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2020

Introduction to Metaeconomics

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Introduction

Metaeconomics is fundamentally about the problem of having too much emphasis on the Market or too much emphasis on the Government. It is about the essential need to bring empirical reality and ethics into finding balance: It is essential to achieving a good capitalism. Why? Well, because of the natural tendency to excessive Greed. As DeWaal (2009) would have it, we live in an age of Empathy: Ego based Greed is out. The Greed needs to be tempered, balanced, and perhaps bounded, with Empathy-based ethics. And, as Metaeconomics makes clear, it is because there is a dual nature of human nature, but it is an old story, from Smith (1759/1790):

How selfish so ever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity or compassion, the emotion which we feel for the misery of others [Smith 1759/1790, *The Theory of Moral Sentiments*, quoted in Solomon 2007, p. 64, who adds: Without compassion (sympathy), there would be no foundation and no motivation for ethics].

As it suggests, expressing the moral sentiments is all about Empathy as the starting point, perhaps leading to Sympathy with (not for, but with), and then possibly to compassion (or not). Solomon (2007) agrees: There is something (empathy-sympathy-compassion based ethics, the moral and ethical dimension) beyond mere Self-interest at work. Yet, Self-interest is

still the key feature of a viable and good capitalism, as Smith (1776/1789) made clear. And, reality, please.

As the story about Metaeconomics unwinds, the case will be made that the something essential to tempering mere Self-interest is an Empathy (and ethics)-based Other-interest. And, that a viable and good capitalism requires balance in Ego&Empathy, selfish&selfless, person&people, person&community, Self&Other (the latter shared with others, but internalized within Own-self)-interest. Remember: Metaeconomics is about the person. At a larger scale, the balance needs to be in Market&Government. An integrated Smith (1776/1789) & Smith (1759/1790) represents it. As Smith tried to teach us, it is about seeking a way for each person to maximize their Own-interest in their own (humane and liberal) way, which includes both Self&Other-interest. It cannot be emphasized enough. The goal, the possibility for happiness (and peace), depends on Own-interest, not Self-interest only. Said Own-interest involves humanely including others, represented in the underlying ethic that gives content to the shared Other-interest. For the early analysis and claim that interdependency, jointness, and nonseparability of a dual interest is represented in Smith (1776/1789) & Smith (1759/1789), see Lynne (2006). For the latest claims about Adam Smith and dual interest, especially on how the moral sentiments relate to Empathy and Sympathy, leading to the moral and ethical dimension of the economy, see Lynne et al. (2016, esp. pp. 245-250).

Dual interest reasoning can be used to provide new insights into solving old economic puzzles, resolving paradoxes and anomalies. It can be used to suggest and guide new empirical testing on a way to a more realitybased economics. So, hang on, here we go, on a potentially fun and productive ride toward an ethics-based, and, yes, a reality-based, economics.

After going through the formal model and several demonstrations and applications showing how it works, the book turns to proposing new insights into resolving the irritation (and outrage) surrounding current policy issues when balance is missing. And, we feel it often. We eventually move, in the last chapter, to speculation on how Metaeconomics could play a substantive role in saving a liberal and humane democracy-based capitalism, through balancing. The current version is doing badly, and, is under fire from several quarters: See Deneen (2019a, b); Fukuyama (2006); Goldberg (2018); Hedges (2018); Hirschfeld (2018); MacLean (2017); McCloskey (2019); Stanley (2018); and Stiglitz (2019), to list a few. We need to first develop and explain Metaeconomics to make sense of

the fire, and to develop the new analytical machinery on how to put it out, or, at least manage it, before we can fix it: So, hang on.

Metaeconomics Represents Both Dimensions of Adam Smith

Adam Smith was quite aware of the duality and jointness within Own-self, which perhaps has not been enough appreciated. In fact, the seeming disparity in focus of the two books at one point came to be characterized as being "das (the) Adam Smith problem (as suggested by the German historical school)," as though Adam Smith did not know the need for, or how to, balance the two tendencies. Wrong.

In fact, he not only understood it but also had a kind of subtle sense of humor about it. Smith (1759/1790) saw the Empathy-based Other (shared with others and internalized within Own-self)-interest:

(a Human) naturally desires, not only to be loved, but to be lovely. (Smith 1759/1790, cited in Roberts 2014, loc 282)

As Smith said it, Be Lovely: Humor. We really want to be liked by others, and to be part of the community. Smith (1776/1789) saw the Ego-based Self-interest, too: Be Loved. More humor. We want to achieve high status, otherwise be held in high regard, and become wealthy, respected, and admired, perhaps even envied: People are fascinated with the wealthy and their lifestyle. So, how do we achieve both, in good balance?

Well, Smith (1759/1790) clarifies it is about the moral dimension, the moral and ethical rules (see Samuels, Johnson, and Perry 2011, loc 3391), the moral community and ethical system widely shared. Each person, through paying attention to the moral community, tempers, and conditions works at tempering the pursuit of Self-interest. It is done within each person, through going to the Station of the Impartial Spectator: We go to the Station and reflect, ponder, and consider what is in the shared Other-interest. Just like Adam Smith, Metaeconomics sees the essential need to temper (we decide what to temper, at the Station) the more primal urges in the Self-interest, which is all about self-love. As Smith and Wilson (2019, p. 8) say it, seeing it as a key part of their Humanomics: "For (Adam) Smith, 'self-love' is necessarily at the core of our being... (but with maturation) conduct is shaped by learnt ... rules of social order originating in our capacity for mutual sympathetic fellow-feeling." It is through empathy-sympathy we form that

fellow-feeling in a shared Other-interest with our fellows: We then form a more lovely Own-self. Also, the social order, the mutual sympathetic fellow-feeling has nothing to do with social preference: There is no such thing. It is only about the Own-self, but with a shared Other-interest at play within.

So, Humanomics, a close relative of Metaeconomics, is also about the interplay of self-love (Self-interest) and fellow-feeling (shared Otherinterest) in Smith (1776/1789) & Smith (1759/1790). The interplay of the two dimensions in Adam Smith was first proposed in Metaeconomics in the 1990s. In Metaeconomics, using modern terms, self-love reflects the Ego-based Self-interest and fellow-feeling reflects the expression of Empathy-based Other-interest. Also, by the time of Lynne et al. (2016), Metaeconomics had made the connection with ethics, the moral and ethical dimension of the economy arising in the Empathy-based Otherinterest. The key role of ethics, also made clear in Smith (1759/1790), has recently been emphasized by McCloskey (2019), in pointing to the need to return to the (ethics based) humane liberalism of Adam Smith. Metaeconomics brings all of said threads together into one analytical system. It sees the essential role of balance in the Ego-based Self-interest and Empathy (ethics)-based Other-interest in finding the way to a truly humane and liberal economic system, a good capitalism.

Also, in modern terms, Metaeconomics points to the fact that we need to become mindful. We empathize, projecting Own-self into the situation of the other. Empathy takes us to Station of the Impartial Spectator. At the Station, in that frame of mind, we consider the possibility of joining in sympathy with, and perhaps even act on compassion for, the other. Yet, as Adam Smith makes clear, it is all still within the Own-self; it really has little to do with the other, per se. We seek to maximize our Own-interest. It is good for the person, and for capitalism, for a good and humane capitalism.

We all know the urges, and the need to temper same, as in eating too much; wanting sex too often; wanting way more material goods and pleasures than we really need: Excessive Greed is not beyond any of us, right? Yachts and way too many houses and cars at the high end; not enough money left to field a \$400 essential at the lower end. So, Metaeconomics brings the moral and ethical dimension, as in Smith (1759/1790), back into view within the framework of the economics about the person, now better representing the real economic picture, the real nature of a Human. And, while Microeconomics gets it partly right, each person is partly an Econ, Metaeconomics clarifies we can be far more fun and interesting. We really are better characterized as a Human, after all. The distinction

between the Econ and the Human is borrowed from Thaler and Sunstein (2008).

Smith also, then, saw the nature of true happiness (and, it was to be the essential feature of a good capitalism) requiring balance. Achieving balance in Self&Other was to Be Loved & Be Lovely. Metaeconomics clarifies, in a formal mathematical framework, and some nice-looking figures with curves, that happiness means we have achieved good balance in Ego&Empathy, Self&Other-interest, jointly achieved. Are you feeling happier, already, knowing we have a way to characterize it in formal economic terms? Hoping so.

Other philosophers have been well-aware of the possible duality, and allude to the jointness, going back at least to Plato (see Hayes and Lynne 2004, 2013), with the metaphor of the black stallion of passion, the Egobased Self-interest. The white mare has the role to temper the passion through the Empathy-based Other-interest. The chariot driver brings reason, rationality to bear with Self-control, choosing the best path for the dual horses to jointly travel. As Elster (1979) would have it, bind me to the mast, else I crash my ship on the rocks, as the sirens call. Hard work, here, temper our passions? Slow down and guide our hedonistic drives?

As Fukuyama (2006) would have it, in a similar idea, drawing on Hegel as philosopher, using the Kojève interpretation as he explains it, there is desire&thymous at work within. A kind of "dialectic" is at work, with the real possibility for a synthesis through reason. Desire is hedonism. Thymous is the need to temper it, for our own-good and the good of others in our lives. Actually, it is good for everyone on Spaceship Earth on which we travel together around the Sun, and through the Universe. Metaeconomics sees it much the same way, seeing Ego&Empathy as a kind of dialectic, going in both directions. Too much Ego (Empathy) leads to a new synthesis in better balance, joint with Empathy (Ego). It is resolved through reason, to the extent it can be brought to bear through adequate Self-control. Ever experienced it, where you have tempered your Ego (and hedonistic) drives with a bit of Empathy from within, and directed through mindfulness with others, and, as a result arrived on a Higher Plane, at peace? Bet you have, as Humans do it, regularly, lest they crash from the imbalance. Metaeconomics clarifies the economic, psychological, and philosophical (and a bit, but not much, on related religious) notions as we go.

As is also made clear in the development of the story about Metaeconomics, quite a number of social scientists of various backgrounds and scientific inclinations have over the years written both deeply and extensively about the possibility of duality in Humans. So, we are about to go through the first-ever Metaeconomics book, together, and some parts are not at all original. But, then, again doing what we can to integrate across ideas is hard work. And, just maybe hard work can lead to a unique integration, and then the MetaEcon (those who do the Metaeconomics) can yet lay claim to be a bit original?

Duality is in us, as Humans. It is especially made visible in the dual-self, multiple-self arena of psychology, as pointed to in Lester (1987, 1995): Most people point to multiple selves, in a range of three to seven. Maslow (1954) is all about fusing the dichotomous tendencies between Self&Other. Berne (1961) characterizes the Ego-driven child, the Empathy-driven parent, and the rational chooser, the adult in charge of balancing the two forces. With both a nurturing and critical parent, as well as an adapted and free child, counting the adult: That makes five sub-selves. We could turn it into ten sub-selves by putting valence on each segment, as in negative and positive thinking. We could even make it 12, with 2 adults, as in the algorithmic (thinking, analyzing, calculating) mind and rational mind (in effect, managing own-mind, choosing the best, balanced, rational path) after Stanovich (2011).

Some other economists have also recognized the real possibility of a multiple-self (Elster 1979, 1986). Ainslie (1986, p. 133) points to the visceral self and the ideal self. Buber (1923/1958) points to the I&Thou, the Ich&Du, and the person&community. Etzioni (1986) suggests two kinds of utility, represented in the pleasure utility (Ego-based hedonism, again) and the moral utility (yes, we need to do the right thing, through Empathy, the moral sentiments, the ethics, as Adam Smith would have it). It is where Metaeconomics also started, as represented in the first paper about duality (Lynne 1995). And, again, we are Humans, so maybe we need a more Humanistic Economics, as Tomer (2012, 2017, Chapter 13) has called for. An Ego&Empathy, Self&Other-interest based Metaeconomics fits the bill. And, the dual self with a (self) controller captures the essence of the complexity.

Lutz and Lux (1988) tried to bring a Humanistic Economics into play, and no one much listened, seeing the need to temper Self-interest by what we share. Frank (2004), too, sees how the moral dimension can and often needs to influence the Self-interest only tendency. In fact, university

students studying (or, is it brain-washed?) Self-interest only Microeconomics results in students becoming more selfish. We probably do not need the kind of encouragement and confirmation of it somehow being scientific, as Microeconomics claims to be, as being selfish is already deep in the brain, primal, from birth.

Marglin (2008) also sees the dual tendency in his lamenting the fact Neoclassical Economics, and the Microeconomics single interest analytical engine, has extracted community (the Other-interest in Metaeconomics) from the economic framework. Psychology professor turned clinical psychologist, focused on neurosis, Angyal (1941, 1965) points to dealing with the duality as essential to getting healthier, being better, and achieving mental stability. The focus on what leads to mental stability in the sense of being a better Own-self clarifies the inherent overlap and potential conflict in the autonomous (Ego-based) & homonomous (Empathybased) personality, and it sometimes needs help.

In particular, the dual Own-self often needs help in Self-control, when the internalized Other-interest, as Angyal (1965) calls it, the homonomy, fails to restrain the Self-interest. It results in not achieving balance. When the internal nudging fails, the control sometimes must come from outside the person, in the notion of a heteronomous (outside controlling) influence. Please think about your own experiences of trying your best to manage your own drives, and how difficult it is to bring Self-control (like pushing away from the table before the plate is empty) online?

Cory (1999), especially, sees the duality within the Own-self, building on the triune brain construct coming out of Neuroscience, as represented in MacLean (1990). The case is made for how evolution has led to a natural tension between the proto-reptilian core in the brain (the Ego) and the paleo-mammalian (the Empathy) over-layer in the brain. The tension is resolved through actions of the over-layer represented in the rational part of the brain, which seeks to find balance in Ego&Empathy. Sounds complicated. Not really. We just have the two evolved tendencies, deep in the folds of our brain, and, we, using our rational mind, must balance them. That is all, but it is not easy.

Metaeconomics is consistent with Cory (1999). Metaeconomics also rests in more recent Neuroscience- and Neuroeconomics-based findings

about the brain and the mind, which sees, in even greater detail, the complexity of the human brain, with different functional areas: Ego drives the main tendency, which is often tempered by the Empathy parts of the brain (Singer 2009). For an overview, in a brain science for dummies,

embedded within the well-done *Behavioral Economics for Dummies* book, see Altman (2012, Chapter 3, loc 1179).

Metaeconomics as a kind of Behavioral Economics builds upon the empirical reality being developed throughout many branches of Behavioral Economics (for overviews, demonstrations see Altman 2012; Tomer 2017). In another sense, Metaeconomics can influence the direction of Behavioral Economics research, especially with respect to the role of the shared Other-interest. It especially reflects and contributes to the Humanistic Branch of Behavioral Economics (a point made in Tomer 2012, see esp. p. 139).

Overall, Metaeconomics is offered in the spirit of Consilience: The Unity of Knowledge, after Wilson (1998). Metaeconomics works to bring various pieces and arguments together to capture the essence of the many different proposals. Big word, Consilience, but it just means thinking, framing, done within one's Own-self, after doing a lot of reading. Metaeconomics strives to be a truly integrated, empirically based economics, also building upon fundamental principles of how Spaceship Earth Systems work, as described in thermodynamics: It is another big word, but, for a wonderful explanation of it, see Söllner (1997). Metaeconomics also builds upon ecology and the idea of resilience: Just think about how you have bounced through life, finding a way to adjust, to make it work (see Walker and Salt 2006; Perrings 1987). Metaeconomics also draws upon, and builds upon Microeconomics, with the focus on a single interest, prudence the only virtue, maximization theory. It also builds upon Sociology; Economic Sociology; and Socioeconomics, all of which see the Other-interest. It builds and draws upon Psychology, Economic Psychology, and Psychological Economics, which see the Self-interest. It draws upon various subfields of economics, too, like Marxian economics; Austrian economics; Buddhist, Humanistic, Humane, and Feminist Economics. Metaeconomics is a specific integration across a wide range of knowledge. And, most importantly, it brings Empathy, and the moral and ethical system it produces, back into view within a Metaeconomics Framework and Dual Interest Theory.

So, *Consilience*, is it good? Like Lester (1995, p. 161) would have it, in commenting on the parallel need for such a *Consilience* project to unify the theories in psychology:

Researchers await a new theorist who will assimilate the old theories and present an integrated theory incorporating previous concepts and propositions. A cynical colleague of mine once said that such a task requires the services of someone in marketing because the ideas will not be new ones, but merely old ones presented in new packaging.

Metaeconomics is in many ways a marketing project, integrating many old ideas into one framework and theory. Yet, maybe there are just a few new ideas in Metaeconomics, especially as related to the role of Empathy and ethics in the economy? You will have to be the judge.

METAECONOMICS SOLVES OLD PUZZLES WHILE SUGGESTING NEW ARENAS FOR TESTING

Neoclassical Economics, referred to herein as Self-interest only economics, has the Ego-based part of economic choice well in hand. It leaves out Empathy-based ethics, and, the moral dimension, and, what we will learn, the shared Other-interest representing it. Also, in case you had not noticed, Self-interest only economics is well developed and touted as the truth, and nothing but the truth, in Microeconomics. It is represented in hundreds of books and thousands of journal papers. Neoclassical Microeconomics is the mainstream, period. The only other, albeit distant contender for mainstream status, is Neoinstitutional Economics. It is referred to as Otherinterest economics herein.

Now, we think Neoinstitutional (and the older Institutional Economics) framing needs to be paid more attention to, and, we very much do so in Metaeconomics, but also see it as largely atheoretical. One does not generally see a mathematical model or figure, like an indifference curve, or an isoquant, in a Neoinstitutional Economics framed argument. Generally, Neoinstitutional Economics does not use theory as much as in Neoclassical Economics. Metaeconomics holds potential to be said theory. Metaeconomics also integrates across Neoclassical both and Neoinstitutional Economics. Really, you say, how audacious, how presumptuous? Well, think of it as marketing: People who market sometimes are quite so.

Metaeconomics for the Grandchildren

During the first round of review organized by the publisher, a reviewer suggested: "Just tell me—what is the main take away from Metaeconomics. Can you describe it to your wife, grandchildren, to your seatmate on a

plane?" So, before we go any further, let me try the takeaway, realizing it depends on the current frames of reference, but also the personalities of said people.

For My Wife of 50+ Years First, I sometimes remind you that "you are town and I am gown." Second, do you recall the marriage counselor who asked, "how did you two ever find each other," in that your personality type is commonly found in the Hollywood community and mine hidden away in a philosophy department in some University? Well, the answer is, empirical: Small towns in North Dakota are really small. And, to top it off, you as my wife of 50+ years (ok, I already said it, but it has been going on for a long time) have always preferred, well before Twitter, 140-character descriptions. It is not likely you will read this book: So, no acknowledgement along the lines of an appreciation for all your edits, albeit your listening to me for over 50 years about the I&We, Self&Other, Market&Government, has been priceless.

So, here is the Twitter version, to start the conversation: "Remember the three candles in our wedding ceremony? We each used our Self-interest candle to jointly light the shared Other-interest candle?" Ok, so it took 138 characters: Pushing it. Metaeconomics is about the three candles, and especially about the third one, the one we lit together. Lighting the third candle, together, was a way to express a certain community and commitment, there, in the act, to a set of shared interests in making the marriage work, "until death do us part." The "shared with each other" part represents an ethical, moral commitment, a moral community, the moral dimension of our marriage. Also, others at the ceremony we might expect also overlapped with our commitment, a shared Other-interest writ much larger than the two of us. Make sense? Now, take a sip of wine, a deep breath, and stay with me a bit more, so we can look further into what role the third candle plays.

The candle we lit, using our individual candles, says that as a couple we would no longer be independent; we are now joint, interdependent, non-separable (if we work at it, and, it is hard work, as we now know, represented in the empirical data, over-50 years, and the hard work continues). Also, the burning single candle is still within each of us. And, I cannot know what the burn means within you. It is just my best guess, my walking-in-your-shoes and trying to understand what the burn feels like, as we can never know (for the Microeconomics-trained reader: There is

actually no such thing as interdependent utility, no such thing as an otherregarding preference. Flawed theory). The third candle is also now both mine and yours, inside, internalized, interdependent, and joint, with our single candles.

Also, it means we must be Self-disciplined, in Self-control, and, when it does not work, help each other to be more disciplined, nudging each other back to Self-control, especially basing the nudge in the shared, good ethic. And, if it does not work, call the police, and bring in the courts to slap a restraining order, put in place some controls. Or, if both nudging and control fails, we part ways. The divorce snuffs out the third candle: So much for the "until death" frame.

Also, it is about a bit of sacrifice: Every person in a relationship with a significant other knows it, and sometimes it is more than a bit? A marriage, a relationship between people, always requires a bit of sacrifice in each domain of interest, a bit of sacrifice in the "I" as represented in "Self-interest." The sacrifice is essential in order to achieve the gains in the unity of the "We," the "shared Other-interest." It also means a bit of sacrifice in the shared Other-interest, or else we cannot, ironically, be our Own-self. The Own-self, to be happy, needs to sacrifice a bit in both domains of interest. Make sense?

Metaeconomics is about the fact we cannot separate I&We, Self&Other into unique, separable, nonjoint, independent accounts: Want empirical evidence? Well, we know it does not work well for each having our own bank accounts. It also does not work to separate out our mental accounts. It is more productive, contributing to Own-interest, better to put the accounts together into one account, with each still having access for "I" use. The joint account produces more interest. The "sum is greater than the sum of the parts." Only 47 characters.

I went over 140 characters too many times, and it took too long, but we enjoyed sipping faster and faster, through an entire bottle of wine. And, I can now say it even more concisely, even with a wine tongue: "The Me needs a We to Be, but without a Me there is no We." And, that is only 59-characters. Do I get a gold star?

Now, for the Grandchildren Well, they are each unique, so let me try it from youngest to oldest, the numbers only meaning their relative ages, in that they are all #1, each being Grandpa's favorite. And, for every one of them, the main thing is: Work at staying on the side of doing the right thing. Grandpa's Metaeconomics is about working hard to ensuring we

are doing the right thing, bringing the moral dimension, the ethical system, into view in our day-to-day lives, and especially in economic choice. It is, writ large, about the golden rule: Do unto others what you would have them do unto you. Life is about balance within: About what you want, what turns your crank, and about what you share with others. And, achieving said balance will be a challenge, as it is hard to stay in Selfcontrol, to stay disciplined, to not go to excesses in what turns our (selfish) crank.

#1, Grandson You ask what Grandpa thinks of the idea of multi-universes; wonder out loud about space and space travel; read lots of books; can be very social but you like your own space. You see the big picture. So, first, you likely already know that Einstein believed the thermodynamic laws were the scientific laws least likely to ever be repealed. The 1st Law, the conservation law, says we cannot destroy energy and matter, only changing the form of each. The 2nd Law, the entropy law, says we are on a one-way path to maximum entropy. So, low entropy fuels like the carbon fuels (the gasoline in the car that takes you to Karate lessons) need careful and serious conservation, as we may want a bit of that kind of fuel down the road to do the heavy lifting. It runs the big trucks and road building machinery, with ease. Also, we may want to have a few of the fuels around on the way to the time our fusion reactor, the Sun, around which our Spaceship Earth flies, burns out. So, it is time for you and your friends to start building our own fusion reactor.

#2, Granddaughter The dancer, and singer, and likely someday a counseling psychologist for youth and families, we would start in pointing to how dancing and singing is about both Self&Other (shared with others), within your Own-self, In ballet, your favorite, you as a dancer are connected with the shared interest in dancing as an art form, which will affect how you dance, and your enjoyment from doing so. If you move to dancing with another, in a couple styled dance, you will not be able to dance well together unless each of you sacrifice a bit of yourself in order to make a bit more gain in the shared other, better ensuring moving in unity as one. At the same time, there may need to be a bit of sacrifice in the shared other in order to gain enough payoff in the self to motivate the hard work

of dancing well, individually and as a couple. Dance is all about balance in the self and the other.

In singing, the shared Other-interest is the beauty of the sound, the words put to tune, meaningful words that work together. Yet, it is your beautiful voice, and the payoff from doing it, hearing it for your Own-self, that is also at work.

Now, on youth and family counseling psychology: In counseling, you will be dealing with the Child of your patient, which is in the core of everybody's brain: Reptilian, it is said. It is a part of everyone's personality, the part that wants to do as they please, starting at about age two, and lasting through the teen years. You will also learn as you go that many people want their Child to be more tempered, as in problems with sexual drives, as well as drug addictions, the latter especially common in families at the current time. In effect, many of your patients never did grow-up, never getting much beyond age two, not developing enough Self-control. The child wants to be free to do as they wish, without bounds.

As counselor, you will especially come to know about the parent, another part of everyone's brain, which is what Grandpa refers to as the Other (shared with others, on what is the right thing to do)-interest. Source of the capacity in the brain for Empathy? Mammalian, it is said, especially when the Parent is nurturing. And, as counselor, you will have to do lots of that, including teaching the patient how to nurture Own-self, nurture one's own Child.

#3, Grandson You as the sports enthusiast, who wants to work in the sports industry, perhaps even involved in scouting, recruitment, and pay. You will need to understand that paying athletes is clearly a problem in balance in the Ego&Empathy, Self&Other-interest of every athlete on the playing field. You will find that paying individual athletes, feeding their Ego based Self-interest too much, reduces team morale, and team performance. The challenge is to be a bit more oriented to Empathy-based Other-interest, leading to a reasonable, more optimal, inequality. If you pay the better players a bit more, it can give better overall team performance, in that the best athletes on the team will respond to higher pay. On the other side of it, if you pay the better players too much, the resulting extreme inequality leads to resentment by others, counterproductivity, lower overall team performance.

Fans, too, tolerate and want some degree of inequality, but when taken to extremes, they quit supporting the team. It is all about balance in the Self&Other-interest, and there is an optimal, best level of inequality in paying athletes, which as a sports person, you will have to address. It is the only way to ensure the team, and each person on the team, will be successful.

Also, how about all the games of monopoly we have played, ever since you were old enough to throw a set of dice, and count the money? It is a game bent on claiming all the property, and profits it can produce. It is all Greed.

Grandpa's Metaeconomics sees Greed as normal, the more basic driver. It is also clear, though, as you and I have learned, that to win one must carefully work to find mutual gains from trade of the property we have accumulated, else we never will obtain sets (recall your favorite set, Boardwalk and Park Place) essential to winning. It always takes a bit of sacrifice in the trade in order to achieve a gain in the shared Other-interest in the trade, the win-win of the Market. Yet, the shared Other-interest was also reduced, a bit, for each of us to achieve a point where we could perhaps move toward greater payoff in the Self-interest from owning the same colored set of property, with houses and hotels built on same.

So, monopoly is about the balance. Without it, bad capitalism is the outcome, as the winner is isolated, living alone behind the locked gates and high walls on Boardwalk and Park Place. Only by starting over (high estate taxes, anyone?), can we once again work toward achieving good capitalism. All the money and property go back to the bank and we roll the dice again, with the hope that perhaps Empathy will better temper the Ego, in the next round of the game.

Intriguingly, we then sometimes shift to masterpiece, the art trading game, with all the grandchildren joining in, which is not only about pushpins (like monopoly, and the dollar value of the piece of art in masterpiece), but also about poetry (the grandpa&grandma-painting sometimes commands a premium price, demonstrating value way beyond what would be deemed rational in Microeconomics, but it is quite rational in Metaeconomics). We also start to observe that #5 Granddaughter tends to win most frequently, as she plays a game of Empathy-tempered pursuit of the Ego-driven quest for the wealth from owning more paintings. So, what is going on? Well, again, it is all about maximizing Own-interest, not just the Self-interest. Masterpiece tilts toward Empathy; monopoly tilts toward Ego. Balance is the best.

#4, Granddaughter Ok, so you are quite social, and also the one who has a passion for elementary education, but also likes to take her dad's credit card to the mall, which means the income from teaching will probably not work. So, your passion for teaching, which is more about what is shared with the students than about self, which is to be applauded, does not pay well. Value exceeds price. Such sharing is part of the notion in Grandpa's Metaeconomics that is referred to as the Other (shared with others, internalized within Own-self, about public education)-interest. So, what do?

Well, join and be active in the teacher's union, walk-out on the street to get the politician's attention, especially the attention of people who do not want to pay taxes for educating the public, and vote for politicians who do support it. Working in private sector education is also an option (have to get close to the money to make money, and the private sector has almost all of it right now), but working in private education can only work for you if the shared Other-interest within the private school system is a good Other-interest, one that works for you. And, in the meantime, have a plan B.

And, on your social side: Well, you clearly understand Grandpa's shared Other-interest, as in members of your sorority having such an interest. Your sorority has a shared Other-interest to help the community writ large, as well as the community within. You, and me, and everyone we know, need balance in I&We, Self&Other, and student&sorority.

#5, Granddaughter You as the scientist, a laboratory researcher and academic, looking to unlock the genome to enable precision medicine, will face special challenges because of the current environment with all the skepticism about the role of science in both the Market&Government. So, much like your sister who is oriented to the shared Other-interest in education, you will face special challenges. Saying it again more directly: Science has fallen from favor. Too many current political leaders do not believe in science. Fascist Politics and Fascist Religion, sometimes blended, are working to discount all reputable sources of facts and information, including the universities. Even the science of pandemics is not to be trusted: Coronavirus, anyone?

We might guess that some believe the electronics to send meaningless tweets just magically appeared, not realizing it was public tax dollars funding public research that created the key pieces of the technology. So, I guess we will have to go back to living in caves, or, perhaps mighty stone towers, symbols to the anti-science gods who focus on egoistic-hedonistic drives. Yet, without science, there may not be any water and electricity, and carbon-based fuels (as we are using them entirely too fast), nor any technology to run them. We will have to deal with pandemics using verses from old religious books, as the science budgets are cut to shadows of their former selves, and scientists are discounted.

On a positive front: Extreme income and wealth inequality on the Spaceship means some who have amassed huge amounts of wealth (a dozen families on the Spaceship Earth now control more wealth than over one-half of the entire wealth on the Spaceship) may help? Hopefully, at least a few of said people will come to realize the foundation of the wealth is in science, understandings on which good wealth is made, not just taken, and kept. So, there will be a few who are investing in science and research, albeit they are generally unwilling to pay taxes to do it in public universities (e.g., not adequately funding the Land Grants, which have filled the supermarkets with high quality food, but now scramble to keep their doors open). So, go to work in a private university, as it is where the money is.

For the Seat Mate on an Airplane Who Is a Business Person, or Is Otherwise in the Market It is a weekday, so, because of the substantive amount of business travel during the week, odds are the seat mate is a person from the business world, working in the Market, so we will start here.

Ever heard of Milton Friedman (as in Friedman and Friedman 1980)? Well, he is the guy, an economist, a Chicago school, Neoclassical, Microeconomist with a Libertarian bent, who focused on the Self-interest only. Friedman believed the business manager has no social responsibility to the suppliers, customers, communities, or the Spaceship Earth System. In fact, the only responsibility is to maximize the Self-interest of the Econ, measured in shareholder value, and, we might surmise, because they go together, also maximize CEO pay (typically meaning the Chief Executive Officer, but often acting like the Chief Ego Officer, about which Friedman would have approved). Metaeconomics starts with the shared Otherinterest, the moral dimension, the moral community, the ethic in play, and asks the CEO to act more like a Chief Empathy Officer. Metaeconomics still recognizes the key, primal role of Self-interest (it is in our genes, in our reptilian core, the cold-blooded snake in each of us). It sees the essential need to focus, too, on the returns to shareholders (to keep investment flowing) and on adequate CEO pay (to retain the incentives to keep costs down and profits high, to pay higher share prices). But, shift the balance a bit away from Ego to Empathy: Makes sense?

Metaeconomics also suggests, as an empirical question, that the extreme inequality virtually ensured by bad capitalism is a public health problem, which business really does have a social responsibility to address. Did Friedman get it wrong? Probably. Like baseball teams, business is more productive with ideal amounts of inequality, not extreme inequality (and, if the seatmate is a baseball fan, we could go further into the well-researched reality about extreme inequality reducing both each person's and the team performance, alluded to in the conversation with #3 Grandchild).

In fact, rather than to encourage the current sense of entitlement, we see at both the lower and upper rungs of the income and wealth ladder, Metaeconomics suggests the business managers' task is to find the best level of inequality; in effect, reduce prices to consumers; pay both raw produce and processors, the input suppliers, employees and middle-managers more; contribute to the community; and pay the costs of Spaceship Earth sustainability. Specifically, reduce CEO pay, relatively speaking. Support minimum wages, at levels sufficient to give a living, and not depend on the Government safety-net. With sufficient pay, individuals could perhaps even save money for retirement, so social security could be reduced. And, let the shareholder/stock prices find their best level, after the best balance is achieved. What think?

For the Airplane Seat Mate Who Is a Politician, Political Appointee, Bureaucrat, Manager, Employee in the Government The main charge of someone in Government is to represent the shared Other-interest, as represented in the constitution; law produced through legislation; administrative rules and regulations, and the efforts of the administrative agencies, like the US Environmental Protection Agency, US Department of Agriculture, US Food and Drug Administration, and US Department of the Interior, to list a few; and Common (ethics based) Law arising out of, and interpreted by, the judicial system, widely applied and not to serve a narrow Other-interest of only a few. And, there is no such thing as a deep state: Conspiracy theory, only, to avoid paying the price of Government, which is about the shared Other-interest, writ large, when it is good. So, it also means being careful to not represent just the narrow, special (narrow other) interests, the factions, the political tribes, which naturally arise. And, especially, the person in Government needs to avoid that which arises whenever capitalism founders a bit, represented in always reappearing Fascism. It is especially important to be wary of the Fascist Politicians (and their Fascist Religious supporters) who promise to fix everything.

As a Government person, watch out that you do not encourage bad rent seeking: And, be aware, it is common to find rent seeking at both ends of the spectrum. It is found among the lowest-income (e.g., welfare programs, fraud and deception in disability programs) and among the highest-income people (e.g., trade restrictions, giving renewals on patents that are not justified, bank bailouts with bonuses to the bankers who created the mess in the first place). Both ends tend to think they are entitled. One reason the middle-class is essential: It seems persons in the more nearly optimal middle ground of inequality often seek balance? At least it is an intriguing empirical question to ask. Also, extreme inequality registers with resentment in the middle-class, who tends to pay for the entitlement at both ends of the income and wealth ladder.

Also, as a Government person, it is essential to understand that good balance in Market&Government is still about liberty and freedom for each person, including you, to pursue Own-interest. As McCloskey (2019) would have it, encourage the humane liberal pursuit of income and wealth; encourage a humane, ethical, and empirical science–based Economy.

Now, the reviewer did not mention my Political Isle friends. It seems it would also be a good idea to have a chat with them, especially given the tendency to form into tribes, like the Conservative Isle Tribe and the Progressive Isle Tribe.

So, First to My Conservative Friends Just as you generally do as Conservatives, in the Conservative Tribe, Metaeconomics starts with recognizing Ego-based Self-interest is more primal, wired into our human nature. Manipulating, nudging, and otherwise trying to change it is likely futile. So, I know that you as Conservatives say, "forget Government, even if science based," as a tool to mold and change human nature. Accept human nature for what it is, and use the Market for its expression; use an unfettered, free Market, to unleash the entrepreneurial spirit, paying people with the creativity and work ethic to bring about new products, markets, and economies. Inequality is inherent in human nature, and unequal

outcomes, such as in extreme income and wealth inequality, is presumed the right thing to do, the right outcome. The emphasis is on nature rather than on nurture, on Ego rather than on Empathy.

Metaeconomics acknowledges the nature&nurture frame, but sees each as interdependent with the other, not in competition. It does not make economics a kind of untested ideology or theology, instead subjecting it to empirical testing. For example, is extreme inequality in practice a good thing, or does it just lead to bad capitalism, which seems to be the outcome (indicated by populist and Fascist responses to it)? And, if it is bad capitalism, what do we do about it?

Conservative thinking is also more prone to focus on the short term, without perhaps enough regard for both the current and longer-term costs on others? Am I understanding it is short-term thinking? There seems to be far less concern for sustaining the environment on Spaceship Earth, which is essential for long-term viability: Why? Why do you as a Conservative, even though on average, a fearful bunch (suggest you read Hibbing, Smith, and Alford 2014, for the empirical evidence) not concern yourself with the tragedy of the excess? Ever hear of Garrett Hardin (1968)?

Ironically, however, as easily explained in Metaeconomics, your Conservative frame does see a role for the Other-interest, too, just like do your Progressive friends; it is a more narrowly defined Other-interest, however, as represented in the traditional family, religion, and local community (as argued in Deneen 2019a, b). I understand that you do not want either nudges or outside controls to come from the Government, albeit you allow, encourage religious controls (like anti-abortion controls placed on women and their bodies), and demand the Government does it? It seems you stand for minimal Government, until maximum Government serves your needs better? For Metaeconomics, it is more of an empirical question, looking for what works best, rather than asserting controls, especially when the church&state is being brought back into joint control? It is essential to remember that the founding fathers separated church and state. Metaeconomics does not see an "&" as a good thing for church and state.

Also, Metaeconomics understands that the Legislative Branch is to play the larger role, as the Conservative Isle sees it. Well, fine, but then we must ensure the Legislative Branch represents all the people: Ensure everyone can vote, anyone? **Now, to the Progressive** Well, also much like Metaeconomics, Progressive thinking in the Progressive Tribe sees the role of an Empathy-based Other-interest and sees a role for Empathy in Tempering and otherwise influencing Ego-based Self-interest. You are not as sure as your Conservative friends that it will happen on its' own, so Government plays a larger role.

Also, in general, Progressives have a stronger belief in science, in the empirical reality, it can bring to addressing complex problems. It is also a main feature of Metaeconomics: Go and do fact finding, the empirical testing. As a result, it comes to positing that human nature is not a given, and, indeed can be influenced, perhaps behaviors changed (become a recycler, anyone?) with good (often defined as science based) policy. Government is to play a role in influencing human nature.

So, the Progressive Isle is more about nurture than nature, more focused on Empathy than Ego. While people are given freedom and liberty to grow the Market, Government must also grow in order to deal with the inherent excess of the Market, and to help the Market keep within bounds. It generally requires science-based nudges and controls, the latter as represented especially in administrative regulation and law. In the Progressive frame, the Administrative Branch grows in relative influence over time, while the Legislative Branch works to bring in law that can be elaborated and put to work in the Administrative Branch. The Judicial Branch is expected to facilitate progress (Progressive) in that which is the content of the shared Other-interest, widely shared, for every Traveler, not just a narrow few.

To Both my Conservative and Progressive Friends So, who has it more correct, the nature version of humans as Econ touted in the Conservative Isle, or the nurture version of humans as Human (which includes the Econ tendencies, too) as touted in the Progressive Isle? Well, as Metaeconomics makes clear, there is an element of fact in each realm. It is about nature&nurture, Self&Other, and, to both sets of friends, about Conservative&Progressive-politics, looking for the best outcomes from integration across the Isles.

BRAIN BIOLOGY: THE TRIUNE BRAIN

As alluded to at the outset, the three forces of Ego-based Self-interest, Empathy-based Other (shared, but internal to Own-self)-interest and Self-control (see Fig. 1.1) reflect the fundamental biology of the triune brain as posited by Maclean (1990) and developed further by Cory (1999). The theory is based in Paleontology, Evolutionary Biology, profoundly recognizing the evolution of our beings, and as such is an evolutionary theory. It also needs to be understood: The Triune Brain Theory faces some controversy, as highlighted by Reiner (1990). Yet, the review had several problems in it, as Cory (1999) makes clear. We draw heavily on the Lynne (2002) review of Cory (1999) in the next few paragraphs.

Cory (1999) starts with a call for *Consilience*, "a concerted effort toward unifying the natural and social sciences" (as developed in the companion book, Cory 2000). It is also about integrating across scienceðics, which is the plan and driver of the Metaeconomics book, too. Cory seeks a higher-level generalization of the brain (Cory 1999, p. 26), arguing that we continue to evolve toward a triune brain, a "triality" (Cory 1999,

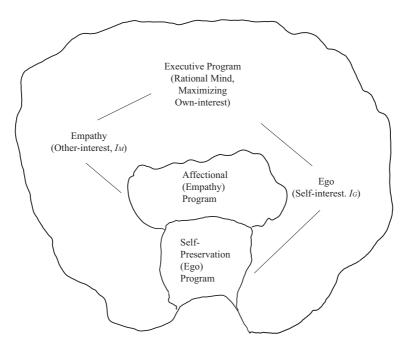


Fig. 1.1 Conflict systems model of the triune brain suggesting the need to balance the Ego-based Self-interest (I_G) and the Empathy-based Other-interest (I_M) in order to maximize the Own-interest. (Source: Author's creation, inspired by Cory 1999, p. 33)

p. 34), building upon propositions in MacLean (1990). We need to recognize an egoistic Self-interest; an empathetic Other-interest; and a dynamic, cognitive, rational balancing of the two semi-autonomous tendencies, the "Executive Program" as Cory (1999) refers to it, doing the balancing. All three dimensions are represented in Metaeconomics.

Building on MacLean (1990), Cory (1999) argues that the structure of the human brain rests on the proto-reptilian core, which is the source of the Ego-based Self-interest, dating back to the dinosaurs, the source of such terms as "cold blooded" or "a snake" and other descriptions: Disparaging characterizations of humans, for sure. The terms actually better describe the Econ represented in Neoclassical Microeconomics (Cory did not use such characterizations, which as noted come from Thaler and Sunstein 2008, the Econ and the Human, but are useful ways to represent the framing in Cory 1999, who well understood the differences). And, as Hedges (2018, p. 90) says it "...the state of egoism is in contradiction with human nature and hence to precarious to endure." Being just an Ego-based Econ is not an easy life.

Intriguingly, while the dinosaurs were the dominant species on Spaceship Earth for millions of years "they never developed a society or civilization of any kind" (Cory 1999, p. 112). It took the paleo-mammalian overlayer, which is the source of the Empathy-based Other-interest. Empathy brought the human into civilization as we now know it. The Market, being driven primarily by Ego, needs to be tempered by the Empathy of the community, generally represented in a good Government. As stated in Lynne (2002, p. 583):

The egocentric, selfish, greedy, mastering, self-expanding and 'self-interest practiced with guile' (from Cory 1999, p. 74), part of humans ... could not have led to anything even partially resembling what we now experience in modern life because this core lacks nurturing. We needed to see the evolution of the empathetic, loving, giving, cooperating, nurturing structure represented in the paleo-mammalian, other-maintaining (Cory 1999, p. 27), other-interested overlayer to evolve what we know as modern experience and society. This part of the brain provides the "biological glue" and the "moral consciousness" of life (Cory 1999, p. 27). So, in reality the reptilian core that holds the self-interested autonomous tendency is counter-balanced by the other-interest, causing humans to be at best "semi-autonomous creatures" submerged in a "pervasive social context" (Cory 1999, p. 45), the latter arising due to the mammalian over-layer. This also suggests there is no

such thing as a "positivist, value-free human politics, economics ... society" (Cory 1999, p. 59), in that empathy, or lack of it, is always an influence.

As Cory (1999) makes clear, there is an on-going reciprocity, encouraged by Empathy, resulting in a kind of inherent struggle and conflict between the forces of Self-interest and Other-interest. The goal is to achieve balance. Because the brain is intertwined, the two forces, interests are jointly arising, being nonseparable and interdependent. The challenge is to find a way to represent the jointness, the reality in a formal economic framework and theory.

Cory (1999), probably because of having some background in computers, uses computer terminology and framing to propose how the balancing is accomplished. There is a kind of programming, software if you like, in each domain of interest. It needs to be reconciled in the software in a third area of the brain, a "dynamic range (Cory 1999, p. 37)," working to deal with the algorithms in the "egoistic range" with its "self-preservation programming" (Cory 1999, p. 30) and in the "empathetic range" with its "affectional programming" (Cory 1999, p. 30). It is the latter that makes the Human (not the Econ) mindful, sensitive to the decision context, the community, the moral community as it were, in the background. Cory (1999) claims the Human experiences inordinate stress if there is not a reasonable balance achieved in the Ego&Empathy, and Self&Other-interest.

Metaeconomics builds said ideas into the Metaeconomics Framework and especially into Dual Interest Theory. It incorporates the Cory (1999) contention that the Empathy is clearly a force in economic supply while the Ego plays a substantive role in demand. As stated in Lynne (2002, p. 584), Cory (1999) claims that we, in the economy

unconsciously supply, as if by an invisible (empathetic) hand ...involving "a mystical, unexplained dynamic ... (Cory 1999, p. 92) that which the egoistic self wants, e.g., wheat and meat produced in a largely unconscious way to satisfy the material demand for food. Both society and the markets embedded in society have been "unconsciously and incrementally" (Cory 1999, p. 84) structured from the empathetic side. So, when the market clears, the tension between ego and empathy subsides. In the perfect market, then, the transaction costs are zero, which is to say the conflict is resolved in the reciprocal interplay of ego and empathy. Real world market transactions are a "mammalian legacy" (Cory 1999, p. 78), and with empathy driven trust, transactions costs will be low.

Metaeconomics also proposes that Empathy will keep transactions costs low; in fact, see an empirical test in Lynne, Shonkwiler, and Wilson (1991), which demonstrates transactions costs increasing at an increasing rate as Empathy-driven other (reflected in shared attitudes and norms)-interest diverges.

The Cory (1999) point that supply is heavily influenced by Empathy is well taken, in that a supplier must produce to the Market; similarly, demand is heavily influenced by Ego, in that hedonism as a part of egoism is a major driver in what is in demand. As stated in Lynne (2002, p. 585):

Perhaps the ego wants organically grown wheat and meat, and the suppliers unconsciously provide wheat and meat using industrial processes with pesticides and hormones. The suppliers have to become aware ... become conscious ... with the need to empathize with the egoistic demand for organic product ... and, then, only revert back to the again unconscious but new empathy path, producing organic products. The reoccurring consciousness of the empathetic side brings a continuous dynamic. Transaction costs rise as the tension builds; transaction costs decline as the market clears. It is through empathy, and reciprocity, that transaction costs are reduced. By leaving empathy out, we also fail to ask if all the children have enough wheat and meat [or, as Cory (1999, p. 91) asks it, "Do all the children have shoes?"

Empathy is essential in order to keep transactions low in the Market. Ironically, Ego has become ever more the only force in the Market, and in society in general, as indicated by rising narcissism (Piff 2015), and increasing tension in the Market. It is no small wonder why we see such chaos in the bad capitalism of the day, which has led to bad politics, too.

Arguably, the ideas from Cory (1999) are also consistent with framing and theory represented in Smith (1759/1790, 1776/1789), as characterized in Lynne (2002, p. 585):

That is, Adam Smith also saw the potential complementarity, a kind of symbiotic balancing on a higher plane reflecting mutual limits, in his other book, *The Theory of Moral Sentiments*. He writes to us about "the third station" (and, thus, implicitly about "triality") which is Cory's empathic structure and its sympathetic programming, where the individual is "to go" (in an abstract sense) for contemplation and reflection, before making the substantive economic decision. Through such conditioning of the egoistic drive for self-interest, we emerge with a better decision. This is Smith's invisible hand. As E.L. Khalil (1990, p. 266) interprets Smith, we emerge not with a mixture of the two stations, but as a "distinct entity," beyond *both* selfinterest (ego) and altruism (empathy). We achieve the true wealth of a nation only with such symbiotic and integrated balance, which is the takehome message from Cory, as well: "Our self-interest, whether expressed as local, state, national, or regional interests, must be tempered with empathy for all others who share the planet with us ... " (Cory 1999, p. 113) lest we fail to manage inherent scarcity, and fall victim to our individual selfexpansion (Cory 1999, p. 62). The entire ecological system, all living creatures ... the plants, animals, and all humans ... are part of the other-interest.

So, Cory (1999) also finds the new Neoinstitutional Economics, as represented in North (1990) and Williamson (1975), as well as the Public Choice School of Economics (Buchanan and Tullock 1967), and Rational Choice Sociology (see Coleman 1987), as problematic. Again, from Lynne (2002, p. 586):

the new institutional economics represented in North and Williamson; the public choice of Buchanan and Tullock; and rational choice sociology represented in Coleman, missing the point: All ignore empathy, which ironically is what institutions are largely about. While Cory does not mention it explicitly, it is the case that the old institutional economics following in the lines of both Commons and Veblen also misses the point, but in the other direction: It is so heavily focused in the empathetic realm that the necessary abstraction to represent the reality of self-interest, which has to be an abstraction in that it does not exist without empathy, fails to emerge as a substantive part of their analytical engine. Yet, the Commons' and Veblen lines both see the need to make the unconscious, conscious ... and actively design institutions, which is also a theme in Cory (1999, p. 84). The new institutional economics does contribute, as Cory argues it, by focusing attention on the individual, on the individual brain, as in methodological individualism. It also contributes by highlighting utility maximization within organizations involving opportunism, "self-seeking with guile," which then focuses attention on the reality that organizations largely exist to facilitate empathy. Such organizations serve "to order or regulate reciprocity" (Cory 1999, p. 67) for survival of the organization (and the individual) by placing opportunistic behavior in view as deviant behavior (Cory 1999, p. 87). The new institutional economics also highlights bounded rationality, that the neocortex, the rational part of the brain, has limits in acquiring and processing information. In the Cory model, bounded rationality also means we now see a kind of mutually limitative process at work, with ego limiting empathy and empathy limiting ego. We move to a higher plane, improving

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our predictive powers on the "aggregated basis of probability" (Cory 1999, p. 43), with higher probability the measure of our success.

Cory focuses on statistical probabilities about the balance in Ego&Empathy, and Self&Other-interest, recognizing that (Lynne 2002, p. 586):

Sometimes ego takes over: Some are wired and conditioned more toward self-preservation (Cory 1999, p. 42). Others are wired and conditioned more toward affection: These sub-groups can especially go awry if the mutual affection focuses on very bad things, perhaps even leading to killing the opposition that holds some other affection. Hope springs eternal, how-ever, that rationality and balance will overcome, built upon "generalized moral stages" and shared moral development Cory 1999, p. 43). Given that even Adam Smith's confidence in the invisible hand construct waned over time (Cory 1999, p. 92), however, it is time to move on, to focus on the "invisible hand of brain structure" (replacing it with the) "intentional hand" (Cory 1999, p. 94) to build empathetic institutions, including the market.... Perhaps unfortunately, and that which leads to the real challenge for science, this empathetic part is largely in the unconscious, in the background and implicit in our seemingly only self-interested action, although virtually always operant and affecting the outcomes.

The need to build in the intentional hand, the Visible Hand, and that the Invisible Hand is a myth, is also a theme in Samuels, Johnson, and Perry (2011). We need an alternative Metaeconomics that includes role of an intentional, Visible Hand in tempering and conditioning the outcomes from the more primal Self-interest. And, like Tomer (2017), Metaeconomics sees the Visible Hand as a humanistic hand.

The first organized attempt by a group of scientists (1) to work in the spirit of consilience relating to the core ideas in Maclean (1990) as elaborated and connected to social and economic science by Cory (1999), and (2) to propositions coming more out of philosophy, economic and social science at about the same time as represented in Lynne (1995, 1999), led to a special session at a joint SABE/IARP conference in 2004. Cory and I had agreed that we needed a way for characterizing and representing the new theory, which we had both come to from quite different paths. He had come by route of neuroscience and biology; I had come by route of philosophy and social science.

We decided to call it Dual Motive Theory and explored what it was and could be at that conference (see Cory 2006a,b; Levine 2006; Lynne 2006; and Wilson 2006). An Ego-based Self-interest motive and an Empathybased Other-interest was proposed, with the motives reconciled and balanced in the rational part of the brain, with a Visible Hand at work to accomplish the balancing. We proposed a parsimonious model to represent the evolving triune brain. We started with the sovereign consumer and retained the Enlightenment view that it is the person who is to count. It is the person with rights, freedom, and liberty who is the well-spring of action. We also proposed a theory consistent with methodological individualism: We focused on the person.

Also, as an aside: It was my suggestion in the early-2000s that we label it Dual Motive Theory. A few years later, while working in my own research program with several students and others, by the time of Sautter et al. (2011), we started to use the convention of referring to it as Dual Interest Theory, instead. We changed the name in that it potentially made for better communication with other economists. The idea of an interest is more commonly used in economics. Cory (2018) continued referring to it as Dual Motive Theory. To reconcile the two, it works to think of the interests as being reflected in the motives.

THERMODYNAMIC AND SPACESHIP EARTH REALITY

Neoclassical Economics is built on a Newtonian base, wherein everything could be reversed and started over, so there is no need to consider limits. Spaceship Earth is like a giant billiard table with cause and effect, and, the balls can always be re-racked and started over. Every person, every entity is independent of every other entity; interdependence is at best a minor, not important condition. The Market, composed as it is of independent people, with plentiful freedom and liberty, unbounded, to choose will always find the way. Any *Tragedy of the Commons* (as characterized by Hardin 1968) is presumed impossible, because the Market will adjust accordingly. Tragedy with social costs is a myth, according to the Libertarian Economics frame (see Cheung 1978), a close relative of Neoclassical Economics.

In rather dramatic contrast, Neoinstitutional Economics, as well as Metaeconomics, builds upon a foundation of thermodynamics (see Zimmermann 1933/1951; he was an institutional economist). Everything, every Traveler, is embedded within the Spaceship Earth System, which has

limits, and, as a result, things are often if not always irreversible. As a result, Government is viewed as playing a key role in tempering the excesses of the Market. The role is especially in doing and funding basic research relating to pollution and energy, searching for what it means to be sustainable. Science-based knowledge can then be used to do things like set carbon emission limits, fishing limits, and water withdrawal limits, to list a few. The Government is seen as playing a key role in at least nudging if not picking the throughput rate and path, in order to avoid the Tragedy.

Metaeconomics recognizes 1st and 2nd Laws of Thermodynamics, the conservation law, and the entropy law. There are thermodynamic limits to Spaceship Earth. The 1st Law highlights, the limits to absorb and process residuals and pollutants. Spaceship earth can only handle so much waste, so there is pervasive interdependence, and large social costs. Every production process is joint with every natural process. Only Empathy can resolve it.

The other thermodynamic limit is the fact of ultimately reaching a state of maximum entropy, as 2nd Law highlights. The Sun ultimately burns out (the fusion reactor runs out of matter on which it runs), which also points to another kind of pervasive interdependence; massive social costs are the natural order of things, also pointing to the need to operate with Empathy.

So, the Metaeconomics key is Empathy, a point also made by Brown et al. (2019). Empathy is essential to making the way through time, recognizing we face limited absorption of wastes and eventual extinction of the Sun, and, perhaps, the extinction of every living organism traveling on the Spaceship at the time. Empathy is the key to making it a happier journey.

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