

## Ornithology from the Tree Tops

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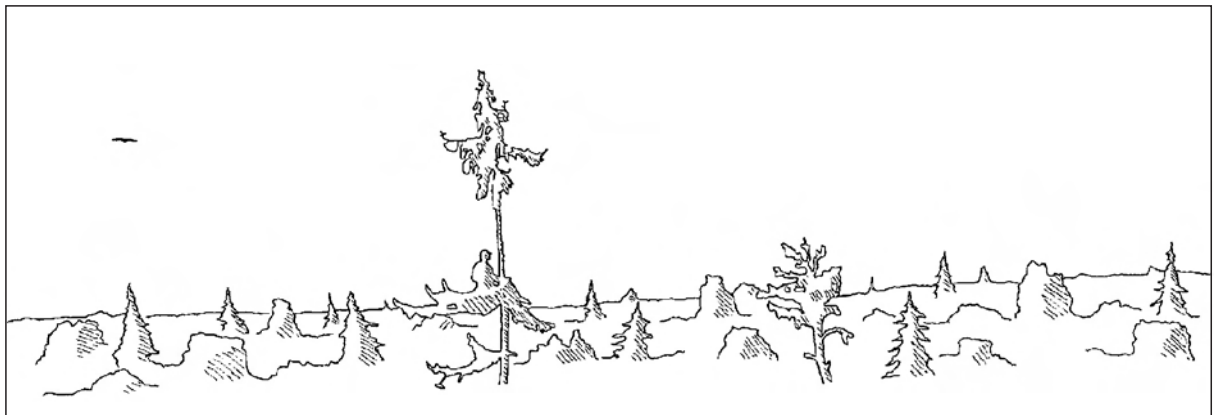
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## Ornithology from the tree tops

The recent demasqué of social psychologist Diederik Stapel, who excelled in sloppy science and routinely fabricated and falsified data ([www.commissielevelt.nl](http://www.commissielevelt.nl)) but nevertheless was able to perpetrate his misconduct for nearly two decades, came as a surprise to his colleagues. The committee investigating StapelGate was flabbergasted by the naive attitude of social psychologists, including his seventy coauthors, the editors and reviewers of a plethora of peer-reviewed journals, and providers of grants. In the words of Martin Gardner (1981: 170), quoting what any magician will tell: “scientists are easier to fool than children.”

Scientific misconduct is known to occur in all disciplines, as a huge corpus of studies testifies. A meta-analysis of eighteen studies shows that 2% of the responding scientists admitted to have fabricated, falsified or modified data or results at least once, and up to 34% admitted other questionable research practices (Fanelli 2009). Even more telling, when asked about the behaviour of colleagues, admission rates were 14% for falsification, and up to 72% for other questionable research. In a follow-up study, Daniele Fanelli (2012) showed that published studies have a strong positive-outcome bias for tested hypotheses, especially so in ‘soft’ sciences and least in ‘hard’ sciences; biology took an intermediate position. To make matters worse, the overall frequency of positive supports for hypotheses has grown by >22% between 1990 and 2007, on average by some 6% annually, reaching 86% in 2007. This trend is visible in every country and every discipline. It is not likely that negative results were published in other journals than used for this study (which relied on 10,837 journals available in the Essential Science Indicators database), because abstracts in other databases reached similar results. Apparently, the increasing selection for positive results reflects the true trend.

Several ideas circulate as to why studies are positive-biased: (1) researchers prefer to address hypotheses that are likely to be confirmed, resulting in ‘publishable’ results, (2) statistical power of studies has increased over the years (in fact, this is unsupported: statistical power is still very low in all fields, without any evidence of improvement), (3) fewer studies with negative results were submitted or accepted, or (4) studies with negative results were turned into positive results through post-hoc reinterpretation, reanalysis, selective shopping or manipulation/fabrication (Fanelli 2012).

In the field of ornithology, spectacular cases of fraud have surfaced in the past century. The Hastings Rarities spring to mind, a flux of rare birds collected in parts of Sussex and Kent between 1894 and 1924. A statistical comparison by J.A. Nelder (1962) of this phenomenon with the occurrence of rarities elsewhere in Britain clearly suggested that the rarities claimed for Hastings are at odds with the rest of Britain, geographically, temporally as well as numerically. Already in those days, “the ornithological community had fallen into the error of disbelieving that such a contemptible imposition on their good nature and good faith could be so cynically and persistently carried out” (as pointed out in the accompanying Editorial). The large-scale fraud committed by Richard Meinertzhagen, a high society member in Victorian and Edwardian times, who bamboozled his compatriots into believing his exaggerated claims in the fields of military exploits, espionage and ornithology, is another notorious case. Although already – with good reason – suspected as a fraud and thief during his lifetime, among others by Claud Ticehurst, Hugh Whistler, Charles Vaurie, Phillip Clancey and Miriam Rothschild (in whose book he walks the pages as ‘ace’ collector Dr. Cyril Cunningham),

and known to have stolen books and skins from museums as early as the 1930s, it wasn't until the early 2000s that his charade was exposed by scientists like Alan Knox, Pamela Rasmussen, Robert Prys-Jones and Nigel Collar (Garfield 2007). By that time, Meinertzhagen had been dead for almost 40 years. The extent of his fraud is huge, as were his bird skin (25,000) and feather lice (>500,000) collections.

Closer to home, in Dutch ornithology, it also took many decades before the truth surfaced in a case of fraud which is not fully exposed yet, and which may have still wider ramifications. The scene is Indonesia, the time pre-war. Jan-Hendrik Becking had been in and out of the Bogor Zoological Museum on West Java since primary school. He learned to prepare bird skins, and started collecting birds and eggs. At the same time he became acquainted with Max Bartels Jr., the oldest of the three sons of Max Bartels Sr., known for their large collection of Indonesian birds, eggs and nests (presently in Naturalis Biodiversity Center, Leiden). Becking had free access to these collections and took extensive notes of skins and egg measurements. His intimate knowledge came to stead when – after the Second World War had come to an end – the collections of Bartels, Bouma and Becking were found to have been raided for clutches of the rarer and difficult-to-obtain clutches. These disappearances coincided with the presence of Andries Hoogerwerf in the Bird Division of the Bogor Museum during the war. Hoogerwerf wrote extensively about the breeding biology of Javan birds, mostly in *Limosa* (especially Vol. 22: 1–277, 1949), but also in *Zoologische Verhandelingen* (88: 1–164, 1967). Becking's detailed research unequivocally proves that Hoogerwerf selectively stole clutches and skins from the above-mentioned collections to enrich his own. To make matters worse, he falsified information on dates and – sometimes – localities to cover up for this theft. Becking unsuccessfully tried to publish this fraud in *Ardea* in the late 1960s, but as the subject was considered too sensitive (Hoogerwerf died in 1977, and

during his lifetime and long after was considered a brilliant observer and photographer; Voous 1995: 278–280), publication was refused. Becking's paper with allegations had been shown to Hoogerwerf, which may have led to the destruction of eggs from the Bouma collection by Hoogerwerf to eliminate incriminating evidence (these eggs were described in his 1967-publication, but were found missing from his collection after his death). Egg theft was just part of Hoogerwerf's malpractice. Eight bird species reported by him from the western islands of Flores are unknown for these islands, and these records are questionable. He is also known to have 'photo-shopped' pictures of birds and – possibly – Javan Tiger *Panthera tigris* (the 'famous' photograph from the Ujung Kulon Nature Reserve). The resemblance with the Meinertzhagen case is uncanny: known to be unreliable during their lifetimes, but only exposed much later. Thanks to Becking, we now know that information published by Hoogerwerf is untrustworthy, and that his collection should be used with great care. Jan-Hendrik Becking died on 16 January 2009.

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