From: "jeffrey E." <jeevacation@gmail.com>
To: Gordon Getty <[redacted]>
Subject: Re: W.D.
Date: Fri, 16 Sep 2016 19:50:57 +0000

---

very good

On Fri, Sep 16, 2016 at 1:08 PM, Gordon Getty <[redacted]> wrote:

> Dear Bob,
>
> Right now my total immersion is in composing. Just as much fun as econ or ev bio, though considerably harder work.
>
> Your last got me thinking again. I'm a fan of W. D., but contest him to two points. His rule goes too far and flubs the math. My new thought is that maybe I see how to fix the math.
>
> My book already says that capital and fitness are two words for the same thing. Depreciation is decapitalization caused by the time alone. What I and others call human depreciation can be generalized to all species including us as "biodepreciation". R. A. Fisher's reproductive value model shows how it might work; fitness (capital) declines as reproductive potential does.
>
> My suggested retouch of Hamilton's rule, under simplifying assumptions, is that creatures maximize r b. Zero is the only minimum or hurdle level (b must not be negative). Since biodepreciation continues inexorably, and is deadweight loss if left uninvested, we maximize r b as readily to minimize loss as to maximize gain.
>
> An exception arises if fitness can be banked or stored. Your reciprocal altruism, or Alexander's indirect variant, are classical ways to store fitness. When r b prospects are slim, banking fitness is a way to gamble that future ones will be better.
>
> Fitness (capital) once banked is then invested to maximize genic return over the banking period, just as with reciprocal altruism or Alexander's variant. The maximand is r b compounded at the generation rate (one over the generation length).
>
> Another qualifier covers voluntary decapitalizations (fitness transfers), as with Haldane's parable of giving one's life for so many sibs or cousins or nephews. Here I think WD's r b – c hurdle rate is correct. But voluntary fitness transfers look to be exceptional. My *reductio ad absurdum* does not foreclose them if they are rare enough to do no more than make up deficits in the usual transfer through biodepreciation.
>
> I haven't really thought this through, and welcome your critiques or anyone's. It fixes the math of Hamilton's rule, if I'm right, but still leaves my other reservation. His rule is over-committed to kin selection. I think it fights his own parasite theory of 1982, where histocompatibility alleles that compete today are teammates in the long run. The loser goes to the bench, not the cemetery, and stays there until needed again.
>
> Best, Gordon

--

please note