3
BRI Overseas	2	3	1
Total Batting Rank Index	**32**	**32**	**32**
Batting Rank	**1**	**1**	**1**

Table II. Composite Batting Rankings of The Three Ws Based upon Averages, Runs & Centuries			
	Worrell	Weekes	Walcott
Test Batting Average	49.48	58.61	56.68
Test Runs	3,860	4,455	3,798
Sqrt. of Test Runs	62.12	66.74	61.62
Test Centuries	9	15	15
CompositeTest Batting Measure	30.24	38.85	37.41
OFC Batting Average	56.10	53.58	56.49
OFC Runs	11,165	7,555	8,022
Sqrt. of OFC Runs	105.66	86.91	89.56
OFC Centuries	30	21	25
Composite OFC Batting Measure	56.23	46.07	50.19
Composite Test Batting Index	1	3	2
Composite OFC Batting Index	3	1	2
Total Composite Batting Index	**4**	**4**	**4**
Overall Composite Batting Rank	**1**	**1**	**1**

Table III. Batting Rankings of The Three Ws based upon Outstanding Batting Performances of The Three Ws		
Description	Instances	Counts
500-run Partnerships	502 runs, Barbados v Trinidad, Worrell 308* (1944).	Worrell, 2; Walcott, 1.
	574 runs, Barbados v Trinidad, Worrell 255*, Walcott 314* (1945).	
5 consecutive Test centuries	Weekes, 141 v England; 128, 194, 162, 101 v India (1948-49).	Weekes, 1.
5 Centuries in a Season	Weekes (6), Walcott (5) in Indian Sub-continent (1948-49).	Worrell, 3; Weekes, 3; Walcott, 3.
	Worrell (5) in Indian Sub-continent (1949-50).	
	Weekes (7), Walcott (7), Worrell (6), in England (1950).	
	Worrell (5) in Indian Sub-continent (1950-51).	
	Walcott (5) in West Indies (1955).	
	Weekes (6) in New Zealand (1956).	
5 Double centuries in a Tour	Weekes, 232, 304, 279, 246*, 200* in England (1950).	Weekes, 1.
500 runs between dismissals	Weekes, 575 (246*+200*+129) in England (1950).	Weekes, 1; Worrell, 1.
	Worrell, 502 (241*+261) in England (1950).	
5 Centuries in a Test Series	Walcott (108, 126, 110, 155, 110) v Australia (1955).	Walcott, 1.
5 consecutive first class centuries	Weekes (156, 148, 123, 119, 103) in New Zealand (1956)	Weekes, 1
500 runs in a Test Series	Weekes, 779 (128+194+162+101+90+56+48) in India (1948-49).	Worrell, 2; Weekes, 2; Walcott, 2.
	Worrell, 684 (58+78+12+9+28+223*+83*+ 161+ 32) in India (1949-50).	
	Worrell, 539 (15+28+52+45+261+138) in England (1950).	
	Weekes, 716 (207+47+15+161+55*+86+109+ 36) v India (1953).	
	Walcott, 698 (65+25+220+17*+4+26+124+ 51*+50+116) v England (1954).	
	Walcott, 827 (108+39+126+110+8+73+15+83 +155+110) v Australia (1955).	
Total Counts	**Weekes: 9; Worrell: 8; Walcott: 7**	
Batting Rank	**Weekes: 1; Worrell: 2; Walcott: 3**	