

Zuckerman versus Marais: a primatological collision

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The Afrikaans poet and writer Eugène Marais is well known in South Africa but not elsewhere. The publication of his *The Soul of the Ape* in 1969 triggered a hard hitting response from the British primatologist Solly Zuckerman, in which he attacked Marais' writings and rejected him as a legitimate scientist. The two never met and Marais had been dead for nearly 40 years when Zuckerman's attack took place. This paper examines the basis for Zuckerman's attack and looks at the context of both men, especially in the light of Zuckerman's combativeness and Marais' naivety and lack of scientific rigour.

Key words: Eugène Marais, chacma baboon, primatology, Solly Zuckerman

Academics can be vicious in their wars. The study of monkeys and apes has not been immune from such battles, but one skirmish between two South Africans of primatological note merits distinction because only one of the pair of combatants was alive at the time of the conflict.

Lord (Solly) Zuckerman attacked Eugène Marais during a public lecture in Cape Town in 1975. Marais had been dead for nearly 40 years and he hardly seemed to be a deserving target for Zuckerman, but there had been a recent irritation that set him off. Marais' *The Soul of the Ape* had been published posthumously a few years before,¹ but it was not Marais' essay that had triggered Zuckerman's comments. It was the introduction provided for it by Robert Ardrey. Ardrey, the American playwright and populariser of evolutionary science, had lauded Marais as 'a prescient force laying out the basics of primate field research decades before it became a professional field on its own'.² It was a red flag waved in Zuckerman's face, and he responded by charging with head down and horns forward.

In Zuckerman's words, 'Marais lived on the borders of fantasy, twisting or inventing observation, and, whether deliberately or not, usually diverting attention from what was real'.³ His opinion of Ardrey was not much better. 'It is clearly Mr. Ardrey who has lost his way when he stumbled into an area of science into which he then injected the atmosphere of theatre'.³

Although Zuckerman did not mince his words, he was surprised by the reaction from the South African public to his comments, as he had no idea that Marais was held so high in South African national psyche.^{4,5}

The letters pages of various South African newspapers were peppered with opinions supporting Marais as a scientist in the weeks following Zuckerman's public attack, and it was clear that Zuckerman had struck a nerve. It is fascinating to look back 34 years after this public debate, but hardly anything has been written about Marais and his role in primatology since that time. Rousseau's definitive biography of Marais was published for the first time in English in 1982.⁶ Only in 1998 did Rousseau produce some comment on the scientific merit of Marais' work but he added little to the assessment of the accuracy of Zuckerman's

assault.⁷ No primatologist other than Zuckerman himself has ever attempted to discuss the validity of Marais' work. What happened? Was Zuckerman's attack so devastating that no one since has been willing to evaluate it or was Zuckerman simply right? What does this incident tell us about the influence and importance of these two men?

Solly's folly

In 1975 Lord Zuckerman was enjoying the laurels of a long and distinguished career in anthropology and the administration of science.⁸ He had made his anthropological reputation on the study of baboon reproduction, physiology and social behaviour. In two important books published within a year of each other^{9,10} he produced the most thorough work on primates up until that time. The impact of Zuckerman's work should not be understated. Penniman, writing in 1935, devoted five pages of his history of anthropology to Zuckerman's work. 'Although a good many previous writers had made assumptions, Zuckerman's is the first adequate attempt to interpret simian society'.¹¹ His pioneering work did have flaws. The primatologist Richard¹² noted that Zuckerman's understanding of primate sociality, although an important first attempt, was incomplete. Zuckerman's observations were primarily on the Hamadryas baboons (*Papio hamadryas hamadryas*) at Regent's Park Zoo in London, where a shortage of females led to constant conflict between males trying to set up uni-male harems. This led Zuckerman to hypothesise that sex was the major motivator in primate social organisation to the detriment of self-defence, mother-infant bonding or mutual learning.¹³

Zuckerman was never shy of an academic fight, and participated in many in his long career. Some of his ideas have stood the test of time while others have been rejected. One of his battles concerned the position of *Australopithecus* on the human evolutionary line. Zuckerman rejected it as a human ancestor, and instead argued that it was a form of higher ape and not a hominin at all. He sparred in print with the aging Robert Broom in 1950 and 1951, accusing Broom of ignoring statistics and using unscientific methods of analysis. Broom, despite being on his deathbed, was so incensed that he added a verbal attack on Zuckerman's own ability to do science to the volume he had just written for the Transvaal Museum. Only the intercession of the Director of the Council for Scientific and Industrial Research prevented publication of Broom's polemic, because he felt that what Broom had written 'would detract from the respectability of the memoir'.¹⁴ Zuckerman's own writings were prodigious, with over a thousand papers published in his lifetime.⁸ He was knighted in 1956 and elevated to a life peerage in 1971.

Zuckerman, as his academic battles testify, was hardly a gentle soul. He was absolutely disparaging about his South African origins. He wrote but a few pages about his South African years in his autobiography.¹⁵ His 1925 Masters degree was the very first given in Anatomy by the young University of Cape Town, but Zuckerman was unimpressed with his professor, Matthew Drennan, and could hardly wait to get on the boat going to England after he graduated. In Zuckerman's opinion, the sooner he could get out of the colonies the better. Clearly he felt South Africa was parochial and was no place for a man of his talents. Was this lack of respect for South Africa the cause of Zuckerman's dislike of Marais? Zuckerman may not have been a particular friend of South Africa and South Africans, but it is Marais' purported role as a scientist, not as a South African national, that acted as the burr under his saddle. Zuckerman objected to Ardrey's deification of Marais as a father of primatology.

Marais as scientist: fact or fiction?

In his historical review of primate field studies, Robert Sussman has Zuckerman and Marais share the limelight.¹⁶ He gives scientific primacy to Zuckerman for his 1932 monograph, but notes that most of his observations were at Regent's Park Zoo in London and that he spent only nine days observing chacma baboons (*Papio hamadryas ursinus*) in their natural habitat. Sussman then gives Marais primacy for field studies with his long observations of wild individuals of the same species in the Waterberg between 1907 and 1910. Although Sussman makes no value judgment in relation to the validity of Marais' work, he does express his opinion that his work had little impact because it was published only in the 1960s. Rees¹⁷ in her discussion of motivations and methods of primate field workers does not even mention Marais, and credits Carpenter in the 1930s as the first researcher to make consistent observations with the specific objective of understanding wild primate behaviour. Rees does mention the work of Zuckerman, but she does not feel that it was of a duration long enough to be really defined as field research. Clearly the priority of Marais is not well recognised amongst modern primatologists and Zuckerman is seen as an important contributor – but not in the same sense as modern field workers.

There is no question that much of what Marais wrote is not of the scientific rigour that we would accept today as a basic scientific requirement. Zuckerman makes a long list of Marais' errors, and it is possible to add more that Zuckerman himself missed. Marais repeated farmers' stories as fact with no confirmation.¹⁸ He was hardly the first to repeat these tales (see Morris¹⁹ for a discussion of the chacma baboon in early Cape history). At the same time that Marais was making his observations, the erstwhile director of the Port Elizabeth Museum, F.W. Fitzsimons, published a strange book of anthropomorphic descriptions of chacma baboons filled with a host of unverified folk tales, many of which Marais also included in his later writings,²⁰ although he came on them independently of Fitzsimons. A particularly tenacious folk tale repeated by Marais is of the 'kortkop' and 'langkop' baboons. This idea of two separate species of baboon of which the short-headed baboon was more intelligent and trainable as domestic help than the wilder long-headed baboon is still a widely believed myth in farming circles.²¹ Modern genetic evidence strongly suggests that all of the African savanna baboons from Ethiopia to the Cape are a single species,²² but surprisingly, there is now some genetic and anatomical evidence that there are two subspecific morphs in the Cape baboon population.²³ Unlike the farmers' story, the two subspecies are geographically distinct (the Cape chacma in the region below the Vaal river in the east and north into Namibia in the west, and the grey-footed chacma found in what was the old Transvaal north into Zimbabwe and southern Zambia). There is no evidence for sympatry, and Marais would have been familiar with only the northern morph.

The Marais manuscript that Ardrey published in 1969 had been more or less completed in 1919.⁶ The actual observations that formed the basis of the manuscript were made at a time when no one was making any real attempt to understand primates in the wild. Marais attracted his subjects into observation range with a 'provisioning' technique, a practice much criticised when used by later researchers to draw wild primates to study sites.¹⁷ Strum²⁴ feels that Marais was ahead of his time in that rather looking at ecology, he focused on psychological issues such as emotions and individual behaviour, something that has only returned to focus in field studies during the last few decades. For Zuckerman, field studies were not really science. He felt that good science required the control of observations

and this could not be done adequately in the field. Zuckerman's field diary notes from both the London Zoo and the Cape in the 1930s were often anthropocentric, and in themselves were probably not much better than Marais' observations and neither of their methods would pass under today's strict standard of field study.¹³

One aspect of Marais' studies that deserves closer observation is his motivation for writing about the baboons. Marais himself tells us that his motive is to help understand human behaviour, but at least one chapter in his *Soul of the Ape* suggests that it may have been Marais' own behavioural problems that he wished to understand. Chapter 5 is on addiction and depression, both maladies suffered by Marais throughout his adult life. This would explain Marais' psychological rather than ecological focus. Ian Glenn²⁵ has emphasised this point to indicate that much of Marais' writing was intensely personal rather than scientific.

Was Marais the scientist that Ardrey made him out to be? Of the modern writers, only James²⁶ gives any serious credit to Marais as a scientist, but I would argue that Marais was never a scientist in the terms we would accept today. Although well read and wonderfully observant, he had neither the background in biology nor the training needed to be critical of his own biases. Zuckerman's rather limited field experience did expose him to the same stories from farmers heard by Marais, but his response was completely different. Whereas Marais accepted the tales, Zuckerman viewed them with a jaundiced eye. Zuckerman mentioned newspaper reports and farmer's tales of baboons killing young lambs for milk in their stomachs, baboons killing their sentries, and human children being raised by baboons, but rejected all of them as unconfirmed and doubtful. In his 1932 book, Zuckerman did comment on the one Marais publication available to him at that time, in which Marais noted observations of secondary male characteristics in a 'homosexual' female and the practice of masturbation amongst young male baboons.²⁷ Unlike in his 1975 polemic, Zuckerman did not attack Marais on these points. He simply mentioned that he was unable to confirm the observations.

In 1999, the internet website *News24* invited South Africans to submit the names of the 100 most influential historical characters in 20th-century South Africa. It is no surprise that Mandela, De Klerk, Rhodes, Tutu and Verwoerd were at the top of the rankings, but amongst this list of the famous and infamous, Eugène Marais appeared at a very respectable number 36.²⁸ Marais is virtually unknown outside of South Africa, but inside of the country's borders he remains a cultural icon of Afrikaans and English literature. Eugène Marais, along with Louis Leipoldt, is seen as a key figure in the movement of Afrikaans from 'Kitchen Dutch' to a language in its own right.²⁹ The rise of Marais as an Afrikaner icon has recently been tracked by Swart.⁵ During his own lifetime, Marais was probably better known for his writings on termites and baboons. After his death, supporters of Afrikaner Nationalism, especially in the 1930s and 1940s, emphasised his Afrikaans poetry as critical in the development of that language as a cultural plank in the formation of Afrikaner identity. Marais was needed less as an Afrikaner emblem once the National Party was in place in government from 1948, and his name slipped from public view until raised again by Ardrey in 1969, but this time as a scientist, not a poet. Zuckerman's public criticism of Marais clashed not only with Marais' still remembered importance as an Afrikaner symbol, but also with the pride of South African science as part of the national flag-waving that was used to counter the criticism of South Africa by the international community during the 1970s.

Perhaps the issue here is not whether Zuckerman was right or wrong, but more in the manner in which he attacked this icon of South African literary history. Zuckerman was not shy in expressing his beliefs. Gerald Durrell described Zuckerman as 'a difficult man with enormous arrogance'³⁰ after attending Zuckerman's closing address at the 2nd World Conference on Breeding Endangered Species in Captivity in July 1976. Zuckerman had managed to antagonise most of his listeners by stating that zoology is for science not conservation, and that research money from government should be spent on people, not animals. Zuckerman had a mental picture of the scientist as a cold dispassionate worker who gave his all in the search for knowledge, and he was his own best model in that definition. Zuckerman had already achieved the highest accolades of British science, but his personality demanded that no one in his field of science should attain the same accolades.³¹ Hence it was important in Zuckerman's mind to ensure that the legacy of Marais did not rival his own.

Despite his own scientific shortcomings and abrasive character, Zuckerman was right in criticising the work of Marais. Marais' greatest importance is literary and historical. Although he never professed to be a national hero, he filled that role after his death both as an Afrikaner and a South African scientific pioneer.⁵ Marais was certainly the first to consider the principle of systematic observation of wild primates, but his work was published far too late to be of influence in the field, and neither he nor Zuckerman were systematic or objective enough to allow for the kind of field studies developed later in the century.¹⁷ Marais' personal history was a tragic one and we still do not fully understand the role his private trauma played in his writing. Marais deserves a place in our history, but as a man of letters and a South African of importance, not as a man of science.

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