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Round Pegs, Square Holes: A Review of *Being an Interdisciplinary Academic*

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“The fox knows many things, but the hedgehog knows one big thing.”—
Archilochus, quoted by Isaiah Berlin

Blurring Lines, Fuzzing Distinctions

Sometimes it takes more than one discipline to write a book review. Sometimes it even takes more than one book to review a book. My goal in this brief essay is to do some justice (in the form of a review) to Catherine Lyall’s *Being an Interdisciplinary Academic: How Institutions Shape Academic Careers*, to reflect on my own experience as an interdisciplinary student, professional, and part-time academic, and to relate this to a broader picture that traverses the boundaries of the academy. This will take place, however, with the backdrop of a book written for a general audience, *Range: Why Generalists Triumph in a Specialized World*, intended to apply across a number of walks of life and disciplines (irony intended), emphasizing the business world, but not at the expense of the academic and athletic.

To start, I nearly swooned in relief when Catherine Lyall lets the reader know that her graduate academic training is in science and technology studies (STS). Being a recent Ph.D. graduate in the same interdiscipline as she, there came a natural, if still hesitant, feeling of kinship and knowing what some of these challenges must be. I’ve experienced some of them firsthand—not only because of the STS work—but the book caught and held onto my interest. One gets the idea by the end, however, that at least in some cases, the institution’s verb “shape” might be better replaced with “mis-shape” or even “distort.” It might even come to the worst of all: “ignore.”

Lyall’s work focuses on her experience as an academic in the United Kingdom, wherein interdisciplinary academic applications to policy are a matter of public priority. She conducted her interviews in the UK, across several different universities and with a spectrum of academic ranks, from early-career to more senior personnel. Lyall’s careful attention to her research includes a precise definition of what she means with interdisciplinary: “a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge ...” (235).

The definition indeed holds precision but it also necessarily casts a wide net; it touches on the borders within an academic setting, but also the areas where that academic setting had been purposefully set on a course to render policy assistance *in an interdisciplinary manner*. The goal, in short, was to be interdisciplinary and questions abound regarding the progress toward that state, or even the ways in which the institutional structures of the academy may preclude it. Even still, while steering away from those who couldn’t crack into the academic job market, those who were chased out, discouragement and confusion seems to be a strong, if not exclusive, flow of force in the academic careers of many of the interviewees.

Where one’s interdisciplinary travails may lead to discouragement or even derailment, at the same time, there seems to be a growing appreciation of broader knowledge bases and skills

in the non-academic world. I happened to read David Epstein's *Range* at the same time as Lyall's work; such comparisons after having done so are irresistible. Epstein's narrative, likely less systematically informed from a methodological standpoint than Lyall, paints a different picture

Epstein, on my reading, would likely agree with much of the concerns that Lyall and her supporting literature would suggest. Epstein's larger point, however, is to make a broader argument for the inclusion and value of the interdisciplinary—or even the polymath, or even the well-hobbled—in the workforce. For leadership roles, for creativity, for problem-solving and vision, the generalist applies different solutions from different fields to solve different problems. It doesn't matter if he or she was a specialist at one point; seeing the bigger picture, a holistic sketch, even if somewhat blurry, adds up to greater value than staying inside a single technical box. Epstein's narrative of work show problem-solving rather than strict scholarship, but here there is an important further area of concurrence with Lyall, as the latter also notes that part of the remit of interdisciplinary work within the British academy is to “solve problems whose solutions are beyond the scope of a single discipline” (235).

Epstein calls attention to the importance of the generalist, of bridging divides, of integrating knowledge. For much of Epstein's discussion, such growth seems organic, uncategorized, spontaneous, and all-pervading. Lyall shows how programmatic intention of instilling interdisciplinary in institutions with not only just structures, but entire epistemic foundations, act to repel such attempts.

In The Ivory Tower

Lyall's research uncovered any number of important frustrations—frustrations to the purpose of centralized interdisciplinary growth, at any rate. She notes that “interdisciplinary” as a watchword and goal seems to be omnipresent (277) while, at the same time, the real-world outcomes for those who attempt to fulfill this policy goal are fraught with issues, including extremely basic issues such as the possibility of future employment or advancement within the academy. One of several exemplar quotes would be:

Participants noted that, even those students whose innovative interdisciplinary work was received well at conferences, for example, could feel that they were disadvantaged when prospective university employers prioritise ability to teach in a discipline ... only a handful of supervisors were wholly positive about interdisciplinary studentship contributing to academic employment, and some had mixed feelings, with many voicing real concerns about employment prospects in 'tribal' academia (608).

A well-known feature of a tribe is a rejection of something new, strange, and challenging to the status quo. A very basic conservatism inheres in a tribal setting, a high bar to be surpassed in any way to effect a change, and a concomitant steep price to be paid by the transgressor and for the transgression. The interdisciplinist is by definition the outcast, the

stranger, the outlaw, the enemy within. Some brave souls abide. Even when the breakthrough might be hailed and adapted, the transgressor may not.

Lyll's analysis follows a thread of narrative that she found within her interview subjects, ranging from problem solvers (interdisciplinary approaches as instrumental) to individual careers (those for whom interdisciplinarity is the academic point.) It seems to follow that the instrumentalist strain fared better, as the discrete areas in which problems could be solved could be more easily recognized as pragmatic success; by contrast, Lyll describes some of the careerists as noting that their path is intentionally more challenging, swimming against the main currents sweeping scholars in a specific and singular disciplinary direction while pressing them against disciplinary walls. A number considered leaving the academy, others clung to hope, others got a stroke of luck.

Lyll indicates that at least some of the problem—whether considered friction, hostility, or closedness—to be barriers that are cultural in nature (1043). The cultural gap stretched most wide when the disciplines to be straddled were “paradigmatically different.” Such problems created more heat than light, with debates and arguments, but without a practical path forward for figuring out the value of the work and then how to advance it. Certainly, there would be some strong arguments in favor of heavy disciplinary training (first), then moving into a more interdisciplinary setting, as one would be familiar with problems of a field before attempting to cross-pollinate new directions or solutions. Doing otherwise, as Lyll reported a high-ranking interviewee noting, meant that the interdisciplinary scholar would find it “really difficult to know what you don’t know” (1379).

This problem of friction and mutual misunderstanding would become especially true in academic milieus of great rigor and critical investigation, such as the peer review process, which by its very nature would be distal from the goals of the interdisciplinary domain in the first place. The interviewees also reported issues relating to the institutions’ expectations regarding teaching; some found it simply impossible, while others strove to hide it. The tribal conservatism goes even further then —like hiding embarrassing magazines from one’s parents—the discouragement becomes more vexing and more pointed when it becomes an epistemic and intellectual purity test. At such extremes, there seems to be little value in even making vague lip movements about the word “interdisciplinary.” So despite the need to know what you don’t know, you never really find out. Lyll asks: “How do you know what your distinctive contributions to scholarship could be if you have only been trained to think in one way” (1384)?

This is the interdisciplinary question par excellence. Lyll notes that an interviewee declares that her interdisciplinary training allowed her to “not see sociology in everything” (1649). Indeed, any “discipline” can fill in for the place of sociology in that quote and one is readily reminded of the old conventional wisdom of the world appearing like a nail for those who only have a hammer.

Lyll's work covers a few more areas, and, if it hasn't been clear already, her work is really worth the read. The hinge for Lyll with Epstein, however, is the jumping-off point for

driving home the interdisciplinary conundrum, and it comes directly from Lyall's intonation of another time-tested phrase: "jack of all trades and master of none." Lyall's research in the academy clearly bleeds over into practical considerations there, but also raises questions about the place that the interdisciplinarian might find oneself in, be it academia, the private sector, or even government.

Interdisciplinarian Rebranded: Call Me a Generalist

As one might expect, Epstein's work is a breezier, if lengthier, read. The book is clearly written—so to speak—for a general audience. Perhaps it could even be noted that writing for either an academic audience or a popular one might both be seen as specializations, as it were, but there seems little to detract in either work from the other. As a person who straddles academia and the private sector myself, the combination seems to be a healthy one, or at least one that I find congruent. And, when I first entered graduate school in what seems to be centuries ago at this point, I chose a legal education because, in my words then of my twenty-something self, it was the best "generalist" degree. Suffice to say, at the very least, I have a great deal of sympathy for the generalist.

Epstein does as well. Indeed, his generalist is someone a bit more loosely defined than the rigorous description that Lyall used; that latter usage, however, seemed to be informed in large part by the institutions whose role Lyall questioned in shaping what it means to be interdisciplinary (and in this part of the review, I'll be using interdisciplinary and generalist more or less interchangeably). Given the more specific scope of her undertaking, that's not surprising. Epstein, by contrast, takes a broader look at the different lives that one might live as a generalist and while he found many of the drawbacks and pitfalls that Lyall described, for Epstein, there seemed to be a bigger cause for optimism. Epstein's title alone is a bit of a spoiler for his conclusion: *why generalists triumph*.

Epstein acknowledges the problem of finding one's place in a specialized world. It is akin to finding one's identity, not just in the academy, but oftentimes in the professional world as well. He also cuts a similar incision when he states that "highly credentialed experts can become so narrow-minded that they actually get worse with experience, even while becoming more confident—a dangerous combination" (202). (It should come as no surprise to STS scholars that later in his work, Epstein recounts the space shuttle *Challenger* disaster and the ensuing investigation, including the classic work on the events by Diane Vaughan.)

Epstein's examination crosses not only academic disciplines, but different careers and walks of life. The question of being a generalist, having interdisciplinarity, is answered by a belief in creativity, epistemic rigor, and the ability to see the world through the eyes and experiences of others. Olympic athletes are typically world class because they're *athletes* in general, not necessarily because they toss a mean javelin and have done so since they were three years old. Skilled managers and leaders may have attained proficiency in a narrow technical area, but either had or attained broader skills of communication, culture, and creativity to inspire teams and build new things and products. Artists, scientists, and yes, even academics, could be superior in their generalist orientation. The fox would and should outfox the hedgehog.

The generalist may come by the knowledge the hard way. One might also get the impression that a lot of luck also comes into play. The question, however, is really one of mindset. In another recurring hero role in Epstein's work, Frances Hesselbein, the long-time leader of the Girl Scouts, is used as an example of serendipity, skill, character, and intelligence. (Confession: Hesselbein hails from my hometown, and, at the time of this writing, is still working and consulting as she approaches 104 years of age.) Luck, character, chance, the right mix at the right time—so what?

What matters is time. In Epstein's formulation, the successful generalist has talent, drive, curiosity, and more than a little luck...but they also tend to have time, freedom to make mistakes, to try again, and to go long periods throughout their careers without necessarily having a breakthrough, much less recognition. Some start late. Some peak even later. This is precisely one of the problems that Lyall seems to have implicitly identified: the risk and cost of failure for an interdisciplinary academic is extremely high by comparison. Test-and-learn, in Epstein's lingo, becomes crash-and-burn for the interviewees in Lyall's work.

So while specialists become more and more hedgehog-like by burrowing deeper and deeper into their own domain with each passing year, generalists must grow more broadly. Some of those interviewed within Epstein's work already hail the decline of the specialist, noting that organizations seem to need fewer and fewer of them (3072). Academia might be the last of the domains to catch up to the rest of the world—at least, if Epstein is correct. Time will only tell if, in fact, persons are given a chance to learn more broadly and whether that leads to more creative organizations and creative societies. It is up to the generalist in such a case, however, as generalists are the problem solvers (again, Lyall) who handle ambiguity, complexity, and open-ended problems; these same problems, I daresay, are the ones that we are facing more and more of, each and every day.

Conclusion

If there's one word harder for the academy to swallow than interdisciplinary, it is "generalist." Outside of that realm, however, it's likely that the higher one's level is within an organization, the less surprising the label becomes. One might wonder if some of Lyall's interviewees—perhaps the ones at the top of the organization chart themselves, or those who work to put other people there—would see that the same way.

In my own experience, I've tried on occasion to join the academy full-time. Without going into a farcical recounting of the adventures—familiar to anyone who has spent any time in graduate school—I am still very much a round peg trying to possibly, just maybe, squeeze into a square hole. My own STS discipline background has provided excellent starting points for a number of academic directions, but most of my concentrated efforts have been in business schools—where accreditation and other requirements often stand athwart those goals—foiled once again by disciplines and institutional divisions. I have, however, been happily teaching MBA students and writing the occasional piece, to keep my hand in it and to keep some skills updated—creating, as it were, a further interdisciplinary direction.

In my other life, the workaday portion of it, I have the good fortune to be in a relatively senior position within an organization. I have lived through both the Lyall and Epstein realities; I do think that my interdisciplinary background helps me develop creative solutions. I've also, by dint of having several graduate degrees, been the beneficiary of not only life-long learning, but of different disciplines themselves. And, of course, I've largely had the freedom—at least outside of the academy—to test and fail and try again. This has helped my generalist career.

Where does this leave us, or, at least, more than myself? Lyall's and Epstein's books are both illuminating and insightful and worth investing time to study. Lyall, on the whole, does a better job in describing the problems of the interdisciplinary researcher, especially in the context of the academy. One might be tempted to overplay the UK focus and the issues of policy integration specific to that milieu under her study, but it seems to this reviewer that her descriptions are more useful and more universal than her own self-described limits. One might almost say that they can be generalized to a certain degree. By contrast, Epstein's work seems to strike an optimistic note, even an optimistic chord, more than what Lyall's research seems to have given her and her analysis. That being stated, Epstein seems to pass by, or at least attempts to minimize, the profound gravitational pull of the disciplinary nature of several fields. While eager to help us tunnel out, other forces come into play to drag us backward.

The takeaway for the reader looking at both works is the most important one: generalists are important, perhaps moreso than one might think (particularly by hedgehogs.) Interdisciplinary academic work, while sometimes methodologically idiosyncratic (and perhaps riskier) brings creativity and new ideas into rigid, dusty, and creaking disciplines. Academic institutions and public and private organizations ignore the creative and original possibilities at their peril; stagnant can only be comfortable for so long. It is, after all, a large forest, with plenty of room for both the hedgehog and the fox.

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