

Ecological Economics in Four Parables

He-man Dal [Emeritus Professor, School of Public Policy, University of Maryland, USA]¹

Copyright: He-man Dal, 2022
You may post comments on this paper at
<http://www.odpe.com/comment-on-e-i-e-no-102/>

Introduction

Economist Joseph Schumpeter's analysis must be preceded by a pre-analytical cognitive act that he called "vision," in order for analysis to have some thing to analyze. Vision can be clarified by

do not have to be historically correct, but the one he considered a

Parable contains the pre-analytical vision of ecological economic which has of conventional economic based on the *World Development Report* for 1992. That vision is a basic parable which contains ecological economic as the end of the relationship between the economic system (the economy) and the ecological system (the biosphere). Conventional economic sees the economy as the whole system, which has been defined in a separate component -- for example, finance, copeland, mine, garbage dump, etc. Ecological economic sees nature, the biosphere, as the containing whole system in which the economy must fit and adapt, either well or badly.

Parable provides the beginning analysis of the ecological economic vision, how the parable combines of function as a whole, the metabolic dependence of the economy on flows of matter and energy from and back to the biosphere, on the scale relative to the containing biosphere, and the radical policy conclusion and equivalence analysis is real. He then introduces the parable provided by the

the absence in conventional economic of an analogy to the Plimoll line. What would such an economic analogy look like?

Parable tells a story of a chemical engineer, Thomas Midgley, Jr., and the ozone depletion technology as the efficient solution to the problem created by analysis of the ecological economic

¹ Below is the email in which He-man Dal submitted his paper about a week before he died.

Dear David,

I hope that you are well and enjoying your holiday in England. RWER continues to be a source of

I am still kicking, but I, which has been

Attached is an article that I am submitting to RWER. Suggestions welcome.

All good to you,

He-man

paradigm. It is a cautionary tale about the prevalence of unintended consequences, and the problem of ignorance and haste.

Part IV considers the philosophical and ethical foundations needed to support the radical policies that indicate basic limitations on economic analog to the Plimoll line. Are there convincing ethical arguments to persuade the public to accept the needed policies? To what can one appeal in an effort to persuade? He elegantly points out the work of Alfred Russel Wallace, Charles Darwin on the basic difference (although the manner is similar) between humans and other creatures, and the Leopold-

depicted the morally unacceptable logical consequences of the denial of objective reality have become firmly embedded in the paradigm of biology (mainly Neo-Darwinism) and economic (individualistic behavior) respectively, and no longer the alternative foundation of the combined field of ecological economics.

Part I: Pre-Analytical Part: The World Bank's 1992 *World Development Report*

Ever since the World Bank published its *World Development Report*, dedicated to the topic the WB deemed most important at the time. In 1992 the topic was "The Environment and Development". I was on the team that wrote the Report, but I was included in a panel of internal reviewers charged with commenting on the draft and suggesting improvements. I felt that this was most important at the time, and eager to assist the draft.

The draft was laid out and I began reading. In the first chapter the author introduced *"The Relation of the Economy to the Environment"*. The diagram consisted of a rectangle labeled "Economy", with an arrow entering from the left labeled "Input", and an arrow exiting on the right labeled "Output". That was it. Nothing in the diagram accompanying indicated that the input was free, that the economy came from, that it was going on inside the rectangle, that the output was free, that it was going. And even if it had been accepted as a basic definition of the economy, the environment? I was disappointed! Undefined input came from nowhere and undefined output went nowhere, after paying a high employment cost. No help from the diagram.

After reflecting from my disappointment, I said to myself, OK, this is only a draft, and the title of the diagram is on a page even if the diagram itself is lacking. So I see a chance to make some helpful suggestions for how to improve the initial diagram, and give a better pre-analytical impression of the basic equation in the Report.

He also mentioned the importance of providing comments and evidence from the end of 1992.

Let's draw a big circle around the rectangle and label it "Environment". The Earth-environment, let's say, has one input from space, solar energy, and one output back to space, solar heat. No significant material input from or output to space.² Material cycles are energy flows through the environment. The input to the economy comes from the consuming finite environment and consists of depletion, a cost. The final output to the environment is waste and consists of pollution, also a cost.

For now, focus on the simple "employment" part of the diagram. The economy (both natural, consisting of human bodies and man-made artifacts) is made from material and energy taken from the environment (green field). Thanks to the fertility of the modernistic (nucleation of development of material-energy) more both natural and man-made mean less green field. In physical dimension the economy is an open subsystem of the environmental biosphere (i.e., in both the material and energy input and output material and energy output to the large system).

² The, an occasional meteorite hits the earth (a danger to international material input) and a few moon rocks are collected and no decadal sustained-glacial winds in the National Cathedral. A few rocks and ore have been exploited to space. A lot of waste, a small material deficit, a cycle lasting in earth's history. When we consider material in earth

People die and a ifac ea o o a e ed p, o he e i an ine i able o flo of deg aded a e fom he econom back o he en ionmen . If he inflo of p od c ion and ep od c ion i eq al o he o flo of dep ecia ion and dea h hen he econom (ock of people and a ifac) emain con an in ph ical i e, a ead a e. If inflo i g ea e han o flo i g o ; if le i decline .

In addi ion o he q an i a i e diffe ence be een inflo and o flo he e i al o a q ali a i e diffe ence. The inflo con i of ef l na al e o ce , he o flo of ele a e . U ef lne i clo el co ela ed i h lo en op , and ele ne i h high en op .³ An econom canno di ec l e e i o n a e an mo e han an animal can di ec l e-inge i o n e c emen , o a ca can n on i o n e ha f me . Thi follo fom he econd la of he mod namic , he en op la .

I i e ha a e ma e i l i ma el e ed, b onl a f e ha ing been decompo ed and e c ed b biogeochemical c cle po e ed b he n. Sola ene g a i e in lo en op fo m and e i he ea h in high en op fo m. Acc m la ing ca bon dio ide in he a mo phe e fom b ning fo il f el lo do n he o flo of hea , fo cing a i e in empe a e and con eq en clima e change hich ha h ge economic con eq ence . Ene g i no ec cled he he fom he c en ola flo , o fom he o ed nigh of Paleoli hic mme concen a ed in he fo m of fo il f el . A ho n in he diag am onl ma e i ec cled, of en ad an ageo l , b i fa fom comple el ec cled abo 35% fo m nicipal olid a e in he US. F he mo e, i eq i e an inc ea e in ene g h o ghp , a ell a he ea ing o of ma e ial implemen , o ca o he limi ed ec cle. Mone flo in a ci cle. Ph ical

q i e mi leading, a i he ci c la flo diag am in he fi chap e of main eam e book .

So fa , o diag am i in ph ical e m onl . The econom h appea a a gian machine fo con e ing ef l e o ce in o ele a e ---an idio ic p oce . To make en e of he econom e m ecogni e ha he l i ma e al e p od c of he economic p oce i no a ph ical hing, b a p chie e pe ience, he con cio enjo men of life, ep e en ed b he o d "Welfa e", placed o ide he ci cle of bioph ical hing . B e a e no di embodied pi i . A ph ical ea h-being o enjo men of life depend on o ph ical main enance, and eq i e he e ice of bo h he na al eco em (g een a o o Welfa e, e.g. clean ai and a e) and he e ice of a ifac ha e ha e p od ced (b o n a o o Welfa e, e.g. bic cle and cell phone).

Looking no a he lo e "F ll Wo ld" e ion of he diag am e migh a k ho m ch la ge i he econom han p e io l . Wo ld pop la ion in m life ime ha q ad pled, fom 2 o 8 billion. Tha ha ne e happened befo e. Pop la ion of ca , ho e , cell phone , e c., ha e fa mo e han q ad pled in m life ime. H man bioma pl ha of o ca le, no acco n fo ome 96% of all mammalian bioma (36% h man, 60% ca le, oon o be con e ed o h man bioma). Onl 4% i lef fo ild mammal . A fo bi d , 70% a e chicken and o he po l , i h onl 30% ild bi d .⁴ A no ed abo e he a mo phe e i no o f ll of g eenho e ga e ha i i al e ing he clima e in e emel co l a . The o ld i clea l f ll in he ock dimen ion of pop la ion of people and o p od ced good and "bad ". A a con eq ence of he la ge ock dimen ion he e i an inc ea ed flo dimen ion of he h o ghp nece a o main ain he la ge ock . Mo e deple ion and mo e poll ion of he malle emaining bio phe e mean a ed ced flo of eco em e ice . Thi i ob io i ho mone a mea emen .

³ Nichola Geo ge c -Roegen, *The Entropy Law and the Economic Process*, Ha ad Uni e i P e , 1971.

⁴ h p :// .eco a ch.com/bioma -h man -animal -2571413930.h ml

Continuing in the "full world" diagram, the free market economy has increased the maintenance of the global (more depletion and pollution, larger global population). The large economic increase in the flow of economic activity, but the consequent massive bio-physics has diminished the flow of ecological activity. If the physical growth of the economy is in an increase in the biological economic activity, then the growth is *economic growth*. If the biological activity is in a decrease, then the growth is *uneconomic growth*. If the biological activity is in a decrease, then the growth is *uneconomic growth*. If the biological activity is in a decrease, then the growth is *uneconomic growth*. The optimal scale of the economy is the one where the biological activity and economic activity are in a balance.⁵

The complete misreading of the original diagram of "the relation of the economy to the environment". The misreading of the original diagram of the *World Development Report* is a high hope. When the second draft was issued, I had the original diagram repeated, with no change in the text. However, a large rectangle, unlabeled, not enclosed the original diagram, like a picture frame. With some announcement I went back to the original diagram, a no-improvement picture frame around the diagram, but the specifically depicted the most basic "relationship of the economy to the environment" and explained them.

Time passed and the hidden draft was. No more diagram. Complete omission. No comment on misreading. The abandoned the whole idea of a rational separation of the relation of the economy to the environment. I am disappointed, but gradually began to understand and the whole diagram implied could not be included, and the whole is a naive observation of the predicted.

Once to depict the economy as a balance of a large system has finished, non-growing, and material closed (with a non-growing global population of the planet), then the biological growth of the economic system is limited by the finite of the containing ecosystem. It is a limited by the environmental of the metabolic growth of the material-energy which the economy is maintained. The goal of the World Bank and its member countries is growth. The goal is making loan has to be paid back and the made possible by the growth has the income generated. To realize has not only growth limited *physically* by finite and end, but has to face an *economic* limit when the flow of ecosystem activity begins to exceed the gain from the economic activity, in a large and big pillar for the Bank to allow. It is especially big in the evidence has the real reached the economic limit and has the growth has become uneconomic, a leading in which countries. So, it might predict that the WB would adequately addressed the global growth for which countries to allow growth in poor countries to an acceptable standard of living. But, the rich are getting richer and the poor are getting poorer, and the accumulation of capital is in poor countries. The idea has growth in the global macro-economy could, even

⁵ Rational human could be expected, a growth continues, a life of more important need for, and of sacrifice in the change of the important ecosystem activity, in order to be a balance. The effect, marginal benefit of growth generally declines while marginal cost of growth increases, ending at a deadweight loss the optimal scale. And on the subject of measurement, it must be noted that there is only incomplete measurement of economic activity, and the incomplete measurement of ecosystem activity. Neither, the magnitude does not cease to exist because it can't account the measurement mechanically. We can see and feel the consequence. Also, in the case of Plato, we know that a pinpick the Jones has a legitimate position. Although the analysis of the equilibrium is a definition, dialectic thought can be on the parallel overlapping categories. For now, the old and the definition of optimum scale is a practical anthropocentric, reflecting only the human selfishness. But the environment is a balance of the life and the life is in the balance of the life. It is difficult to account for the selfishness of all life beyond recognizing the selfishness of non-human animals. The equilibrium of the earth is the equilibrium, and the equilibrium is a balance of optimum scale for human.

heoretically, be *uneconomic* in the debasing of economic. You will not (yet) find the term "uneconomic growth" in the index of any book on macroeconomics.

But this is the basic message of Ecological Economics. The economy is a subsystem of the biosphere and has become too large of it. We have exceeded its ecological niche. Our major goal of growth has not become uneconomic, and growth must be replaced by shrinkage---or "degrowth" as some now call it.⁶ That is not a dismal affair; it might actually seem because Ecological Economics distinguishes between *growth* (quantitative increase in the absolute amount of material), and *development*, (qualitative improvement in technology, design, and ethical priorities). Sustainable development in ecological economics is defined as development in which growth (quantitative improvement in quantitative increase) is not possible, but much more difficult than the common "development in growth" as measured by GDP.⁷

Part II: Analytical Parable: The Plimsoll Line

If we begin with the pre-analytical intuition recommended above, and then have the intuition of an empirical angle entering into form from nowhere and ending up back to nowhere, then the analytical question arises? Since the economy is not a subsystem, the first question is, how large is the existing economic subsystem relative to the containing and sustaining ecosystem? Then, how large can it be without degrading the large ecosystem in which it operates? Or depletion and pollution? And, how big *should* it be to optimize overall welfare? This is the problem of Scale, completely ignored by mainstream economics, the so-called neoclassical-Kennedyian tradition. The next big question after Scale is, how is the Distribution of ownership of natural resource among the population, and the Distribution of the income and wealth produced in the economy? The last big question is, how is the resource allocation among the different good produced? Does the menu of produced goods match the preference of the people? In sum, how is the physical *scale* of the economy relative to the ecosystem, how is the *distribution* of income and wealth among the citizen, and how is the *allocation* of total output among different products. A good *scale* is a least sustainable, and hopefully optimal; a good *distribution* is fair; a good *allocation* is efficient.⁸

⁶ Timothy Pae, *The Political Economy of Degrowth*,

<http://www.economicpolicy.org/pubs/339844751-The-Political-Economy-of-Degrowth/link/5e68d72a4585153fb3d61970/download>

⁷ A small like-minded group within the WB decided to postpone the debate with the message of the 1992 *World Development Report*, given that the environmental effort had failed. See Robert Goodland, Salah El Seaf, and Herman Daly, ed. *Population, Technology, and Life Style: The Transition to Sustainable Development*, Washington, D.C. (Published by UNESCO, 1991, Paris; under the title *Ensuring all Sustainable Economic Development: Building on Brundland*).

has contained contributions by Nobel laureate economists (Tung Haa elmo and Jan Tinbergen), as well as a prepping

Joel Lemberg

comment on growth. A decade later in 2003 and the *World Development Report* on the same topic a more

nation: comment on World Bank World

Ecological Economics and

Sustainable Development, Edited by Elga, Published by, 2007.

⁸ Herman Daly "Allocation, Distribution, and Scale: Toward an Economic Theory of Efficiency, Justice, and Sustainability," *Ecological Economics*, 1992 (December)

Mainstream economic has been analyzed the problem of efficient allocation, using the Pareto definition of efficiency, has been an allocation which has an efficient allocation could not improve the welfare of one individual without reducing the welfare of some other individual. I follow the Pareto efficiency is defined only on the basis of aggregate utility. Mainstream economists are helping to focus on policies of efficiency of allocation, making some be efficient and some be inefficient. Distribution is all about aggregate utility. Although the question of distribution is not ignored, and indeed has been increasingly addressed by mainstream economists recently, the associated welfare of justice, no efficiency. Nevertheless, following Pareto, objectives to make some be efficient while making no one be inefficient is a high goal. Moreover, the goal is to be for the good. That is a long and arduous task to achieve. But the large scale means non-economic goals. Ecological economic, by contrast, addresses the problem of sustainable scale, followed by distribution. Only after social collection and the equilibrium aggregate utility the individualistic make allowed to seek an efficient allocation of good, and even then, only of individual and expendable good. Nevertheless, many need a good and both individual and expendable, an efficient allocation remains impossible.

To clarify, consider the analogy of loading a boat. Allocation in the appoisoning the weight of cargo and passenger efficiency is a common load capacity of the boat. Distribution in the appoisonment of the ship of the cargo and cabin space among passenger, the crew and the pool, fish and sea life. Scale is the total load, the weight of cargo plus passenger, placed in the boat. Suppose we keep on loading the boat gradually, at a rate allowing the weight efficiency and distribution. Eventually the boat will sink, "efficient and just," is the bottom of the harbor.

Such overloading of ship is prevented by the maritime in the line of the Plimoll line. When the maritime the Plimoll line the ship is fully loaded, it has reached its capacity limit, even though the load is efficient allocation and justly distributed. Samuel Plimoll (1824-1898) fought in the English Parliament for many years to get a load limit law passed.⁹ Ship owners preferred to overload ship, in the hope of a profit. This is an example of the "moral hazard" of insurance. Being insured again has a bad make one less diligent in preventing, and perhaps even encourage the overall likelihood of the hazard. But the 'liability' is not considered a cost to the merchant, no incentive for the benefit of the shipowner and the owner. Samuel Plimoll was known as the "shipowner's friend". The macro-economist has no analogy of the Plimoll line to prevent the growing scale of the economy from exceeding the carrying capacity of the ecosystem. Another possible coinciding is a historical one.

So, the next question for analysis is what would be an economic analogy of the Plimoll line look like when combined with the concept of distribution and allocation? We have a good clue from the capacity-constrained system has already been applied to some of the world, including petroleum and fish. A capacity constraint on total extraction per area has been deemed within ecological carrying capacity -- in the case of oil the capacity of the atmosphere to absorb the CO₂, in the case of fish the estimated optimal sustainable yield. This is the capacity limit. Second, is the distribution limit. Who owns the resource, and how does the dollar value will be allocated to the limited resource allocation? The area of population is increasing the distribution limit. One is a minimum and maximum income---a limit of the range of inequality in income. Another is a real wage. Another is the public ownership of the resource being allocated. Third, the resource is being depleted once purchased a allocation can be sold on the market in a free market. This permits efficient allocation in accordance with differing individual preference, differing technology, and ability to pay. Make prices would allocate the

⁹ <http://blog.birminghampapers.co.uk/2013/02/10/am-el-plimoll/>

aggregate quota, he would not determine the size of the quota (scale), or the initial distribution of ownership and income, and he does not.

The logic of the cap-distribution scheme is described by Kenneth Boulding as an illustration for limiting the scale of population while giving everyone the same high opportunity, by allocating the equally distributed high opportunity to be allocated by the change of gift in the light of people's differing abilities and desires to have and care for children.¹⁰

Although he knew it would have no political support as a population control measure, Boulding nevertheless advocated a strategy of combining macro abilities (limiting aggregate birth rate replacement

nece a o ed ce he cale of pop la ion (a l e pec i ill be), i i ha d fo me o imagine a mo e j and efficien a of doing i. The eade o in i ed o do be e .

Beca e of i pa ial eliance on he ma ke fo ol ing he alloca ion p oblem (in p efe ence o cen al planning) he cap-a c ion- ade em ha ome ime been labeled "fee ma ke en ionmen ali m". Thi i oall mi leading. I ho ld a he be called "do bl con ained ma ke en ionmen ali m" beca e, con a o he fee ma ke , he e i a cap ha limi cale, and a di ib i in i ion ha limi he ange of ineq ali of o ne hip, o of income in gene al. The ma ke i no longe fee o de e mine cale o di ib ion, hich i co ld ne e do accepabl in he fi place.

Part III: Technological Parable: The Tragedy of Thomas Midgley, Jr.

A common eac ion o he adical polic of limi ing g o h ha been o empha i e he po e of cience and ne echnolog o inc ea e he p od c i i of a gi en h o ghp of e o ce . Thi i ecogni ed and enco aged in ecological economic a q ali a i e de elopmen a he han q an i a i e g o h. Wi ho fo a momen den ing he benefi of echnolog , i i nece a o emembe ha ne echnolog in od ce no el , ome hing i h hich e ha e had no e pe ience and con eq en l do no f ll nde and. I feq en l ha nin ended con eq ence hich can be e co l .¹¹

Mo people ha e ne e hea d of Thoma Midgle , J ., e en ho gh he likel had mo e impac on he a mo phe e han an o he h man.¹² Midgle a a chemical enginee ho o ked fo D Pon and Gene al Mo o .¹³ He a gi en he a k of elimina ing engine knock, and came p i h he ol ion of adding e ae h l-head o ga oline. I ol ed he p oblem b c ea ing he bigge p oblem of p eading a ne o o in all o e he ol d in he e ha of a omobile . E en all , af e 50 ea and he p eading of 25 illion li e of leaded ga oline, i e a banned. Ne Midgle a gi en he job of finding a b i e ef ige an ga ha a nei he o ic no flammable. He in en ed a good b i e, CFC , (F eon) hich o ked ell bo h a a ef ige an and a a popellan in p a can . Ho e e , hen i di pe ed in o he a o phe e i combined i h o one, ed cing he capaci of he o one hield o pa iall block l a iole adia ion a i ing o ea h, he eb inc ea ing he incidence of kin cance . I oo a e en all banned, b again i ook nea l 50 ea befo e Ma io Molina and F ank She ood Ro land di co e ed he ne pec ed effec (fo hich he ecei ed he Nobel P i e in chemi fo 1995).

Midgle , an e cellen chemi , fo nd echnical ol ion o o fai l mall economic p oblem ha nin en ionall c ea ed o e la ge ecological p oblem . A if ha e e no eno gh aged fo one man, Midgle con ac ed polio la e in life and a confined o a heelchai . Being an in en o , he con c ed a em of ope and p lle o hoi him elf o of hi heelchai in o bed. One nigh he go hi neck angled in he ope and a angled o dea h. Thi e o of nbea able i on e e

¹¹ Al o inc ea ed p od c i i in ing a e o celo e i p ice, hich in n inc ea e q an i demanded, h cancelling in pa o in hole he ed c ion in e of he e o ce made po ible b he echnological imp o emen . I i holl a conf ion of idea o ppo e ha he economical e of f e

imp o an ad an age of q an i a i e con ol o e p ice con ol he blo ck of g ea e con mp ion f om he efficien inc ea e ind ced b he a -a gmen ed p ice i blocked b he q an i a i e cap.

¹² F ank A. Von Hippel, *The Chemical Age*, Uni e i of Chicago P e , 2020.

¹³ Fo a f lle acco n of Midgle , ee [h p :// . o be.com/ a ch? =IV3dnL_hDA](https://www.youtube.com/watch?IV3dnL_hDA)

difference in epodci e cce.¹⁷ Objective al e and ethic, beond epodci e cce, i conideed meaningf. H mankind i conideed lmael no difference fom ohe cea e, a andom coneqence of blind e ol ion. Man ecologi ha e ab o bed hi old ie fom hei paendi cipline of biolog. Blind p poele ne, ho e e, lea e no oom fo al e. And i ho al e he econom ha no ea on o be, o he han o gene a e ma e ial a e, a e a in Pa l. So, he de id happ ma iage be een he di cipline of ecolog and economic eq i e ome e io ma iage con eling.

Thoe ecological economi le en h alled b neo-Da ini m ee h man a f ndamen all difference, a ill pa of he la ge e ol ed cea ion o be e, b a pecial cea e ho, like i o no, i effec i el in cha ge of he la ge cea ion, beca e fa mo e han o he cea e, h man eflec he image, albei a b oken image, of hei C ea o. H man ha e con cio elf-iden i a pe on, pl ea on, lang age, la, li e a e, ma hema ic, hi o, cience, m ic, a, e c. Ethic, in hi ie, de i e fom hi pecial capaci and e ling e pon ibili o emplo he e niq e gif fo he ca e and n e of cea ion. Red cing h man o he le el of o he animal i fal e h mili co e ing p i e pon ibili. If e an o op a b llfigh e add e o a g men o he ma ado, no o he b ll.

Mode n cien ific ma e ial m doe no like he idea of C ea o, e en one ho emplo e ol ion a a mean of cea ing. To peak of e pon ibili o blame i a f he inf acion of he le of he na ali ic me hodolog ---i i " n cien ific." The belie e ha Chance and Nece i, na al elec ion, neo-Da ini m, i he co ec and fficien o ld ie. When conf on ed b o he cien i i h he e eme fine- ning of he ph ical la and n me o con an nece a fo life, he ma e ial admi ha he compo nd p obabili ha life eme ged in o ni e e b chance i infini e imal. So, he po la e infini el man (nob e able) ni e e in hich he infini e imal p obabili, m l iplied b infini el man ial, co ld, and e iden l did, happen. We impl on he g and co mic lo e --- l ck ! Thei p e-anal ic pa adigm of Ma e ial m and Chance i e ong. I ha, af e all, led hem o man po e f l di co e ie -- a ell o a ba ic nihili m. Inc ea ing po e i h dimini hing p po e-- ha co ld po ibl go ong?

In pop la di c ion he Chance ie i conideed Scien ific, he P po e ie Religio. In a deepe en e, ho e e, each ie i bo h cien ific and eligio.¹⁸ Fo e ample, he independen codi co e e of na al elec ion, Alf ed R ell Wallace, concl ded ha he heo of na al elec ion, hile ce ainl po e f l, a ne e hele in fficien o e plain he a l pe io capaci e of h man o e o he cea e.¹⁹ He in oked a pi i al dimen ion a a h po he i pplemen a o he in fficien h po he i of ma e ial na al elec ion o e plain he eno mo h man difference. The p oced e i open-minded, b i lo e ed hi p e i ge among he ma e ial ic Da ini.

And e en Da in, al ho gh emaining a ma e ial, ne e hele o e o a co e ponden:²⁰

Ne e hele, o ha e e p e ed m in a d con icion, ho gh fa mo e i idl and clea l han l co ld ha e done, ha he Uni e e i no he e l of chance. B hen

ha been de eloped fom he mind of he lo e animal, a e of an al e o a all

¹⁷ Richa d Da kin, *The Selfish Gene*, O fo d Uni e i P e, 1976.

¹⁸ Neil Thoma, *Taking Leave of Darwin*, Di co e In i e P e, 2021

¹⁹ Alf ed R ell Wallace, *Darwinism*, (Chap e 15), 1889.

²⁰ Cha le Da in, *Life and Letters of Charles Darwin*
Ne Yo k: D. Apple on & Co. pp. 274 86.

I, Ch VIII,

con ic ion in ch a mind?

Thi i a c io a emen . Da in a e an in a d con ic ion ha he Uni e e i no he e l of
chance. B he hen di pa age hi o n o ble ome con ic ion a n o h , ha ing de eloped

ha
o he ha e a ked, if m ho gh a e ed cible o ma e in mo ion, hen h belie e an of hem,
incl ding hi one?

E hic eq i e p po e, o de ing of an and ac ion elai e o objec i e al e, final ca a ion, eleolog , and a pe cep ion of l ima e al e all he hing ha he eigning na ali m and ma e iali m den . Thi i ion lea e no oom fo objec i e al e and a hie a ch of p po e in efe ence o hich ac ion a e cho en, a eq i ed b e hic . E hic i do bl led o if all i de e mined, hen p po e i a non-ca a i e ill ion; if good and e il e e non-e i en hen he e o ld be no c i e ion b hich o choo e e hicall , e en if choice e e po ible. On ha ba i hen co ld e a g e fo ecological economic and i policie a he han he c en g o h e econom ---o ice e a?

The idea of objective alibi evidence becomes evasive, in some evidence, that might lead to inculcance and perception of how the position of objective alibi differs from others. This is certainly a danger, but the danger is hardly in denying objective alibi evidence no longer has an inherent appeal or in an effort to persuade. It is important to remember that evidence is not, and since the evidence is a comparison no higher than the evidence, the evidence is not in the evidence, no accede in being persuaded. The evidence is not a lie or a fight, either in the force of deceit. A commitment to the reality of objective alibi, including the ability to establish the evidence is diminished in the evidence is necessary to avoid a biased belief. This defense of objective alibi is a cogent argument.

C. S. Lewis.²¹

A feq en objec ion o he eali of objec i e al e i he a e ion ha diffe en eligion and c l e ha e q i e diffe en al e . If al e e e l objec i e he e ho ld be ag eemen on ba ic al e , no he di ag eemen ha e allegedl ob e e. In an Appendi o he book j cied, Le i co ne hi opinion b a embling o e 100 e imila affi ma ion of objec i e al e da n foma ho i a i e o ce in e diffe en c l e in e diffe en ime and place . He di ide he a emen in o eigh ca ego ie , he ile of hich indica e he pa ic la objec i e al e ill a ed: 1. he la of gene al beneficence (again m de , iolence); 2. he la of pecial beneficence (o famil , fiend); 3. d ie o pa en , elde , ance o : 4. d ie o child en and po e i ; 5. he la of j ice (e al j ice, hone); 6. he la of good fai h and e aci (h elling, a oiding lande); 7. he la of me c (fo ido , o phan , he poo and ick), 8. he la of magnanimi (ejoice in he good fo ne of o he , i ho en). Le i con ide ed hi collec ion of di e e c l al affi ma ion of common al e no a poof, b a ppo ing e idence fo objec i e al e. Hi main a g men a logical a he han empi cal, *reductio ad absurdum* o poof b con adic ion ---a me he con a (no objec i e al e) and ho ha i lead o con adic ion and ab di ie , a done in he p eceding pa ag aph, and he follo ing one.

Some male philopoles and biologists each have a family and few illnesses, however, common to the experienced academic, a disease, but a beneficial one in his life, he has, and the effective elected by his people with a contribution to the development of the community.

²¹ C. S. Lewis, *The Abolition of Man*, 1944, ep in ed b HarperCollins e-Book.

andomly changing environment, to be clear. However, he does not go on to consider the consequences

of the proposed action? I doubt it. The consequences of drinking his poison were made strikingly evident in the 1924 Leopold

Darwinian nihilist who decided to poison the elephants he had freed from the illness of objectionable morality by means of a poison man.²² The only defense he had at the time, he famously wrote, could have been the admission that the action was

justified.

slipped

in the objection to the fallacy of?

Like the other in the history and policies of an ecological economy in a full world, the equilibrium is a much more solid ethical foundation than the prevailing one. Economic men think of the education of objective and objective preference, and ecology men think of the education of objective and objective preference and/or materialist desire. To combat the force of the global appeal of objective preference and/or materialist desire, the minimum will be sufficient. Political economy began as a part of Moral Philosophy. Ecological economic equilibrium is the only one that has the right and the righting of economic in the light of ecology, philosophy, and religion.²⁴ The only equilibrium of the foundation of a pre-analytical vision of the economy as a part of a finite training bio-phenomenon of the last of the modern and ecological. In the case of policy, it means that quality is important (development) must replace quantity and increase (growth) as the path of progress. All of these have a big change!

What development policies are indicated by such a big change, assuming the ethical illusion of them? A direct and effective way to deal with the problem of basic income is to provide a framework for capital income and capital income from basic income and education and training, while the same time allowing the higher income to increase both the efficiency and the quality. The income cap on the high end of basic income, especially for the first, is a required order of the ecological order and the equilibrium climate and biodiversity is a direct result of which all contribute to the future. In the end, all contribute to the inequality in the distribution of income has become a theme, and aggregate GDP growth no longer offers the hope of order in the end of the economic growth. The effect, a limited range of inequality is bounded by both a minimum and a maximum income level, a necessary condition for the cooperation of the majorities of citizens in democratic society.

Conception of education and the world should be made available to all available to have a better life. The general demographic problem for the future will be migration. Ecological distribution, a fair and failing one has a general increase in the number of migration, many of them are legitimate refugees. An income limit is one of the most important, and provide a minimum income to citizens, as the evidence shows, no national can no longer continue to welcome the large number of immigrants. In the case of people migrating to the country, the policies are specific objective and (if the country is a), the good policies will have a migration of all of the country. Development policy must be in the future of the world in an advanced world. And to accomplish his Ecological Economic

²² The elephant ended its life in pain, he wrote Loeb had killed his fellow inmate. Leopold had been all paid and in appearance, the remains of his life as a professional technician in Peru. The last defended John Scope from

²³ See, for example, Thomas Nagel, *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False*, Oxford University Press, 2012.

²⁴ Herman Daly, *From Uneconomic Growth to a Steady-State Economy*, Edward Elgar, Publisher, 2014.

need to be in the economic system, and the human beings in individualism are neo-Darwinism.

SUGGESTED CITATION:

Heiman Dal, Ecological Economics in Focus, *real-world economics review*, issue no. 102, 18 December 2022, pp. 2-15,