

Annotations on India and Indians in *The Descent of Man* by Darwin

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'The Descent of Man' by Charles Darwin contains nine annotations about India and Indians. Being a recluse since his marriage to Emma Wedgwood, Darwin did not travel to India personally, but relied on his informant living in Calcutta and on books published by non-natives who had resided in India. As noted by Paul Ekman, the method of data collection adopted by Darwin has to be judged as flawed. It may be of interest to calculate a bias quotient of his method of information-gathering on the ethnic groups he wrote about without verifying the sources of error.

The first edition of *The Descent of Man, and Selection in Relation to Sex (DMSRS)* authored by Charles Darwin was published in 1871 (ref. 1). It had 21 chapters and 698 pages, including an index of 50 pages. Short commentaries on specific themes in *DMSRS*, such as sexual selection², women³ and apes and savages^{4,5} have appeared recently. This note is a commentary from a reading of the famous books by Darwin⁶⁻⁸.

Annotations on India and the Indian population appear on nine occasions in six chapters of the book. Darwin has commented six times on people residing in India and three times on vertebrates (a fish family, tiger and elephant). A synopsis is provided in Table 1 along with the sources of information (where feasible) that Darwin depended on. In Table 1, I first provide the complete annotations and then a brief commentary about these remarks by Darwin.

Annotations by Darwin

Darwin had annotated about the Indian population and three vertebrates in *DMSRS*. These are provided below with retention of original spellings.

- On the physical appearance of Hindus: 'There is also a remarkable difference in appearance between the closely-allied Hindoos inhabiting the Upper Ganges and Bengal. See Elphinstone's *History of India*, vol. 1, p. 324' (ref. 1).
- On the population increase of Santali tribes: 'Notwithstanding that savages appear to be less prolific than civilized people, they would no doubt rapidly increase if their numbers were not by some means rigidly kept down. The Santali, or hill tribes of India, have recently afforded a good

illustration of this fact; for, as shewn by Mr Hunter, they have increased at an extraordinary rate since vaccination has been introduced, or pestilences mitigated, and war sternly repressed. This increase, however, would not have been possible had not these rude people spread into the adjoining districts, and worked for hire¹.'

- On the population decline of savages: 'Even in India, districts have been depopulated by the ravages of tigers¹.'
- On the hairiness of elephants: 'The elephants in India which live on elevated and cool districts are more hairy than those on the lowlands¹.'
- On the hook swinging ritual of Indian fakirs: 'As no man can practice the virtues necessary for the welfare of his tribe without self-sacrifice, self-command and the power of endurance, these qualities have been at all times highly and most justly valued. The American savage voluntarily submits to the most horrid tortures without a groan, to prove and strengthen his fortitude and courage; and we cannot help admiring him, or even an Indian Fakir, who, from a foolish religious motive, swings sus-

pended by a hook buried in his flesh¹.'

- On the indistinguishability of native races: 'In India, as Elphinstone remarks, although a newly-arrived European cannot at first distinguish the various native races, yet they soon appear to him extremely dissimilar; and the Hindoo cannot at first perceive any difference between the several European nations¹.'
- On the races of man: '*On the Formation of the Races of Man*: In some cases the crossing of distinct races has led to the formation of a new race. The singular fact that the Europeans and Hindoos, who belong to the same Aryan stock, and speak a language fundamentally the same, differ widely in appearance, whilst Europeans differ but little from Jews, who belong to the Semitic stock, and speak quite another language, has been accounted for by Broca, through certain Aryan branches having been largely crossed by indigenous tribes during their wide diffusion. When two races in close contact cross, the first result is a heterogenous mixture; thus Mr Hunter, in describing the Santali or hill-tribes of India, says that hundreds of imperceptible grad-

Table 1. Specific annotations on India and Indians

Description	Chapter : page*	Identified source
Hindoos inhabiting Upper Ganges and Bengal	2 : 31	M. Elphinstone
Santali (hill) tribes	2 : 46	W. W. Hunter
Tiger attack on savages	2 : 46	-
Hairiness of elephants	2 : 57	R. Owen
Hook swinging ritual of Indian fakirs	4 : 122	-
Indistinguishability of native races	6 : 173	M. Elphinstone
Santali (hill) tribes	7 : 200	W. W. Hunter
Carnivorous cyprinidae	12 : 354-355	J. McClelland
Hairlessness on face	19 : 579	J. Scott

*The page numbers refer to the 1998 reprint of *DMSRS* cited in ref. 1.

tions may be traced “from the black, squat tribes of the mountains to the tall olive-coloured Brahman, with his intellectual brow, calm eyes, and high but narrow head”; so that it is necessary in courts of justice to ask the witnesses whether they are Santalis or Hindus¹.

- On the secondary sexual characters of the carnivorous Cyprinid fish: ‘Many of the carnivorous Cyprinidae in India are ornamented with “bright longitudinal lines of various tints”. Mr M’Clelland, in describing these fishes, goes so far as to suppose that “the peculiar brilliancy of their colors” serves as “a better mark for king-fishers, terns, and other birds which are destined to keep the number of these fishes in check”; but at the present day few naturalists will admit that any animal has been made conspicuous as an aid to its own destruction¹.
- On hairlessness on the face as a secondary sexual character of man: ‘In Calcutta, Mr J. Scott, of the Botanic Gardens, was so kind to observe the many races of men to be seen there, as well as in some other parts of India, namely, two races of Sikkim, the Bhotas, Hindoos, Burmese, and Chinese, most of which races have very little hair on the face; and he always found that when there was any difference in colour between the hair of the head and the beard, the latter was invariably lighter¹.

Commentary

During his five-year voyage around the globe covering 40,000 miles from 27 December 1831 to 2 October 1836, Darwin was unfortunate in not having visited the Indian subcontinent. After his marriage to cousin Emma Wedgwood on 28 January 1839, Darwin did not undertake international travel until his death in 1882 (ref. 9). His chronic health problems, accentuated during the five-year

sea voyage, were suggested as one possible reason for his reclusive nature.^{10,11} As such, the primary sources of his data on India and Indians were based on anecdotal information and books. Darwin relied on his correspondent – J. Scott of the Botanic Gardens in Calcutta and on the previously published books of Mountstuart Elphinstone, Richard Owen, W. W. Hunter and J. McClelland.

Ekman¹² has specifically observed that Darwin ‘wrote to people, primarily British colonialists, who had travelled or lived in different cultures, asking’ answers to specific queries. He identifies three problems with this sort of data collection. To quote Ekman¹² in full: ‘Darwin did not ask a sufficient number of people in each country for answers; for most countries he had just one informant, who could have been mistaken or biased. Second, he relied upon what these Englishmen living or traveling abroad told him; it would have been better if he had been able to ask the natives of each country instead (or asked his English correspondents to ask the natives.) Third, Darwin’s wording suggested the answer he wanted.’

As measured by current standards, the method of data collection (about India and Indians) adopted by Darwin has to be judged as biased. Sackett¹³ has catalogued 22 biases in ‘specifying and selecting the study sample’. Among these, it may be interesting to calculate a bias quotient of his method of acquiring data on the ethnic groups he wrote about without verifying the sources of error.

Though not a flag waver for political correctness, I find – the specific and repetitive use of the word ‘savage’ to the ethnic groups living in Asia, Australia, Africa, South America and negroes (blacks) in North America^{4,5} with its racist connotations in the Victorian era of British imperialism – jarring to the ears. The *Oxford English Dictionary* offers the following definition when the word ‘savage’ is used for people: ‘uncivilized, existing in the lowest stage of culture’¹⁴.

One may have to agree with the inference of Ruse¹⁵ that ‘the *Descent of Man* is a strangely ill-balanced book. Most of it is not about humans at all! It is mainly about sexual selection, as is flagged by the full title: *The Descent of Man and of Selection in Relation to Sex...* Darwin sounds very Victorian, with views about male–female relationships that seem to have stepped straight from a novel by Dickens’.

1. Darwin, C., *The Descent of Man and Selection in Relation to Sex*, Prometheus Books, New York, 1998.
2. Veuille, M., *C. R. Biol.*, 2010, **333**, 145–156.
3. Cohen, C., *C. R. Biol.*, 2010, **333**, 157–165.
4. Martinez-Contreras, J., *C. R. Biol.*, 2010, **333**, 166–173.
5. Radick, G., *Endeavour*, 2010, **34**(2), 50–54.
6. Sri Kantha, S., *Ceylon Med. J.*, 1992, **37**, 47–48.
7. Sri Kantha, S., In Abstracts of the XIX International Congress of Genetics, Melbourne, 2003, p. 271.
8. Sri Kantha, S. and Suzuki, J., *Curr. Sci.*, 2009, **97**(5), 715–718.
9. Veith, F. J., *J. Vasc. Surg.*, 1997, **25**, 8–18.
10. Barloon, T. J. and Noyes, R., *J. Am. Med. Assoc.*, 1997, **277**, 138–141.
11. Katz-Sidlow, R. J., *J. R. Soc. Med.*, 1998, **91**, 484–488.
12. Darwin, C., *The Expression of the Emotions in Man and Animals*, Oxford University Press, New York, 1998, 3rd edn.
13. Sackett, D. L., *J. Chronic Dis.*, 1979, **32**, 51–63.
14. *The Compact Edition of the Oxford English Dictionary*, vol. II: P–Z, Oxford University Press, Oxford, 1989, p. 2646.
15. Ruse, M., *J. Econ. Behav. Organ.*, 2009, **71**, 10–19.

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