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Toward an Institutional and Behavioral (Agricultural) Economics: Assessing Progress

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An earlier version of this paper was originally prepared for the “Alternative Institutional and Behavioral Economic Theories II” Free Session, American Agricultural Economics Association meeting, August 5-8, 2001, Chicago, Illinois. Paper is being modified and updated as we move toward organizing and developing the Institutional and Behavioral Economics Section (IBES) of the AAEA.

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Toward an Institutional and Behavioral Agricultural Economics: Assessing Progress¹

Gary D. Lynne and Fredrick J. Hitzhusen²

The Institutional and Behavioral Economic Free Sessions at the American Agricultural Economics Association (AAEA) meetings operated for nearly a dozen years due to the foresight and able leadership of A. Allen Schmid. It is to his credit that we had a place to go, a session to attend, wherein we could fan the glimmer of hope that a robust contender to neoclassical agricultural economics will eventually emerge. We attended this Free Session because we know much that we experience in real economic life is somehow excluded from the neoclassical model, and from its main analytical engine, microeconomics, as applied to critical institutional and behavioral economic issues. It seems to be our joint and implicit hope... a hope that springs eternal!... that perhaps someone will have found a way since the last Free Session we attended, and will offer a model and an approach that holds the potential to prove more satisfying.

In this light, we proposed a framework (prior to the 2001 meeting) for thinking about just what it is that causes us to see such potential in an AAEA Free Session, and for characterizing the theories we and other agricultural economists rely upon, and what we do with said theories. By using some framework, we could also start providing a historical record of the evolution of

¹Original version was used as the basis for comments at the “Alternative Institutional and Behavioral Economic Theories II” Free Session, American Agricultural Economics Association meeting, August 5-8, 2001. Updates and modifications reflect the ongoing thinking about an AAEA Section in Institutional and Behavioral Economics.

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thinking among the group that attend such AAEA Sessions. Also, we recognize that perhaps it is the focus on agriculture that keeps us coming to the AAEA meeting, and the fundamental force that binds us together. This binding would seemingly become even closer, however, if we could find a theory and approach that most could identify with and connect to our respective research, teaching and outreach programs, and thus form the basis for a subgroup within the AAEA. As Smith (2000) notes, we need theory, and there is always one lurking in the background anyway, so we may as well make it explicit.

In this spirit, we offer a summary of the main points in the presentations at the year 2000 AAEA Free Session, “Alternative Social and Behavioral Economic Theories: Is There Common Ground?” and that of the “Alternative Institutional and Behavioral Economic Theories II” Free Session in 2001, with the hope that this starts a tradition of such Session Organizers to write similar summaries for the historical record in years to come. The intent is to keep this record intact, such that we do not have to again start over each year. Eventually, this record may serve, if not in producing a contending theory to the mainstream (which perhaps would be overly ambitious, albeit needed), in guiding the new AAEA Section on Institutional and Behavioral Agricultural Economics. Such a Section could help the conversations for other than mainstream ideas. Perhaps such dialogue will also emerge on the Listserv as well.

A Listserv is provided as a service by the AAEA to help in sharing ideas and communicating with other IBES section members. In order to subscribe, Misty Herman, Membership Specialist of the AAEA, advises us to please send the following message in the body of an e-mail to manager@aaealist.org :

join ibes youraddress@emaildomain

e.g., join ibes misty@aaea.org

A welcome e-mail message will be sent to you, describing how to subscribe and unsubscribe from the list and providing other listserv guidelines. To send a message to all the members of the listserv, type ibes@aaealist.org in the "To" field of your message (with no quotation marks).

Having formed this new Section, perhaps the need for the all encompassing Free Session that Schmid so ably led for many years will vanish, as the new Section starts providing Invited and Principal Paper Sessions; Organized Symposia, in areas of special interest to the Institutional and Behavioral Economists. The Free Session format can now be used for its original purposes, and not as a catch-all for virtually everything that is institutional and behavioral in nature.

We look forward to the day when the approaches and theoretical contender(s) in Institutional and Behavioral Agricultural Economics are deemed on par with the contemporary mainstream. It is hoped, too, that this will facilitate inclusiveness and an others-interest in cooperation among those in the AAEA who use alternative approaches and theories. We propose to go beyond and transcend the pursuit of the self-interest, and help in building social capital, and thus, build community within the AAEA. We return to the matter of the future of the AAEA Section on Institutional and Behavioral Economics at the end of this paper.

A Framework for Characterizing What is at Issue

In order to help dialogue and understanding of the issues, we offer the false dichotomy between

old institutional and behavioral economics (OIBE) and the more recent neoclassical based new institutional and behavioral economics (NIBE), and examine it in the various domains of Table 1 (after Lynne, 1986; Rutherford, 1995).³ We do not believe that world-views can be nicely sorted into polar views with the false dichotomies, such as government v. market, perhaps even leading to misplaced decisions in collective choice (Hitzhusen and Chapman, 2000), but rather propose that each row in the table be considered as a continuum, a locus of world views in a particular domain. The tendency to use dichotomies is rampant in social science even though often false and misleading as noted by Rutherford (1994, p. 5). Yet, Rutherford (1995, p. 45) also uses the same approach in his book, in comparing the old to the new institutional economics, speaking of a continuum, and looking for the “more moderate and modest positions.” He chooses a very similar set of domains to many listed in Table 1, including anti-formalism and formalism; holism and individualism; rule following and rationality; design and evolution; reform and efficiency, while ultimately seeking the areas of conflicts and complementarities in the two economic perspectives. He would likely point to the left-hand side as being represented by two lines of institutional thinking demonstrated in the Veblen-Ayres and Commons-Samuels-Schmid (we would add Bromley to the list) theories and approaches; the right-hand side would generally be represented by the neoclassical and Austrian traditions, in such renditions as property rights after Demsetz; common law after Posner; rent seeking and distributive coalitions after Mancur Olson; organizations and agency theory after Jensen and Meckling; transactions costs after Coase, as demonstrated in Williamson; game theory after Shubik, but especially after Schotter who works

³This is Rutherford’s classification system, i.e., the OIBE and the NIBE. In some ways, it may be more productive to think in terms of three lines, that following in the tradition of Veblen-Ayres; Commons; and the neoclassical/Austrian traditions. Yet, the simplicity of two lines has great appeal.

to explain the evolution of institutions with game theoretic approaches; institutional economics after North, with his focus on how the self-interest drives institutional change; and, we might include modern writers in the tradition of Schumpeter's evolutionary shocks of change (see Rutherford, 1995, pp. 2-3, for specific references to all traditions and specific papers by these noted contributors).

In some ways, the idea of a continuum represents the reality that one cannot separate polity from economy, the latter highlighted by Bromley (2000, pp. 25-26) at the year 2000 Free Session. In fact, the goal needs to be one of fusing the dichotomies and not polarizing them. Intriguingly, it has been our experience in developing and applying Table 1 that polity plays a substantively different role in the economy and the economy plays a substantively different role in the polity, as one moves from left-to-right or right-to-left, in the table, with a kind of symbiotic fusion necessary in order to address reality. Also, we ask that Table 1 be viewed as constantly evolving, and, we do not claim to have represented all possible domains.

It is further recognized that at any point in time, an individual may be toward one end in one domain, and toward the other end in another. It is also the case, however, that most contemporary agricultural economists tend to rest upon the economic theology (see Nelson, 1997) and partake in the preaching at the neoclassical end of the spectrum in the bulk if not all of these domains.⁴

For example, most agricultural economists would likely view a farm firm from the logic

⁴It would be a fascinating study to turn Table 1 into a questionnaire, appropriately mixing the various domains, and reversing the OIBE and NIBE order occasionally in order to better ensure consistency in response, and then survey the AAEA membership to test this hypothesis. The null hypothesis is that perhaps 80-90 percent of the current AAEA membership will not fall to the OIBE side of the continuum.

of the firm characterized in microeconomic theory (see 2nd and 3rd items under Scope,... in Table 1). This theory came through human reason (Nelson, 1997), largely without regard for sentiment; neoclassicals focus on reason in examining the problem of the farm or other kind of agribusiness firm. In contrast, a smaller number, perhaps many members of IBES, would likely think about the firm from the perspective of custom, habit and the underlying structure reflecting what Nelson (1997) refers to as the economic theology in place. Sentiment, sympathy and empathy are all forces to reckon with. Emotion, one way of characterizing that which exists beyond reason, is part of a farm-firm. The farm or other firm would also generally be viewed as facing only a scarcity of knowledge and technology, in contrast to inherent natural scarcity and environmental limits that lead to conflict (see the “Biological...” domain, Table 1). Private property is a given; common property is to be eliminated (see the “Property” domain, Table 1). Producers and consumers are singly motivated in the pursuit of self-interest in contrast to jointly motivated in the pursuit of a self-interest and an others-interest (see “Psychology...” domain, Table 1). Perhaps the most important distinction of all in Table 1 is that in standard renditions within agricultural economics individual economic behavior is strictly a function of an individual's biography, and not shaped by the “claims of others” (after Sen, 1977, p. 318), and the sentiments we hold in their regard. The other candidate for most important distinction is a close relative: Individuals may be dually motivated. As we are learning from neuroscience (brain) research, we may indeed have a triune brain (see Cory, 1999), with motivations resting in both the self-interested egoistic part and the others-interested empathic part, with rationality in the third part used in seeking balance in the two conflicting forces. This is also a theme in holistic psychology, that humans just naturally have two tendencies (Angyal, 1941; 1965; also see a more modern rendition in Deci and Ryan, 2000): An autonomous tendency (i.e., self-

expansion; the self-interest of standard economics), and a homonomous tendency (i.e., seeking unity with others, or a cause, perhaps an ideology, a sense of belonging to something beyond the self).⁵ The real task of the individual, rather than simply maximizing self-interest in the autonomous mode is to coordinate and integrate across the two tendencies, seeking at best symbiotic outcomes better than each alone, or, at worst, some satisfactory (satisficing) mix.

Intriguingly, presenters at the year 2000 Session chose to emphasize only certain domains in Table 1, suggesting perhaps these are key to finding common ground among alternative theories. Bromley (2000) through institutional economics focused on scope (methodology) and sociology; Hitzhusen (2000) extended neoclassical behavioral (psychology) assumptions to bureaucrats and collective choice processes; Lynne (2000) through socioeconomics starts with sociology but moves quickly to psychology, and the search for a new more encompassing theory of individual human behavior represented in a metaeconomics; Shogren (2000) through behavioral economics highlights the many anomalies and paradoxes suggested by laboratory experiments into individual psychology; Stallmann (2000) through community economics holds high the problem in squaring community with individuals, implicitly suggesting that the ground at the interstice of sociology and psychology could prove fertile.

As we will see, perhaps the most common, usually implicit, point underlying the 2000 Free Session is that humans are social animals, with something going-on beyond the self-interest

⁵Angyal saw good balance in the autonomous and homonomous tendencies as essential to good mental health in individuals, and the solution to neurosis of all kinds, i.e., a good balance in the personality of individuals.. Perhaps such balance is also essential in the economy and society, composed of such individuals; in fact, it may be that such balance is the true nature and cause of the wealth of an individual, community and nation.

and the independence presumption it depends upon, that standard agricultural economics has chosen to not consider. We might characterize this missing piece like Khalil (1997), that individuals have both commitments (Bromley's sentiments; Lynne's others-interest) as well as an interest in the material (Bromley's calculations about hedonistic wants; Lynne's pursuit of self-interest), and standard economics only models the material. Or, as Khalil (1998, p. 614) would have it, standard economics and, by association, its agricultural economics counterpart is *amoral*; it fails to explicitly represent and otherwise model the moral (and, perhaps, fails to value only certain, like Bromley claims, efficiency) sentiments. This is generally true of virtually all economic modeling, and the understanding we gain from it, which also points to why such things as trust in corporate America seem outside the mainstream of economic models and modeling: Did anyone in mainstream economics model the collapse of Enron? WorldCom? Problems in these firms rest in the problems of the homonomous trends not being effectively represented.

Domains Addressed in the Free Session in 2000

One of the most intriguing points was offered by Stallmann (2000) in noting the "huh?" reaction to the concept of "community economics," that perhaps tying these two concepts together is indeed tantamount to offering an oxymoron. This implies that the community side of community economics reflects a sentiment, emotion-laden, others-interest oriented economics on the left-side of Table 1 which perhaps cannot be squared with the economic side of community economics reflecting the greed, opportunistic, calculating self-interest economics on the right-hand side of Table 1. Somehow in community economics, however, we need to find ways that these two approaches can be balanced, rather than looking only at the polar extremes

(Stallmann, 2000). Lynne (2000) sees the same problem in the call to include empathy in the economic model. By not doing so, this causes community to not be directly represented in neoclassical agricultural microeconomics. He sees the need for a kind of symbiotic balancing at work as between the two forces or tendencies in human nature. Adam Smith, too, saw a role for sentiments and sympathy, empathy, and suggested metaphorically going to the station of the impartial spectator (Smith, 1790) before making an individual economic decision that might affect community. He likely would not have any problem with community economics, and would probably wonder what the commotion was all about.

Bromley (2000) addresses the sentiments and how sentiments relate to economy, and how economic methodology focuses attention only on calculation in the economic, or material dimension, and, thus, on the hedonistic, pleasure pursuits. The moral pursuits are not recognized. As noted earlier, Bromley (2000, pp. 25-26) argues polity and economy are inextricably intertwined, so one cannot pursue the sentiments without the material, and do the calculation without also contemplating the sentiments. Reason, calculation and contemplation in both the material and the sentiments go hand-in-hand, much as community goes hand-in-hand with economics and economics hand-in-hand with community, jointly, inextricably intertwined. Community requires paying attention to sentiment, which then gives rise to the ability to act jointly, and efficiently. As Stallmann (2000) notes, interdependence is the fundamental feature, and a community will not exist if "... they do not have the ability to act jointly..." Without due attention to the sentiments, we find ourselves fighting, perhaps even in war-like, and, in extreme case, actual war, conditions. Community and economy, sentiment and calculation about the material, need to arise together, jointly.

Actually, the Bromley (2000) paper goes beyond sentiment and efficiency, in that it

seeks to find a justification for doing something else than that which economic efficiency as a “truth rule” dictates; we might say we seek a sentiment conditioned efficiency as well as an efficiency conditioned sentiment. Other truth rules that are equally legitimate in the minds of most citizens, albeit apparently not in the NIBE due to these phenomenon not being represented in the formal models, include “fairness, obligation, prudence, honesty, loyalty, expediency, feasibility, ..., practicability... (Bromley, 2000, p. 6).” We might add justice and a sense of doing-the-right-thing, generally.

Bromley (2000, p. 6) is also about methodology, and how we need to move beyond modernism with its attention to facts trumping sentiments, and the presumed “... triumph of calculation over sentiment.” By including the sentiments, we see Bromley as postmodernist at work, recognizing that value is embedded in fact and fact is embedded in value; that the material embeds sentiment and sentiment embeds the material. A kind of jointness is at work that is not recognized in the standard microeconomics model as applied by the neoclassicals. Bromley (2000, p. 4) makes the profound point that economics is “... one of the few disciplines to be defined less by its subject matter than by its method (maximization under constrained choice).” Perhaps of importance to an Institutional and Behavioral Agricultural Economics Section in the AAEA, it seems to us that a contender needs to refocus efforts on the subject matter, including the sentiments, and highlight in the subject matter just what sentiments are at work in the economic choices being made. As Bromley (2000, p. 7, 12) says it, we need a “more honest and realistic portrayal of individual and collective choice... to ask about the reasons for human action... (and we) must locate the reasons for individual and collective action.” We take this to mean we need to look deeper, for more fundamental motivations in the human psychology and sociology of economic action. We at the same time need to do moral inquiry... inquire into the

moral dimension, into the homonomous tendency of human nature.

As a case in point, Bromley (2000, pp. 18-20) characterizes discounting as only in the realm of efficiency calculation, implicitly referring here to discounting the material as associated with pleasure available in the future, for the unborn. Some believe discounting future material existence is unethical, violating norms in the realm of sentiment. This would suggest we perhaps need reason and calculation in both the realms of the material and the sentiments. We need to choose for the future on the basis of sentiment at least on par with choosing on the basis of material goods. This occurs through practice of the “human will in action (Bromley, 2000, p. 15, 21),” considering the present in terms of the future rather than the other way around. It is human will that balances the two forces at work, with reason and contemplation in both realms of the material calculation and of the sentiments.

As Etzioni (1986) argues, we perhaps pursue at least two essentially incommensurable utilities, a pleasure utility and a moral utility; as Khalil (1990; 1997) adds, we seek both at the same time, and achieve a distinctly different outcome not possible from pursuing only one or the other. His example (Khalil, 1997) is in the buying and giving of gifts that function in both the material and symbolic realms. We emerge as a distinct entity having acted with prudence and sympathy in the third station while identifying (Khalil, 1990, p. 266) “...with the self in the first station and with others in the second station.” Bromley (2000) seems on the same track, with the first station the efficiency realm of calculation and the second station the realm of sentiments, while bringing both together in contemplation and due consideration in the third station. Bromley (2000) notes how the two interests are blended (perhaps in this third station) in the case of genetically modified organisms (GMO) when citizens dismiss the material arguments and lean toward the sentiments in decisions to not purchase (at least not very much) GMO

food; he also argues this to be the case with many other consumer choices, including the purchase of steroid induced BST milk, a case we will return to later herein.

Shogren (2000) raises several of these same kinds of questions by pointing to the laboratory, experimental economic results from studies into how individuals address risk, cooperation and control. Laboratory work suggests that behavioral anomalies inconsistent with neoclassical economics abound. It has been found, for example, that people regularly separate “odds from outcomes” (Shogren, 2000, p. 14) in the case of low probability/high severity events such as catastrophic ecological events potentially arising from global warming. Shogren (2000, p. 14) claims this is due to individuals wanting to simplify the decisions, i.e., considering these two parts one at a time. Politicians and constituents often focus on the severity and operate with emotion, however, which is more consistent with the version of the story told about environmental policy by Bromley (2000). This separation is likely driven, instead, by the sentiments. It seems we may operate in the realm of sentiments on the matter of severity and in the material realm of calculation on the probability, the beliefs (probability) as it were about possible material outcomes. It is only later, after considering both the material and the sentiments first separately, and then jointly, through contemplation with due consideration as Bromley (2000) refers to it, that we again reconnect them toward taking action, into what economists refer to as acting on the expected utility.

Shogren (2000, p. 14) notes the regular finding of preference reversal in laboratory experiments due to the context, solved by introducing arbitrage into the transaction. He argues that laboratory evidence shows that self-interest overrides and trumps the others-interest given enough interaction. Using the Bromley (2000) model, we would have to posit that instead what is going on is an evolution of a common sentiment, about the shared values as it were, that are to

underly the market interaction. Shogren (2000) also highlights how control of individuals can work counter to efficiency in the material domain. We would expect; however, that control of the individual sometimes may be necessary in order to achieve a shared sentiment about environmental integrity, e.g., controlling emissions of carbon into the atmosphere such as to slow the pace of global warming, which in turn gives a truly wealthy, economically efficient economy. Intriguingly, and overall, Shogren (2000) adds the substantive insight that we perhaps can learn a great deal in the experimental economics laboratory that will help us find the place on the continuum in the psychological and sociological domains of Table 1 that describes reality.

Domains Addressed at the Free Session in 2001

Schmid (2001) focused on how recipients of the Nobel prize in economics have used and contributed to institutional economics. He started by asking each of the participants to list the Nobel laureates who they each considered to be institutional economists, and raised the question “does institutional economics constitute a unified body of theory?” Schmid (2001) then cited Kuznets, “By a theory we mean a statement of testable relations among empirically identifiable factors.” Schmid posited that the best economics (theory) sees (with examples of Nobel laureates recognizing these domains identified): cognitive science, bounded rationality (Allais, Simon); the transaction as the unit of observation (Coase, Arrow, North); institutions as incentive structures and as shaping preferences (Arrow, North); institutions defining efficiency (Buchanan, Hicks); different goods create different interdependencies, controlled by different institutions (Allais, Arrow, Buchanan, North, Samuelson). Institutional economics embeds all of

these components.

Regarding transactions, the reciprocal nature of externality, after Coase, was highlighted. “Put bluntly there is no such thing as laissez faire (Schmid, 2001, quoting North),” with social rules always at work, and other individuals always behind such rules (Schmid, 2001, citing Arrow). This theme seems consistent with that coming from the year 2000 Free Session, wherein Lynne (2000) identified reciprocity as arising from the two forces within humans, the egoistic (causing an externality) and the empathic (resolving the externality), in continual reciprocating action; social rules would arise because of the inherent empathic, others-interested force (as well as egoistic, self-interested force) at work in human relationships. Bromley (2000) also emphasized two elements of every decision, the calculation and the sentiments; it seems the latter is what gives rise to the phenomenon of reciprocity that Schmid (2001) identifies.

Multiple motivations in a kind of bounded rationality(after Simon) were highlighted. “Men are motivated by their interests, their prejudices, their passions (Schmid, 2001, quoting Allais).” Also, maximizing was questioned, “There is no reason to suppose that most human beings are engaged in maximizing anything... (Schmid, 2001, quoting Coase),” implying that perhaps satisficing (as suggested by Lynne, 2000) may be a more accurate description of the behavioral domain. Schmid emphasized this behavioral domain as being a key area of focus, indicating how “individuals shape institutions and institutions shape individuals (Schmid, 2001)” and we need to view “Institutions as incentive structures and as shaping preferences (Schmid, 2001, citing North).” Also, carrying on the behavioral paradoxes, “demand curves are problematic (Schmid, 2001, citing Arrow),” in the sense of value circularity that arises with valuation going both directions. This seems understandable within the Bromley (2000) framework of calculation and sentiments and the Lynne (2000) framework of egoistic, self-

interests jointly expressed with the empathic, others-interests, again, with value going in both directions. As Schmid (2001) notes in quoting Simon, “The institutional, political decision cannot be made on the basis of market criteria, since until it has been made, the domain of applicability of market criteria has not been defined.” Here we see the interplay and the potential for symbiotic action between the egoistic (market) and empathic (government) forces, arriving on a distinct plane, after Lynne (2000).

As Schmid argues, this is all about conflict resolution, with both politics and markets playing a role, together. He highlights this reality by quoting Buchanan: “Politics is not a process of fact finding or identification of truth but rather of conflict resolution between individuals.” Markets, in turn, operate more harmoniously as a result of the conflict resolution, as well as oft times leading to conflict resolution as individuals see their reciprocal interests served by such reconciliation. Again, this seems consistent with themes from the year 2000 Session, with Stallmann (2000) highlighting community-economics, each bound to the other; Bromley (2000) with sentiments and calculation both affecting decisions after contemplation and due consideration; Hitzhusen (2000) seeing how bureaucrats and politicians are always squaring the private and public interests; and Lynne (2000) seeing the inherent conflict as between the two stations of ego and empathy, and the need to focus on the potential to resolve same on a higher plane. In terms of holistic psychology, we need to find the balance between autonomy and homonomy (see Lynne et al., 2002b).

Breaking News: New Behavioral Economics Programs, and Nobel Prizes in Economics for Asymmetric Information

Intriguingly, much of what is at issue in Table 1 really revolves around the “nature of human nature,” which is to say, revolves around the set of issues coming to be discussed in the “new” behavioral economics. As noted in the New York Times (NYT, Feb. 11 and Mar. 4, 2001), many heretofore mainstream economics programs have started to hire behavioral economists, with new programs at Harvard, Massachusetts Institute of Technology, and Stanford. George Mason University recently hired away many of the experimental economists in the long-standing University of Arizona program. New associations are already being formed, e.g., the Society for the Advancement of Behavioral Economics (SABE), which already is 300-members strong (see website: <http://www.usask.ca/economics/SABE/>). This association is also providing the editors, reviewers and the editorial board for the newly revitalized Journal of Socio-Economics that was recently purchased by Elsevier Science. SABE has also formed a liaison with its European counterpart, the International Association for Research in Economic Psychology (see website: <http://www.ex.ac.uk/IAREP/>). This association publishes the Journal of Economic Psychology.

Intriguingly, a few natural resource and environmental economists, and even fewer agricultural economists, are starting to also contribute in the behavioral economics realm. A paper by Opaluch and Segerson (1989), e.g., points to ambivalence as a real economic phenomenon, suggesting real people often have a difficult time at best and often “...cannot make precise tradeoffs between beliefs and values.” As they note (Opaluch and Segerson, 1989, p. 88):

Essentially, under ambivalence the decision-maker has non-scalar preferences which are based on two different objective functions, one reflecting his social values and the other reflecting his personal tastes... Hence, when values and tastes clash, decisions may not be based on the types of calculations implicit in the neo-classical utility model and its generalizations. Indeed, even the concept of

making a decision through trading moral values for personal rewards may be viewed as reprehensible and unacceptable social behavior. Thus, the balancing involved in neoclassical models cannot be viewed as the basis of choice. It is possible that in these circumstances that (the) individual switches into a different mode of decision-making.

We have made a similar kind of argument elsewhere, i.e., that perhaps there are some incommensurable, yet joint, interests at work in human nature, as delineated in the “metaeconomics” discussion below. Opaluch and Segerson (1989, p. 82) also highlight the need to consider all three dimensions of a complete behavioral model, including 1) underlying motivations of behavior; 2) decision rules for making choices; and 3) potentially observable behavior. Intriguingly, standard (including agricultural, resource and environmental) economics focuses on decision rules, while sociologists focus on observing and describing behavior, and neither group has addressed motivation. The latter has been left to the psychologists, and to some extent the social psychologists and the economic psychologists, economic sociologists . . . and, now, to the new and upcoming field of behavioral economics.

Another example is represented in Kuperan and Sutinen (1998) based on the theoretical framework in Sutinen and Kuperan (1999). This work starts with a standard utility formulation of the problem and asks about compliance. It asks if the neoclassical deterrence model, now over 30-years old (tracing back to Becker, 1968), really captures all the reality that is *H. sapiens* on the matter of compliance to rules and law, both informal and formal. Intriguingly, to do so, it draws on two equally long standing traditions in psychology and sociology, the first addressing the moral development of an individual (after Kohlberg, 1969) and the second the social influence even when mores differ as between the individual and the group (after Bandura, 1969). This is to say, Kuperan and Sutinen recognize the role of benefits and costs narrowly conceived

as in standard (micro)economics while also attempting to elaborate the neoclassical behavioral model by adding arguments to the standard utility function, one each for the intrinsic motivation reflecting morality and the extrinsic motivation reflecting social influence, especially when the internalized moral dimension differs from the social tug and pull on the individual.

Intriguingly, this is directly at odds with the Opaluch and Segerson (1989) paper on ambivalence, in that Kuperan and Sutinen are essentially claiming that value and tastes are standard items of trade-off along an indifference curve of fixed utility, while the former see another dimension to utility, perhaps even two objective (utility) functions, largely incommensurable.

All this is to say, we still have a long way to go in behavioral modeling, but at least we seem to be on the way. The Kuperan and Sutinen approach of adding moral and social influences into the standard utility function is also at odds with the metaeconomics approach, after Lynne (1999; 2000; and 2002a), the latter being closer in spirit to the idea of ambivalence in Opaluch and Segerson (1989), but focused more directly on motivations and control of the self (discipline) in finding the balance across motivations more times than not at odds, leading to difficult choice(s).

Toward a Contender: Could Efforts Toward Developing a Kind of “Metaeconomics” Become a Substantive Focus of the new AAEA Section? Is it Possible to Build an Alternative Economic Engine for Analysis, One that Reflects Dimensions Other than the Self-interest?

This balancing between sentiment and the material, both of which occur jointly and

simultaneously, reflecting the joint pursuit of the empathic and the egoistic, the autonomous and the homonomous... suggests a possible basis for building a viable contender for neoclassical agricultural economics that would have a focus on underlying motivations. This is the message in Lynne (2000; 2002a), which demonstrates the metaeconomics approach. The word metaeconomics comes from the notion of going beyond and transcending standard microeconomics, and thus “meta” (see Lynne, 1999). To briefly illustrate the approach, consider the BST milk case from Bromley (2000, p. 11). We see in Figure 1 that a consumer could well choose point C at a higher price for non-BST milk $p > p'$ due to paying attention to the sentiments on the empathetic, moral and sentimental (homonomous) path OM rather than responding only to the lower prices for BST milk and seeking economic efficiency at point A' or A along the egoistic, materialistic and pleasure seeking (autonomous), path OG. It is posited that consumers (and producers) carry both sets of interests at all times.

That is, Lynne (2000; also see Lynne, 1999, and Lynne, 2002a, b) suggests we jointly pursue both egoistic interests I_G and empathic interests I_M , and generally do so in a joint fashion as depicted by everywhere dense and overlapping sets of indifference curves. The two interests are interdependent, with each one influencing the other. The existence of both at all times for every good is illustrated by every point in the space having an I_G curve intersecting an I_M curve, suggesting that every economic choice has both material and sentiment simultaneously affecting said choice. As a result, in reality perhaps most will rather seek a satisfactory path OZ, appropriately balancing the purchase of both kinds of milk, achieving a kind of distinct state wherein efficiency has influenced sentiment and sentiment has influenced efficiency.⁶

⁶Alan Schmid, in a most helpful review of this paper, commented on this contention that sentiment and efficiency are not at the same level of abstraction; that the

Tracing the symbiotic relationship between the two interests, we see the evolution of a family of ego-empathy curves with one depicted in Figure 2 representing movement along RRN in Figure 1. As Bromley (2000, p. 12) indicated, most consumers said “no thanks,” and acted primarily on their sentiments, which we depict as choosing to be at point C rather than on their economically efficient interests path at point A. Point C, however, is also efficient given the sentiment at work. Intriguingly, Figure 2 adds the insight that Bromley’s “human will in action” could lead to any one of many points in the rational zone AC (the area on and between paths 0G and 0M in Figure 1, more generally) with rationality now represented in both realms of the material and the sentiment.

So, we see the potential for preference reversal as highlighted by Shogren (2000) as the human will vacillates between choosing path 0G v. path 0M in Figure 1, perhaps choosing path 0G at one time and 0M at another, with such vacillation perfectly rational. It is quite rational to move back and forth along segment AC in Figure 2. We see how sentiments may influence choice, as the empathic interests I_M influence the calculations for hedonistic material gain I_G , leading us first along 0G, perhaps landing ultimately on path 0Z, as the sentiments influence what is deemed efficient. Only with human will in action will we be able to discipline ourselves onto a path 0Z, find point B, and avoid the extremes of sentiment on 0M or the extremes of calculated material gain on 0G. We also see Stallman’s (2000) point that community economics will be a stretch for the community oriented along path 0M and an equal stretch for the

value of any characteristic of milk is a sentiment. We beg to differ: We would argue, instead, that every characteristic of milk has a sentiment associated with it, in the emotional, empathetic domain as well as every characteristic of milk also having a material dimension and associated with a material value in the egocentric domain, with both values going on jointly, simultaneously. We would agree that every characteristic has two jointly arising values.

economy oriented along 0G. We now also see that a true community that has found the symbiotic balance between the two forces will encourage individuals along path 0Z; this will take interaction and dialogue, which requires and leads to community. It requires investing in social capital, "... the norms and networks facilitating collective action for mutual benefit" which especially leads to fundamental trust among individuals (Woolcock, 1998, p. 155), especially when the norms are shared⁷ and maintaining an appropriate level of stock in such capital as draws are made. Lynne et al. (2002b) demonstrates that the level of social capital in a community is driven by both autonomous and homonomous trends.

As Shogren (2000, pp. 20-21) points out, efficiency is improved by informal communication in contrast to formal communication; face-to-face interaction works better in negotiations due to helping build trust. This is consistent with finding a path 0Z away from the extremes, with the new path built with social capital, which may be a necessary feature of an environment leading to a truly prosperous food and rural system (see Robison and Schmid, 1994). It has been demonstrated in empirical work, e.g., that farmers build and maintain social capital stocks by selling land as though on an 0Z path (and some perhaps even on an 0C path), i.e., farmers oft times sell land at lower prices to relatives, good friends, people with whom they have stronger relationships represented in social capital, and charge premiums to those with whom relationships are less substantive (Siles et al., 2000). Also, we no longer have to claim that "yellow is red (Stallmann, 2000)," or that red is yellow, i.e., that every choice is along red path 0G in the self-interest, or to spuriously claim that the yellow, empathic path 0M also

⁷Albeit trust potentially could also surface among individuals with quite different norms, too, as long as they shared the norm of honesty and integrity, and the norm of freedom from control and injury by the other, such that they could trust on that basis alone.

reflects choice in the self-interest, when clearly it does not. We can now ask whether the yellow path 0M (i.e., the sentiments) is playing some role, perhaps influencing the substance of efficiency, with individuals seeking a complex, symbiotic mix of both yellow and red interests on path 0Z, a more prosperous, truly wealthy orange path. On this path efficiency interests affect the sentiments and the sentiments affect efficiency. The choice of path becomes an empirical question for scientific research, including doing the moral inquiry, rather than a presumption of a certain kind of economic theology.

We also now see the Hitzhusen (2000) point that egoistic interests may play well in the public realm; the self-interest path 0G will influence path 0M, again perhaps arriving on some path 0Z, moving away from the false dichotomies that are the other two paths. In fact, we propose in metaeconomics that the interests are structured much the same, even drawing similarly shaped indifference curves in both domains. This is to say, the public realm is expressed along path 0M, a path for acting on the sentiments, with empathy. We no longer leave out major domains of human behavior. The other “truth rules” highlighted by Bromley (2000) are represented on the path 0M. We see that sometimes they could trump the efficiency path 0G, and more often than not, the truth rules including economic efficiency productively interact along a joint path 0Z. We see both calculation and contemplation with due consideration along path 0Z.

Also, we reinforce the Smith (2000) point that theory plays a substantive role, whether explicit or not. We choose here to make the sentiments explicit, rather than operating in an amoral manner. By explicitly representing the sentiments in the model, the economic story that emerges helps us better understand what is really on-going, jointly, in the polity and in the economy.

There are some hopeful signs that economics and sociology may already have started to re-connect (see Lynne, 2000) and someday again could well be one field, a new field that fuses the facts and values; calculations and sentiments; ability and control; self-interests and others-interests. It is toward said objective, to build new social theory somewhere on the continuum between the old institutional and behavioral economics (OIBE) and new institutional and behavioral economics (NIBE) perspectives of Table 1, and to bring it to bear on agricultural issues, that perhaps needs to be the shared focus of future Free Sessions, and perhaps that of the Institutional and Behavioral Economics subgroup within the AAEA.

Schmid (2001) brings forward similar themes in seeing the interplay of the market and the political process, with the latter all about conflict resolution. The Schmid (2001) emphasis on the now known scientific phenomenon that individuals shape institutions and institutions shape individuals leads us away from both the extremes of the continuum that is represented in each domain of Table 1, but especially in psychology, the psychological economics and the economic psychology that describes actual human nature. It perhaps even gives us license to claim for the new AAEA Section that we apply a rather unique methodology in contrast to most others who address agricultural, resource and rural issues, a kind of “institutional individualism (after Rutherford, 1995, p. 178, citing Agassi, 1975).” Institutions are explained in terms of individual actions while individual actions are influenced by institutions. This is akin to the metaeconomics model from Lynne (2000), wherein egoistic self-interest within individuals influences the empathic others-interest within the same individual, and the empathic (homonous) influences the egoistic (autonomous) tendencies, with both the self- and the others-interest formed from interaction among many individuals through relationships and institutions. In this approach, the interaction ongoing within a variety of forums, including

generally the market, legislative, judicial and administrative, are all on par.

Social Capital as a Bridging Construct?

As noted earlier, social capital is about networks and norms, and trust that evolves on the foundation of norms through the networks. It arises at the individual level, reflecting the individual's moral development which may go through various stages (see Kohlberg, 1969, and subsequent traces of this literature), and may be socially influenced (see Bandura, 1969 and subsequent traces of this literature). Also, social influence may have an impact on individual behavior even when intrinsic, internal values are not the same as that held in the larger group that is trying to influence the individual. We might also expect to see convergence in values in most cases, although it is not impossible that there would be divergence, perhaps causing the individual to find other groups with which to interact.

What social capital brings to the forefront is the reality that relationships matter. Networks are formed and reformed, as motivated by pursuits of both self(ish)-interests and others-interests. Also, goods arise out of these networks having both social/emotional content and material content. This is, perhaps, where the social capital construct brings its greatest potential to help in bridging, in that economics focuses all attention on the rational, self-interested pursuit of material goods without addressing the empathetic, emotional dimension. Sociology, in turn, generally focuses on the (irrational) pursuit of the social and emotional dimension of goods without ever clarifying that empathy is also a motivation; not bringing rationality to the fore; and perhaps associating material gain too much with the social networks in place, and not enough with the individual.

Social capital holds the potential to bridge economics and sociology by suggesting that pursuing the social emotional side of a good is also individually rational, and thus results in placing both the pursuit of self-interest and others-interest under the umbrella of rationality and reason. It is rational to buy a red sports car because it produces both egoistic (selfish) outcomes, e.g., takes one to work; gives hedonic pleasure from high speed drives on country roads; as well as empathic (others) outcomes, helping a group of people have a family picnic after the car show to enjoy each other in empathetic, sharing ways wherein the individual obtains empathic payoffs. It yields further autonomy as well as unity with others who drive red sports cars, represented in homonymy. As noted earlier, Etzioni (1986) suggests there may be at least two kinds of outcomes, the pleasure outcome and the moral outcome. As economists, we might even go so far as to say there are two kinds of incommensurable utilities that cannot be subjected to trade-offs along indifference curves, but like Opaluch and Segerson (1989, p. 88) suggest, lead into a substantively different mode of decision making.

Formation of the New AAEA Section

Smith (2000) noted considerable common ground among the Free Session presentations in 2000

(quoting his four summary points):

1. There certainly seems to be a consensus that Neoclassical theory is increasingly not helping to devise proper policies for the future well being of society and its citizens; it does not explain well enough (or at all) “why” choices are made or not made.
2. The mention of “policy” . . . leads to another commonality. All of our participants reject the notion that economics is not normative. Their foci and contexts are policy situations.

3. A third major area of commonality is that all the presenters seem to agree that standard Neoclassical theory leaves out large areas of human behavior, ignoring collective action, politics, sentiments, purpose, values, equity, psychology and institutions.
4. Finally, the participants all are concerned with, either implicitly or explicitly, theoretical gaps.

We concurred, and added the point that we need to fuse the dichotomies of Table 1. Special attention needs to be placed in the behavioral realm. We need to square the notion that humans calculate without sentiment in the pleasure realm with the notion that humans act mainly with sentiment and emotion in the moral realm. It is quite possible they do both, simultaneously and jointly. We see the need, especially, to bring the social emotional goods to attention within economics, and in agricultural, natural resource and community economics more specifically (although, in the latter, such goods are already quite prominent, and all we lack is a solid theory to describe the phenomenon).

Smith (2000, p. 1) also noted the “uncommon ground” of the four presentations in 2000... “the people they read.” He found only two citations used by more than one presenter, suggesting the wide base of scientific literature behind the continuum(s) in Table 1.

Table 1 captures the four common ground dimensions in the scope, psychology and sociology domains, with the other domains of Table 1 pointing to still others on which we may differ with our colleagues that practice neoclassical, new institutional and behavioral economics (NIBE) agricultural economics. It was decided that an AAEA Section would help in further elaborating these four points and the other dimensions of Table 1, developing ever more preciseness about the agricultural economic science at work in each dimension. An evolving version of Table 1 could be used to delineate the general areas in which we could eventually

invite individual presenters, develop principal paper sessions, and organize symposia within this Section of a more inclusive AAEA of the future.

Sufficient signatures were obtained late 2001, including several signing during the AAEA Annual Meeting, to petition the AAEA Board in late 2001 for Section status. The Institutional and Behavioral Economics Section was recognized in early January, 2002. The first business/organizational meeting will be held at the AAEA Meeting in Long Beach, California, July 28-31, 2002. Also, the coordinating committee composed of Gary Lynne, Chair; Sam Cordes, Frederick Hitzhusen, Lindon Robison, and George McDowell decided to encourage those who signed the petition to submit proposals through the standard process for the AAEA meeting in Long Beach in 2002. Several were submitted. One of those accepted was for an Organized Symposium, “Social Capital and Behavioral and Institutional Economics: Are they Connected?” Social capital is potentially one of the substantive focus areas for IBES; others holding potential include behavioral economics, and the various mainlines of institutional economics, “old” and “new.” Importantly, IBES will be given more influence and control over a “track” for the AAEA meeting in Montreal, Canada, in 2003.

Looking Ahead

As suggested by both the year 2000 and 2001 Free Sessions, we see where future sessions associated with IBES will be registered on the continuum between the two end points identified as neoinstitutional and neoclassical economics, yet perhaps oriented most toward the neoinstitutional end. This represents opportunity to be an offset as well as a complementary effort to the mainstream within the AAEA. Also, overtime, as a Section we increase the

probability of evolving a viable contender(s) to neoclassical world views about agriculture, food and natural resources, and perhaps even a specific kind of agricultural economic theory that could serve as our analytical engine. We could serve to be validator of the contender(s), and of those who preach from the base of such an alternative theology(ies) (i.e., thinking for the moment of economics as a kind of theology, after Nelson, 1991).

Ultimately, we might see the evolution of a kind of metaeconomics at least on par with and complementary to, if not superseding, the microeconomics used in neoclassical approaches. One possibility is to further develop and elaborate metaeconomics, due to it having the desirable feature of showing microeconomics as a default case of the metaeconomics formulation: If empirical testing does not find a role for empathy and the tendency toward homonymy in human nature, we are back to the egocentric, autonomy of standard microeconomics. It also sets the challenge for us as institutional and behavioral economists to “be thy concise” in explaining what it is we have to offer, and to provide a truly viable alternative analytical engine, and not just a critique, by actually moving forward to put the offering on the table for consideration.

The contemporary dialogue about the conservation and environmental component of the new farm bill, and the bill itself more broadly construed, is a case in point. We know from behavioral economics that farmers and ranchers are dually and jointly motivated (e.g., see Lynne and Casey, 1998) to find a satisfactory balance in profitability (material self-interest) and in being part of the community that is the food system (symbolic others-interest represented in the sentiments). This means that far more is involved than addressing only efficiency in “getting the prices right.” We also know that we must address the sentiments in “getting the norms right,” as all participants see them, while helping evolve same. We need to recognize the role of sentiments in public policy (Bromley, 2000), as well as the efficiency. We know that the prices

(e.g., conservation payments or prices in the market for conservation goods produced by farmers and ranchers) will have moral sentiment content, while the moral content of a choice will have price content. A kind of metaeconomics is needed in simultaneously “getting both the prices and the norms right,” jointly.

We also learn from institutional economics that law, rule, and open dialogue within the food channel is necessary to the task of addressing the sentiments, and thus facilitating each entity in the channel to take an economic action conditioned by sympathy and empathy (see Lynne, 2002a). Reason and contemplation go on in both realms, the sentiments and the material, both requiring calculation (we believe this contention is consistent with Bromley, 2000). This is how relationships build, and good relationships lead to good economy. The farm bill, and its conservation components need the design influence that we would bring to it. This is how true wealth and prosperity, as Adam Smith also understood it, will eventually emerge in the food system and in rural communities.

It seems we may wish to declare a mission for IBES, perhaps something to the effect: “Ensuring a healthy and prosperous environment, food and rural system through increased caring and enhancing social capital.” IBES might encourage moving to new theory and methodologies that we can claim as signatures of what it is we do. On this front, it may be of historical interest that the original Farm Economics Association focused on enhancing the profitability of farms and ranches *and* on improving the lives of people who worked them; in that era, it perhaps went without saying that the word profit also included empathy. Overemphasis on formalizing economics, however, has led to excluding empathy from economic models, equations, analysis, and, most unfortunately, from the economic story being told. IBES might focus on putting the empathy back in, addressing the social emotional content of real

economic life, and return to the original mission of agricultural economics. This suggests broadening it to environmental and rural concerns and the entire food and fiber system, while recognizing that true profitability and wealth from efficiency also embeds empathy and that empathy embeds efficiency, in symbiotic ways.

Fortunately, we now have a legitimate and about to be organized place, beyond that which is given in the Free Session format, to go to, and to do what it is we do on the continuum that is Table 1. We can now carry out this mission in part within the domain of the AAEA association, through the new IBES. Perhaps we can now in some small way, by focusing on common ground through IBES, serve to help E. O. Wilson (1998) achieve the unity of knowledge he is seeking in *Consilience*, seemingly a laudable sub-goal, at least, for IBES.

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Table 1. Characterizing Tools, Schools, and Methodologies in Agricultural/Resource Economics⁸

Old Institutional and Behavioral Economics (OIBE)	New Institutional and Behavioral Economics (NIBE)
Scope, Boundaries and Methodology	
Economists need to address problems as non-separable social science and natural/physical science problems.	Economists need to first separate out the other social science and natural/physical science problems in order to focus on the economic.
Truth about reality for a firm requires a look at custom, habit and the economic theology in the background.	Truth about reality for a firm lies in the logic of the theory of the firm, which in turn arises from human reason.
Standard assumptions about the firm if contradicted by empirical analysis makes the theory unrealistic, and thus it needs to be replaced or at least modified with some alternative.	The performance of a theory of the firm needs to be judged by the precision, scope, and conformity with experience of the predictions it yields, and thus, the realism of the assumptions is largely a non-issue.
Simulation modeling, cases, experiments, econometric modeling... are all deemed substantive ways for accurately depicting and improving understanding of actual economic behavior.	Econometric approaches and programming models are the only way to accurately depict and predict economic behavior.
In terms of how I approach an economic issue or problem, I would tend to explain an event or action by identifying its place in a pattern that characterizes the ongoing processes of change in the system.	In terms of how I approach an economic issue or problem, I would tend to first construct a formal model based on assumptions about how economic agents would behave if they acted rationally.
Empirical testing would largely be done through participating in and observing what is going on, filling in ever more details, and expanding understanding of the overall system.	Empirical testing using statistical techniques has limited usefulness in that the data tends to be inadequate to the task of really testing the formal model.
Economics needs to focus on understanding and explaining motivations and economic behavior.	Economics needs to focus on predicting economic behavior, and presumes one motive.

⁸After Lynne (1986) and Rutherford (1995).

Economic analyses needs to understand the nature of beliefs, values and what motivates the evolution of tastes and preferences.

Economic analyses needs to be limited to working under an assumption of given and stable tastes and preferences.

Biological and Physical System

The global system needs to be modeled as a thermodynamically closed system and thus it is necessary to recognize the inherent *interdependence* between human and natural systems, both currently and in looking at connections over time.

The global system needs to be modeled as a thermodynamically open system and thus it is necessary to recognize the inherent *independence* between human and natural systems, both currently and in looking at connections over time.

There is inherent natural resource and environmental resource scarcity no matter how much effort (labor, capital, management,...., technology and knowledge) is brought to bear.

There is inherent natural resource and environmental resource abundance given sufficient effort (labor, capital, management,...., technology and knowledge) is brought to bear.

Wastes and pollutants are natural products which have to be handled inside the economic and social system, and need to be a part of economic efficiency.

Wastes and pollutants are best considered as external to the system, and may be internalized only if it leads to economic efficiency.

There is natural, inherent conflict due to ecological and physical limits on environment and natural resources; variation in human experience; and, it is probably genetic.

There is natural, inherent harmony due to an abundance of resources reflected in the boundless creativity of the human mind to find substitutes.

Property

Private property is a fundamental right within a democratic system, but a substantive issue is “whose right.” Yet, common property institutions (e.g., the common ownership of water) often are needed to achieve shared values. At best, markets and market-like processes based on private property can play an important but a limited role.

Private property is a fundamental right within a democratic system. As a result, common property institutions (e.g., the common ownership of water) need to be avoided. Common property institutions need to be replaced with private property and markets.

Private property rights are reciprocal in nature. Takes a transactions view, recognizing the need for some attenuation (restricted) in order to best serve the public interest. A’s attenuation is B’s opportunity.

Private property rights ideally will be non-attenuated (not restricted) in order to best serve the public interest. Focused only on B’s opportunity.

Property duties (responsibility) are a key feature of and on par with the property right. Without a duty for A there is no opportunity for B.

Property rights precede duties. Only opportunities for B are considered.

Psychology: Motivations and Pursuits

Lower level wants and needs are satisfied before higher level needs, e.g., it is not possible to substitute self-esteem for food due to these goods being incommensurable, and not a subject of trade-offs measured in relative prices. A kind of bounded rationality is at work, bounded by the empathetic dimension.

No hierarchy of wants and needs exists, e.g., self-esteem can be substituted for food due to these goods being commensurable, and subject to trade-offs measured in relative prices. The only limits are cost and income constraints; everything else is outside the domain of rationality, and, is, irrational.

Producers may in fact try to maximize output for every level of input used in production, or minimize cost for every level of output, but such behavior represents an acquired trait.

Producers just naturally maximize output for every level of input use, and minimize cost for every level of output, with such behavior representing inherent, genetic traits.

There is natural, inherent conflict due to differences in beliefs and values, preferences.

There is natural, inherent harmony due to similarity in beliefs and values, preferences.

Utility is multiple dimensioned with individuals obtaining utility from action taken in the self-interest and from action taken in the others-interest.

Utility is single dimensioned with individuals obtaining utility only from action taken in the self-interest.

Individuals jointly pursue both a self-interest and an others-interest, with such interests joint and interdependent.

Individuals pursue the self-interest.

Consumers and producers often are lacking in requisite abilities, missing key pieces of information, so at best act in satisfactory ways. Bounded rationality. Not good at calculations. Satisfice rather than maximize.

Consumers and producers weigh the benefits and costs of developing more ability and obtaining more information, and act optimally. Fully rationally. Good at calculations. Maximize.

Sociology: Interdependence and (Social) Cost

Individual behavior can only be understood with respect to the claims from the family, peer group, community, ... , society and how the individual chooses to respond to each group. History matters. Sunk cost matters.

The moral order, or moral dimension, in a community needs to be first understood before it becomes scientifically feasible to understand the economic behavior of individuals. Standard operating procedures evolve.

The individual is the best judge of own welfare, but most individuals consider the community in making decisions: a kind of mutual control is at work. The whole is, symbiotically, more than the sum of the parts.

The pursuit of self-interest is conditioned by community standards... institutions... in a kind of symbiotic relationship arising between self- and public- interest considerations.

Discounting the future, i.e., selecting and applying a discount rate in a decision affecting the future has ethical implications, and is generally deemed unethical by many.

A firm (e.g., farm, ranch, agribusiness, environmental business) is an entity having rational and simultaneously emotional decision makers, who often pay attention to the claims of others (e.g., family, farm organization, community) while seeking a satisfactory level of profit.

Individuals are inherently interdependent, so social costs are a normal part of economic activity.

The economic system is held together by a system of cohesive social, political, and economic forces not usually in equilibrium.

Individual behavior can be explained with knowledge only of an individuals unique biography. The claims of others are all mediated through the self-interest. History is irrelevant. Sunk costs are of no consequence.

The moral order, or moral dimension, in a community is outside the domain of economics, so there is no particular need to first understand it before one proceeds to analyze the economic behavior of individuals.

The individual is the best judge of own welfare, independent of community. The whole is the sum of the parts.

The pursuit of self-interest is the same as the pursuit of the public-interest, i.e., the public-interest is achieved by the pursuit of individual self-interest.

Economic concern for generations yet unborn can be adequately addressed through discounting, and has little to do with ethics.

A firm (e.g., farm, ranch, agribusiness, environmental business) is an entity acting as if composed of one rational decision maker that maximizes profits. Emotion and the interest expressed toward others has little to do with rational choice.

Individuals are inherently independent, so costs are an aberration rather than the rule in the economy.

Market equilibrating forces determine the cohesiveness of the social and economic system. The system is either in equilibrium or tending toward equilibrium.

The concept of utility lacks in moral content, so maximizing the sum of individual utilities has little meaning in that the moral dimension is not adequately considered. Impossibility theorem is largely common sense.

Moving to a position of Pareto optimality represents one of many possible criterion in improving the economy. Focus is not only on the move but the starting place.

Achieving some level of social welfare can be understood in the sense of many people achieving the satisfaction from the utility of realizing some shared value(s) as well as their own individuated values.

Data, Variables and Parameters

Prices, and values calculated using prices, are best viewed as normative information about the status quo, about what has already occurred in the past, and thus are a poor indicator of what needs to take place in the future. Focus is on just who is the buyer and who is the seller.

Data is purposive, changing in meaning and value content through time, so, e.g., using historical price data to look forward is not particularly useful in choosing directions for the future, in that meaning and values embedded in the data are likely to be quite different, and perhaps unstable, in the future.

Valuation, Costs and Prices

The concept of utility includes moral content. An individual optimizes the relative amounts of goods purchased in the pursuit of moral satisfaction relative to other satisfactions. Impossibility theorem is an aberration; not a problem of much consequence.

Moving to a position of Pareto optimality represents the prominent criterion in improving the economy. Starting place is of no consequence or concern.

Achieving some level of social welfare can be understood as simply maximizing the sum of individuated utilities gained by each individual, with shared values not a consideration.

Prices can be taken as objective information about the direction individuals and society need to take for the future. No concern with who is buying and selling, and thus with whose values, and the nature of those values, that are driving the outcomes.

Data tends to be stable over time in the sense of humans expressing invariant meaning and value through time, so, e.g., using historical price data to look forward is quite useful in choosing directions for the future, in that meaning and values embedded in the data are likely to be quite similar, and stable, in the future.

Appropriate economic analyses recognize the legitimacy of market behavior and wealth maximizing behavior, but also need to recognize that people with other belief and value systems need to have an impact on decisions, and sometimes these are best made in non-market forums, e.g., legislative, judicial, administrative forums.

Markets can play an important role in expressing values associated with satisfying more basic needs. Other decision forums (legislative, executive branch of government, judicial, private clubs and organizations) decide who is the buyer and who is the seller, and are deemed as oft times better suited to achieving most higher level needs.

Cost has little to do with physical, material reality, rather having to do with the disutility of consuming or producing some material, e.g., fertilizer to produce crops or producing the crops themselves.

The expression of value in political, legislative, and judicial realms is a legitimate determinant of appropriate resource allocation.

Relationships and personal interactions among individuals substantially affect relative values and prices.

Technology, Institutions and Change

Multiple motives (profits, natural curiosity, higher values and needs) drive technological change, which in turn drives institutional (laws, rules) change, in sequential order.

There is pervasive uncertainty, requiring producers and consumers to band together and build institutions and organizations reflecting shared risk values to address it.

Appropriate economic analyses recognize that people naturally favor (have the belief and value systems favoring) activities leading to market and wealth maximizing behavior. The role of legislative, judicial and administrative forums needs to be minimized through educating individuals to the efficacy of the market forum.

Markets need to be used as the primary vehicle to express values and satisfy all wants and needs. Other decision forums (legislative, executive branch of government, judicial, private clubs and organizations) need to be reduced in influence. No concern with who is the buyer and the seller, or how they achieved that state, other than it be efficient.

Cost represents something observable and physical, e.g., the dollar equivalent of materials in manufacturing fertilizer used by crops and the dollar value of the crops themselves.

The expression of value in a market is the legitimate determinant of appropriate resource allocation.

Relationships and personal interactions among individuals have no influence on relative values and prices.

The profit motive in the face of changing relative prices simultaneously drives both technological and institutional (laws, rules) change, not necessarily in any particular order.

There is really no uncertainty, rather, there is probability, and consumers and producers with varying risk preferences handle it in the markets.

Risk management is a problem producers and consumers need to work on together in community, with claims and the support of others a key part of managing risk. The focus is on to share in the costs of being wrong.

Supply and demand are nonseparable and interdependent forces.

Institutional arrangements (laws, rules, regulations, custom) reflect the powerful shared values which necessarily evolve in social interaction, sometimes counter to what the individual would choose, and judged on different criteria than used for choosing among consumer and producer goods.

Government plays many necessary roles beyond the provision for the public defense and security, and the definition and enforcement of private property rights. Government is needed, e.g., in order to help individuals develop and express shared values and achieve shared aspirations beyond what can be accomplished in markets, and upon which the market rests.

Technological change is endogenous to the broader social system and driven by natural curiosity or natural human bent to do things differently, more than anything else.

Science and technology are cultural imperatives, the driving force in institutional change due to creating conflict. The market reacts.

The outcomes of any particular market may have to be overridden with the latest scientific and social knowledge, recognizing the moral content, the value content of same, while going beyond the knowledge of contemporary market participants.

Risk management is something an individual producer and consumer does alone and the claims and support of others in community have little to do with it. The cost of being wrong is an individual problem.

Supply and demand are separable and independent forces.

Institutional arrangements (laws, rules, regulations, custom) are a matter of individual choice, and are judged on the same criteria as used for choosing among consumer and producer goods.

The only necessary role for government beyond that needed to provide for the public defense and security is to define and enforce private property rights in order to facilitate rigorous competition in markets. Government needs to be minimized, and markets encouraged to take on all manner of actions.

Technology is endogenous to the economic system and driven by price ratio changes reflecting small shifts in relatively stable and invariant consumer preferences.

Science and technology are the result of market forces, so market changes induce both technological and institutional changes.

The market needs to be left alone, with outcomes based on whatever knowledge that is brought to it by the participants in that market, scientific or otherwise. The moral and value content brought to the market by individuals is outside the domain of economic analysis.

