

## A Punter's Guide to a True but Non-Obvious Proposition in Economics

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The great mathematician Stanislaw Ulam challenged the great economist Paul Samuelson to name a principle in the social sciences that was both true and non-obvious. I suppose Ulam's standard for true and non-obvious was something like the Goldbach Conjecture, that every even number is the sum of two prime numbers, and every odd number the sum of three primes. Samuelson thought for a bit, and replied, "Ricardo's theory of comparative advantage." "That this idea is logically true," he continued, "need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men [and even women, dear] who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them."

You can make the argument for comparative advantage seem highly non-trivial and devilishly difficult and hard to believe after it is explained to you by following Ricardo himself into arithmetic and clotted prose. Ricardo wrote in 1817 that "England exported cloth [to Portugal] in exchange wine because, by so doing, her industry was rendered more productive to her; she had more cloth and wine than if she had manufactured both for herself; and . . . the industry of Portugal could be more beneficially employed for both countries in producing wine" (Ricardo 1817, 1819, Chp. VII, p. 86 of Winch, ed.) If you can instantly grasp that doctrine and go on believing it for practical purposes such as opposing Donald Trump's view of foreign trade you are either already an economist or have an astonishing natural ability for the subject, rather similar to Ricardo's. The American economist Paul Krugman wrote a column a long time ago claiming that comparative advantage *is* in fact difficult, requiring various tricky assumptions only an economist could love. But it is difficult only in the world of Princeton University economists in which "imperfections" abound and mathematical proof reigns.

Actually, it's dead easy. No math, no arithmetic. It is in fact the soul of common sense. But you have to understand that comparative advantage is the principle of *cooperation*, as against *competition*. The word "advantage" gets us thinking of competition, which is perfectly reasonable in our own individual lives--we do compete with other businesses or other writers or whomever. But the system as a whole, whatever it is, does well of course by *cooperating*, in business or science or family life. It's not all we do, admittedly. We also compete. But *within* a household or a company or a world economy the job is to produce a result in the best way, cooperatively. If you are running a household or a sports team or a world economy, you would want to assign roles to the various contributors to the common purpose sensibly. It turns out to be precisely on grounds of comparative advantage.

Consider Mum and 12-year old Oliver, who are to spend Saturday morning tidying up the garage. Oliver is incompetent in everything compared with Mum. He cannot sweep the floor as quickly as she can, and he is truly hopeless in sorting through the masses of rubbish that garages grow spontaneously. Mum, that is, has an *absolute* advantage in every sub-task in tidying up the garage. Oliver is like Bangladesh, which is poor because it makes everything--knit goods and medical reactors--with more labor and capital than Britain does. Its output per person is 8.4 percent of what it is in Britain. So too Oliver.

What to do? Let Mum do everything? No, of course not. That would not produce the most tidied garage in a morning's work. Oliver should obviously be assigned to the broom, in which his disadvantage compared with Mum is comparatively least--hence "comparative advantage." An omniscient central planner of the garage-tidying would assign Mum and Oliver just that way. So would an omniscient central planner of world production and trade. In the event, there's no need for an international planner. The market, if Trump does not wreck it, does the correct assignment of tasks worldwide. Bangladesh does not sit down and let Britain. make everything merely because Britain. is "competitive" absolutely in everything. And in fact Bangladesh's real income has been rising smartly in recent years precisely because it has specialized in knit goods. It has closed its ears to the siren song of protecting its medical reactor industry. It gets the equipment for cancer treatment from Britain.

Comparative advantage means assigning resources of labor and capital to the right jobs, whatever the absolute productivity of the economy. It applies within a single family, or within a single company, or within Britain, or within the world economy, all of which are made better off by such obvious efficiencies. Following comparative advantage enriches us all, because it gets the job done best. Policies commonly alleged to achieve *absolute* advantage lead to protection--that is, extortion, crony capitalism, and the rest in aid of "competitiveness."

You can see the cooperation principle vividly in sports teams. The sports writer Ed Smith observed on August 6, 2017 in *The Sunday Times* that "the structure of England's side at The Oval and Old Trafford -- five batsmen, three all-rounders, three bowlers -- should be retained, whatever the surface. There is an obvious analogy here. An individual player, when weighing up adjustments to his technique, rightly hesitates before sacrificing a strength to improve a weakness. The same logic applies to a team." Good for Smith.

People who think they understand comparative advantage, and also think that economists are anyway a passel of pretentious fools, say silly things about Ricardo and his principle of comparative advantage. For example, Sir James Goldsmith did: "According to Ricardo," he wrote with brisk assurance, "each nation should specialize in those activities in which it excels" (*The Trap*, quoted in Paul Krugman, "Ricardo's Difficult Idea"). No, Sir James. Each nation -- or each member of the household or each member of a sports team -- should specialize in those activities in which it gives up the least of activity X in doing activity Y. Afterwards the household or nation should embark on trade. By the principle of cooperation and then trade, each will have more cloth and wine than if it had manufactured both for itself behind tariff walls.

The trouble we get into is that there is another principle, that of competition, in which the best wins, period. My beloved Chicago Cubs were not "cooperating" with the Washington Nationals when they narrowly defeated them in the first round of the world series competition last Thursday. And after a cricket team or a company have arranged their affairs internally to do as well as they can with what they have, they do go out to compete. England competes with Bangladesh in cricket, Tesco competes with Sainsbury's in groceries. True enough. But an absolute advantage that favors one or another *competitor*--under the silly rubric of "competitiveness"--is regularly assumed to be the same as comparative advantage for *cooperation*. It's not.

The two in fact have nothing to do with each other. The pattern of trade is determined solely by comparative advantage. The size of real incomes is determined solely by absolute advantage. Absolute advantage has after all another description, namely, "being productive and therefore rich and successful." Any businessperson wants to "compete" in such a sense, and it's good for herself and the country that she does such striving--excepting the very common case in which her "competing" involves soliciting favors from the government of the day, or for that matter, if less commonly, engaging in theft, bribes, lying, cheating, extortion, and outright violence on behalf of "winning."

Krugman notes that one of the problems lay people have with the theory is not grasping that wages are set by inter-industry competition, not by productivity in one industry. "It is a fact that some Bangladeshi apparel factories manage to achieve labor productivity close to half those of comparable installations in the United States, although overall Bangladeshi manufacturing productivity is probably only about 5 percent of the US level. Non-economists find it extremely disturbing and puzzling that wages in those productive factories are only 10 percent of US standards."

But Socrates taught the same way I do. Chalk and talk. Mainly talk. Yet productivity in alternative employment for me is vastly higher than for an elderly stone mason and philosopher in 405 BCE. For example, in the task of transporting people a sea captain in 405 BCE is vastly less productive than an airline pilot in 2017. So I get the benefit in wages of the vast improvement, in industries other than teaching, on the order of a factor of 30 or 40, because of Adam Smith's chief analytic contribution--that workers move to bring wages into approximate equality, regardless of the absolute productivity of travel by air as against teaching philosophy. Bangladeshi wages are determined by the alternative, and very unproductive, employment in braking rocks or moving fans, not by its good job in making knit goods.

In short, comparative advantage is simply the principle of doing as well as one can in *internal* affairs. But "internal" can properly be taken to mean "internal to the world's entire economy." Let us set sail on the principle of old Ricardo's trivial logic. Let us not fall victim to the illogic of self-sufficiency and "competitiveness" and the building of walls between nations.