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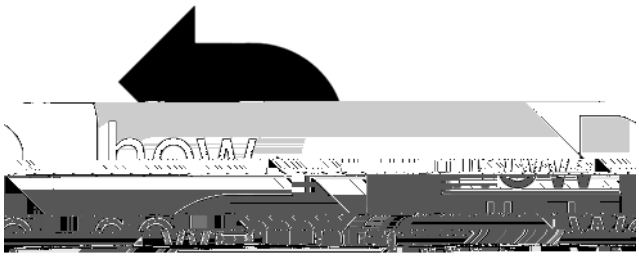
How The Mind Worked: Some Obstacles



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How The Mind Worked: Some Obstacles And Developm

that one can really talk of ‘large scale’ communication of science, explicitly addressed by its authors not just to specific audiences but to the general public (‘grand public’)” (Bucchi 1998, 2). By scholars of what has come to be known as science studies and to a lesser extent by historians of science (these being, at their boundaries, interchangeable fields), the

a definitive characteristic of the genre. His chief complaint with later popularisations is their failure to incorporate a scientific worldview which might act as a substitute for outmoded religious worldviews. However, in contrast to Burnham's pessimism, since the publication of *How Superstition Won*, much mainstream popular science writing has become increasingly oriented towards "holistic" or "unifying" themes – in some cases leading to qui

increasingly commercialised until it is without scientifically credible content. Epistemological decay is inevitable (says Burnham) as popularised science becomes a commodity, a saleable brand. (Thomas Gieryn, independentnb7eCa

continuous with the expected intellectual range of the general intelligent

to teach science without the theory of science (including the sceptical, materialist worldview) is not to teach science at all.

In the popular imagination, the sci

psychology suffers (in the 1940s as much as the 1980s) for want of theoretical orientation.

In a more general sense (that is, not specifically concerned with the popularisation of psychology but with public knowledge generally), this position is informed and preceded by a piece on the Popular Lecture written by J. G. Holland in 1865.[6] “For facts alone the modern American public does not go hungry,” claims Holland. But facts, he goes on to say, are not what the public want: “Men wish for nothing more than to know how to classify their facts, what to do with them, how to govern them, and how far to be governed by them.” So far as Holland sees it, “the man who takes the facts … and organizes around them the popular thought, and uses them to give direction to the popular life, and does all this with a masterful skill, is the man whose houses are never large enough to contain those who throng to him” (Holland 1865, 367). In other words,

of his argument. Steven Pinker's *How The Mind Works* (1997) is an exemplary case, where the text is carefully structured around a larger hypothesis. Discrete facts are not intrinsically valuable for Pinker, and *How The Mind Works* is not simply a litany of granular, isolated snippets of information, but is instead presented as a coherent and forceful promotion of a "scientific worldview" (albeit a controversia

responses indicative of certain mental states may be very useful indeed. There is a very large body of popular instructional literature (loosely) based upon what psychology can tell us about social behaviour, Dale Carnegie's *How To Win Friends and Influence People* (1936) being the paradigm case.

practices and terminological conventions which are unique to their discipline, and which set them apart from doctors, geographers, carpenters (etc.), but which nonetheless do not align them with such laboratory sciences as physics, biology, and chemistry. Woodward’s

requirement that it be a strict science is less sharp, and the role (and practical toolkit) of the psychiatrist bears no necessary relation to the findings of (scientific) psychology. The scientisation of psychology, then, proceeds with or without the scientisation of psychiatry.[10]

At any point along this history, what is understood by (and what is meant by) "psychology" is in flux. These various versions of psychology are not successive, one replacing the other, but multiple, one beside the other. Psychiatry branches out from psychology, but both persist, and whilst practitioners of either psychiatry or psychology know the difference between each other, the public may not.[11] To popularise psychology at the point when it was not clearly distinguished from psychiatry will produce a very different text, selecting different facts and presenting them in a manner suitable for addressing different issues and answering different questions. How a doctor communicates medical information to a patient will be different from how a scientist communicates similar information. How a salesman describes a technology will be different from how an engineer does. The appearance of a "popular psychology" occurs during the period when these descriptive vocabularies overlap.

The emergence of psychology as a professional discipline occurs when the technical complexity of psychology is such that the community of persons able to comprehend pronouncements from psychology is gradually restricted to the set of persons identified as professional

[10] Hence Freud is rejected from the canon of academic psychology quite early (eg, Joseph Jastrow in 1935 says, "Freud has ignored the academic psychologists and they have returned the compliment. They find his premises so unsupported by any naturalistic foundations, his conclusions so vitiated by false logic, that most of them reject his structure completely" [Jastrow 1935, 266]. Nonetheless, Freudian psychoanalysis remained a tool of the practicing psychiatrist. Like the doctor, the psychiatrist is pragmatic: use matters more than truth, and if it emerges that some practical benefit can be wrought from an understanding of the human mind-brain, then so be it, but therapeutic application is by no means the chief aim of psychology.

[11] One commentator notes that "[i]t is entirely possible that 1930s editors did not know the difference between a psychologist and a psychiatrist" (Burnham 1987, 99); although it seems a safe wager that even today most people would have an only vague idea.

psychologists: for the process of professionalisation and eventual scientisation also marks a shift in the nature of the popularised material issued by psychologists, so a secondary effect of Woodward's distinction between professionalisation and scientisation (mentioned above) is to help to identify the point at which popularisation becomes more than abbreviation – that is, the point at which the professional language of the discipline's practitioners becomes (largely) incomprehensible to non-specialists coincides with the point at which that discipline has become scientific. The emergence of experimental psychology in the 1890s, replacing the old "sciences of the mind"[12] and providing a platform from which to reject or accept existing theories of mind such as phrenology or mesmerism, marked the inauguration of a new academic discipline and therefore a subject-matter requiring (and capable of receiving) popularisation. At this point, the popularisation serves a secondary function: not just the dissemination of ideas, but also the translation of those ideas into a form that the (non-specialist) public can understand. So the popularisation of psychology was delayed (relative to the popularisation of theoretical biology, for example) not because psychologists were unwilling to popularise, but simply because there was very little to announce that was not already known by the intelligent reading public.

It is at this point that John Burnham's contribution to this story begins. Burnham points out that "for much of the nineteenth century it was not possible to popularize psychology. What psychology there was,

[12] E. W. Scripture's expositions of the emerging discipline in *Thinking, Feeling, Doing* (Scripture 1895), a successful popularisation, and his subsequent technical work, *The New Psychology* (Scripture 1897), show that experimental psychology was becoming distinct from philosophy of mind at the end of the nineteenth century. Lorraine Daston charts the philosophical positions underpinning this shift in "The Theory of Will versus the Science of Mind" (Daston 1982).

was common property among educated people" (Burnham 1987, 85).[13] In other words, until relatively recently, there was nothing sufficiently

to the theory of mind that people have prior to serious investigation. It is untutored knowledge which defines itself in opposition to academic book-learning and to laboratory experiment, but which has shown itself through experience to be effective advice. The product of acquired folk knowledge is practical wisdom. The theoretical element is minimal, and implicit. Instead, folk psychology is entirely about the dispensation of useful advice, it is entirely pragmatic. It has no need for theories which have no application (e.g., the “problem” of consciousness is no such thing).[14] There is c

2. therapeutic “pop-” psychology (self-help)

The category of therapeutic literature is very broad, and most of what is usually referred to as “popular psychology” would be included here. Curiously, very few of the authors are psychologists, but a considerable number are (or were) psychiatrists. What passes for “popular psychology” could usually be better characterised as popular psychiatry. There is a broad spectrum of material here, from naïve psychology up to professional psychiatry. Some of what is often called spiritual literature would also be covered under this heading where the psychiatric blurs into the religio-philosophical (Buddhism, Taoism, and so on). Some fictionalised material might also be included (for example, *The Celestine Prophecy* [1994] and its sequels). The overwhelming

theories about how the brain responds to certain stimuli. Additionally, there will be much on topics which are rarely touched upon by therapeutic or folk psychology: vision, consciousness, the physical structure of the brain, the evolution of cognition, and so on. The participatory element is minimal or absent altogether, and there is little in the way of explicit practical advice on how to apply the lessons of psychology to life. Information is dispensed top-down, which is to say, the writer is an expert (or has access to expertise) that qualifies them to pronounce authoritatively as representatives of the science they are describing. That being said, unlike the prominently displayed academic and professional qualifications appended to author's names in the self-help books, in the popularisation of the science of psychology, titles are rarely if ever employed.

In keeping with vernacular designation, I will refer to the first of these categories as "folk psychology," the second as "popular psychology," and the third as "popularisations of psychology." A typology like this does not purport to identify absolute and immutable categories (it describes the situation as it stands – these categories would not be so recognisable in 1900 as they were in 2000). Instead, it is intended to underscore the differences between the various activities and practices included by the extension of "popular psychology," and in recognising this, to acknowledge that what is a useful or appropriate in the content and style of a text will be dependant upon the broader intentions of its author. That said, this pattern of division is repeated to some degree elsewhere. For example, what is called "popular astronomy" refers not to popularisations of the science of cosmology (eg, *Afterglow of Creation* by Marcus Chown [1996]), but rather to amateur star-gazing – advice on where and when particular celestial phenomena will be visible, and what

type of equipment you will need to see them (eg, *The Backyard Astronomer's Guide* by Terence Dickinson and Alan Dyer [2002]). At the non-academic (that is, folksy) end, astrology offers a version of the universe into which humans more snugly fit, re-personalising cosmology against the Copernican tradition of decentring. As with psychology, it is possible to separate out the theoretical-educative from the utilitarian-instructional material, and from both of these, the superstitious-folk belief, where little or no trace of the science can be found. Common to these typologi

Loosely, this correlates with the familiar SSK argument that “distance lends enchantment” (e.g., Collins 1992, 145).

Whilst it is worth being aware of how the professional scientist can choo

> By mid-century, the very nature of publicizing psychology had changed significantly. … [L]ong, systematic articles in essentially high-culture magazines … almost disappeared. Instead the style of journalism predominated… and it was in this context that the results rather than the process of doing psychology were emphasized. Moreover, these results were presented in short, interesting snippets unrelated to one another but widely distributed. (Burnham 1987, 105)

His compla

melodramatic contention that “science probably did not exist any longer on the popular level. Superstition did” (262).

further publishing deal for a book that explored the wider consequences of the neuroscientific and evolutionary perspective from which *The Language Instinct* had been written. Introducing *How .4s73i*

talking about" (Dupré 1999, 489). He concludes that "The end result does not begin to justify the book's ambitious title" (Dupré 1999, 493). Literary reviewers enjoyed the sections on brain functioning, but found the value-free account of art and literature weak (one critic said Pinker had "the literary taste and judgement … of an undergraduate"[19]).Meanwhile, behavioural scientists admired the manner in which Pinker explained how the "Magic-Eye" stereogram images worked, but criticised his account of human kin relations for being excessively general.[20]

Anticipating criticism for being too inclusive (and consequently too general), Pinker inserts a disclaimer on the first pages:

> Any book called *How The Mind Works* had better begin on a note of humility, and I will begin with two.
>
> First, we don't understand how the mind works – not nearly as well as we understand how the body works, and certainly not well enough to design utopia or to cure unhappiness. Then why the audacious title? The linguist Noam Chomsky once suggested that our ignorance can be divided into *problems* and *mysteries*. When we face a problem, we may not know its solution, but we have insight, increasing knowledge, and an inkling of what we are looking for. When we face a mystery, ho1 r, in wonder

The emphasis is on degrees of ignorance – but he's not claiming that everyone is equally wrong. So for everything "we may not know" we still have "increasing knowledge." It's not altogether clear which groups the inclusive pronoun cover. The "we" who admit at the outset that they don't understand how the mind works are Pinker and his professional colleagues. The "we" who stare at mysteries in "wonder and bewilderment" is all of us, professionals and lay-readers alike. And the we who hold the "old ideas" are everyone except the professionals who concur with Pinker. By "our old ideas" he means folk psychology and what Burnham would call superstition, and it is this residual belief structure that the book aims to update.

It must be stressed that what Pinker wants to do in *How The Mind Works* is replace the various theories of mind (in both the public domain and within academic psychology) with one coherent theory of mind. What he wants to achieve is a wholesale replacement of the existing heterogeneous belief systems with a monistic and scientifically credible system, namely, that of evolutionary psychology. To this end, along with being a complementary volume to *The Language Instinct*, *How The Mind*

Works relies heavily on references from fellow evolutionary psychologists. This type of mutual consistency is one of the tenets of evolutionary psychology, it is the same one-size-fits-all approach that Wilson had employed in *Consilience* (his attempt to unify the disciplines). It is also the hallmark of the inclusive (or reductionist) attitude of Tooby and Cosmides, who call it “conceptual integration” (in Barkow, Cosmides, and Tooby 1992, 4) and maintain that by following this program the humanities and social sciences will enjoy the type of theoretical consistency across scales typical of the natural sciences. The downside to conceptual

> The ultimate goal that the mind was designed to attain is maximising the number of copies of the genes that created it. (Pinker 1997, 43)

> …our understanding of how the mind works will be woefully incomplete or downright wrong unless it meshes with our understanding of how the mind evolved. (Pinker 1997, 174)

> In evolutionary terms, a man who has a short-term liaison is betting that his illegitimate child will survive on its own or is counting on a cuckolded husband to bring it up as his own. (Pinker 1997, 476)

As far as Pinker is concerned, the equality of mankind is a natural (and scientifically verifiable) consequence of the equality of human minds. The human mind, as Tooby and Cosmides put it, is always and everywhere the same. Repeatedly, Pinker makes reference to the universality of his conclusions – the following quotations issue from a single page: “people in all societies… . And people everywhere… . We will soon see that all people… . We are all… . Thanks to these inborn talents, we…” (Pinker 1997, 301). Tacking away from a direct explanation of mental function, he even includes a chapter on human evolution (“Revenge of the Nerds” in Pinker 1997, 149-210), which concludes by saying: “nothing in culture makes sense except in the light of psychology. Evolution created

realise is that what promotes itself as a book about general psychology is actually a book about evolutionary psychology.

It is in this sense that Pinker's *How The Mind Works* stands as a case against Burnham's pessimistic view of the popularisation of psychology. Again, as mentioned before, the intention here is not to suggest that Burnham was wrong when he wrote *How Superstition Won*, rather that the popularisation of psychology (and perhaps the popularisation of science more generally) has undergone a marked development since the time he was writing. Pinker's style of presentation is a relatively new phenomena, and one which Burnham would presumably welcome. The popularisation of psychology was not always so successful in presenting a unified picture of the discipline – nor did it always have such a clear candidate for a theory capable of performing such a unification.

A tidy comparison presents itself here with another version of *How The Mind Works* – this one published some sixty years earlier, in 1933, and compiled by the then-comparably famous (and now somewhat more notorious)[23] psychologist, Cyril Burt. A sample of two is obviously too narrow a data set to allow for definitive conclusions, but this comparison should be sufficient to give a sense of the ways in which the popularisation of psychology has developed in contrast to Burnham's

[23] Burt's notoriety is an unfortunate but ultimately irrelevant issue here. The charges brought against him after his death – that he fabricated experimental evidence in studies of the correlation of intelligence in sets of identical twins – relate to events that occurred much later than the composition and publication of his version of *How The Mind Works* (1933)(which in case makes no mention of twin studies) and have recently been re-examined in light of the production of very similar but indisputably legitimate results obtained by David Lykken's team at Minnesota, and Pinker's own team in Harvard. That Pinker and Burt share this research interest and theoretical position on the inheritance of mental characteristics is interesting, especially as Pinker makes no mention whatsoever of Burt in any of his several books, even those (*How The Mind Works*, *The Blank Slate*) whose content bears directly upon twin studies. There is scope here to examine the treatment of soiled reputations and scandals by popular writers looking to assure an increasingly sceptical public that science is legitimate – however, it is not something that falls within the scope of this paper. (For discussion of Burt's reput

pessimistic view of its inevitable decline; cleaving away from what is now popular psychology and moving to a position where (again, albeit controversially) it is able to claim theoretical harmony with the wider field of the natural sciences.

A Short Comparison: Burt and Pinker

At the time *How The Mind Works* (1933) was published, Cyril Burt was Chair of Psychology at University College, London, a position he would hold until his retirement in 1950. This was a highly esteemed post (Robert Joynson describes it as “effectively the top job in British psychology” [Joynson 1989, 11]), and in addition to this professional achievement, Burt’s public standing was such that he was knighted in 1946 (one year, incidentally, after the second edition of *How The Mind Works* [(1933) 1945] was produced). There can be little doubt that at the time Burt put the book together, and for some time afterwards, he was a prominent figure in (at least British) psychology. Similarly, Pinker’s own *How The Mind Works* (1997) was written when he was Professor of Brain and Cognitive Sciences and the director of the McDonnell-Pew Center for Cognitive Neuroscience at MIT (1994-1999). Both men are high status psychologists writing books explaining the state of their art for a general readership.

Owing to press coverage and it’s comparatively recent publication, Pinker’s book is (relatively) well known to modern audiences (see Cassidy 2005). It appears that Burt’s *How The Mind Works* ([1933] 1945), enjoyed similar popular success: it was republished in a second edition after the war (1945), and ran through several impressions (until at least

1948).[24] But although Burt's book was described as "stimulating" in one very brief review (Groves 1934, 311), it seems that, like the reaction to Pinker's book, the academic community were more sceptical. In a review disparaging of several other popular works, L. L. Bernard, writing in *The American Journal of Sociology* (1938), ranked Burt's book low: "Even less useful [than the other books reviewed here] is *How The Mind Works*. I am convinced that minds do not work in the manner described in this recent addition to the mythology of dominant instincts" (Bernard 1938, 659).

As if to emphasise the fractured nature of the discipline it represented, Burt's *How The Mind Works* ([1933] 1945) was actually a multi-authored composite, adapted from a series of talks given for the BBC by himself and by fellow psychologists Ernest Jones, Emmanuel Miller, and William Moodie. It is unclear if this is a selection Burt has made, or one thrust upon him by the BBC, for the authors have such different approaches to psychology that it becomes difficult to define where the boundaries of psychological work should be drawn. It is also worth noting that of the four contributors, only Burt would be considered a psychologist today – Jones was a psychoanalyst, and both Moodie and Miller were psychiatrists. By the time Pinker is writing, the distinction between therapeutic and scientific psychology is sufficiently sharp that most readers will not be expecting his version of *How The Mind Works* (1997) to include instructional material.[25] Burt, on the other hand, was writing at a time when the distinction between psychology and psychiatry was less clear.

[24] Published first as BBC pamphlet, subtitled "A Series of Talks Broadcast on Tuesdays, From 27th September to 13th December, 1932." Subsequently by Allen and Unwin, London in 1933, 1945, 1948.

[25] Although that said, a magazine was launched in the UK in October 2005 called *Psychologies* [as opposed to "Psychiatries"], offering a combination of interactive questionnaires and psychological explanation for the results – all of which blurs the distinction some more.

Burt and t

and finding how to cure.” Psychology is dynamic and progressive, but its actual achievements are apparently slight. The notably sluggish part amid this swift progress is Plain Man, who only now “at last has started to inquire.” But despite this tardiness, Plain Man is presumably a forward-

importance of this enterprise, Burt went on to claim that “The proper study – indeed the inevitable study – of mankind is man” (Burt [1933] 1945, 8). To further disarm charges that psychology was no more than common sense, Burt relied on analogies with the physical sciences: “Common sense alone will no more enable us to fathom the mysteries of the human consciousness than it has helped us to solve the problems of the atom or the star” (Burt [1933] 1945, 8). The ostensive purpose was simply to show how inexpert intuition is too blunt a tool to perform all tasks, but the analogy is deliberately bundled up with and reinforces connections to the sciences: intuition and common sense obviously couldn’t help the physical sciences, and they cannot much help psychology, either, for it was as much a science as physics.

Further emphasising the scientific character of psychological research (and bringing Plain Man up to date), Burt stressed that psychology had “changed from a branch of philosophy into a branch of experimental science” (Burt [1933] 1945, 8), with laboratories containing “the most up-to-date apparatus,” “materials and equipment for technical research,” much of which, apparently, “he has borrowed” from physics and from chemistry. In addition, there were the “latest hypotheses” from biology, and the “most rigorous devices for checking the truth of his data” – these last being somewhat unlikely borrowings from mathematics (Burt [1933] 1945, 9; the “devices” in question were presumably statistical tools, rather than physical ones). The superlative character of these (only vaguely described) research tools was important, as were their origins in the hard sciences: if psychology was able to employ the same tools as the hard sciences, then surely psychology was the same *type* of study.

But Burt’s efforts to make the discipline appear rigidly scientific were undercut by the material contributed by the other authors. Because Miller, Moodie, and Jones were practising psychiatrists, their material tended towards the instructional. In terms of the tone and purpose of

Burt's book, this produces some confusion between the descriptive and the didactic. Those sections which are explicitly instructional (offering practical advice to the readership on such matters as raising a child) frequently rely on dispensing practical advice supported not by experimental data but by normative claims and anecdotal evidence. This is typical of psychiatry (as a discipline steered by pragmatism: by utility rather than epistemology), but jars with Burt's claims for consistency with the natural sciences, where normative claims are anathema. The material in Emanuel Miller's sections on "Problems in the Development of the Child" demonstrate this:

> For example, a child who is taught in an unemotional manner to eat in a clean way and at regular intervals, will not be the child with food fads. But if the child is made to take his meals in the midst of his play, when he is enjoying the pleasures of spontaneous activity, he will be inclined to have dyspeptic ill health… …errors of this kind lead to false associations in the simple but direct mind of the child, which will create faulty attitudes in later life. (Miller in Burt [1933] 1945, 121-122)

Miller concludes that "the mother is herself to blame. … A great deal of re-education will be necessary to correct these initial mistakes" (Miller in Burt [1933] 1945, 122-123).

Burt and Pinker: The Assimilation of Folk Psychology

It is precisely this type of instructional discourse that Pinker's generation of psychologists see themselves in opposition to. At first blush, it might seem that Pinker's views on parenting are equally didactic:

> A parent should transfer investment from an older child to a younger one when the benefit to the younger exceeds the cost to the older. The reckoning is based on the fact that two children are

> equally related to the parent. But these calculations are from the parent's point of view; the first child sees it differently. … The tension is called parent-offspring conflict. (Pinker 1997, 441)

It is apparent that "should" here plays a very different role than it did in Burt's book: the normative force is not social, but statistical. The normative element present in much of the writing from Burt's *How The Mind Works* ([1933] 1945) is (almost) entirely absent from Pinker's. He later underlines that normative terms are being used in a very limited sense:

> When I use terms like "should," "best," and "optimal," they will be

shape their children is so ingrained that most people don’t realize it is a testable hypothesis and not a self-evident truth” (Pinker 1997, 448). He goes on to show that this hypothesis has been tested, and found wanting (if not quite falsified): “Judith Harris has ams

These references are not simply about making the text more “amusing” or more “populist.” Instead, they serve an important function incorporating (and retaining) the wisdom of folk psychology within the knowledge of scientific psychology. Rather than set tradition against science, Pinker carefully selects material sympathetic to a scientific explanation. These non-scientific elements – an apposite quote from Woody Allen, for example – are used to prepare the ground for an explanation of the same phenomenon derived from evolutionary biology (e.g., Pinker 1997, 467). Pinker’s use of jokes, 3209 8273 2aph95o25l05iu655.22028 Tm(anketi42dbi66)Tj-0g3 Tm(biology .e7a

brought to bear upon his later claims. The function of such arguments (as it would be in Pinker) was to facilitate a claim that the knowledge science already has of the animal kingdom was transferable to the study of humans. Burt moved from here to discuss how these local differences resulted in the gross anatomical differences between male and female, and then presented several theories about how these changes had emerged. (References were to J. S. Mill, Darwin, Lombroso, Herbert Spencer, and finally two academics, Geddes and Thomson, whose theory of the evolution of the sexes had been published in 1889. As was customary – certainly for popular works and even for academic material – no scholarly apparatus was provided for the reader to check these sources.) Unlike Pinker, however, these claims for cross-species similarity went no further than the physiological, and no attempt was made to link, in a substantive manner, biology and psychology.

This is certainly not intended as a criticism. Apart from a hopelessly general claim for “materialism” or the first wave of behaviourism, there really was no unifying theory for Burt to employ. Inadvertently (but not insignificantly) mirroring the state of the discipline, Burt’s material appears somewhat fragmentary and disjointed; there are occasional contradictions between the authors, and a confusion between didactic material and descriptive material. This latter (between the normative and the naturalistic) is of especial importance. The clear demarcation Pinker makes between (a) the findings of experimental psychology and (b) the best way to raise your child, was not so clear for Burt and his colleagues (and their audience). One consequence of this is that the distinction between scientific research and folk wisdom is much less clear – a confusion which is exacerbated (to the modern eye in particular) by the reliance on anecdotal material and personal experience.

Whilst Pinker’s book may appear to elide the same boundary with

examination reveals that the anecdotal material here has a very different role than in Burt's book. For Pinker, the humorous-anecdotal material is not in itself evidential, but instead is intended to point up the similarities between existing folk wisdom and evolutionary psychology (as the theory with which it will be supplanted; where consonance demonstrates the descriptive power of evolutionary psychology). Loosely, the anecdotal data correlates with folk belief, and the scientific data correlates with a theoretical claim supporting and supported by a familiar "everyday" experience – each offering mutual support for the other. As Pinker's writing shifts between anecdotal datetical clai638 r's

From here, it is tempting to claim that the abundance of anecdotal material indicates that psychologists (and scientists generally) in the 1930s relied entirely on authority for their argumentative force. But to leave it at that would be misleading. Burt takes the approach he does because partly this was (even in the 1930s) still the infancy of experimental psychology so empirical results were accordingly scare, and partly because the nature of an evidential claim was different. So it is not that scientists did not need to display evidence that they were correct, rather that the type of evidence the 1930s scientist needed to display was different. In Burt's time, and especially for practising psychiatrists Miller and Jones, these are not just "anecdotes," but medical case notes, and as such, considered sufficient as evidential claims. As case notes, the anecdotal data sits alongside the experimental result with comparable status.

When Burt was writing, psychologists and psychiatrists were less easily distinguishable than when Pinker is writing. The period intervening these two versions of *How the Mind Works* coincides with a clarification of the differences between psychology and psychiatry.

Psychological "Facts"

From the comparison between Pinker's and Burt's versions of *How The Mind Works*, the development in the popularisation of psychology shows some distinct trends that extend beyond Burnham's account. Against Burnham's expectations, the popularisation in the late 1990s looks a good deal more "scientific" than it did in the 1930s (or, for that matter, in the 1940s, with the second edition of Burt's *How The Mind Works*). Prominent is the clear distinction in Pinker's work between the naturalistic and the normative, which is not clear in Burt's book. This seems to occur because (in the terms outlined above) the distinction between "popular psychology" and "popularisation of psychology" is not well established when Burt is writing. As should be clear, especially from the material Miller contributes about the child and the family, the boundary between psychology-as-science and psychology-as-self-help is blurred through much of the material. It doesn't help that when Burt is compiling the book, the discipline sits uncomfortably between opposing models of psychological motivation. *How The Mind Works* ([1933] 1945) endorses both Freudian psychoanalysis (though Burt himself does not – these pieces being written by Ernest Jones[30]) with its reliance on narrative explanations, alongside the more o0260.0013

non-scientific irrationalism (esp.

records. It does, however, seem plausible to suggest that the rise of the theoretically-oriented popularisation, displaying at least the edifice of a unified scientific community, has occurred in response.

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