Anthropology by gaslight. Sherlock Holmes, Conan Doyle and the anthropology of detection at the Victorian *fin de siècle*.[1]

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ABSTRACT

The last decade of the Victorian era, the *fin de siècl*e, was a time of deep social anxiety as the power structures and social institutions of the Victorian era came under great critical scrutiny from the arts and the sciences alike. Central concerns about human nature and just how civilised Victorians really were, were allied to concerns about the future of the 'white race' and its continued social and political hegemony. Much of the literature of this time focuses on the erosion of the boundaries between things that had seemed self-evident to earlier generations (racial distinctiveness, class superiority, imperialism etc.). Through anthropological themes, the Sherlock Holmes stories of Arthur Conan Doyle reinforced all that was seen as good in the imperial project and in the hereditary superiority of those who delivered it. Yet after 1901 and the *Hound of the Baskervilles* these anthropological tropes all but vanished from Doyle's work.

KEYWORDS Sherlock Holmes; Conan Doyle; Victorian; anthropology; science fiction; scientific romance; evolution

Introduction

Reception studies has a long engagement with Palaeolithic archaeology, but less so with the link between human origins, popular culture and science/fantastic fiction from Victorian and Edwardian England. This branch of reception studies is multidisciplinary, engaging with literary criticism and theory, popular fiction, human origins, and the history of science. But in spite of such wide cultural ramifications it remains, curiously, an under-researched field. The aim of this paper is to show how the power of reception studies provides a new perspective on the development of anthropological studies of human origins beyond academic confines. Developing theoretical structures proposed by Susanne Duesterberg (2015), this article shows how the writings of Conan Doyle, and others, occupied specific niches within the late Victorian popular imagination and fulfilled specific but sometimes conflicting roles in the popular consumption of contemporary culture. These conceptual spaces/niches repackaged the idea of human origins and its context through popular culture. With two other articles (McNabb 2015, McNabb in prep), I demonstrate the potential for linking Victorian 'fantastic' fiction with human origins research as a field for future research.

Sherlock Holmes is the most famous detective in the world. Since his first appearance in short story format in *The Strand Magazine* in 1891 his adventures with Dr Watson have captured popular imagination. Two earlier stories – *A Study in Scarlet* (Beeton's Christmas Annual 1887) and *The Sign of Four* (Lippincott's Monthly Magazine February 1890), received positive notices, but it was the *Strand's* short story format that helped launch Sherlock and his creator Arthur Conan Doyle (1859-1930) onto the international stage. Doyle's clipped but fast paced writing style was perfect for the new magazine, and from *A Scandal in Bohemia* (*The Strand Magazine* July 1891), Sherlock Holmes appeared exclusively in its pages. Fifty-six short stories were published between

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[1] This article is dedicated to Professor Robin Dennell, whose *Antiquity* paper on Progressive Gradualism (Dennell 1990) inspired an abiding love of the historical context of human origins research.

1891 and 1927, as well as two serialised novels *The Hound of the Baskervilles* (*The Strand Magazine* August 1901 – April 1902) and *The Valley of Fear* (*The Strand Magazine* September 1914 - May 1915). If the *Strand* was successful because of Sherlock Holmes, then Sherlock Holmes was successful because of the *Strand* (Cranfield 2013).

The cultural impact of these stories has been enormous. They have been appropriated by many countries, languages and cultural ideologies (Smith 2009; Werner 2014), and their mutability has allowed for successful adaptation to some unlikely socio-political perspectives – communist Russia and China. Holmes and Watson have been successfully translated and updated for new audiences with new requirements, yet the core themes of character, story and plot, mystery and deduction have endured and in part explain the continuing popularity of these characters, despite the significant differences between the stories' original context and their modern consumption.

Reception studies in archaeology (Duesterberg 2015; Moser 1998; Russell 2002) seek to understand how audiences engage with the fact of archaeology and its interpretations, and show how different consumers draw out their own meanings, at a variety of levels. Subjects like Sherlock Holmes, outside of mainstream archaeological relevance, nevertheless affect archaeological meaning, because of the engagement of the author and story with the discipline and the purposeful repackaging of it to suit a target audience. These stories reflect their cultural *milieu*, but they also adapt it, change it, and ultimately can influence its reception by their audiences (Conlin 2014; Moser 1998; Duesterberg 2015).

My debate for this volume is the extent to which popular culture, literature and the Holmes stories at the *fin de siècle*, presented the public with certain popular tropes concerned with human origins and evolutionary development (see especially Moser 1998 for an important introduction to the popular conception and reception of human origins through imagery). These themes reflect powerful concerns in late Victorian Britain about who the British were, where they came from, and what that meant for where the British were going.

I contend here that there is a threshold around 1901, marked by the publication of *The Hound of the Baskervilles*. Prior to this Doyle's stories were rooted in anthropological discourse, and so reflected deep Victorian anxieties. The stories occupied differing conceptual spaces which served to alleviate social and individual concerns. Yet in the new Edwardian century, and beyond, such themes all but vanished from the Holmes stories. This paper addresses one facet of a large and complex research topic in its own right and here as a stimulus to debate, I will

I will concentrate in this paper only on the British reception of the Holmes stories, and I will only touch on the issues of race, as this is a distinctive, large and complex research topic in its own right.

Conan Doyle, anthropology and human origins

Doyle took an interest in archaeology and in human origins. He once directed his own archaeological excavation at High Rocks, Tunbridge Wells (Lycett 2007), and Sherlock Holmes stories such as *The Hound of the Baskervilles* and *The Adventure of the Devil's Foot* are rich in archaeological references (see Figs. 1 and 2 for publication details of the Holmes stories). In the early 1890s Doyle kept abreast of the latest developments in human origins research, by reading the popular *Human Origins* by S. Laing (Laing 1892), a book he still recommended worth reading years later (Doyle 1907). As a discreet topic, human origins appears once in the Holmes stories. In *The Adventure of the Three Garridebs* (*The Strand Magazine* January 1925), when Holmes visits Mr Nathan Garrideb's rooms, there are casts of fossil crania above a cabinet, including one of 'Heidelberg man' (although only a jaw was found in 1907!).

It is through the anthropological debates of the time that we see human origins and Palaeolithic archaeology reflected in the Holmes stories. Holmes' credentials as an anthropologist have been discussed before (Krogman 1955), but the evolutionary background to the stories have

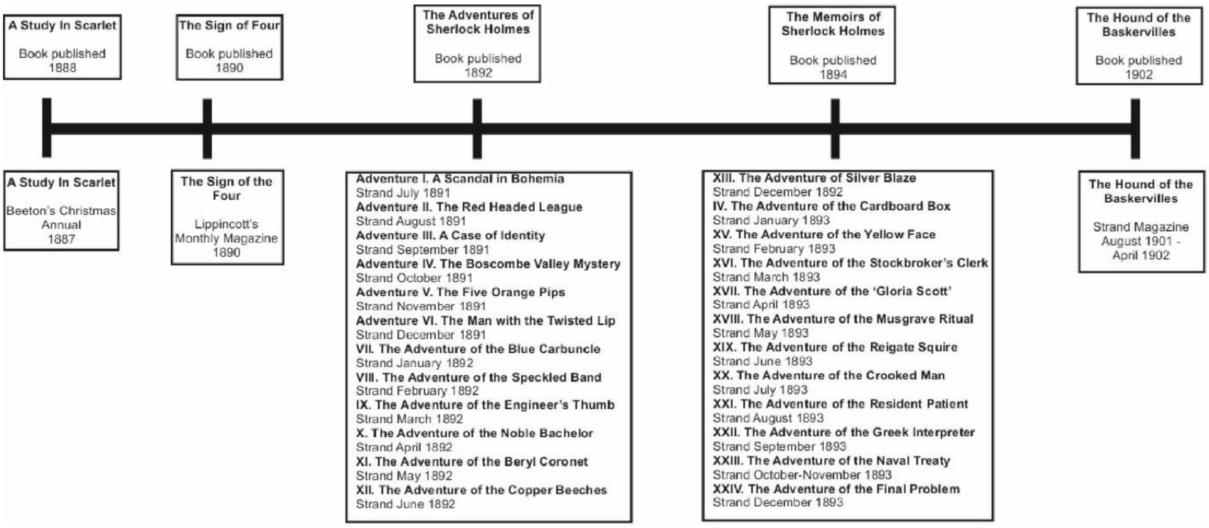

A Study In Scarlet
Book published 1888
The Sign of Four
Book published 1890
The Adventures of Sherlock Holmes
Book published 1892
The Memoirs of Sherlock Holmes
Book published 1894
The Hound of the Baskervilles
Book published 1902
A Study In Scarlet
Beeton's Christmas Annual 1887
The Sign of the Four
Lippincott's Monthly Magazine 1890
Adventure I. A Scandal in Bohemia
Strand July 1891
Adventure II. The Red Headed League
Strand August 1891
Adventure III. A Case of Identity
Strand September 1891
Adventure IV. The Boscombe Valley Mystery
Strand October 1891
Adventure V. The Five Orange Pips
Strand November 1891
Adventure VI. The Man with the Twisted Lip
Strand December 1891
VII. The Adventure of the Blue Carbuncle
Strand January 1892
VIII. The Adventure of the Speckled Band
Strand February 1892
IX. The Adventure of the Engineer's Thumb
Strand March 1892
X. The Adventure of the Noble Bachelor
Strand April 1892
XI. The Adventure of the Beryl Coronet
Strand May 1892
XII. The Adventure of the Copper Beeches
Strand June 1892
XIII. The Adventure of Silver Blaze
Strand December 1892
IV. The Adventure of the Cardboard Box
Strand January 1893
XV. The Adventure of the Yellow Face
Strand February 1893
XVI. The Adventure of the Stockbroker's Clerk
Strand March 1893
XVII. The Adventure of the 'Gloria Scott'
Strand April 1893
XVIII. The Adventure of the Musgrave Ritual
Strand May 1893
XIX. The Adventure of the Reigate Squire
Strand June 1893
XX. The Adventure of the Crooked Man
Strand July 1893
XXI. The Adventure of the Resident Patient
Strand August 1893
XXII. The Adventure of the Greek Interpreter
Strand September 1893
XXIII. The Adventure of the Naval Treaty
Strand October-November 1893
XXIV. The Adventure of the Final Problem
Strand December 1893
The Hound of the Baskervilles
Strand Magazine August 1901 - April 1902

Figure 1. Time line and publication history of the Sherlock Holmes stories by Arthur Conan Doyle during the more anthropological phase of his writings, 1888-1901. In earlier editions of the *Memoirs of Sherlock Holmes*, the story *The Cardboard Box* is omitted because of the theme of adultery (Bunsen 1995), which was thought too shocking for the general public. It appeared in later reprints of *Memoirs*.

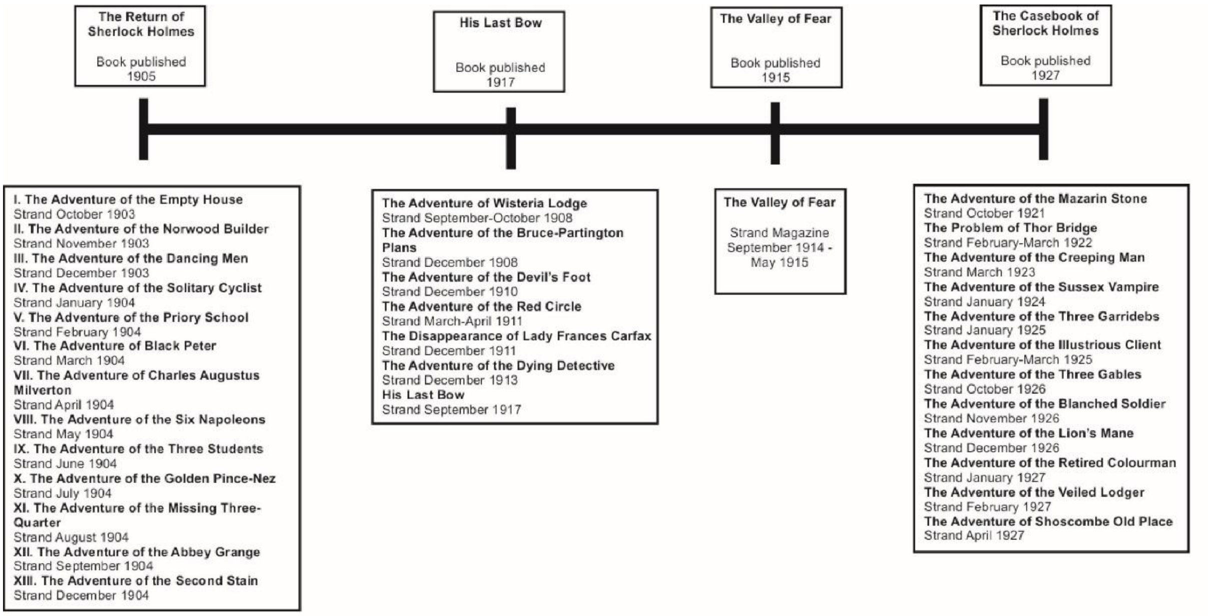

The Return of Sherlock Holmes
Book published 1905
His Last Bow
Book published 1917
The Valley of Fear
Book published 1915
The Casebook of Sherlock Holmes
Book published 1927
I. The Adventure of the Empty House
Strand October 1903
II. The Adventure of the Norwood Builder
Strand November 1903
III. The Adventure of the Dancing Men
Strand December 1903
IV. The Adventure of the Solitary Cyclist
Strand January 1904
V. The Adventure of the Priory School
Strand February 1904
VI. The Adventure of Black Peter
Strand March 1904
VII. The Adventure of Charles Augustus Milverton
Strand April 1904
VIII. The Adventure of the Six Napoleons
Strand May 1904
IX. The Adventure of the Three Students
Strand June 1904
X. The Adventure of the Golden Pince-Nez
Strand July 1904
XI. The Adventure of the Missing Three-Quarter
Strand August 1904
XII. The Adventure of the Abbey Grange
Strand September 1904
XIII. The Adventure of the Second Stain
Strand December 1904
The Adventure of Wisteria Lodge
Strand September-October 1908
The Adventure of the Bruce-Partington Plans
Strand December 1908
The Adventure of the Devil's Foot
Strand December 1910
The Adventure of the Red Circle
Strand March-April 1911
The Disappearance of Lady Frances Carfax
Strand December 1911
The Adventure of the Dying Detective
Strand December 1913
His Last Bow
Strand September 1917
The Valley of Fear
Strand Magazine September 1914 - May 1915
The Adventure of the Mazarin Stone
Strand October 1921
The Problem of Thor Bridge
Strand February-March 1922
The Adventure of the Creeping Man
Strand March 1923
The Adventure of the Sussex Vampire
Strand January 1924
The Adventure of the Three Garridebs
Strand January 1925
The Adventure of the Illustrious Client
Strand February-March 1925
The Adventure of the Three Gables
Strand October 1926
The Adventure of the Blanched Soldier
Strand November 1926
The Adventure of the Lion's Mane
Strand December 1926
The Adventure of the Retired Colourman
Strand January 1927
The Adventure of the Veiled Lodger
Strand February 1927
The Adventure of Shoscombe Old Place
Strand April 1927

Figure 2. Time line and publication history of the Sherlock Holmes stories by Arthur Conan Doyle during the post 1901/*Hound of the Baskervilles* phase. This phase shows an almost complete lack of references to anthropology or evolutionary science, see Table 1. Focus is now on physiognomy, a belief that inner character is expressed by the body's outward appearance, and particularly the facial features. The story *The Adventure of Wisteria Lodge* (*His Last Bow*) was originally published in the *Strand* in two parts – *A Reminiscence of Mr Sherlock Holmes; 1. The Singular Experience of Mr John Scott Eccles; 2. The Tiger of San Pedro.*

received less attention. Those stories with an evolutionary/human origins element to them are briefly listed in Table 1.

The volume of Holmes stories referenced here is *The Original Illustrated 'Strand' Sherlock Holmes* (Doyle 1989 (1990 reprint)). To Holmes enthusiasts these stories are referred to as the canon.

Primary contextual sources

Eight Victorian periodicals were comprehensively consulted to determine whether there were any 'trigger' themes in contemporary debate which could have directly inspired the Holmes stories. These are listed in Table 2. At the outset it must be stated that none of them provided any evidence for direct scientific inspiration for any of the stories. However, they did reflect the broader themes current in 1890s anthropology and evolutionary research from which Doyle drew.

Evolution and Darwin in the canon

There is only one direct reference to Charles Darwin and human evolution and that is from *A Study in Scarlet* (Fig. 1 and Tab. 1)

> '[Holmes to Watson]…Do you remember what Darwin says about music? He claims that the power of producing and appreciating it existed among the human race long before the power of speech was arrived at. Perhaps that is why we are so subtly influenced by it. There are vague memories in our souls of those misty centuries when the world was in its childhood.' (Doyle 1989, 26–7)

'That's rather a broad idea.' Watson presciently replies. Here Holmes is referring to *The Descent of Man* (Darwin 1879), in which Darwin argues that music evokes powerful emotional associations related to mating, courtship and rivalry, but date to a time before humans had learnt to speak. Which came first, speech or music was a matter of controversy in the late Victorian period (Darwin, 1879, 636–7). This sets up the major themes of heredity and atavism in Doyle's pre-1901 prose. However, Holmes was no Darwinist (in the sense of supporting selection as the primary driver for evolution).

> 'What object is served by this circle of misery and violence, and fear? It must tend to some end, or else our universe is ruled by chance, which is unthinkable?' (Doyle, 1989, 319: *The Adventure of the Cardboard Box*)

It was the purposeless and random operation of chance that made Darwin's formulation of natural selection so unpopular in the 1890s (Bowler 2003; McNabb 2012). It didn't sit well with the Victorian popular belief that evolution created perfection. It was widely held that natural selection was a trial by combat - Tennyson's 'nature red in tooth and claw', and that only the strong and the best suited survived and succeeded. By default then, white male imperial Anglo-Saxon's represented the pinnacle of evolution as did the nation and social pattern they came from. Influential figures from different ends of the scientific establishment, T.H Huxley and his student H.G. Wells, were actively promoting this view of natural selection to the public (Huxley 1894a; Wells 1896) – Hobbes' 'war of all against all'.

Atavism and heredity

Doyle began to write *A Study in Scarlet* in March 1886, finishing it probably early April (Lycett 2007). In the story Holmes and Watson are called to an address off the Brixton Road where a corpse has been discovered. Watson makes several allusions to its simian appearance.

> 'Every time that I closed my eyes I saw before me the distorted, baboon-like countenance of the murdered man. So sinister was the impression which that face had produced upon me that I found it difficult to feel anything but gratitude for him who had removed its owner

> from the world. If ever human features bespoke vice of the most malignant type, they were certainly those of Enoch J, Drebber of Cleveland.' (Doyle 1989, 26).

Atavism is not directly mentioned, but the link between Drebber's inherent wickedness and his physical appearance is clear. The very existence of physical and behavioural atavism seemed to confirm the idea of an evolutionary ascent from the primitive and supported recapitulation, the widespread belief that embryos developed through a series of stages which reflected successive ancestral forms – summed up in Haeckel's phrase 'ontogeny recapitulates phylogeny'

These themes were very much a part of scientific debate on racial and human origins at the time. In the UK, Francis Galton (1822-1911) was the most prominent public figure working on inheritance in the late 1880s (Galton 1886a). He was president of the *Anthropological Institute of Great Britain and Ireland* (hereinafter AI) between 1885 and 1888. He ensured his interests in anthropometrics (see below) and heredity were on the AI's agenda across the period. In 1885 while president of the anthropological section of the *British Association for the Advancement of Science* (hereinafter BAAS), he unfolded his own theory of inheritance (Galton 1886b). This was revisited on a number of occasions, including his annual presidential speech to the AI in January 1886 (Galton 1886a, 1886c), before being fully developed in a landmark book *Natural Inheritance* (Galton 1889). Using the hereditary character of height, his theory suggested that traits which departed from the population mean for that trait, would eventual regress back to the mean within a few generations. Abnormally tall or short children would have children and grandchildren who gradually reverted back toward the mean again.

Galton also subscribed to a particle based concept of inheritance, loosely accepting Darwin's theory of pangenesis which suggested that structures and organs in the body produced particles of hereditary information called gemmules. They were passed into the sex cells and transmitted to the next generation, whereupon they would coalesce - a roadmap to build a new embryo. However Darwin's pangenesis found few supporters and there were conflicting views on just how inheritance as a mechanism worked from one generation to the next. During the middle Victorian period many researchers had held that inheritance was a blending of the characters of both parents, and in the racially charged 1860s and 1870s the skin colour of the children of mixed race parents seemed proof of this. But other features like hair colour, eye colour were passed on with no blending, they seemed to have a single dominant character. So, a second mechanism was possibly present. What Galton suggested was that different physical traits could be expressed through a strong tendency to one type of inheritance or the other. The particulate character of inheritance also meant some traits could lie dormant over may generations before circumstances reactivated them. What those circumstances actually were he was hazy on. In this respect Galton's theories could also explain atavism. While not precluding the slow incremental nature of Darwinian selection, he believed that inheritance occasionally produced radically new variants, sports, which were inherently stable and would not lose their character by regressing back toward the population mean. These were the basis for the formation of new races/species. Thus, Galton's brand of saltationism (rapid evolution jumps) neatly combined intergenerational heredity with the origin of new species, and explained atavism as well.

Of particular relevance here are theories proposed by Cesare Lombroso (1835-1909) the most prominent figure in the Italian school of criminal anthropology as it became known (Fletcher 1891; Strahan 1892). Lombroso asserted that certain types of criminality were atavistic in nature, and that they were a throwback to our prehistoric past. Hereditary criminals could be identified by a series of characteristic physical features (heavy brows, overdeveloped jaws, large and particularly shaped ears). Lombroso termed these the stigmata. Behaviour could be equally atavistic, for example body adornment and tattooing - clear signs of an innate primitive disposition (and an atavistic tolerance to pain). Lombroso believed that criminality (= primitiveness) existed in nature and was linked with humans because anthropometric measurements demonstrated that criminals

approached the proportions of apes in many bodily features. Lombroso's views were influential on the continent and in America, but were not widely accepted by the medical community in Britain; they also encountered opposition in France from a strong tradition which saw the root of crime as being environmental (nurture as opposed to nature to use Galton's phrase).
Although the translations of Lombroso's major works were a decade away, his ideas did gain much air time in the learned societies (Anon 1891). In 1890 Havelock Ellis published a *précis* of Lombroso's ideas (Ellis 1890a), but it failed to convince the British establishment. While many were happy with a hereditary element to criminality (Cranfield 2013), its atavistic-prehistoric root was not accepted. There was widespread concern that the stigmata occurred frequently in non-criminals too (Anon 1889, 1891), and the British clinicians had further moral issues. Whereas the Italian school wished to incarcerate criminals as being unredeemable, many UK doctor's felt that attempts to rehabilitate criminals could work – in other words nature was not permanently fixed (Anon 1891; Strahan 1892). Galton reviewed Ellis's book, reminding readers that children were atavars from our prehistoric past and innately criminal in nature (Galton 1890). In *The Adventure of the Copper Beeches* (*The Strand Magazine* June 1892) Holmes gains his insight into the character of the despicable Jephro Rucastle from observing the cruelty of his young son.

The BAAS frequently debated heredity while Doyle was writing the early stories up to 1893, and a number of papers were offered by medical men. Doctor Clouston at the Edinburgh meeting in 1892 argued that the inherited nature of criminality was accepted, but it was primarily a developmental issue (Clouston 1893). Some individuals were more fitted to primitive social systems, and only became criminals when they engaged with modern (city) life. Others were criminals because their development was arrested for some reason before maturity gave them an understanding of the proper codes of modern behaviour. On the other hand Doctor Strahan, who delivered a paper at the 1891 Cardiff meeting (Strahan 1892) asserted that criminality was one manifestation of a broader issue – degeneration. This was seen in epileptics, suicides, drunks and prostitutes, as well as those with tuberculosis, all were guilty by default. Social and racial degeneration figured heavily in the cocktail of anxieties that afflicted late Victorians. Anthropometric studies, such as Galton's were often aimed at generating data to show this.

In fact deep atavism was claimed for children in other ways. Doctor L. Robinson, gave a paper at the Edinburgh BAAS on the *Prehensile Power of Infants.* This was research that had already been aired in a number of scientific and popular periodicals. He claimed the strength in a new born baby's grip was atavistic, a throwback to our earliest primate ancestry (Robinson 1891a, 1891b). They would have needed to grasp branches almost from the moment of birth. His methodology involved hanging children by their arms from poles to see if they held on; a difficult methodology to replicate in the modern research environment. Robinson's lengthy piece in *The Nineteenth Century* would have brought his work to the public's notice as this was a prestigious and widely read general publication. In the following year its science editor, no lesser person than emigre Russian aristocrat and revolutionary Peter Kropotkin (who took over the job from T.H. Huxley), treated readers to an up to the minute discussion on heredity (Kropotkin 1892).

In *The Adventure of the Cardboard Box* (*The Strand Magazine* January 1893) Holmes quickly determines the relationship between Susan Cushing and two other women in a photograph – they are sisters – because of their 'exceeding' similarity. There are other examples of inherited physical similarity (see table 1), and one of difference. In *The Adventure of the Yellow Face* (*The Strand Magazine* February 1893) Holmes and Watson encounter a very modern topic, people's attitudes to racial difference and mixed marriages. The story is one of the most liberal (and uplifting) in late Victorian literature. A white woman, Effie, marries a black man in America (himself possibly of mixed race origins) and they have a child. The little girl's skin colour takes after her father's, but darker. Effie affirms that this is 'often so in such matches'. There is a nod to blending inheritance here, but the dominance of one skin colour over the other may reflect Galton's views. Doyle may well have been echoing a growing frustration at the continued lack of a viable theory of inheritance.

While discussing atavism and heredity one summer evening, in *The Adventure of the Greek Interpreter* (*The Strand Magazine* September 1893), Watson learns that Sherlock's powers of observation are only exceeded by those of his older brother Mycroft. Both inherited them from their grandmother, the sister of a famous French painter. Their gifts are in the blood. The concept of 'in the blood' reflected the more popular understanding of heredity than that in the scientific journals. For example in discussing the source of Professor Moriarty's criminality Holmes asserted,

> '…the man had hereditary tendencies of the most diabolical kind. A criminal strain ran in his blood, which, instead of being modified, was increased and rendered infinitely more dangerous by his extraordinary mental powers.' (Doyle 1989, 436, *The Adventure of the Final Problem*)

And again in *The Boscombe Valley Mystery* (*The Strand Magazine* October 1891):

> 'I would not have his cursed stock mixed with mine; not that I had any dislike for the lad, but his blood was in him, and that was enough.' (Doyle 1989, 173).

There is a nice contradiction here, and not one that can be resolved. In the first quote the use of the word modified suggests that heredity tendencies can be changed. Dr Doyle here allies himself with the British medical establishment against Lombroso. The second quote however gives no scope for redemption, 'blood will out' as the phrase goes. In this quotation John Turner explains to Homes and Watson why he murdered Charles McCarthy. The latter was a blackmailer and a scoundrel, and Turner wished to prevent McCarthy's son from marrying Turner's daughter, afraid that the hereditary taint will affect his daughter's future happiness. Conveniently, Turner forgets he too is a thief and a murderer, and so does not speculate on whether these traits will emerge in his daughter's character.

At the heart of this was the question of whether nature was fixed – that hereditary criminality could never be bred out. How long would a negative trait persist in a bloodline? Galton had already tried to calculate this (Galton 1889). Nina Layard, the future excavator of an *in-situ* Palaeolithic floor at Ipswich (White and Plunkett 2004), addressed this at the Leeds BAAS in September 1890 (Layard 1891). With her usual insightfulness she argued (without stating it openly), that atavism was biologically unlikely. An ever diminishing stock of ancestral material would render atavars increasingly improbable. How much time had to go by before an ancestor's genetic influence vanished?

> '…"The proportion of blood of any one ancestor," we are told "after twelve generations is only 1 in 2,048," and yet a tendency to reversion is retained…' (Layard 1891, 973).

My reading of this short piece is as an attack on unilinear theories of evolutionary development rooted in recapitulation, in effect an attack on the notion that the past can really influence the present (see below). Once more a workable theory of heredity would have answered this. It is easy to understand the appeal of saltation and even Lamarckism to the late Victorian mind set, both could potentially 'breed out' negative ancestral characters relatively quickly. New lines, free of debilitating ancestry, could arise rapidly. In *The Adventure of the Empty House* (*The Strand Magazine* October 1903) Sherlock describes to Watson his own theory of criminal heredity, its antecedents are quite clear.

> 'There are some trees, Watson, which grow to a certain height, and then suddenly develop some unsightly eccentricity. You will see it often in humans. I have a theory that the individual represents in his development the whole procession of his ancestors, and that such a sudden turn to good or evil stands for some strong influence which came into the line of his pedigree. The person becomes, as it were, the epitome of the history of his own family.' (Doyle 1989, 566).

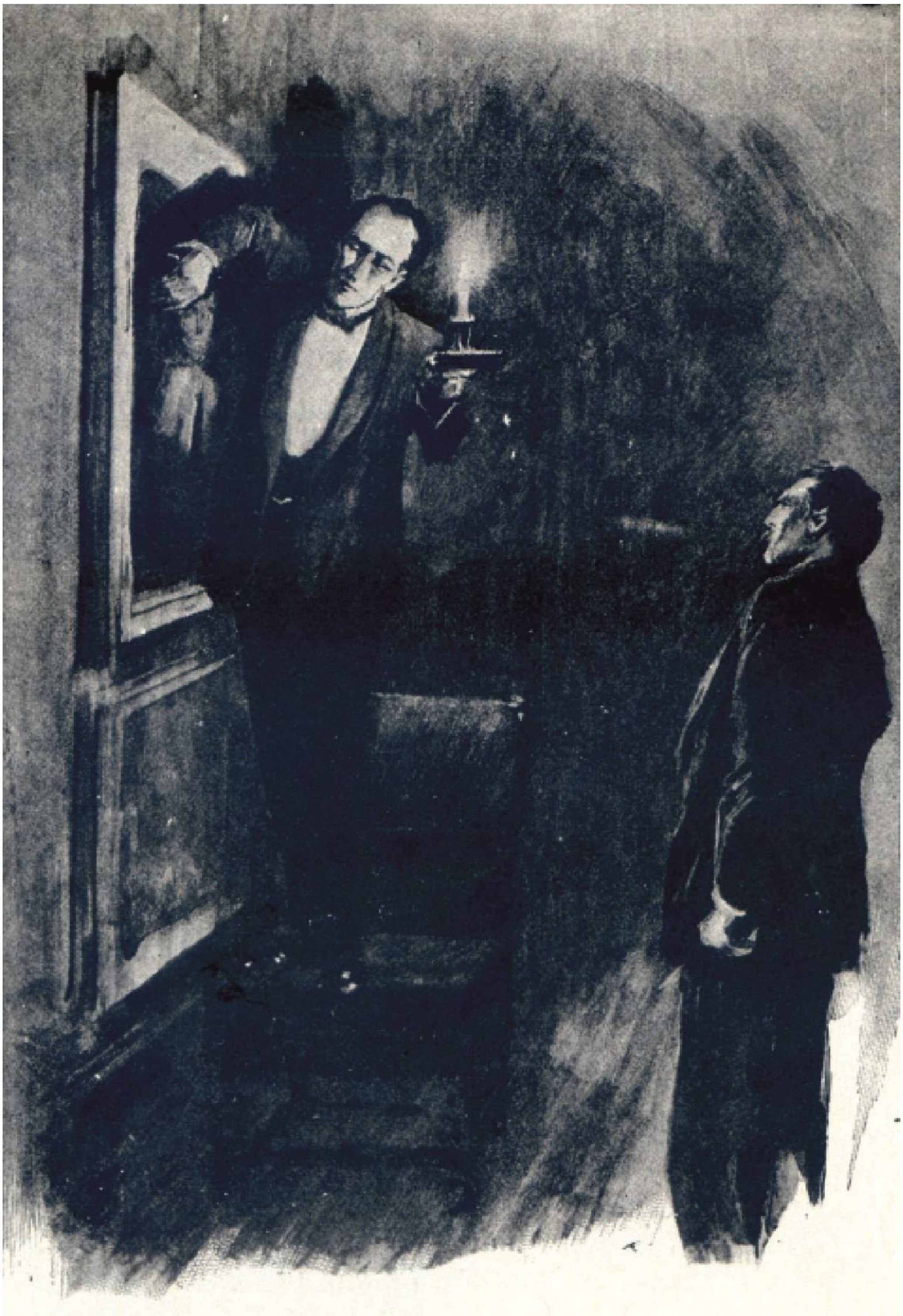
Here Doyle seems to be adapting recapitulation for personal histories, and at the same time incorporating an almost Lamarckian ability for hereditary information to be changed and then perpetuated. In essence this is a fusion of the main hereditary theories around in the early 1890s. What is surprising, is that this was written in 1903, in the post Mendelian world. I will return to this below.

In December 1893 Conan Doyle, bored and frustrated by the character of Holmes, killed off his famous creation at the Reichenbach Falls (*The Adventure of the Final Problem, The Strand Magazine* December 1893). The public then had to wait until 1901 for the great detective's return in *The Hound of the Baskervilles* (*The Strand Magazine* August 1901-April 1902).

In the eight years between the Reichenbach Falls, and the *Hound*, there were major changes in evolutionary biology and anthropology. Between February and December 1893 the philosopher Herbert Spencer (1820-1903) engaged evolutionists in an increasingly acrimonious debate about Lamarckism. Ranged against him were biologists such as George Romanes (1848-1894) and August Weismann (1834-1914; see McNabb 2012, 300–1 for a review of the debate and references). While the debate ranged widely it was focused around Weismann's belief that somatic changes in later life could not be transmitted back to the sealed off germ-plasm (sex cells), rendering Lamarckian inheritance an impossibility. Spencer supported Lamarckism because if offered a quick way for biological and social improvements to be embedded in succeeding generations thus driving social evolution forward more quickly. The debate was fought out on a very public stage – the pages of *The Contemporary Review* another popular topical magazine. Weismann gave the prestigious Romanes lecture in Oxford (Weismann 1894) drawing a waspish response from Spencer to end the debate (Spencer 1894). A point to note here is the public nature of this debate – detailed scientific polemic but presented through a widely read public magazine and a popular lecture series.

Yet another acrimonious debate was fought out in the Royal Society in the middle to late 1890s between former friends all of whom were admirers of Francis Galton. William Bateson (1861–1926) and his supporters were arguing that mutations were the driving mechanism for saltation – discontinuous variation. Saltation therefore explained the rise of new species. Karl Pearson (1857-1936) and F.R. Weldon (1860-1906), the biometricians, were arguing for continuous variation in physical traits, with natural selection working on favourable ranges within the continuity. Gillham (2001) gives an excellent summary of the progress of the debate. It ranged biologists against statisticians and underlined how far this topic had come since the days it was seen as solely an anthropological question. After initial successes for the biometricians, some careful politicking gave the saltationists the whip-hand. Then came the bombshell: Bateson revealed a new theory of heredity to the Royal Horticultural Society on May 8th 1900, one that was gaining rapid support in Europe – the rediscovery of the work of Gregor Mendel (1822-1884). The saltationists seized on it, and claimed it as a vindication of their views. The upshot was the complete collapse of the biometricians and their selectionist agenda. It may have contributed to Weldon's early death, the virtual abandonment of natural selection by biologists, and the retreat of Pearson and Galton to develop Galton's views on eugenics. Table 3 lists the articles on heredity and related topics put before the public in the pages of *The Strand* and *Pearson's Magazine* before and after Doyle's attempt to kill Holmes off. It emphasises a slow but steady drip-feed of pieces none of which really engaged with the sea-change in research.

In archaeology and human origins research, the later part of the *fin de siècle* decade was marked by a number of significant events. The eolith debate was in full swing by the mid late 1890s as Benjamin Harrison (1837-1921) and Joseph Prestwich (1812-1896) and their many supporters attempted to convince the British scientific establishment that eoliths attested to a very early origin for humans. The debate split the Palaeolithic community down the middle (McNabb 2012). Hailed as the missing link, and a possible maker of the eoliths, *Pithecanthropus erectus* was at the centre of a heated debate on its status as a human ancestor, or as an ape (Shipman 2001). Its discoverer Eugene Dubois (1858-1940), toured the intellectual capitals of Europe displaying the Javanese remains and lecturing to the scientific societies (Dubois 1896, 1900). Dubois spoke in Dublin in early November 1895, and finished with a presentation and display of the *Pithecanthropus* remains to the AI on November 25th 1895 in London. Peter Kropotkin kept the public informed with a description of the discovery and its European road show through the pages of *The Nineteenth Century* (Kropotkin 1896).



"'GOOD HEAVENS!' I CRIED, IN AMAZEMENT."

Figure 3. Sherlock Holmes showing Watson the true identity of the killer in *The Hound of the Baskervilles*, by pointing out atavistic facial features on an ancient portrait of Sir Hugo Baskerville. Illustration by Sydney Paget, from Doyle 1989, P533. Image not in copyright.

However none of the above makes it into *The Hound of the Baskervilles*, yet the underpinning of the story is heredity and atavism. The villain Jack Stapleton is a Baskerville in disguise and Holmes recognises him as such from his likeness to a portrait of the evil Hugo Baskerville, figure 3. Stapleton is described as both a physical and a behavioural atavar; he has inherited the evil Sir Hugo's looks and his dark nature.

> 'Yes [says Holmes], it is an interesting instance of a throw-back which appears to be both physical and spiritual.' (Doyle 1989, 566).

Stapleton certainly conforms to Holme's theory of inherited criminality as noted above, at a time when studies of heredity had moved well beyond Lombroso's prehistoric atavism. Although set in 1888, Doyle's portrayal of the leading male characters are mostly as mid-Victorian gentlemen scientists, exemplified by Dr Mortimer, a country GP with research and publication interests in regression and atavism. The understanding of anthropology and heredity in the story is squarely middle Victorian.

After the *Hound*, with very occasional exceptions, there was no anthropological underpinning to the Holmes stories, and few if any references to contemporary scientific debates. This perhaps is best seen in the post-1901 stories that had an opportunity to include these, but did not. Two suffice for illustration. In *The Adventure of the Creeping Man* (*The Strand Magazine* March 1923), surely the silliest Sherlock Holmes story written, an aging professor takes a youth potion made from the spinal fluid of a langur monkey with disastrous results. Physically and behaviourally he becomes ape-like, yet no mention is made of atavism. This story likely reflects the intense interest in rejuvenation by grafting that gripped Europe and America in the 1920s (Rémy 2014; Sengoopta 2003). Similarly, the simian appearance of the pearl thief Beppo in *The Adventure of the Six Napoleons* (*The Strand Magazine* May 1904) is a prime opportunity for anthropological and atavistic observations, but there are none (see Fig. 4 for another example).

Anthropometric studies

Here I have divided heredity and atavism from anthropometrics for simplicity's sake. The division would not have been meaningful to many Victorian researchers. Anthropometrics was the measurement of various parts of the human body, in the belief that metrical data could uniquely identify individuals. Additionally, many believed anthropometrics could distinguish race and ethnicity. Cranfield has suggested that anthropometrics made the criminal 'knowable' (Cranfield 2013).

Anthropometrics provided the raw data upon which both studies of heredity and personal identification were usually based. During his four year tenure as president of the AI, Galton pursued his interests in both through the establishment of a drop-in anthropometrics laboratory in South Kensington. He regularly reported on its progress to the AI and the BAAS from 1888 to 1892 when it closed (Galton 1888b, 1892b, 1888a). Anthropometric papers on measurements, equipment and applications were a staple of anthropological meetings across the 1890s; the BAAS regularly reported on the data from its own annual laboratory set up at each meeting.

Popular body measurements included length of fingers, length of legs and arms. Noses were considered characteristic by some, and Holmes solved *The Adventure of the Golden Pince-Nez* (*The Strand Magazine* July 1904) by reconstructing the nose of the guilty woman from her lost spectacles. *The Golden Pince-Nez* is the only story post-*Hound* that incorporates anthropometrics.

For some anthropometricians it was the ears that were significant. Ears were a favourite of Lombroso, a long ear indicating clear criminality. Havelock Ellis (1890b) warned the medical profession via the *Lancet* of the importance of ears in identifying atavistic criminals. He listed six characters, present in criminals' ears that were also seen in apes. Additionally, a visually prominent ear was common amongst European peasants and black Africans (Ellis 1890a; 1890b).

It has already been noted that in *The Adventure of the Cardboard Box* (*The Strand Magazine* January 1893) Holmes identifies Susan Cushing and her sisters from a family likeness in a portrait. He

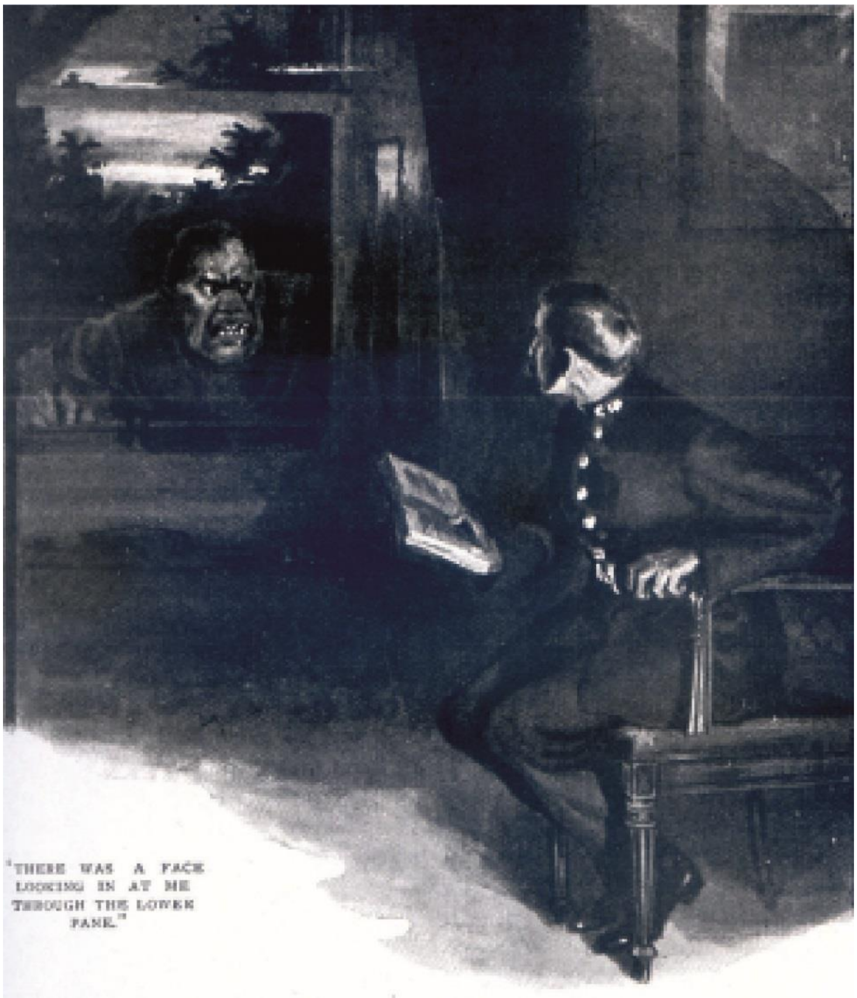

"THERE WAS A FACE LOOKING IN AT ME THROUGH THE LOWER PANE."

Figure 4. A police constable is startled by the appearance of a face at the window. Interestingly the illustrator has drawn a figure more similar to a gorilla than a person, in order to emphasise bestiality and primitiveness. However, atavism and heredity are not mentioned in the text. Story *The Adventure of Wisteria Lodge*. Illustration by Arthur Twidle, from Doyle 1989, P755. Image not in copyright.

further deduces that one of the severed ears sent to Susan in a box is her sister's. They are too alike to be otherwise, figure 5.

> 'As a medical man, you are aware, Watson, that there is no part of the body which varies so much as the human ear. Each ear is as a rule quite distinctive, and differs from all other ones. In last year's Anthropological Journal you will find two short monographs from my pen upon the subject.' (Doyle 1989, 314)

I will finish this section with fingerprints. Although Galton did not invent this field of research (see Gillham 2001 for a discussion on this), he does deserve credit for promoting and developing it. It emerged from his longer standing interests in personal identification. As with most of Galton's interests there was a hereditary aspect to the fingerprint work. He believed that although individual prints appeared unique, there was a basic *bauplan* between twins and siblings which meant they had a heritable component. In addition the fingerprints of blacks appeared less complex than whites. Fingerprints were mentioned in a talk to the Royal Institution in May 1888, but were his main theme for a Royal Society talk in November 1890 (Galton 1891a), reworked for popular consumption in *The*

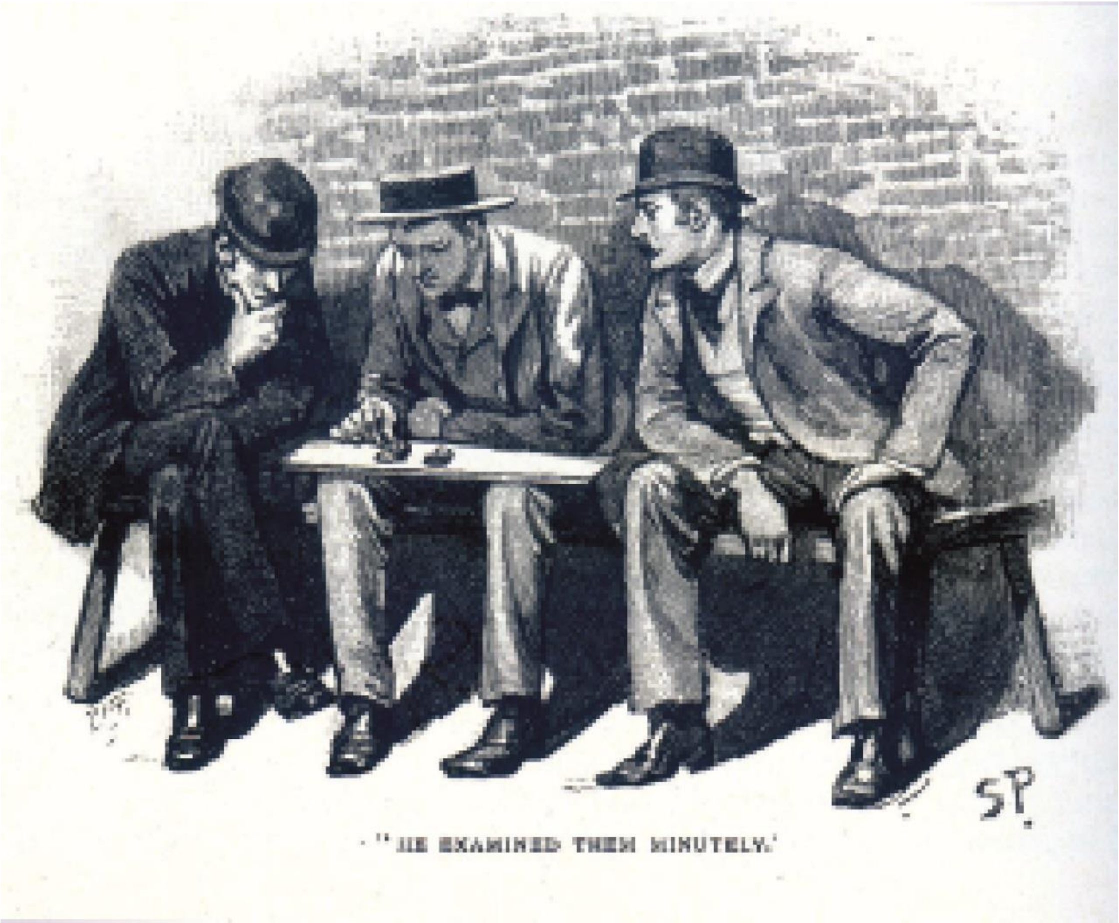

"HE EXAMINED THEM MINUTELY."

Figure 5. Holmes (centre), and Watson (right) examine the severed ears sent to Susan Cushing. The similarity of one of them to Susan's own ear will allow Holmes to determine a family resemblance. Inspector Lestrade looks on perplexed. *The Adventure of the Cardboard Box*. Illustration by Sidney Paget, from Doyle 1989, P310. Image not in copyright.

Nineteenth Century (Galton 1891b). The early phase of this work culminated in his book on the subject (Galton 1892a). Indexing was the key, Galton aimed at a way of simply classifying and cataloguing the various shapes seen in the prints (Galton 1891c). Efficient cataloguing was also the key to the only other personal identification system in use in Europe at the time, that of Alphonse Bertillon (1853-1914), whose system had been adopted by the Paris police in the 1880s with great success (Galton 1888b, 1888a). It is not difficult to see why Galton liked the system, it was based on anthropometric measurements of individuals, who were then catalogued via an ingenious card-indexing system. Photographs were included. On 22nd April 1890 Bertillon presented the details of his system in person to the AI in London (Mouat 1891).

In *The Adventure of the Naval Treaty* (*The Strand Magazine* October-November 1893), while on a train journey with Watson, Homes expressed his approval of the Bertillon system, and in particular the anthropometric measurements it involved. There is no immediate context for this reference in any of the eight trigger sources consulted (table 2). The story was written between Christmas 1892 and April 1893, and Galton's book was being widely and favourably reviewed at this time. So much so that a government committee – the Troupe Committee - was set up in late 1893 to investigate the uses of fingerprints in detection (Gillham 2001). They visited Galton's lab and recommended their use, but also suggested that the cataloguing system be that of Bertillon. By this time Doyle had already killed Holmes off at the Reichenbach Falls.

Bertillon was mentioned once more in the canon. In the *Hound*, Holmes was irked to hear that Dr Mortimer considered Bertillon's methods to be more scientific than his own, an allusion to the measurements it used. The context here is interesting. A second government committee – the Belper committee – voted in 1900 to adopt the fingerprint system, but following the classification of Edward Henry (1850-1931) a senior police officer from Bengal. He was appointed Assistant Commissioner of police in Scotland Yard in May 1901 and fingerprinting was formally instituted in July. It is precisely this time period that Doyle was writing the *Hound*. Despite Holmes/Doyle's regard for Bertillon, it is perhaps no coincidence that a warning is later sounded. In *The Adventure of the Norwood Builder* (*The Strand Magazine* November 1903) a false fingerprint is planted by the odious Jonas Oldacre to convict an innocent man of murder. Oldacre's criminal credentials are emphasised by descriptions of his ape-like appearance, but it is Holmes' powers of observation and not the new criminal science that save the day. Although empirical science may have made a criminal 'knowable' as Cranfield asserts (Cranfield 2013), it is the superiority of deduction that actually reveals the malefactor.

Discussion: Sherlock Holmes in context

To generalise – the early Victorian period (herein 1837 – 1859/1860) was a time of relative certainty in a fixed world. The industrial revolution was the anvil against which empire was forged; trade and manufacture were on the up and the old order of church and state, town and country seemed natural and God-given, at least to the social elites of Victorian society. The threat of change and social unrest in the 1830s and 1840s had to be resisted in order to maintain the sanctity of the *status quo*.

In the two Darwinian decades of the middle Victorian period (1859/1860–1880) this changed as the establishment of a deep antiquity for human kind, the concept of Prehistory, and the reality of evolutionary change became increasingly accepted. The oldest evidences for humanity were the artefacts of the River Drift, handaxes in the gravels of ancient rivers accompanied by extinct animals. They dated to a time when humanity was little more than an animal itself. Now the certainties of the early Victorian era began to erode. A major social concern was the permeability of boundaries (Bernstein 2001). Darwin's concept of species as being resting moments in a continuum of change undermined the idea of a world made up of fixed and discreet categories. Descent with continuous modification began to permeate the social sphere destabilising former certainties like race, empire and social class. Bernstein argues persuasively that the literature of the middle Victorian period reflects concerns about liminality as the implications of common ancestry began to sink in. But the middle Victorian era still had its exit strategy. Darwinian transformation was gradual and incremental, but always progressive. If these decades lost the belief in the perfection of divine creation, at least the public's understanding of evolution could still put the English at the top of the social and racial tree. Archaeology supported this. For example, general Pitt Rivers (1827-1900) displayed his extensive ethnographic collection between 1874 and 1878 at the Bethnal Green Museum in the heart of working class London with the deliberate aim of showing the working classes that the natural order of progressive change was slow and stately (Bowden 1991; McNabb 2012).

However, the late Victorian era (1880-1901) was different. These were the *fin de siècle* decades, a time of individual and social uncertainty as the familiar power structures and confidence of earlier times came under increasing attack (Brantlinger 1985). The age of the River Drift artefacts was being pushed further and further back. Some held there were even older stone tools – the eoliths. What kind of creature could have chipped these dawn-stones?

Darwin's selectionist agenda (natural and sexual) was by this time unpopular as the *fin de siècle* zeitgeist moved away from the safe and the steady. Strict readings of *The Origin of Species* (sixth edition 1872) and *The Descent of Man* (1879 reprint of the second edition) powerfully re-emphasised that Darwin had never advocated a progressive evolution leading to perfection. He did not guarantee the inevitability of superiority. Rather he had advocated diversity and contingency, but the Victorian public wasn't comfortable with this as it left hubris to chance. A viable theory of inheritance would have taken some of the uncertainty away, but it continued to elude late Victorian science (Bowler 2003). Saltation, sports and Lamarckian inheritance were widely touted as mechanisms of hereditary change, and under these theories change could be quick, and devastating.

The literature of the late Victorian era reflected this broad uncertainty (see especially Murray 1993). H.G. Wells' writings from 1895-1901 centred on the darker implications of dramatic change (McLean 2009; McNabb 2012; Philmus and Hughes 1975). The 1890s were the decade of *The Time Machine* (1895), *The Island of Doctor Moreau* (1896), *The War of the Worlds* (*Pearson's Magazine* April-December 1897), but also of Conrad's *The Heart of Darkness* (*Blackwood's Edinburgh Magazine* February-April 1899) and Bram Stoker's *Dracula* (1897). The old fear of permeable boundaries (now including social, racial, political and moral) was present in all of these works, except that in the late Victorian period science seemed to be validating that permeability (Bateson 1894; Ellis 1890a; Galton 1889). In this vein, if *Dracula* was an invasion of the present by a superstition haunted past (Carroll 2016), then Wells' homicidal atavar in *Our Little Neighbour* (*New Budget* April 1895) was an invasion into modernity of a darker and more ancient biological truth.

Whiteness, maleness, Englishness, being born in the Home Counties to wealthy parents with a good pedigree, going to public school; these were not the absolute guarantees of superiority they once had been (Davie 2003). The very fact of empire was no longer proof of social and moral superiority. This is exemplified in Conrad's masterful *The Heart of Darkness.* Amid the racism and the fear of the Palaeolithic beast within (McNabb in prep), there is a none too subtle condemnation of the failure of empire. It should have exemplified the reality of social and racial superiority, a barrier that kept the 'other' at arms length, but that had failed. The other was not just to be found amongst those with dark skins and who lived in far off lands; the other lurked, unwashed and alcohol sodden in the pubs and slum tenements of Whitechapel. The failure of the concept of empire figured in a number of popular fantasy stories of the time. For me the most powerful is Cutcliffe Hyne's *The Lost Continent* (*Pearson's Magazine* July-December 1899). It sees the last moral aristocrat in a doomed Atlantis battle the forces of modernity and the degeneration that accompanies it in the person of the Atlantean empress Phorenice – one of the greatest female baddies of all time. The Atlantean world and its immoral and degraded populace is a thinly disguised late Victorian London.

The truth of descent with modification and recapitulation meant that we carried the past around with us. Respected scientists such as Weismann (Weismann 1893) and Galton (Galton 1889) were continuously reminding the public of this. But in the late Victorian period science was telling them that the other was even closer than they'd imagined. T. H. Huxley and H. G. Wells argued that the veneer of civilization was actually very thin and the lurking primal beast lay very close to the surface in all of us (Huxley 1894a, 1894b; Wells 1896). The makers of the River Drift handaxes, perhaps even the eoliths, were still with us. Only culture and education could keep them at bay, but then even the cultured and superior Mr Kurtz had succumbed to the call of the primal forest in *Heart of Darkness*. Ramping up late Victorian angst, this meant that criminality and primitiveness may have been inherent in every one, not just those who fitted the picture put forward by Lombroso. This also played to the fear of permeable boundaries. Not all criminals were going to look like Enoch Drebber from *A Study in Scarlet*. The blackmailer Milverton had something of Mr Pickwick about him (*The Adventure of Charles Augustus Milverton, The Strand Magazine* April 1904), and Baron Gruner deserved his European reputation for beauty (*The Adventure of the Illustrious Client, The Strand Magazine* February-March 1925). This was good stock gone wrong. Moriarty was a good example of this.

Here I think reception studies begin to explain the impact of Sherlock Holmes on Victorian readers. Conan Doyle was a dyed-in-the-wool imperialist (Lycett 2007) and a believer in the superiority of the Anglo Saxon race. Holmes is the personification of everything that is good about the imperial project. He is brave, loyal, idealistic. He has a sense of right and of justice. He defends the weak and the innocent against the powerful. He may be something of an outsider, and sometimes work outside of the law, but he fights for the things that the empire stands for, a reminder that if the framework was sometimes broken, the foundations were solid. He was 'living' proof that heredity and inheritance could produce superiority (his maternal line and his brother Mycroft), at the same time as showing the desirability of that superiority. Holmes is proof positive of the upside of race, heredity, empire and breeding - a direct counter to Duesterberg's collective and individual sense of *fin de siècle* alienation (Duesterberg 2015). Watson is Holmes' foil, but he too fulfils the same role; solid, middle class, a self-made man – dependable, loyal, an imperialist who took a bullet for Queen and Empire. He is the opposite of everything Holmes is, but he is equally the epitome of the imperial project, and he had that public school sense of duty that kept district commissioners at their posts in the farthest corners of lonely Empire when any sane man would have deserted.

In this sense Sherlock Holmes works as a conceptual 'space' in the same way that Duesterberg (2015) and others argue that archaeology worked as a subject in the Victorian world. Archaeology validated the late Victorian present, propping it up as it sagged under the weight of *fin de siècle* angst. Empires came and went but their existence, as revealed by archaeology, showed that the imperial project was 'right'. They were an inevitable result of superiority and so a part of the natural order. Their hierarchies, aristocracies, kings and emperors, their trade and military prowess; all were revealed through archaeology. Brantlinger's (2011) views the lost civilisations of Rider Haggard novels (Murray 1993) as a 'reactionary utopianism' designed to bolster Haggard's belief in the correctness of authoritarianism and empire. Perhaps not surprisingly then, lost worlds/races fiction proliferated between the 1870s and the First World War (*ibid*), far more so than any time before or after (Becker 1992). This trope offered the opportunity to reinforce the present by projecting modern values and power structures back onto the past.

The Victorian conceit, however, was that their Empire would never fail because they were the top of the evolutionary tree. The public's persistent miss-characterisation of evolution allowed them to construct their identity as the culminating end of the historical process. Doyle makes Sherlock the epitome of everything in the present that is good, thus validating the historical process by showing it at its culminating and reassuring best.

If reception analysis reveals how consumers drew meaning from Sherlock Holmes it also excavates one of the conduits by which this meaning was meted out to the general public, namely popular culture.

In *Inventing the Caveman*, Andrew Horrall convincingly shows how the immensely popular music hall comedian George Robey caricatured the idea of a River Drift 'man' (Horrall 2017). In 1902 he performed a sketch called 'The Prehistoric Man' in which he won his future bride with a stout club. The sketch was a massive hit and was endlessly copied, and the original went through many changes in a long shelf life. But it took at its heart the modern insular family, monogamy and the dutiful wife, and Horrall shows how, through humour, Edwardian racial, gender and socio-sexual stereotypes were given the authority of an ancient pedigree in the minds of the audience. The image of a hairy club wielding male with an animal skin thrown over one shoulder became *the* staple image of human origins, and still is.

Robey's inspiration may have come from an earlier projection of the present into a validating past. E.T. Reed's 'Prehistoric Peeps' were a series of cartoons in *Punch*. They first appeared in 1893 to great acclaim and gained a world wide following. They remained incredibly popular for the next quarter of a century. Reed sent up any and all social institutions, from billiards to the boat race. It is difficult now to comprehend how influential they really were, but, together with Robey, and all their imitators, they gave a pedigree to what was instinctively felt to be right – the Victorian/Edwardian pattern of life. The remote past became less dangerous as it grew more familiar.

These examples of the repackaging of deep history illustrate well Duesterberg's (2015) contention that a conceptual space existed in between the aspirations of the makers and distributors of archaeological knowledge (archaeologists, museums, popular periodicals/lectures) who marketed their product through popular culture, and the consumers of that knowledge - the public who had their own agendas. The contested and negotiated space in between was a compromise between the two poles. The public wanted a past that validated the present and so the contested space in the middle was actually about creating identity – or in this case perhaps more about validating it.

The key here is that this rebranding of the River Drift through popular culture was successful because it was personalised in a way that museums were not. A walk through the British Museum or the Pitt Rivers collection at Bethnal Green was a trip into the past through a series of objects arranged to show incremental changes over time. The museums helped the consumer understand antiquity as a process (which the public then saw as one leading towards inevitable superiority). But the crudely chipped handaxes of the River Drift, the era of extinct mammals, and the eoliths of *Pithecanthropus* were too remote, too unfamiliar. Their makers were the incomprehensible other, the very same creatures whose atavism Holmes and Watson battled in the pages of the Strand. Hence the popularity of Robey and Reed. Popular culture personalised the River Drift in a way the archaeology could never do, and at the same time brought deep history into line with the more easily understood archaeology of later Prehistory and the classical civilisations. As with these, the archaeology of the River Drift could now do what it was supposed to – reassure the public that all was well. Just as Sherlock Holmes was doing.

We see the attitude to this unfamiliar other reflected in the infrequency of Palaeolithic/Prehistoric fiction in the popular British magazines of the Victorian era, by comparison with those of other countries. In his ground breaking study, *The Fire in the Stone*, Nicholas Ruddick shows how pf (prehistoric fiction as opposed to sf – science fiction) began not surprisingly in France in the 1860s (Ruddick 2009). It remained popular from then on, a clear reflection of the greater numbers of Palaeolithic discoveries in France linked to national pride. America too had a strong pf tradition where it offered the opportunity to emphasise superiority and individual self improvement, qualities at the heart of 19th- and 20th-century America.

But in Victorian Britain pf was less visible. Ruddick cites only three stories; Andrew Lang's *The Romance of the First Radical: A Prehistoric Apologue*, published in *Fraser's Magazine* September 1880; *Zit and Xoe: Their Early Experiences* by Henry Curwen published in *Blackwood's Edinburgh Magazine* April – May 1886; and H.G. Wells' *A Story of the Stone Age* published in the *Idler* May-September 1897. Many of the expected Victorian tropes are present – social evolution through gifted individuals (the 'big man' concept), the conquest of nature, the advancing role of technology, the triumph of inherent superiority over atavism, but they are ultimately bleak stories, rooted in British *fin de siècle* pessimism. The difficulty of empathising with the remote past is emphasised in Zit and Xoe when the pair decide not to tell their rapidly evolving children about their origins.

> 'Why should we degrade them so terribly with the tale of our mean origin? They are what they are, thanks to us; let them thank us for ever more.' (Curwen, H. 1886. *Blackwood's Edinburgh Magazine*, May, 634).

For the English Victorians there was something unpalatable about a distant evolutionary past where the mores of their society were unrecognisable and what is more had no place. The River Drift was just too old for the projection of the present back into the past to work. But the satire of Robey and Reed could overcome that.

This unsavoury after taste left by contemplating human origins was also expressed in one of the great sf novels of the late Victorian era, George Griffith's *Stories of Other Worlds* (*Pearson's Magazine*, January-June 1900; published in book form as *A Honeymoon in Space* 1901). Newlyweds honeymoon around the solar system visiting the planets, each of which is at a different stage in the evolutionary process. On Saturn they encounter ape-like creatures that may one day evolve into humans.

> 'We…[says Zadie the bride]… - especially the women – have *as*cended from that sort of thing, if there is any truth in the story at all; though personally, I must say I prefer dear old Mother Eve.' (Griffiths, G. 1900. *Pearson's Magazine* January-June, 533).

The newlyweds discuss human evolution:-

> '…[Lenox the husband]…'I'm heretic enough to believe it possible that your ancestors even millions of years ago, perhaps, may have been something like those; but then, of course, you know I am a hopeless Darwinian'.
> "And therefore entirely horrid…" [replies Zadie]'. (Griffiths, G. 1900. *Pearson's Magazine* January-June, 532-533)

Conclusion

The Lower Palaeolithic as we would define the River Drift today is a formative phase in human evolution but for the Victorian public it was too remote and difficult to empathise with. It was seen as a brutal and primitive time, one which evolutionary progress should have left far behind. Many Victorians would have found confronting it uncomfortable let alone accepting that the Palaeolithic beast was still with us, perhaps very close to the surface. Reception studies show that only through humour and satire could the other be made less frightening, and at the same time restructured to achieve a purpose – that of validating a threatened present by creating an identity that had a very long pedigree.

Conan Doyle did not include much human origins in his Sherlock Holmes stories despite his interest in the subject. They weren't really necessary to his story lines and the topic may have been distasteful to many readers. The editors and publishers of *The Strand Magazine* were nothing if not market savvy. However he did engage with anthropological themes, in particular heredity, atavism, inherent criminality and the empirical methods by which they could be recognised. If the physicality of ancient hominins and their material culture were not useful, then the persistence of their behaviours into modern times were very much a part of his plots. In this sense these anthropological themes explored the behavioural legacy of the River Drift other. Unlike the affirmative identity created for Sherlock Holmes, or the equally identity validating role of archaeology in general, this anthropological space was a conflicted and ultimately threatening one. It was exploited by a literature which engaged with conflict, anxiety and unresolved fears about the bestial nature of humanity. This conceptual/contested space was permeated by the fear that the past still controlled the present and would dominate the future too. Here, humour triviality and the affirmation of contemporary values were not enough to allay the fear that evolution had failed to breed out the beast within. If the negotiation of identity was able to make the archaeology safe, it couldn't quite achieve the same with the anthropology.

Finally, why the clear change in emphasis in the Sherlock Holmes stories after 1901? The sea change after the backward looking *Hound of the Baskervilles* is quite marked, but as yet unexplained. After the turn of the nineteenth century heredity became a hard science as did the emergent evolutionary biology. The anthropology of human nature would have had little place there, and a former doctor increasingly interested in spiritualism might not have wanted to keep up with the latest developments? Or is there some other reason? Perhaps this is a mystery worthy of a great detective?

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Theme	Described topic	Story	Ape-like	When written	Year Published
Aspects of evolutionary theory	Darwin on music	Study in Scarlet		March-April 1886	1887
	Universe ruled by chance	The Cardboard Box		Finished by mid-summer 1892	1893
	Weak go to wall in business	Thor Bridge		After May 1921	1922
Anthropometrics (also relevant to heredity and atavism)	Monograph on the hand	Sign of Four		September-September/October 1889	1890
	Monographs on the ear in Anthropological Journal	The Cardboard Box		Finished by mid-summer 1892	1893
	Holmes' lack of frontal development	Final Problem		April 1893	1893
	Comments on Bertillon system	Naval Treaty		Christmas 1892-April 1893	1893
	Dr Mortimer's comments on the Bertillon system	Hound of the Baskervilles		April-mid Summer 1901	1901
	Stapleton is an atavar of Sir Hugo Baskerville	Hound of the Baskervilles		April-mid Summer 1901	1901
	Dr Mortimer's publication history	Hound of the Baskervilles		April-mid Summer 1901	1901
	Finger prints	Norwood Builder	yes (below)	March-May 1903	1903
	Shape of noses	Golden Pince-Nez		Early 1904-April 1904	1904
Inheritance - behavioural & physical atavism	Enoch Drebber	Study in Scarlet	yes	March-April 1886	1887
Inheritance - behavioural	Savage instincts of Tonga win through	Sign of Four		September-September/October 1889	1890
	Cursed blood - Old John Turner's description of James McCarthy	Boscombe Valley Mystery		April 1891	1891
	Parent's and children's character ascertained by a study of either about the other	Copper Beeches		Xmas 1891 - January 1892	1892
Inheritance - physical	Susan Cushing's portrait with her sisters	The Cardboard Box		Finished by mid-summer 1892	1893
Inheritance - physical - racial characteristics	Little girl's skin colour darker than her father	Yellow Face		Early summer 1892?	1893

Inheritance - behavioural	Sherlock and Mycroft's observational powers from grandmother	Greek Interpreter		Xmas 1892-April 1893	1893
	Moriarty's inherited criminal tendencies	Final Problem		April 1893	1893
	Holmes' theory of personal criminal development	Empty House		March-April 1903	1903
Inheritance - physical - racial characteristics	Description of Ferguson baby mixture of Latin and English	Sussex Vampire		Sometime in 1923	1924
Physiognomy	Description of Colonel Moran	Empty House		March-April 1903	1903
	Mrs McFarlane's description of Jonas Oldacre	Norwood Builder	yes	March-May 1903	1903
	Description of John Scott Eccles	Wisteria Lodge		During April 1908	1908
	Description of Mycroft	Bruce-Partington		Autumn 1908	1908
	Description of Count Sylvius	Mazarin Stone		After May 1921	1921
	Description of Mr Gibson	Thor Bridge		After May 1921	1922
	Description of Miss Dunbar	Thor Bridge		After May 1921	1922
	Description of Baron Gruner	Illustrious Client		No data guess 1924	1925
	Description of Leonardo the strong man	Veiled Lodger		November 1926?	1927
	Description of Josiah Amberley - a behavioural atavism is implied	Retired Colourman		September-December 1926	1927
Racial/gender descriptions, stereotyped but not atavistic or hereditary	Highly inaccurate description of Andaman islanders	Sign of Four		September-September/October 1889	1890
	Immobility of countenance of ‘Red Indians’	Naval Treaty		Xmas 1892-April 1893	1893
	Welsh girl - fiery and passionate - mentioned twice	Musgrave Ritual		December 1892	1893
	Two descriptions of Beppo	Six Napoleons	yes	Before summer's end 1903	1904

	Description of Daulat Ras - Indian student	Three students		New year - end April 1904	1904
	Qualities of a 'white man'	Abbey Grange		Early 1904-April 1904	1904
	Creole woman - passionate and fiery temperament	Second Stain		After May 1904	1904
	Description of the Tiger of San Pedro	Wisteria Lodge		April 1908	1908
	At least two descriptions of the cook – given gorilla like appearance by Strand illustrator	Wisteria Lodge	yes	April 1908	1908
	Racial descriptions of Latins as quick witted, foreigners as suave etc.	Wisteria Lodge		During April 1908	1908
	Brenda Tregennis dies first because she is a woman	The Devil's Foot		spring-early summer 1910	1910
	Description of Mrs Gibson - several	Thor Bridge		After May 1921	1922
	Description of Mrs Ferguson	Sussex Vampire		Sometime in 1923	1924
	Steve Dixie the henchman, racist characterisation	Three Gables		Possibly September 1926	1926
	Describing money lenders as Jews	Shoscombe Old Place		September to December 1926?	1927
More difficult to classify	Professor Presbury – main theme more akin to physical plasticity than to atavism, several allusions	Creeping Man		No data - guess 1922	1923
	Mr Garrideb's Flints and fossil collection - only direct reference to human origins	Three Garridebs		No data but likely sometime 1924	1925

Table 1. A list of the Sherlock Holmes stories containing references to evolution, human origins and other themes relevant to Victorian anthropology. The list is not intended to be definitive and reflects my own interpretations of these themes. Broader archaeological references and later Prehistoric themes (e.g. Neolithic Dartmoor, arrowheads etc.) are not included. A number of stories contain more than one theme and may appear under two or more headings. The basic themes are presented in the left hand column.

Periodical consulted	**Reason for choice**
The British Medical Journal	These were the main periodicals for the medical profession outside of more specialist or focused publications. They are the two most likely to be read by a GP and they reflected themes current themes affecting the medical profession. The BMJ was a bit more 'newsy'
The Lancet	
Journal of the Anthropological Institute of Great Britain and Ireland	The primary anthropological journal of the late Victorian period, and beyond. It covered a wide variety of topics and reflected any and all subjects currently of interest to anthropologists including human origins and archaeology, heredity, and ethnography.
The Nineteenth Century	A widely read periodical reflecting current affairs and topical issues aimed at the general public. Articles were written by leading thinkers and provided detailed arguments on polemical issues.
Reports of the British Association for the Advancement of Science	The British Parliament of Science as it was known. An annual meeting covering every aspect of the physical and behavioural sciences in Britain. It was the weathervane of what was trending in the scientific establishment. Anthropology had its own section, section H, and its lecture list reflected the themes most widely debated in science that year. Its reports were published annually
Natural Science	A science periodical that sat part way between the journal *Nature* with its emphasis on reporting detailed scientific results and correspondence, and something like *The Contemporary Review* or *The Nineteenth Century* with its broader public appeal. H.G. Wells wrote occasional pieces for NS, as did Weismann.
The Strand Magazine	Both of these were widely read topical periodicals with a strong emphasis on fiction and current news. Occasional science pieces written for mass consumption. Both periodicals would reflect/present the general public's understanding of scientific debates. Pearson's was set up to cash in on the same market as the Strand, and was its only real rival.
Pearson's Magazine.	

Table 2. Eight Victorian publications from the 1890s which between them ranged from the most up to date scientific discourse, to more general periodicals, aimed at the public, but from which understandings and opinions on anthropological and evolutionary themes would have been drawn. We do not know which if any of these publications Conan Doyle would have read or consulted. During the 1880s and the early 1890s, as a GP and struggling writer, the medical journals are a good

bet, but as his popularity grew, and he finally abandoned medicine, it may well be that he stopped regularly taking the *British Medical Journal* and the *Lancet* and broadened his scope.

Month/Year	The Strand Magazine Volume and article	Pearson’s Magazine Volume and article
January–June/1891	1	
July–December/1891	2	
January–June/1892	3	
July–December/1892	4	
January–June/1893	5	
July–December/1893	6 Anon ‘A Chapter on Ears Pts 1&2.’ pp 388–391 and 525–527 Alludes to anthropometrics and criminality. Asserts siblings ears dissimilar, *contra The Adventure of the Cardboard Box*.	
January–June/1894	7	
July–December/1894	8	
January–June/1895	9	
July–December/1895	10	
January–June/1896	11 O’Dell ‘Character in Noses.’ pp 78–82. Mention of criminality and Lombroso. Character of celebrities from their noses.	1
July–December/1896	12	2 Kenrick ‘Is Habit Hereditary?’ pp 764–765. Affirms habits can be hereditary. Questions responsibility for criminal habits
January–June/1897	13	3 Schooling ‘Which is the Cleverest County?’ pp 35–41. Data from biographical dictionary. Schooling ‘Which is the Maddest Part of the Kingdom?’ pp 183–188. Alden ‘Wisdom Let Loose.’ pp 404. Satirical piece on human body hair and loss of ancient fur
July–December/1897	14	4 Schooling ‘Is Length of Life Increasing?’ pp 30–33. Compiled from Registry of Births, Marriages and Deaths
January-June/1898	15	5
July–December/1898	16	6 Hopkins ‘How Criminals are Identified’ pp 306–312. Detailed description of Bertillon and incorporation of Galton’s fingerprints. Repeats conclusions of Troupe Committee
January–June/1899	17	7 Fryers ‘The Manufacture of New Flowers’ pp 144–148. Cross

		pollination and breeding
July–December/1899	18	8
January–June/1900	19	9
July–December/1900	20	10
January–June/1901	21 Bacon ‘Has Baby a Clever Head?’ pp 490–496. Phrenology	11

Table 3. Items on heredity or related subjects in *The Strand Magazine* and in *Pearson’s Magazine* (both monthly), two of the most popular and widely read general periodicals of the late Victorian period. The table covers the time that the early Sherlock Holmes stories were written, and also the period after the Reichenbach Falls and the lead up to *The Hound of the Baskervilles* in 1901. Articles on the science of heredity, and related topics, were not particularly frequent, but the public’s interest was nevertheless maintained by occasional entries.