

The Banality of the Average

Ian Wallace stood in front of Mr Burns' huge partners double desk, for the second time in his 5 years at the consultancy. His first time was just after Burns returned late from his usual Friday pub lunch. Burns was known as a fan of British pantomime, the slap-stick comedies with loud audience participation.

"Welcome to Dodgeson & Pine, Ian. They tell me that your first year here has been quite adequate. They say you are partner material, but it takes years to learn the actuarial business, you know. It's not all about the maths."

"A lesson for you. Mind the averages. My son just played Goldilocks in The Three Bears pantomime. Too hard, too soft, just right—beds, you know. Too bad he didn't apply himself to maths at university—actor versus actuary, you know. So, mind the averages and you won't go far wrong. Do tell me about the Kingston Insurance Company valuation; you worked on it, right?"

Ian recalled he had nervously answered something about Kingston's whole life reserves and the Spanish influenza mortality. But, within a minute, Burns had closed his eyes was snoring loudly. Ian continued talking, then coughed, then coughed more loudly. What should he do? Wait for Burns to wake up? The drool running down Burns' beard was too obvious to ignore and would be an embarrassment if the old partner awoke, so Ian tiptoed out quietly, hoping Burns would sleep through the floorboards' creaking. Ian asked himself, was he that boring? What should he have done?

It was now 1928 and Ian had the confidence to see the comedy in that first meeting. Burns still had no partner at the other side of his huge partners desk. The empty half-desk made for a court room setting, with Burns playing the judge and Ian the defendant. Or maybe the desk was a stage for a pantomime. Ian wondered why he had been summoned. He just hoped that this afternoon Burns would not fall asleep or conjure the actuarial spirits of Goldilocks.

"Wallace, they tell me you're the right man for this new project, because you know German. I just returned from Hannover—too bad I didn't learn German whilst at university—I focused on maths, you know. Give this client your best effort; they will want statements from you for the German newspapers. These are people who know people, if you know what I mean. They made some population projections, and you need to expand on them. It's fine work for you as a new Fellow of the Institute of Actuaries."

"Their sums are between 4 million to 8 million. They used statisticians and economists—not actuaries. You should mind the average—like The Three Bears, you know—too hot, too cold, just right—porridges, you know. Give it your best work, of course, but I think they will be pleased if you calculate 6 million lives. We actuaries are accustomed to giving single-number point estimates rather than ranges of numbers. You ask for trouble if you give choices to accountants, wouldn't you say?"

Ian thanked Burns profusely for the opportunity, said something about working with the calculator staff, and exited firmly over the creaky floorboards before Burns could start snoring.

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The large package from Germany weighed over a stone and sat on the floor by Ian's desk. He carefully untied the twine, two long strands. Just one strand would have kept the brown paper wrapping secure, but, Ian thought, the mail room clerk at the Kaiser Wilhelm Institute had to follow the rules for wrapping. Ian deposited the twine in his bottom drawer. Layers of wrapping paper came next, and Ian added them to the drawer's stock. The mound of books, journals, newsletters, and reports was further bound by string. Ian wondered why, in the late 1920s, they didn't just use a cardboard box, but untying the knots gave him a certain satisfaction. Mr. Burns would have told him to just cut it, as in Jack and the Beanstalk.

It was January, and the noon daylight in London was depressingly dim. Dodgeson & Pine, had recently shifted to the new, gentler, frosted incandescent light bulbs. Only the older calculators still used green eyeshades. The project would keep the lady calculators on the third floor busy. Although the Institute of Actuaries never granted her credentials, Ian's mother had been an actuary, inspired by George Bernard Shaw's liberated actuary character, Vivie Warren. Her final position had been a calculator supervisor.

The material came from the Kaiser Wilhelm Institute of Anthropology, Human Heredity, and Eugenics. Ian's first task, organizing the material, would take days. The Institute's announcements near the top of the stack were priority reading to understand the client, but Ian was sure they would be boring. The announcements included an article by a German Nobel prize physicist, Philipp Lenard, who denounced Albert Einstein. Another article described a project to update Richard Wagner's famous, "Das Judentum in der Musik." The anti-Semitic agenda of the Kaiser Wilhelm Institute was distasteful to Ian.

Finally, Ian found an article about the need for an actuarial study. The article was pinned to the commissioning letter to Dodgeson, which stated fees (happily for Ian, in pounds sterling not inflated deutschmarks) and described the actuarial study. The Institute's statisticians had forecast the decline of Europe's Jewish population, and they followed the methodology of Frederick Hoffman's, *Race Traits and Tendencies of the American Negro*—the "Hoffman hypothesis." Hoffman, a prominent US actuary, believed the Negro population was likely to die away, because their health, life span, education, and wealth were so far below that of the Aryan population. The Institute wanted a British actuary to find the same end for the Jewry—and then they wanted newspaper interviews with the actuary.

Ian guessed that the Institute wanted to influence von Hindenberg, the German President, the same way Hoffman bolstered Woodrow Wilson, the American President. Wilson used Hoffman's work to justify demoting and segregating Negroes in US government jobs. The combination of the American tragedy, the chaos of German politics, and the futility of the project darkened Ian's previous, excited mood.

Hoffman's *Race Traits* was in the Dodgeson library, as it was one of the few books authored by an actuary. The book's flaws were obvious to Ian—and Ian knew he could easily explain the flaws to his non-actuary friends. Hoffman's averages of Negroes' population growth, wealth, education, and health reflected communities of people who were slaves until Abraham Lincoln's 1863 Emancipation Proclamation or even later. Former slaves started with no assets, education, or institutions. Hoffman ignored the numerous counter-examples of progress—the Negro universities, conservatories, inventors, artists, etc. that flourished after emancipation. Ian wondered how Hoffman could be so ignorant—or so biased.

The eugenics of Hoffman's book disgusted Ian:

“Race deterioration once in progress is very difficult to check, and races once on the downward grade, thus far at least in human history, have invariably become useless if not dangerous factors in the social as well as political economy of nations.”

Ian wondered if he hated eugenics so much, because the Spanish flu killed his mother. The popular eugenicist arguments—that the Spanish flu epidemic removed the weak and improved the gene pool—enraged Ian. He had looked up to his mother as a remarkably accomplished woman. Furthermore, the reports of lower flu deaths in cities that established quarantines suggested to Ian that her death was avoidable.

Ian similarly disliked religion, anti-Semitism, and other prejudices. Ian recalled that his father, a librarian at University of Guildford, was close friends with a rabbi, who had helped his father organise the library’s Hebrew collection. Ian had joined his father and the rabbi at a music recital of Max Bruch pieces shortly after his mother’s death. Ian thought music had something universal. He wondered if his friends from Delhi and Shanghai, who had helped him through some of the toughest maths courses, would have the same feeling about the music?

Even the liberal Fabians supported eugenics, as would the old men who led Dodgeson, so there was no home for Ian’s views on race, epidemiology, or public health. For better or worse, actuaries at Dodgeson seemed uninterested in how the Spanish flu should have been managed, or the ethics of breeding people as though they were terriers. Ian just didn’t talk about his views.

Quickly, Ian realized that the Kaiser Wilhelm project would not help him become a partner at Dodgeson—quite the opposite. The client would not be happy with his views, and the newspaper interviews would never happen. He was now driven to puncture the Hoffman hypothesis, the consequences for his career be damned.

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Ian liked working with the women calculators—one of the few opportunities he had to meet a future wife. He was especially glad that Vanessa Cohen had been assigned to him. She was Jewish and had extraordinary ability to find root causes. Despite the Kaiser Wilhelm “evidence,” she seemed healthy. She had blue eyes, which made Ian wonder if perhaps she wasn’t 100% Jewish.

Ian worried about the Kaiser Wilhelm Institute’s methodology. If the Institute studied the Irish, there would be birth and death records in the Catholic parishes. Instead, the Kaiser Wilhelm Institute’s statisticians had assembled Jewish population census data by city for 1880 through 1920. Minsk, Chashniki, Vilnius, Podolsk, Warsaw, and many others. The statisticians did not create mortality tables but created population totals by age. They ignored women. The data showed, for each decade, declining populations of Jews in every town, which the statisticians contrasted to the growth of the non-Jewish population. When extrapolated, the Institute’s model predicted that the Jewish population would almost disappear by 1950.

Vanessa quickly pointed out that the 3 million Jews who migrated mostly to America from the 1880s until 1920 drove the observed population decline. But, because the United States policy had just recently changed and shut down Jewish immigration, that source of Jewish population decrement would not continue and the population would grow naturally.

Together, Vanessa and Ian developed a work plan. A “normal” population growth forecast, including women, would be assembled for the Jewish population starting 1880, assuming the national average mortality and population growth—the same rates as everyone else. Then, migration statistics from each country would be assembled and subtracted from the “normal model”. After subtracting migration effects, the populations might come close to the census numbers. If so, the model would validate the “migration hypothesis.”

The work proceeded through the spring and the results were as Ian and Vanessa expected. In aggregate, migration accounted for the appearance of Jewish population decline. It was time to present the results to Burns. Once again, Ian had an appointment in front of the partner desk.

“Wallace, I see you matched migration and population decline. That was really very clever of you. What made you think of it?” Without waiting for an answer, Burns’ voice turned critical. “But you did not really answer the question, did you? We need a forecast for 1950. Let’s wrap this project up, shall we? Otherwise, the Germans are going to say we are Robin Hoods—but stealing from the poor Germans--and not the happy pantomime version of Robin Hood.”

“By the way, you will need to find a new calculator. Miss Cohen is leaving Dodgeson next week. She says she is joining an American actuarial firm. Good luck to her. Dodgeson doesn’t have any Jewish actuaries or partners, although our competitors at Woodstone do. Woodstone might even allow female partners someday. But not here.

The next morning, Ian invited Vanessa to go for a walk to discuss how to complete the project, given her imminent departure. But he really wanted to hear her real reasons for leaving, and that conversation had to be outside of the office. He need not have worried about awkward silences.

“Ian, thank you for letting me run the Hannover project. It actually required thinking. The other calculator work here is soul-crushing. They will never treat me as more than a calculator. Most of the girls here come with a spark, but it gets put out like a used cigarette.

“I just can’t stay. There are some Jewish accountancies in New York and Atlanta, and one or two are run by women. The big firms don’t hire Jews or women, but some of the insurers do. There are women Fellows of the Actuarial Society of America--for decades now.

“You are lucky this project came through Burns. He hates Germans more than he hates Jews. Probably because his brother never recovered from Verdun. If the work had come through Schmidt, he would have ordered you to forecast millions fewer Jews. And there’s no way Schmidt would have let a “Vanessa Cohen” work on it.

“Ian, you’re not the average partner material, either. What’s your plan?

He had no plan. The conversation made him feel cold to his bones. He desperately wanted a hug from Vanessa, who, at least, had a plan.

The Jewish population forecast to 1950 was completed by another calculator, who applied population average growth rates to the 1920 census figures and assumed no migration. By 1950 the Jewish population of Europe would increase by 1 million, not decline by 6 million, barring extraordinary events. The criticism of the Kaiser Wilhelm work plus the corrected forecast went through senior review at Dodgeson with only a few edits. It was delivered to Germany in July.

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August, September, and October passed by, but there was no response to Ian's Jewish forecast from the Institute or even from any Dodgeson partner. Ian's work switched to life insurance actuarial pricing. He made an inquiry to one of the big American insurance companies about joining them and also contacted a partner he knew at the Woodstone firm—the firm that had Jewish partners. But he was determined that his rebuttal of the Hoffman hypothesis should be heard by the eugenics movement.

Burns was retiring in November with a party at an inn famous for its Sunday roast. Ian along with all the other Fellows of the Institute of Actuaries employed by Dodgeson were invited. Ian decided that this party would be the right time to ask Burns about the report. Depending on what Burns said, Ian could make some decisions.

The day of the retirement party was rainy and the inn smelled of wet wool and soot. Burn's favorite bitter was in pitchers at all five tables—a final gift from his partners. Happily, Burn's actor son was Master of Ceremonies and created a light mood with his sharp wit and bright scarf. He had the celebrants laughing with his story that the words "actor" and "actuary" had the same root, from the Albanian word for "parsnip." The actor part came from the parsnip's frothy leaves that grew in the air, and the actuary part came from the gnarly roots that grew deep in the ground. He explained how his actuary father was the highly successful parsnip root, and nourished not just the success of Dodgeson-& Pine but also his son's airy acting career. He added that, growing up, he really wanted to be a bird and fly away from the business of numbers, but he liked parsnips too much. A joke contrasting British parsnips to German cabbages drew laughter. Finally, he invited everyone to come to the Jack-and-the-Beanstalk pantomime the next day—he would be playing the Dame.

Mr Burns rose from his seat with a pint in his right hand and braced himself against the chair back with his left. He thanked his son, thanked each of his partners, thanked each of the dead partners, and said something about the firm's future success. The Dodgeson & Pine group roared with self-congratulations.

Ian knew the snore clock was ticking, and he had to move fast. In seconds, Ian walked from his table near the back to the front where his former boss was now seated.

"Mr Burns, congratulations! But, what is the news from Hannover? Did they like the report? Will anyone read it?"

"Walloch? Oh, Wallace? Oh yes. I don't expect we will hear from those Germans again—no loss there. I think your report was dead-on, and I'm sure they studied it carefully, but they never admit to being wrong. The Jews have been around for millennia—longer than the Anglo-Saxons—so Jews aren't about to wither away. That's what the averages say, whether the Germans like it or not. They will have to find a different scheme. Those Germans are always trying to blame others for the Great War—blame someone for starting it and blame someone for losing it. Anyway, the Kaiser Institute now have their own forecast department, and their reports are probably far too long, like Wagner's operas. I prefer English pantomime—short and to the point.

"Walloch, don't trade your cow for magic beans. Interesting work doesn't pay the bills, you know. By the way, you are the age where you should find a wife—rumor has it you've been looking at the calculators. Just don't be like my son. Will you kindly refill my glass?"

Burns' explanation and banter gave Ian a feeling of relief about his future at Dodgeson, which Burns quickly darkened.

You were right that decades of migration explained the declined population of the Jews. But, with the Americans shutting down immigration, where will the Jews go?

Ian wondered also where he should go.

Notes:

The Kaiser Wilhelm Institute was real, and they contributed to the Nazi movement. However, their actual years of activity came after the years of this story.

The US Emergency Quota Act of 1921 and Immigration Act of 1924 shut down immigration to the US.

The references to Lenard's anti-Einstein statements and Wagner's anti-Jewish music letter are based on historical fact.

The quote and content description of Hoffman's book and the portrayal of his prominence in the actuarial profession are accurate. Hoffman FL. *Race Traits and Tendencies of the American Negro*. American Economic Assoc. 1896. Pg viii. The influence on Woodrow Wilson is surmised, but the description of Wilson's racist actions is factual. Hoffman's influence on European eugenicists and Nazis is speculation by the author.

The names of the English firms are invented, as is the "migration hypothesis."