

Article

Nature via Nurture, the Martin Way

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Abstract

I recount early formative experiences with my father, Nick Martin.

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I have been asked to write a piece about my father's role as a scientific mentor. This is impossible for me to dissociate from his role as my dad, but since neither of us would like it if I wore my heart on my sleeve, I will be treading a fine line.

Perhaps incongruously for someone who is such a firm believer in the relative importance of genetics over environment for positive life outcomes, my father was devoted to nurturing his daughters in all things scientific, cultural, culinary and disciplinary. Piano practice and learning how to roast a leg of lamb were no less important than maths homework. My earliest genetics lessons with him started over the dinner table probably around the age of 10 years, when he would explain the twin method by drawing structural equation models on the back of shopping lists. I don't think I fully understood these at the time (and indeed, still don't today), but it wasn't hard to be infected by his huge enthusiasm for the subject and his conviction that being a geneticist was the most exciting job one could have. I don't think he had ever seriously contemplated any alternative career paths, and although I briefly flirted with the idea of becoming an historian, by the age of 15 years, I was pretty convinced that I, too, would be a geneticist, despite having taken no formal genetics classes yet.

On his firm advice, I steered clear of high school 'muddy pond' biology in favor of Latin, which he considered essential for teaching one logic and grammar, and understanding Western history, art and culture (he was right). I was introduced to the terror of his famous red pen over my Latin and history essays. Never a single ambiguity, tautology or trendy phrase slipped by him without comment, and I quickly had to learn his unique shorthand notes. I was always relieved to see the annotation '*stet*' [Latin for 'let it stand'], meaning 'ignore this crossed-out phrase, actually it's fine as is'. Similarly, his regular email correspondents will be familiar with his tendency to use brief Latin, French or German words whenever it saves having to type a few more letters painstakingly with two fingers.

In my earliest undergraduate genetics lectures in 2007, his prophecy came true, and I discovered that biology only became interesting when one introduced some maths. I felt the same

excitement that he had experienced at the same stage upon understanding how a binomial distribution could converge to a normal distribution, bridging Mendelian and complex genetics. I remember him coming home one evening that year, throwing the first Wellcome Trust Case Control Consortium genomewide association study paper down on the table and declaring 'this is a really important paper'. It was a thrilling time to be starting out in the field. Like many Australian undergraduates, I lived at home, which meant I did not have the same riotous fun and new social experiences as other students. However, the frequent boozy dinner parties with my parents and their colleagues and the many conversations about the latest exciting developments in the field were formative and a lot of fun. These conversations often degenerated into political debates in which my father would make more and more outrageous arguments to wind people up, as the wine flowed freely. Our less practiced guests would become duly enraged by his extreme positions, but the seasoned old-timers like Matt Keller, Manuel Ferreira, Naomi Wray, Peter Visscher and Nathan Gillespie would just shake their heads and laugh, knowing that he didn't really mean what he was saying (well, at least not 100%). My father would take great pleasure in sharing the latest fun genetics facts, such as how the first hair curliness gene they found in humans (trichohyalin) was also involved in wool crimping in sheep, or how UK Biobank data have demonstrated a negative genetic correlation between playing computer games and IQ but also, ironically, with the time to click through the IQ test.

We have a few papers together to date, one on patterns of recombination in human pedigrees (Martin et al., 2015) and another on the contribution of common variants to rare developmental disorders (Niemi et al., 2018). On both occasions, my father fell over backward to help in providing the data, only being kept from breaking too many rules by his dedicated staff, to whom he is eternally loyal. He has never had any patience for, as he sees it, the sanctimonious proponents of 'open data sharing', pointing out, correctly, that he has always shared his data with any even vaguely competent researcher who asked, but on his own terms, under his guidance, so he can ensure people understand the ins-and-outs of the data collection and how variables can be missing-not-at-random, etc. My mother and I roll our eyes when we watch him compulsively working the room at conferences,

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starting five new collaborations an hour — we know it will lead to more complaints about how all he does is send emails and red-pen manuscripts, although he does love it, really.

I have attended the Boulder course twice now to help with teaching, and it has been a joy to see my father in his element there, with some of his protégés now running the workshop. He is never afraid to ask a naive question in front of the whole room to make a didactic point, which I think many students (and faculty members) appreciate. One of the most important things he has taught me is that there is no such thing as a stupid question, and that you will always learn more by putting yourself out there, asking it and

digesting the answer, than by sitting back passively and never quite understanding. If I am half as active and passionate about the subject at his age, it will be a great testament to his influence.

References

- Martin, H. C., Christ, R., Hussin, J. G., O'Connell, J., Gordon, S., Mbarek, H., & Donnelly, P. (2015). Multicohort analysis of the maternal age effect on recombination. *Nature Communications*, 6, 7846.
- Niemi, M. E. K., Martin, H. C., Rice, D. L., Gallone, G., Gordon, S., Kelemen, M., & Barrett, J. C. (2018). Common genetic variants contribute to risk of rare severe neurodevelopmental disorders. *Nature*, 562, 268–271.