Patents and copyright are justified with a question, "Why would people innovate if they didn't expect to gain?» At first glance this argument sounds like common sense; however, if we dig a little we quickly understand that this is "lawyer logic". That is, it is a story which conveniently has lawyers legitimacy reinforced.

Economics teaches us to think in a rather different manner. The narrow interest versus broad interests, specifically for two sides that have equivalent interests, the side that has the narrowest base has an advantage. It is simply easier to coordinate the interests. The lawyers are an example of such a narrow coalition. So if you think the question is sufficient to justify patents, the narrow interests are winning.

A more neutral framing can be presented, one such formulation could be "do most innovations occur faster with or without patents?". Note that this question doesn't have the conclusion baked into it. An [infamous paper](https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1756-2171.2009.00081.x?casa_token=Owva_Wo0EiIAAAAA:ffSn0uG512mKCtwQN115N9IqzBKV8Ufa2_QBDL_xPNjtaPMgYUrCGi__dveodKua62Oue9c5C15W0n0y) shows that the more innovation is sequential, the more likely it is that patents will slow down it down. The logic here is really quite simple, it may be true that the next innovation will be created faster with patents, but the innovation that improves on this innovation may be created slower because there is a decreased incentive to work on a patented invention.

This is the reason the sequentiality of innovation is such a contested territory. If one can show that innovation is a highly sequential phenomenon, then the lawyer logic is under attack. Matt Ridley's book is an important contribution to this debate. In "How Innovation works", Ridley isn't interested in the theory of the debate, he wants to stick to what is important, the innovations.

His book reads like a series of short stories, indeed hundreds, about many different innovations. He attempts the impossible task of trying to classify them, in the beginning, he classifies them by industry (transport, health, food, energy) but by chapter 5 this approach is already limiting its limit, he then has a chapter on pre-historic innovations and low technology innovations.

Ridley doesn't just focus on debunking the lawyer argument through the sequentiality argument. A running theme throughout the book is that people seem to be motivated by creating in itself, indeed the academics are usually the exception with their litigating behavior. The problem itself is academic; the working moto when it comes to evaluating innovation is "if I can't measure it, it isn't there".

He makes a rather sharp distinction early on, invention is not innovation. The person who brings the product to market and changes the norm is the innovator. According to Ridley, if patents were always given to innovations then they would be less harmful, the problem is that an innovation is defined ex-post; it isn't possible to know which invention will turn out to be an innovation. As such most patents are given on things that never had any potential to generate revenue. An invention may or not turn out to be ready for the market, if it isn't ready, then protecting it can only slow down the invention that will be able to penetrate the market.

Except for the sequentiality and the motivation of entrepreneurs, an important reason to undermine the lawyers’ argument for patents is the pushing of inferior products. In a world without patents, firms have an incentive to search the best possible product for any given end and then attempt to sell that product. In a world with patents, firms have an incentive to sell the products that are protected. A safer more effective drug will not be pushed over a less effective and more dangerous one because they have property rights over the latter and not the former.

It is not until page 240 that Ridley takes a break from his short stories to try and synthesizes what has been learnt so far. He also briefly stops by the economic literature to take a few digs at Mariana Mazzucato (who thinks the government is the important source of innovative activity). Perhaps the most fun chapter in the whole book are kept for the ending ,"fake" innovations, with some absurd stories, such as Elizabeth Holmes faking her way into becoming a billionaire as well as becoming Obama's ambassador of global entrepreneurship.

The elephant in the room is how come patents are so pervasive? While part of the story is the narrow versus wide interests. An even bigger part of the story is the United States forcing it upon others. Ridley’s book is rife with examples of both historical and contemporary interest with examples ranging from why coffee is subversive to the public good, European regulations being dictated by German manufacturers of vacuum cleaners and how much Ridley's ancestors were paying in patent fees.

The book isn't perfect there are some important areas that are not expounded upon. Though [household innovation](https://voxeu.org/article/taking-stock-household-innovations) as a concept is sprinkled throughout the book it is never quite given due credit in the conclusion. In some places Ridley is rather too cautious, he correctly claims there is no evidence that patents increase the rate of innovative drugs but does not advocate for the abolition of the patent system. The inverse problem occurs when he is discussing GMO’s(Genetically Modified Organisms), he does not sufficiently explore [the problems raised](https://www.fooledbyrandomness.com/pp2.pdf) which are both about the combinatorial nature of disease and about the industry structure which has the potential to increase the cost of errors.

Nevertheless, Matt Ridley makes a powerful contribution to the debate by sticking to the stories. Innovation is a bottom up process; no single mind is guiding it. Innovation can only emerge when the cost of errors is low and so Matt Ridley is on the correct side of the issue when he says "evolution" not "revolution".