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Weird science and datafication

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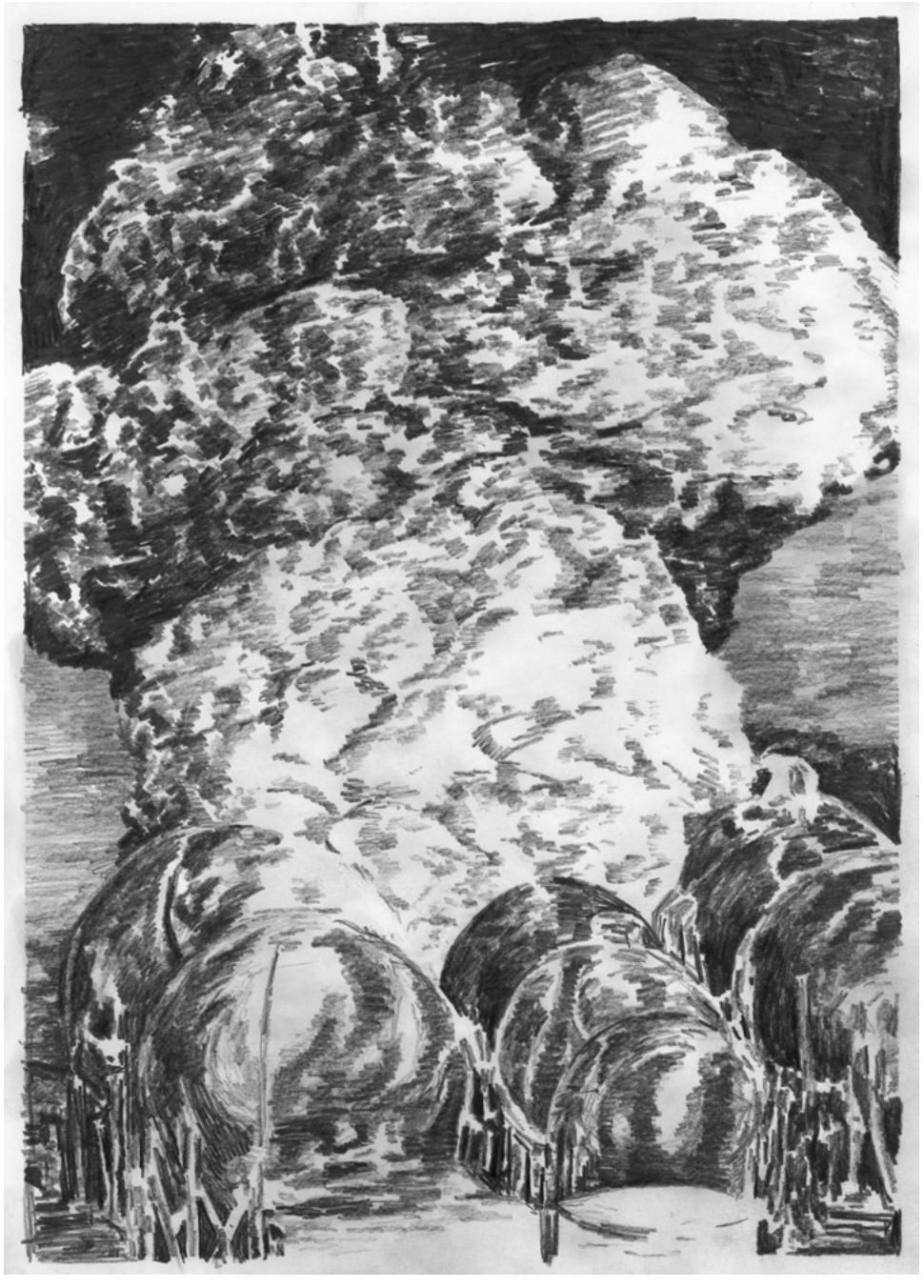
review of

Blackman, L. (2019) Haunted data: Affect, transmedia, weird science, London: Bloomsbury Academic. (HB, pp. 256, £65, ISBN 9781350047044).

In August 1910, the American philosopher and psychologist William James was lying on his deathbed in Chocorua, New Hampshire. Just before he died, he told his brother, the great novelist Henry James, to stay near his burial site in Cambridge, Massachusetts, for six weeks after his passing. William wanted his brother to stay close to his resting ground and not travel back to England immediately after the funeral because he wanted to initiate contact with him from beyond the grave (Menand, 2001: 435). It would have been remarkable had Henry received messages from his dead brother, but he did not. What is fascinating about this story is that William James, one of the brightest and most respected men of science of his day, so staunchly believed in mediumship that he wanted to make this parapsychological experiment his rite of passage into the afterlife.

I came to think of William James' last request to his brother when reading Lisa Blackman's *Haunted data: Affect, transmedia, weird science*. The anecdote somehow captures the essence of the book, for it playfully yet seriously engages with the not-always-so-impenetrable boundaries between science and the kinds of inquiries and theories that belong to what Blackman dubs 'weird science'. Like William James, who considered himself as much a psychic researcher as a psychologist and

the Past, Catches Up



pragmatist philosopher, Blackman embraces the weirdness in science without romanticising or ridiculing it, keeping an open mind to what it might tell us even from beyond the grave. Readers of Blackman's previous work will know that she has long had a profoundly personal research interest in the marginalised and suppressed voices in the history of psychological thought, and she wonders how these voices might challenge orthodox understandings of subjectivity, consciousness, personality, etc. (James belongs to this group of thinkers, all of whom were interested in 'the radical indeterminacy of the human' [15].)[1] In books such as *Mass hysteria: Critical psychology and media studies* (2001), written with Valerie Walkerdine, and *Immaterial bodies: Affect, embodiment, mediation* (2012) as well as in a string of academic articles, Blackman has been able to show that both psychological theories and ideas from psychic research – long disqualified or considered unscientific – can actually provide valuable insight into the experience and construction of subjectivity, corporality and sociality in modern mediatised and affective societies. She pushes this agenda in *Haunted data*, where it is the 'datafication' of society and culture and its implications for science that are put under scrutiny.

Haunted data contains many ideas, references, theoretical assertions and mind-boggling perspectives, yet the central argument is that:

> the sciences need the arts, philosophy and the humanities in order to develop the possibility of more open, creative, adventurous and inventive science(s)... [and] that it is important for cultural theorists to invent new ways of engaging with science, in all its ambiguities, contradictions, uncertainties, fracture-lines, hesitancies, erasures and displacements. [xxvi]

Blackman substantiates this argument by exploring and discussing a couple of relatively recent 'science controversies' that erupted in the aftermath of the publication of two scientific studies. Analysing and discussing the two science controversies, she raises four pertinent research questions: 1) How are science and governance changing in the context of digital media and digital forms of communication? 2) What are the consequences thereof and how might we understand and examine new technologies of power – specifically psychological and affective forms of governance as they extend and are extended within software and computational cultures? 3) What kinds of critical research can be done in the context of software and computational cultures? 4) What does following science

[1] As one of the founders of modern psychology, James is, of course, not a marginalised voice in the field. However, it is well-documented by Blackman, among others, that James' very active involvement with psychic research is seldom mentioned by James scholars or by scholars interested in the foundation of modern psychology.

controversies as they take form in digital communication add to contemporary calls for more rapprochement between the humanities and the sciences?

The first controversy concerns a study in which a Yale cognitive scientist, John Bargh, claims to have demonstrated that subjects walked more slowly to a lift after being shown ageing-related words in a scrambled sentence task [34]. Bargh's experiments suggest that people are susceptible to unconscious priming, and the study thus challenges the sanctity of the rational, autonomous human subject. In the second part of *Haunted data*, Blackman discusses a series of experiments conducted by Cornell psychologist and former stage magician Daryl Bem, who maintains that the future can retroactively reshape the past [88]. I will not go any further into Bem's and Bargh's studies but only reveal that they predictably sparked major controversy. Bargh and Bem were fiercely criticised by colleagues in the blogosphere, and repeated failures to replicate the studies only added fuel to the fire. Blackman makes these controversies more than fascinating stories about the furore that such threats to 'normal science' can ignite by elevating them to examples of how digital culture and digital forms of communication are reconfiguring the ways scientific work is perceived in the public and by peers. This is the real feat of *Haunted data*, and I would argue of much of Blackman's previous work, that it takes something many of us tend to dismiss as obscure and uses it to open up much broader discussions about science, society, subjectivity and power. The Foucauldian influence is unequivocal.

While Blackman is a brilliant writer who excels in loosening the stiffness of academic writing with drops of storytelling, word plays and mundane examples, the sheer number of ideas she is able to entertain in a relatively short book makes *Haunted data* a challenging read at times. That being said, Blackman's insistence on throwing herself into the rabbit hole whenever the digital archives provide a lead is admirable, and resonates nicely well with the more inventive and adventurous engagements with science she is advocating. Rather than endeavour to cover every topic explored in *Haunted data* in this review, I will instead be selective and focus my attention on a few of the many exciting and stimulating ideas she raises in the book. My focus is undoubtedly biased and even intentionally idiosyncratic, as I am taking the liberty to relate central themes in the book to some of my own research interests.

Post-publication peer review and the afterlives of data

One revelation from the analyses of the two science controversies is that digital media has altered and continues to alter the ways in which research output is evaluated, reviewed, commented on and discussed. Many academics tend to devote most of their attention to everything that happens up until a manuscript

is accepted for publication. After that, they usually breathe one long sigh of relief, or perhaps get a feeling of 'on to the next one!' In her exploration of the Bargh and Bem controversies, Blackman analyses the aftermaths, or rather the afterlives, of academic output, showcasing the myriad data-threads spun from commenting sections on blogs, posts on other social media and articles in the established media and propagated in cross-referrals to these stories through a 'dizzying array of hyperlinks' [19]. This purgatorial state of potentially infinite scrutiny of academic output constitutes what Blackman calls the 'post-publication peer review' (PPPR):

> PPPR refers to a particular context of data production and circulation that has the potential to transform academic practices of writing, publishing, debate and impact. It focusses on the afterlives that academic articles and books might accrue after publication, and the ways in which PPPR found on blogs, internet forums, social networks and other social media might enter into, intervene within and change the settings and parameters of what counts as legitimate and illegitimate debate. [xxiv]

Keeping track of debates that proliferate in digital space can be immensely difficult, and one can easily be led astray. However, Blackman does not shy from getting off the beaten track, as one can also see in her so-called hauntological method, which combines Foucauldian genealogy and a Derrida-Barad-Haraway-inspired *embodied hauntology*. The methodology is deliberately performative in that 'data is shaped and reshaped' by the decisions the inquirer makes and the actions she takes [19]. This means that by studying the afterlives of research output in the digital sphere, the researcher necessarily contributes to the PPPR process. Like an ethnographer, Blackman immerses herself in the unbounded field that stretches out from the respective academic studies she makes her points of departure. This allows her to pick up clues, to draw connections to the past or to possible futures and, ultimately, to engage with questions about what data are, how they come about and what they do. Indeed, Blackman notes that data can take many forms and do many things, but they are never completely static or neutral:

> Data, as with statistical forms of analysis, never speak for themselves. Data assume rhetorical forms, functions and strategies. One dominant form is the speculative, anticipative relations shaped from the aggregation and enactment of data patterns, put to work in order to generate future value and capital. Data are assembled, reassembled and re-performed... [Data] within digital and software media environments accumulate, leave traces and also disappear. Despite the myth or fiction of the universal database, where it is assumed that every action and transaction leave a trace, this dystopian myth of complete dataveillance does not stack up. Data disappear, are removed, become submerged or displaced, are lost, overlooked, deemed irrelevant, make accidental connections (rather than aggregated patterns), can remain alert or lifeless. [56-57]

In examining the two science controversies, *Haunted data* challenges the 'instrumentalist notions of data' [180] that consciously but certainly also unconsciously structure and give direction to our lives in today's datafied societies. This in and of itself is a tremendously important intervention in times where data – the bigger the better it seems – are often proposed to hold the solution to almost every conceivable problem of a social, economic, political or scientific nature. One can also appreciate being provided with methodological tools for examining how data are haunted and what haunts them, and such tools certainly afford possibilities for further critical engagement with data both within and outside of the confines of the academic world.

However, what remains to be seen is whether Blackman's *hauntological* approach can bring to life some of the ghosts of what superficially appear to be less contestable or openly controversial data than those produced at the intersection of social psychology and psi phenomena, where Bargh's and Bem's studies are located. This is not a critique of *Haunted data* as much as an encouragement for testing the possibilities this critical research practice might offer in studies regarding what I, for lack of a better word, would call more 'mainstream' cases. One area that might be interesting to explore, it having become thoroughly datafied in the last couple of decades, is securities trading in financial markets.[2] As someone doing ethnographic research in the field of algorithmic or computational finance, where data scientists and software developers tirelessly write highly sophisticated algorithms able to place orders in the market far faster than a blink of an eye, adapt to the changed behaviour of competing algorithms and process unfathomable amounts of data, I have come across a lot of data-centric people. These days everyone in finance is talking about and working with data: market data, big data, alternative data, structured data, unstructured data, noisy data, tagged data, bugged data, anomalous data and so forth. Many market participants consider data and data analytics the key to gaining an edge in the market, which is why huge sums are invested in data, data-processing technology and experts capable of handling it.

People working in algorithmic finance are generally well-aware that data can be haunted, although they would not use that particular word. Rather, they would say that data has bugs or anomalies, and many are also conscious about the lurking dangers of being seduced and possibly misguided by data. While haunted data pose a risk to the performance of trading strategies, financiers are also aware of the possibility of taking advantage of the anomalous and apparently

[2] Blackman briefly touches upon the topic of trading in a discussion of Karin Knorr Cetina's and Urs Bruegger's (2002) study of post-social relations between foreign-exchange traders and their computer screens [114-117].

counterintuitive. For example, programming algorithms to identify anomalies or anomalous patterns in data is one way for trading firms not only to backtrack potentially erroneous strategies or external events negatively impacting a trading algorithm's performance but also to anticipate future scenarios. Accuracy in anticipation, projecting and forecasting is essential for the profit-making and risk-reduction of many trading firms, and data constitutes the grounds on which the probabilistic estimates about the future are made. However, financiers know that the future is, at least to some extent, incomputable, yet they must be as informed as possible about likelihoods and probabilities in order to predict that if x happens, then y will probably be the result and so forth.

Blackman argues that the 'anticipatory techniques' and 'probabilistic statistics' used in, for example, the world of finance are limited in that these techniques are incapable of imagining possible futures. Imagining possible scenarios for the future instead of calculating probable outcomes is an area where Blackman believes that the arts and humanities have a lead they should use to their advantage [85]. Blackman's critique that probabilistic thinking has proliferated in economy as well as in society echoes that of other scholars who have proposed alternatives to the probabilistic anticipation of the future. Accounting scholar Michael Power has, for instance, argued for a 'new politics of uncertainty' in which 'the myth of perfect manageability is laid to rest' (2004: 58). More recently, sociologist Jens Beckert has done work on how actors in the capitalist system often underestimate the unknowability and incalculability of the future, and on how fictional expectations often drive economic action (Beckert, 2016; Beckert and Bronk, 2018). While the argument that not everything can or presumably ought to be quantified, computed and subjected to probability analysis is surely compelling, it would be fascinating to see the alternatives to probabilistic reasoning pushed further and thus do more than point out the limitations of these forms of reasoning. Although Blackman's analyses deliver on the promise of engaging with the quirkiness and weirdness of science and data, the main contribution of her analyses, as I see it, is that they uncover a more sharply winding path to inquiries into our thoroughly mediatised and datafied societies. Power and Beckert propose alternative ways of anticipating the future by imagining futures in the areas of risk management and finance, and it would likewise have been interesting to see Blackman's alternative, enticing and somewhat curious methodology being put to the test in areas other than the two science controversies discussed. Such an expansion of the project might materialise in a possible future.

Resurrecting forgotten theorists and a clever horse named Hans

A major strength of *Haunted data* is the way Blackman, through her playful genealogical approach, manages to trace forgotten psychological ideas that

suddenly surface in a contemporary science controversy. Similarly, Blackman elegantly takes a science journalist's comparison between John Bargh and Wilhelm von Osten (the owner of a horse named Hans that became quite the attraction in Germany in the late-nineteenth and early-twentieth centuries because of its alleged ability to solve mathematical problems) and seriously engages with the story of Mr. von Osten and his horse, explaining why there is more to this 'Hans the Horse charge' than a thinly veiled attempt to ridicule Bargh's research. Inspired by science studies philosopher Isabelle Stengers' call for resurrections of seemingly forgotten figures [16], Blackman brings ghosts from the silenced history of psychology and from stories like the one about Hans back to life as she critically examines the current state of science.

Reading about the John Bargh priming controversy, including the 'Hans the horse charge', reminded me of another controversy within the scientific realm that took place at about the same time as Clever Hans was tapping his hoofs to solve math problems. In the late-nineteenth and very early-twentieth centuries, Eusapia Palladino, a medium from Naples, succeeded in shaking the belief system of some of Europe's and the United States' most prominent men and women of science. During her Naples séances, Palladino suspended tables in the air without any visible support and made curtains blow wildly in a room with all its windows and doors closed. These magnificent occurrences of mediated psychic phenomena were reported by, among others, the psychic researcher and scientific journalist Hereward Carrington in a *McClure's Magazine* article from 1909 titled 'Eusapia Palladino: The despair of science' (Carrington, 1909). Carrington further claimed to have witnessed Palladino making the renowned Italian neurologist Enrico Morselli left-handed, even though he was normally right-handed, and to have felt a cold breeze coming from a scar on Palladino's forehead. It is no wonder that a psychic researcher like Carrington was taken by Palladino's séances and convinced about the reality of psychic phenomena, but it seems quite astounding that a medium from Naples was able to draw the interest of and ultimately win over some of the foremost scientists of the day.

Besides Morelli, the academic notabilities who participated in séances with Palladino also included the physiologist Charles Richet, Pierre and Marie Curie, the (in)famous polymath Gustave Le Bon and, from across the Atlantic, none other than William James. Another prominent scientist visiting Palladino in Naples in the late-nineteenth century was the Italian criminologist Cesare Lombroso, a fierce opponent of psychic research who had tried to eradicate it from the Italian academic milieu, but who after having participated in two séances with Palladino, became almost a convert. In a letter written in 1892 Lombroso admitted to his changed view of psychic mediation, while also implying that his faith in science was as unwavering as always:

> I am filled with confusion and regret that I combated with so much persistence the possibility of the facts called spiritualistic. I say facts, because I am still opposed to the theory. (Carrington, 1909: 663-664)

As a criminal anthropologist and positivist, Lombroso could not deny the facts he observed with his own eyes, but he still found it hard to accept that any scientific theory could possibly explain such strange phenomena. In *Haunted data*, Blackman demonstrates how assertions about the reality of parapsychological phenomena have always provoked and continue to provoke strong reactions in the scientific community, and in instances where such assertions cannot swiftly be refuted, they tend to either create a creeping doubt or give rise to more polemical dismissals of anything that falls outside the bounds of the established sciences. As in the Bargh and Bem controversies, the controversy around Palladino also had its fair share of polemical outbursts.

In the beginning of the twentieth century, Palladino's spiritualistic séances became the centre of heated exchanges between those in academic psychology who considered psychic research a legitimate scientific field and those who dismissed it as inherently unscientific. Among the critics of psychic research were one of the founders of modern psychology, Wilhelm Wundt, and his student, Hugo Münsterberg. As psychology historian Andreas Sommer (2012) has argued, the controversy around Palladino was not just a matter of believing or not believing in the existence of psychic phenomena – it was essentially a debate about how the boundaries of academic psychology should be drawn and thus how the scientific status of the nascent discipline of psychology could be bolstered. The controversy intensified when Hereward Carrington invited Palladino to the USA to be investigated by a committee of scientists. Although Carrington wanted to show the world the scientific legitimacy of psychic research, inviting Münsterberg and other known critics of psychic research to sit on the committee proved to be a disservice to his endeavour. James, who saw Münsterberg's position on psychic research as a bow to Scientism, warned Carrington against extending invitations to persons unyielding in their views on science (Sommer, 2012: 31). In keeping with his pragmatist stance, James accused Münsterberg of 'metaphysical dogmatism' because of his premature rejection of allegedly 'natural phenomena', while Münsterberg saw James' openness to the spiritualistic as a 'threat to rationality' and to science proper (Sommer, 2012: 24, 30). Münsterberg publicly exposed Palladino after having attended two sittings with the medium during her visit to the USA. However, Sommer has demonstrated that Münsterberg debunked the Neapolitan medium in a far from convincing manner. His whole approach to his investigation was dubious, his accusations of fraudulence were unsubstantiated and his account of what happened during the sittings was inconsistent with other attendees' observations (Sommer, 2012: 31-34). To Münsterberg, psychic research

needed to be dissociated from academic psychology, and pulling the rug from under Palladino allowed him to display once and for all that psychic phenomena were not real and that there were therefore no grounds for any research into such non-existing phenomena. Münsterberg's popularity and academic credentials strengthened his trustworthiness, which meant that the media uncritically accepted his barely substantiated debunking of Palladino's alleged humbug.

What the intellectual dispute over Palladino's psychic powers shows is exactly what Blackman demonstrates in her exploration of the PPPR's of Bargh's and Bem's studies, namely that science controversies are engulfed in power relations, with the preservation of boundaries between the scientific and the non-scientific being the battleground. Interestingly, these struggles are not purely intellectual, but whirled into a tangle of idiosyncratic views, disciplinary positioning, personal differences, etc. – all of which are only amplified and made more complex when they unfold in digital space. The victors of these struggles write a history of their discipline in which their rivals are marginalised and eventually forgotten. *Haunted data* is a reminder of the importance of being receptive to ideas that, although once silenced, occasionally come back to haunt us. Still, the invitation to be more receptive to those rugged ideas dismissed as too eerie and too far from the mainstream should not be mistaken for an encouragement to revive whatever dead philosopher, psychologist and sociologist fits the purpose of a given study, as sometimes occurs in organisational and in particular critical management studies. The invitation is instead a call for openness in science practice, which does not mean that we should relax our scientific standards, but rather be critically aware of their impact on our inquiries and the data we expose ourselves to as researchers.

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