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**Getting Past "Rational Man/Emotional Woman":
How Far Have Research Programs in Happiness and
Interpersonal Relations Progressed?**

Julie A. Nelson

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Tufts University
Medford MA 02155, USA
<http://ase.tufts.edu/gdae>

Abstract

Orthodox neoclassical economics portrays reason as far more important than emotion, autonomy as more characteristic of economic life than social connection, and, more generally, things culturally and cognitively associated with masculinity as more central than things associated with femininity. Research from contemporary neuroscience suggests that such biases are related to certain automatic processes in the brain, and feminist scholarship suggests ways of getting beyond them. The "happiness" and "interpersonal relations" research programs have made substantial progress in overcoming a number these biases. Analysis from a feminist economics perspective suggests, however, several fronts on which research could most profitably continue.

Getting Past "Rational Man/Emotional Woman": How Far Have Research Programs in Happiness and Interpersonal Relations Progressed?

Julie A. Nelson

Introduction

Economic research projects on happiness and interpersonal relationships are making a number of exciting advances, relative to economic orthodoxy. In many cases, old dogmas are being rejected, and results from cognitive psychology, social psychology, evolutionary biology, neuroscience, and related scientific fields are enriching economists' study of human behavior and well-being.

The traditional neoclassical model based on purely rational, purely autonomous "economic man" is being challenged at many levels. As psychologist Daniel Kahneman and his colleagues have famously pointed out, human decision making does not follow strict rules of logic. Instead, "[T]his marvelous creation [the human cognitive system] differs in important respects from...the rational agent assumed in economic theory." (Kahneman 2003, 1454). Our decisions arise from cognitive processes developed over evolutionary time, through the development of flesh-and-blood bodies with brains and nervous systems. "Twentieth-century science," neuroscientist Antonio Damasio has said, "left out the body..." (Damasio 1994, 39). Behavioral economics (using that term in a broad sense) approaches economics using evidence on what real, embodied humans being do--rather than what abstract axiom-obeying agents would do, if they existed. An empirical and experimental approach to behavior is challenging the former blind faith in deduction from first principles. Brain scans using functional Magnetic Resonancing Imagery (fMRI) or similar machines are being used to look at how different areas of the brain--often roughly categorized a specializing in analytical versus affective processes--react to experiences and participate in decision-making. The Nobel award in economics given to Kahneman for his contributions to behavioral economics was well-deserved.

Happiness research, likewise, questions the idea that "economic man" is purely rational. In this field, phenomena such as felt satisfaction with life and experienced affect play a leading role (Bruni and Porta 2007). In some ways, this follows from the insights about less-than-perfect rationality: When we can no longer simply assume that choices lead to the best outcomes, we are forced to reexamine the question of what we mean by "best." Happiness researchers make important distinctions between the outcomes of choice and the achievement of well-being, or between "decision" utility and "experienced" utility (van Praag 2005).

While it is, as yet, a newer and smaller field, the economics of interpersonal relations is also breaking important new ground. People are not the autonomous monads assumed in neoclassical theory, but are instead deeply social creatures. In this case too,

we could appeal to recent advances in social psychology and neuroscience--such as the discovery of "mirror cells" in the brain (Iacoboni 2008)--to justify opening this new frontier in economics.

In addition to being intellectually compelling, research programs in happiness and interpersonal relations (henceforth, "HIR") also have potentially important implications for how we live. In a time of recession and rapid deterioration of environmental resources, for example, the finding that we tend to be on a "hedonic treadmill" may be crucial. Could we perhaps be made better off by shifting personal and social resources away from materials-using, carbon-emitting activities and towards more relationship and intrinsic-enjoyment-intensive pursuits (Frank 2005; Pugno 2008)? Such a question cannot even be asked within the old paradigm.

Once one appreciates the value of these new developments, of course, one may wonder how economists could have been blind to such phenomena for so long. One sees that orthodox theory, while conceptually simple and elegant, is consistent neither with lived experience nor with the findings of many other fields. One can also see that what currently passes for orthodoxy is itself an aberration from important, longerrunning themes in economics concerning well-being and the role of emotions and sociality, going back to figures such as Jeremy Bentham and Adam Smith. New horizons for research, and new ways of understanding economic life, are opened up relative to the mainstream of economics in recent decades. The strictly neoclassical approach seems to be not so much characterized by "rigor," as by "rigor mortis."

The news, however, is not all good. Some of the habits of thought that kept us in the old ruts have not completely disappeared. This essay uses neuroscience and feminist theory to explain how and why certain old, outdated, and damaging ways of thinking may continue to permeate much economic research--including research in HIR--and to suggest some paths to improving the adequacy, reliability, and generalizability of our created knowledge.

Neuroscientific Findings on Attention and Cognitive Schema

While we generally believe we see the world "as it really is," cognitive psychology tells us that in fact our perceptions have systematic biases and gaps. Behavioral economists have begun to explore how these influence the behavior of the agents we study, but we can also learn interesting and useful things from this literature about ourselves as social scientists.

Creating truly accurate picture of the world was not the task that drove the evolution of our brains and nervous system: survival was. We have developed—over evolutionary time, and also over the time of our own development from infants into toddlers and children, and finally to adults—cognitive processes that direct our attention towards the aspects of our environment most relevant to a task at hand, and suppress the

recognition of distractions. We have also developed cognitive "shortcuts" that reduce the time it takes to process certain kinds of stimuli, by classifying and grouping them according to mental constructs called "cognitive schema." Psychological research shows that cognitive schemas are important ways in which we "organize incoming information and integrate it—through no conscious act of will—into clusters" (Most, Sorber et al. 2007, 288). Stimuli that correspond to an existing schema can be more rapidly processed than stimuli that must be individually sorted out and assimilated piece by piece. That is, absorbing information congruent with a schema can rely on automatic processes in the mind. On the other hand, trying to take in information that is not congruent with an existing mental template requires more voluntary, non-automatic processing, takes more mental work, and leads to more mental fatigue.

Studies in cognitive psychology reveal how we use schematic congruence and selective attention to perceive the world. The most well-known is the "color Stroop test"(Stroop 1935). In the classic version of this test, subjects are shown a list of the names of colors—red, white, green, etc.—printed in either all black, or in the colors that are congruent with the names (e.g., "red" is set in red type), and are instructed to read these words aloud. Most adults have no trouble reading these lists quickly and accurately. Then the subjects are shown a list of the same words, but this time the colors of the typeface are incongruent with the meaning of the word: for example, "red" is set in green type, and "white" is set in brown type. Laboratory studies show significant decreases in the average speed and accuracy of adults' reading performance, when presented with this second list. Various hypotheses have been made about the cognitive processes at work, but the general agreement is that the brain has to work harder in the second case, to actively suppress the irrelevant information offered by the typeface color.

Variants of the Stroop test have been done in fMRI laboratories. These studies indicate that different brain regions are associated with doing the congruent and incongruent tasks. The Stroop test is sometimes referred to as a test of mental "vitality" and "flexibility," as people tend to perform worse on it the more mentally tired they are, and older adults tend to perform worse than prime-age adults. It can be, roughly speaking, thought of as a test of how skillful we are at using our voluntary processes to override our automatic ones, when our automatic processes are not appropriate for the task at hand.

It seems rather obvious that our brains would tightly link the name of a color and the perception of a color, and have to expend effort to break this link apart. But what other sorts of automatic associations do we make, and have to expend effort to overcome?

It turns out that gender—the association of a stimulus with either masculinity or femininity—is another fundamental cognitive schema. We process things more easily and quickly if they fit our mental gender constructs, and have to work more if they do not. This has been confirmed in a number of studies in cognitive science. For example, in a version of the Stroop test called the "Auditory Stroop Test," subjects hear words read out loud. When asked to identify, for example, whether a first name is male or female,

subjects tend to take longer and make more mistakes when, for example, a male name is read by a female voice (the "incongruent" case), than when a male name is read by a male voice (the "congruent" case) (Most, Sorber et al. 2007).

Another tool that has often been used to investigate gender (as well as racial) schemas is the Implicit Association Test (IAT). In this test, subjects are instructed to tap a key to sort a word into the category in which it belongs. In one recent study, for example, stereotypical associations of masculinity with strength and femininity with weakness--prevalent in Western, English-speaking cultures--were used (Knutson, Mah et al. 2007). In the congruent case, subjects were told to tap one key if the word "feather," for example, was either male or strong, and another key if the word was either female or weak. (Most English speakers would classify "feather" as weak.) In contrast, in the incongruent situation, they would be asked to tap one key if the word was either male or weak, and the other if the word was either female or strong. Subjects tended to take longer to respond in the incongruent case. This was also an fMRI study and the researchers observed that different parts of the brain were activated in the congruent and incongruent situations. This study demonstrates that gender stereotypes form a cognitive schema that organizes our thinking in an automatic way, and that it takes mental effort and flexibility to overcome these habits of thought. Interestingly, correlations between IAT tests and explicit attitudes about gender (or race) are low enough to suggest that these automatic processes are often strongly present even in individuals who do not consciously endorse sexist (or racist) views.

Another tool, called the Gender-Science IAT, shows how perceptions of academic disciplines tend to be mentally wound up with gender schemas (Nosek, Banaji et al. 2007). In this test, subjects tend to be quicker at sorting names of disciplines (such as "chemistry" or "humanities" into congruent "male or science" and "female or liberal arts" categories [slide], than into incongruent "male or liberal arts" and "female or science" categories.

Two more aspects of this research into attention and cognitive schemas deserve mention. First is the aspect of valence--that is, how we regard some things as being of higher value than others. IAT and fMRI studies suggest that in cases where a category is attributed with positive or negative valence, the amygdala, a part of the brain often associated with emotional response, is also active. Most studied in the case of race, studies sometimes suggest that, in particular, fear responses are activated by the presentation of disfavored categories.

Second, there is the question of whether these involuntary associations have to dictate our behavior. Sometimes automatic processing is simply a helpful, brain-effort economizing move that saves us valuable mental energy. But it can also signal a rigidity and laziness of mind that creates barriers, when fresh and flexible approaches would be more useful for the tasks at hand. Fortunately, there is some evidence that deliberate and conscious effort and practice can at least partly prevent the expression of implicit associations in behavior. There is also evidence that performance on IATs can be

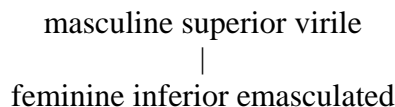
influenced by context—for example, various sorts of priming and framing effects --and experience, as subjects get more accustomed to making schema-incongruent choices. Overall, however, the results indicate that these automatic associations are strong, and without strong conscious effort and new experiences, they exert considerable invisible power over the way we think.

Exercising the Brain

Keeping from sliding back into schematic judgments is not an easy task, given the strength of these unconscious associations. But perhaps practice in breaking out of the old patterns, and some templates for thinking in new ways, could make it more possible. The association of masculinity with strength and femininity with weakness, used in the IAT test discussed earlier, for example, has no doubt arisen from observation of differences on average between males and females in the ability to lift a heavy weight using one's upper body, which is an evidence-based belief.¹ Such an observation creates distortions of perception, however, when it is illegitimately overgeneralized, via cognitive schemas and metaphors, to all individuals or to other situations. The association of masculinity with strength, for example, tends to keep us from noticing that there are some individual women who can lift substantial weights, and many men who cannot. But even more perniciously, the association of women with weakness is often extended into believing that women have weak intellects, are weak-willed, are morally weak, and so on—issues for which there is no evidence. We can also note that the association of masculinity with strength is selective about the dimension in which physical strength is measured: If we think of strong bodies as bodies that tend to live longer, it is women who are strong and men who are weak.

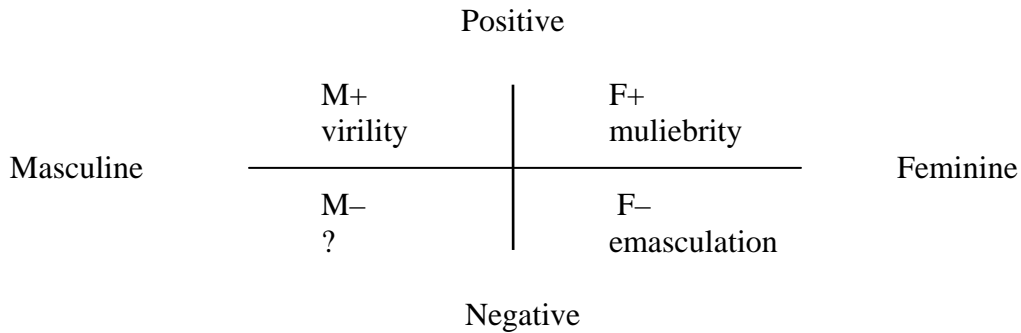
Yet the association of men with strength persists. For example, in English the word "virility" is commonly known to mean "manly vigor." There is no equivalent commonly-used word for feminine vigor. In fact, femaleness is commonly characterized as a *lack* of masculine attributes. We might diagram this perceived relationship between gender and value as shown in Figure 1: masculinity is superior and virile; femininity is inferior and emasculated.

Figure 1: Stereotyped Gender and Valence



But are all things feminine just degraded forms of masculine characteristics? As a tool for developing a more flexible sort of thinking, a “gender-value compass” (Nelson 1992; Nelson 1995) may be useful. Consider how the hierarchy pictured in Figure 1, for example, changes if one refuses to overlay perceptions of gender with judgments of value, and instead splits off the gender axis from the value axis, as shown in Figure 2:

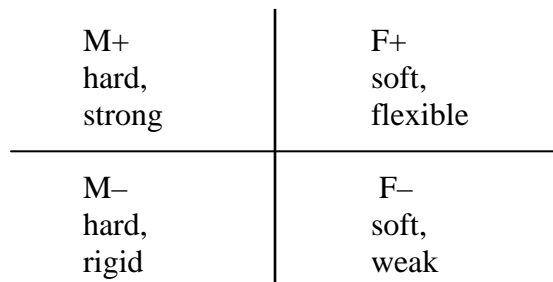
Figure 2



If one looks hard enough in a sufficiently thick dictionary, one can also find the new term in the figure. “Muliebrity” means “womanliness,” “possessing full womanly powers,” or “the feminine correlative of virility.” While not a term in common use, it suggests that alongside and on a par with a masculine, positive strengths we might also consider there to be feminine, positive strengths. The cross-diagonal terms illustrate a condition of *lack*: for example, “emasculation” is an absence of “virility.” There is, unfortunately, currently no term in the English language for a lack of womanly vigor.

Or consider the idea that a strong research result is a manly, "hard" research result. Research that is "soft" or feminine is considered inferior. But suppose we again break apart the dimensions of gender and value. Consider the compass shown in Figure 3.

Figure 3



A research project, for example, that is "hard" in a rigid way cannot stand up to criticism. It is a positive complementarity of strength and the flexibility to bend, adapt, and respond that makes a research project truly resilient. Good research projects are neither one-sidedly hard or soft, but rather is both strong and flexible. Thinking instead in stereotyped "either/or" terms and aiming for only hardness can result, in fact, in a weakness: The negative complementarity of rigidity and weakness gives brittle findings that shatter easily. The suggestion of this analysis is that the most creative and productive options lie in the *dynamic tension* between the positively-valued characteristics, often (lazily) thought of as polar opposites.

While dualistic, unconscious patterns of thought suggest that our only choices are "either/or," with some work we may learn to recognize more sophisticated, nuanced, "both/and" possibilities. In my own work, I have experimented with using such diagrams to break up many reified gender associations. But for now, it is sufficient to merely introduce the possibility of getting past old gender-schematic patterns of thinking about gender and value, and developing more nuances and flexible thinking along "both/and" lines.

Gender and Economics I: Topics and Agents

Where does economics fit in? Our discipline was not one of the options presented to subjects in the IAT study about academic fields discussed above. According to academic traditions, economics is commonly classified as one of the social sciences, when it is not put with management. The social sciences, in turn, are generally included in the "liberal arts." It would be highly unusual to find economics classified with the physical sciences.

Yet I would expect many economists to resist this classification. Given the cultural association of masculinity with both positive valence and with science, one might not be too surprised to find, within our profession, a concerted effort to advance and preserve the status of economics by advancing and preserving its image of masculinity. In a culture where giving into femininity is associated being weak, a certain macho swagger might, in fact, be a rational strategy for gaining positional rewards.

Unfortunately, it also creates bad science. Starting around the 1970s, a handful of scholars started to identify ourselves as feminist economists, and began to critically examine this association of economics with masculinity. What makes scholarship "feminist" is not, as is sometimes thought, an attitude of man-hating, or an insistence that men and women are exactly the same. Feminist scholarship, at its most basic, involves a questioning of the systematic subordination of women, and investigation into the roots of and remedies for this subordination. We began, in economics, with the simple study of the demographics of our profession, and questions of labor market discrimination. (I have found, from personal experience, that even publishing in *Econometrica*, the *AER* and the *JPE*--as I have done--is still not necessarily taken as sufficient evidence of one's skills in analysis, if one is a woman (Nelson 2009)). We moved on to critique models of marriage and household behavior that simply assumed or excused gross inequities in power between men and women (Ferber and Birnbaum 1977). By the early 1990s, we had grown in numbers and were examining the role of gender in the shaping the core definitions, models, and methods, and the history of the discipline (Ferber and Nelson 1993). What we found was a pronounced aspiration to defend the one-sided "manliness" of the discipline

Consider Table 1. Within neoclassical orthodoxy, economics is generally taken to be defined by concern with markets, choice, or both. Women's experiences in families, tending to the day-to-day bodily needs of people for food and care, are banished (or at best marginalized). The economic agent of neoclassical theory is autonomous, self-interested and rational--characteristics that have a long history of association with men and masculinity in Western culture. Interdependence, other-interest, and emotion are, in contrast, culturally coded as both feminine and of lesser importance. Economists were happy to relegate these issues to (so-called) "softer" fields such as sociology, clinical psychology, philosophy, or theology.

Table 1: Splitting the World: Content and Model Schemas in Neoclassical Orthodoxy

Economics	<i>Not</i> Economics
markets mental choice	social life and family bodily experience
individuals autonomy self-interest rationality masculine	relationships interdependence other-interest emotion feminine

Let me emphasize, here, that this sort of table is *by no means* meant to reinforce the idea that men are really more rational, or women are more really emotional. Feminists make a distinction between *sex*, referring to biological distinctions, and *gender*, the cultural beliefs that societies construct on the basis of perceptions of sex. Feminist economists point out that, by looking at only half the world, economics—far from being made more objective and rigorous by these exclusions—is made partial and biased. And there is a *systematic* pattern behind many of orthodoxy's biases: They are, as a group, created and sustained by the strength of unconscious cognitive schemas relating masculinity to superior value.

Behavioral economists and HIR researchers, then, can be commended for the way in which they have made progress in overcoming certain outdated, unconscious habits of thought. Where neoclassical orthodoxy restricts its attention to only the lefthand side of Figure 1, in HIR research social relations and emotions of happiness and unhappiness are made much more central.

There are, however, more adequate ways of getting past the old, dualistic, gender-schematic habits, and less adequate ways. One inadequate way is to continue to let the left dominate, but bring in a few, still-denigrated, aspects of the right. In some parts of the behavioral economics literature, for example, it is allowed that people are emotional, but only to the extent that this may cause them to be "irrational" and make

mistakes (e.g. (Cohen 2005). I take this as a continuing sign of masculinist bias, since much neuroscience is telling us that emotions are, in fact, an important and necessary *component of cognition and reasonable behavior* (Damasio 1994). Or people are treated purely as autonomous individuals first and foremost, and relationships given a distinctly subsidiary status. In assuming that people are autonomous individuals who may make rational decisions about *entering* relationships, many economists are following philosopher Thomas Hobbes in his suggestion, "Let us consider men . . . as if but even now sprung out of the earth, and suddenly, like mushrooms, come to full maturity, without all kind of engagement to each other" (quoted in Benhabib, 1987). Yet humans simply do not spring out of the earth. We are born as infants, nurtured and cared for as children, socialized into family and community norms, and have bodies that depend on the provision of nourishment and shelter. These sorts of relationships, of course, are exactly those in *women's* traditional domain. To the extent the new literatures admit elements of emotion and relationality, but still prioritize reason or individuality, they still display a masculinist bias.

In other cases, looking at these pairs in terms of dynamic tensions is avoided by flipping completely over to the right-hand-column. Some scholarly literature arising from certain sociological or "holistic" viewpoints, for example, elevate the right-hand column of Table 1, and completely neglect the left.

In fact, the economics literature on interpersonal relationships is quite reminiscent, so far, of the old story of the blind people and the elephant. In this story, one blind person encounters the side of the elephant, and says that an elephant is like a wall; another encounters a leg, and says that an elephant is like a tree trunk; another, the trunk, and says an elephant is like a snake; and so on. Some economists perceive relationships in terms of "relational goods" that are "purchased" and enjoyed by rational, utility-maximizing individuals.² From another perspective, relationships feel like people merged together in a feeling of oneness with each other and perfect harmony.³ From yet another viewpoint, one observes hierarchies of positional status or domination and submission (Gazier and This Saint-Jean 2005). From yet another, the phenomenon is reciprocity among equals (Sacco, Vanin et al. 2004; Bruni and Sugden 2008). Few male economists have yet examined the part of the elephant that takes the form of hierarchies dedicated to care and nurturance, most exemplified by a mother with her child. In fact, family relations of various sorts seem to regularly be under-analyzed within this new literature, perhaps due to a biased view that close relations are simply "natural" rather than truly social.⁴ But perhaps that will come with time—and the lessening of gender biases. To all these, I would reply yes, yes, yes, yes, and yes: They are all part of the elephant, and only dangerous when their partial nature is not fully recognized. One can hope that the current predominance of partial views is only a temporary state, and as the fields develop our sophistication (and mutual tolerance, and ability to use a common vocabulary) will develop as well.

Perhaps feminist economics can help move this project forward, since we've been looking at relational issues in detail since the early 1990s. We noticed that stereotypic

views attributed all agency to individual men, and more or less forcibly merged women into having interests in only the well-being of their husbands and children.⁵ We called the one extreme—Mr. John Jones—the "separative self", and the other "Mrs. John Jones," with no name of her own—the "soluble self"(Nelson 1995; England 2003). In a gender-value compass, this becomes:

Figure 4

M+	F+
Individual	Connected
M-	F-
Separative	Soluble

That is, the really rich and complex analysis that arises from looking at the tension between the poles of individual separation and social connection, is lost when looking at the extremes. In Martin Buber’s famous philosophical piece on identity and relation, *I and Thou*, he wrote about the fallacies of a non-relational worldview in which we imagine either “the world. . . embedded in the I, and that there is really no world at all” (that is, separativeness), or “the I. . . embedded in the world, and there is really no I at all” (that is, solubility) (1958, 71-2). (1958, pp. 71, 72). A truly relational worldview retains the tension.

From this, still very simple, exercise, one can create a simple typology of relationships, with the following major possibilities (Nelson 2005):

1. Separative-separative (arm's length)
2. Soluble-soluble (merger)
3. Separative-soluble (domination or positionality)
4. Mutuality (individuals-in-relation, with mutual respect and consideration)
 - a. Symmetric mutuality (between similarly situated persons)
 - b. Asymmetric mutuality (between people in positions characterized by unequal power, status, or resources)

This is not meant to be exhaustive, but to remind us of possibilities that remain unseen if we start only with the model of radically autonomous, self-contained and immutable agents. In particular, the category of asymmetric mutuality is rarely examined in either economics or Western philosophy in general, since it seems to be often assumed that mutual respect can only happen in a democracy of equals. Yet such mutuality is what one hopes characterizes every child's first and most formative—and necessarily uneven—relationships, and which one hopes also exists between teachers and students, nurses and patients, and in other relations of hierarchy. Asymmetric mutuality deserves more examination, as does as the borderline between it and its perverse cousin, domination.

Besides broader and richer thinking about the nature of relationships, we need a richer and more precise vocabulary for speaking about human emotions and motivations. In particular, the dualisms "intrinsic/extrinsic" and "self-interest/altruism" are used in widely varied ways in the existing economics literature, and—since they are overly simplistic—often seem to add as much confusion to the discussion as elucidation. Within and between categories of "self-interest" and "altruism," for example, one can identify variants including voracious greed, reasonable self-care, expanded or enlightened self-interest, mutual reciprocity, utilitarianism, interdependent utility, the common good, justice, compassion, agape, and outright sacrifice. These variants—and others unnamed—all deserve more exploration and clarification.

Recognition of the complexity of relationships has very important real world consequences: Many people are, for example, very limited in their thinking about economic issues by the stereotypes of totally impersonal markets, purely profit-oriented firms, employment relations of sheer dominance and submission, states that work seamlessly in the public interest, peacefully harmonious cooperatives, and/or families that are never anything other than gentle and loving. Unpacking the variety of dynamics going on in relationships is a critical step in letting more real world complexity into our economic analysis (Nelson 2006).

Sometimes, however, rich and complex analysis seems to be exactly what economists want to avoid. Richness can make life difficult to model. This brings us to our next topic.

Gender and Economics II: Methodology and Demarcation

There is another set of outdated dualisms structuring economics which much of HIR research has *not*, do date, much challenged. The aspiration of economists to be considered as "hard" scientists still leads many to assiduously hold to the methodological values shown on the left in Table 2. Quantification and precision are prized, and it is often mistakenly believed that scientific objectivity is exemplified by process of mathematical formalization and an eschewal of value positions. The gender schema is clearly at work here as well: Women are culturally associated with more qualitative, verbal, intuitive, and personal—and, by association, "inferior" and "weak"—approaches.

Table 2: Splitting the World: Methodology Dualisms in Neoclassical Orthodoxy

Economics	<i>Not</i> Economics
quantitative	qualitative
precise	rich
formal	informal, verbal, or intuitive
positive	normative
objective	subjective (personal)
general	particular
masculine	feminine

The battles that HIR has waged so far on this front have been limited. Getting answers to "Subjective Well-Being" survey questions accepted as economic data has been an uphill battle; perhaps it has been at least partially won because, at least, it produces quantitative measures that can be inserted into econometric equations. In the still-small literature on economic relations, terms referring to qualitative and rich concepts such as "authenticity," "genuineness", or "care" have sometimes entered the conversation. Some researchers are willing to look into the rich and non-formalized history of economic thought for inspiration on how to proceed (Bruni and Sugden 2007).

Yet often, it is assumed that qualitative work is just a stepping stone to formalism—the "gold standard" for rigor—rather than something valuable and perhaps unsurpassable on its own. In my experience, this is the "hot button" (or amygdalastimulating) item for many economists. The subjects of our studies and assumptions of our models may vary a bit, but threaten the hegemony of our formal mathematics— and, in particular, our models of individual utility maximization (henceforth, "Max U"), equilibria, game theory, or econometrics—and we feel suddenly in danger of seriously losing our bearings. Even if we do not carry through with doing the mathematical formalizing ourselves, we may feel that framing a problem in utility-theoretic and quantitatively measurable terms is an absolutely necessary step towards rigorous and generalizable science. We may define "economics" itself in terms of such achievement.

But, emotional first reactions aside, there are good scientific and practical reasons to loosen the grip of this approach on our discipline. We can agree, I believe, that scientific objectivity is about avoiding partial, biased, and unsupported views in order to get the fullest and most impartial view of a phenomena possible. It is about taking an open-minded, systematic, and investigative approach to the world. Along with economist Amartya Sen (1992), feminists argue that an adequate notion of objectivity comes from the approach of submitting the results of any research for testing by larger communities of scientists (Keller 1985; Longino 1990; Harding 1995), not from following a narrow

methodology. Continued loyalty to Max U theorizing at all costs, in contrast, acts more like a Procrustean bed: In forcing dimensions of a phenomenon to fit into a particular pre-determined mental framework, elements of reality that do not fit must be contorted or lopped off.

Why is this a problem? First, nowhere in serious psychology or neuroscience—unless imposed by collaboration with an economist—does one find support for the idea that somewhere in the human mind is a mechanism that maximizes a single-valued function representing all we value in life. While economists habitually start from this preexisting framework, in the larger project of scientific investigation any model should have to prove, starting from the ground up, that it creates some "value-added." I have seen few economists so far, given the existing biases in the profession, even realize that the Max U framework *requires* any justification, much less provide convincing proof of its usefulness.⁶ Historically, the model of Max U did not come from empirical observation of how people actually behave, but rather may be more directly traced to John Stuart Mill's (1836) suggestion that economics model itself after geometry as a "science" of pure deduction. Why that suggestion (much nuanced by Mill himself, though not by later adopters) should still hold sway over contemporary economics is somewhat of a mystery, perhaps only partly explained by its appeal to masculinist biases.

The second reason that Max U is a problem is that exclusions and distortions it forces on us affect the reliability of what we think we know. As economists learned (or should have learned) from the study of expectations in macroeconomics, taking only selected aspects of a problem out of context, and then assuming that we have estimated stable behavioral parameters on the base of partial information, is a procedure doomed to failure. Questions such as "What makes us happy?" and more generally, "What is the purpose of life?" and "How should we live?" —have troubled and inspired novelists, poets, philosophers, theologians, and serious thinkers of all sorts for millennia. It will be a pity if economists feel that these need to be translated into the rigid, one-sided framework of conventional modeling, before their implications for economic life can be explored.

Let us examine some of the important aspects of HIR that are prevalent in systematic and informed investigations of these topics in other disciplines, but not yet in the economics literature. I suggest that a deeper self-education in these areas, and further exploration of them using rich concepts and, if necessary, qualitative methods such as interviews, focus groups, narratives, and case studies, would be an extremely fruitful vein for economists to pursue.

There are, for example, important dimensions of happiness identified in the psychological literature that economists, with our focus on scales measuring SWB or life satisfaction, or positive affect, have so far ignored. While psychologists Edward Diener and Robert Biswas-Diener, for example, sometimes use the term "happiness" to mean only positive affect, their more general notion of human goals includes not only affect and subjective life satisfaction, but also "the feeling that life is full of meaning...and a

sense of spirituality that connects people to things larger than themselves" (2008, 6)—topics they discuss at great length. Psychologist of happiness Jonathan Haidt also discusses the role of belonging, meaning, and feelings of the sacred (2006, Chapters 6, 9, and 10). Such factors as "belonging" and feeling a part of "things larger" than oneself do not fit well into the methodological individualism of the Max U model. Meaning and spirituality are not things that an individual agent can "have," in the same way that one can "have" a dinner or a car.

For this reason, I have chosen to talk about "interpersonal relations" rather than "relational goods" in this talk. The phrase "relational goods" seems to presuppose that *first* we have an individual, and *then* that individual "has" relationships, meaning, and happiness. Consider, though, the contrast between the following discussions presented scholars from divergent fields. Economist Bruno Frey suggests that people may have "an intrinsic motivation to care for others' welfare. For example, people care about recipients' utility and receive a 'warm glow' from helping, or they benefit from intrinsic work enjoyment" (2008, 80). Note Frey's implication is that people care because they get something back, even if what they get back is just a good feeling. Religious studies scholar Mikael Lundmark, on the other hand, points towards possible motivations other than getting something back for oneself, in this passage on nursing:

For the sake of clarity, I propose that a factor like 'nursing brings a sense of meaning to life' is extrinsic, whereas a factor like 'nursing is the meaning of life' is intrinsic. The major difference between these two factors is that the former is motivational because it provides a sense of meaningfulness to life. The act of nursing or being a nurse satisfies a need [for] feeling meaningfulness in life...The latter factor is motivational because the act of nursing or being a nurse is a consequence of a feeling that nursing is the meaning of the life.

(Lundmark 2007, 772)

This reverses the whole logic of the Max U model: Instead of a pre-existing individual going out and finding warm feelings or meaning to insert in their utility function, the sort of action discussed by Lundmark arises from starting with a larger whole of life, and locating one's role, identity, and meaning within it. Perhaps, while Frey's notion comes from "separativeness," Lundmark's formulation verges on "solubility." I suggest that the most interesting investigations will come from keeping both the aspect of life having to do with individual agency, and the aspect of our mutual co-constitution in and through relationships, in tension with each other.

In addition to cross-disciplinary analysis, cross-cultural analysis can be enlightening. Questions about individual life satisfaction, framed by researchers raised in an individualistic culture, may more or less make sense when presented to people also raised in an individualistic culture. The evidence suggests, however, that people are quite differently oriented in more collectivist cultures. While a collectivist bent is most commonly associated with certain traditional Asian communities, it is arguably also characteristic of *women's* cultures in communities built around separate-soluble gender

traditions. Consider, for example, the response of one woman in South India to questioning from Robert Biswas-Diener about her level of happiness: "You should go ask my husband how he feels right now, and then you will know how I feel" (Diener and Biswas-Diener 2008, 134). "Individualists weight their happy feelings more when reporting life satisfaction," Diener and Biswas-Diener report, while "collectivists...are more likely to feel good when the group they are a part of is getting along well" (Diener and Biswas-Diener 2008, 134). While the woman in South India obviously goes to a "soluble" extreme, I have to wonder whether some people interviewed with standard surveys might like to also question the questions: "What do you mean, how happy am I? How can I be happy when my neighbors are hungry?" Or, for the more globally conscious, "How can I be happy while people are being slaughtered in Darfur? Or "While the health of my grandchildren is threatened by rising levels of CO2?"

And here, of course, one enters the paradox that happiness is most likely to come to people who are not directly seeking it. Much of the literature suggests that deep, long-lasting happiness is a side effect of serving others, appreciating beauty, not being self-centered, experiencing the sacred, and being willing to put up with a certain amount of stress and negative affect in the pursuit of meaningful goals. Diener and Biswas-Diener argue that happiness in the sense of maximizing positive affect is *not* a good thing to maximize: Some amounts of negative affect are helpful (21, 44). Guilt, for example, can be a useful emotion for keeping societies together. They advise, "In order to make happy choices, listen to your heart, *don't worry about getting the very best all the time*, and evaluate each outcome on its own merits rather than against others." (177, emphasis added). Psychologist of happiness Haidt concurs (2006, 102).

Being more hesitant to reduce a problem to a single quantifiable maximand, and more open to qualitative methods, then, would be a useful direction for further economic research. A study in the most recent issue of the *Journal of Economic Perspectives*, for example, combines survey and interview data to good effect. Sergei Guriev and Ekaterina Zhuravskaya (2009) complement quantitative analysis from the World Values Survey with interviews that delve into the various dimensions of, and reasons for, satisfaction and dissatisfaction. The focus-group interview data allows them to—without imposing a pre-set framework or set of possible answers on their subjects—examine the roles played by increasing inequality, deteriorated public goods, changed aspiration levels, and other factors mentioned by these groups. Quotes from the qualitative information enliven the article.

Being less focused on finding precise and elegant conclusions, and more tolerant of richer and more complex analysis, would also pay off for HIR researchers in warning us away from misleading aggregation. I am puzzled, for example, when a researcher claims that "divorce is beneficial" based on positive changes in average happiness (Frey 2008, 92). The slightest familiarity with real-world social relations should make it obvious that the distribution could be expected to be wildly bi-modal, between those who instigate a divorce and those who find it thrust upon them. I always tell my Statistics

students about the statistician who drowned trying to cross a stream that was an average of a few centimeters deep.

A better-educated and cross-disciplinary approach would, in addition, protect us from presenting biased or shallow results as if they are capturing the full phenomenon under study. Measuring the number of social groups people belong to, whether they are married or not, and the frequency of their church attendance, for example, can be an interesting exercise. But we need to stay aware that answers to such survey questions still leave us very far from addressing many of the really interesting questions about happiness. Happiness is certainly as much about quality as it is about quantity, and such questions capture nothing about the authenticity of a person's relationships or their experience of the sacred.

Going beyond our customary methods, of course, might mean learning new skills of primary data gathering and qualitative analysis, and perhaps, correspondingly, making somewhat less use of many of our existing mathematical modeling skills. This may be an unattractive idea to many, since there is a natural human inclination to want to put one's skills, in which one has deeply invested, to good use. We teach our undergraduates, however, that rational decision making requires ignoring sunk costs— that is, past resource allocations that are now "water under the bridge." Rational decision-making, we say, means moving on to see a problem in terms of current and future issues. If we want to venture into psychological and social issues, and the best research in psychology and social psychology tell us that our existing approaches are too narrow and limiting, then it is time to change our approaches.

Going beyond Max U would also, of course, tend to mean that our studies may no longer be as characterized by as much formality and the elegance, parsimony, abstract generality, and precision that formalism potentially brings with it. But while elegance, parsimony, abstract generality, and precision are good things to have, they are far from the *only* things we should be valuing in science. Giving up precision simply to be "vague" would be a bad idea, but sometimes when dealing with the complexity, richness, and particularity of real world phenomena, we would be better off balancing our desire for precision with an appreciation for richness of analysis, as illustrated in Figure 5.

Figure 5

M+	F+
Precise	Rich,
elegant	realistic
M-	F-
Thin,	Imprecise,
unrealistic	vague

In this way, methods of quantitative analysis and qualitative analysis, formalized and less formal analysis, research where we try to take the most general and multiperspective-informed objective viewpoint, and research where we own up to our particular perspectives and values, can all be seen as complementary rather than competitive or hierarchically ordered. And maybe, with appropriate modesty and a willingness to exercise our brains past long-held gender schemas, we will be able to get more than a shallow grasp on the issues of HIR.

Does this mean that economics will lose its identity as a distinct field? If we limit ourselves to currently popular definitions of the field, this certainly seems a possibility. Definitions of economics often center around rational choice, or markets, or the modeling technique of Max U. But the definition of economics as the science of abstract rational choice is undercut by the discovery of the importance of emotions and other bodily, evolved processes. Discovery of the importance of intrinsic motivations and sociality in creating well-being challenge the idea that economics is all about market exchange. Questions of the adequacy of methods challenge the definition in terms of Max U formalism.

Will economics then become nothing different from psychology, sociology, or the humanities? I think not, although there are many significant possibilities for collaboration across these fields. An important—and very old—definition, still used by economists of feminist, social, and institutional stripes—is that economics is *the study of the ways societies organize themselves to provide for the survival and flourishing of life*. This definition does not rely on dogmas, or on biased valence given to "hard" versus "soft" analysis, yet it distinguishes the field from others that do not have "provisioning" as their central concern. It also defines the field, not in terms of artificial boundaries of an intellectual playground, but in terms of the sort of analysis that we all need to live, and to continue to evolve as a species. In a time of broken economies, broken financial and state institutions, and a broken planet, dedicating ourselves anew to studying the task of providing for survival and flourishing would be a noble and worthwhile pursuit.

Conclusion

As researchers in the areas of happiness and interpersonal relations have pointed out, human behavior is actually much complex than imagined within neoclassical orthodoxy. The neuroscience of cognitive gender schemas can help explain why certain partial views have been so persistent—that is, why topics and assumptions associated with masculinity and "hardness" have long enjoyed unquestioned, though undeserved, high status. We as a discipline have historically spent far too much time resisting becoming "soft," when we should have instead—if we want a truly scientific, open-minded, systematic and investigative approach to the world—have been rooting out archaic dogma, including biases of a "masculinist" variety.

Yet the persistence of a one-sided reliance on individualist models and rigid formalization in much of the study of happiness and interpersonal relations is a sign that we still have far to go in overcoming our ingrained, schematic processing habits. Being able to think outside these boxes—being able to respond appropriately to the task at hand, instead of some other past experiences and positional aspirations that shaped our thought—is a sign of mental agility and vitality. Here's hoping that continued research in happiness and interpersonal relations will be marked by such agility and vitality.

Julie A. Nelson is a Senior Research Fellow at the Global Development and Environment Institute at Tufts University and an Associate Professor of Economics at the University of Massachusetts, Boston; inquiries can be directed to Julie.Nelson@tufts.edu

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NOTES

¹ Linguist George Lakoff and philosopher Mark Johnson (1980) argued in their book *Metaphors We Live By* that much of our way of understanding and speaking about the world is build on just such basic bodily experiences. Not having 21st century neuroscience at hand when I began my work in this area, my early work on gender and economics used Lakoff and Johnson's insights along with those of psychologist Sandra Bem (1981) (Nelson 1992).

² For example, see Pugno (2007), Bechhetti, Pelloni, et al (2008), and Uhlaner (1989).

³ For example, Bruni and Sugden (2009) emphasize a concept of "structural" team reasoning in which, it seems, individual motivation may play no role at all. Van Winden, Stallen et al. write about the "merger between the self and other into some shared identity, accompanied by a ('we') feeling of bonding..Oneness" (forthcoming, 17).

⁴ It is never explained, for example, in Bruni and Stanca (2008), whether time spent with one's own spouse or children is included in "time with family." Bruni and Sugden lament that in relationships, "Sadly, dependency is sometimes unavoidable," (2009) but is this really so sad in the case of children? Sacco, Vanin and Zamagni write that "Examples of socially provided goods include friendship, social approval, social identification, mates and social status" (2004). Relations of care, such as the care given from parents to children, is conspicuously absent. Many authors (e.g. Clark, Frijters et al. 2008, 118; Frey 2008) take as definitive Becker's partial views on the family, which emphasize altruism or reciprocity and specialization, while downplaying issues of power and benefits from diversity in tasks activities. Within the *psychology* of happiness and relationships, of course, family relationships and especially parent-child relationships play a pivotal role (e.g. Haidt 2006).

⁵ This also carries over into professional work: Women in the profession of nursing are sometimes assumed to be interested exclusively in the well-being of their patients, and not at all in receiving fair payment for their time. See Nelson and Folbre (2006) for a discussion.

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