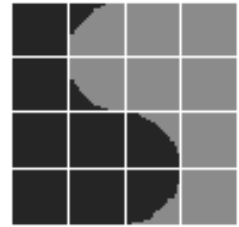




Evolution & Sociology



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In this issue:

- ✚ *"Teaching Neurosociology" by David Franks and Ann Eisenberg, p. 3.*
- ✚ *"The Revolution in Evolution- A Review Essay" by Darrell La Lone and Thomas D. Hall, p. 8.*
- ✚ *E&S Sessions and Biosocial Processes Session at this year's ASA, p. 10.*

You are cordially invited to the

Evolution and Sociology Reception

at the

***2008 Annual Meeting of the
American Sociological Association***

*Co-sponsored with the
Sociology of Emotions Section*

Sunday night, August 3

6:30 pm to 8:10 pm

Boston Marriott Copley Place

Room TBA

Greetings from the Chair

Alexandra Maryanski
University of California-Riverside

Hi Everyone:

It is hard to believe that summer is almost here with the ASA conference in the forecast. As you know, our meetings are in early August this year, and now that Evolution and Sociology is part of the normal ASA rotation cycle, our paper sessions and section activities fall this year on the last conference day—Monday the 4th of August. So please jot that down in your calendar as on Monday we have two regular sessions, along with a business meeting. And, our ASA reception that we are co-sponsoring with the Sociology of Emotions section this year is on Sunday night the 3rd of August from 6:30 pm to 8:10 pm.

On a sad note, we need to work on recruitment as our section numbers have slipped down. Yet, I am very optimistic that despite this drop, we will survive and in the long run—thrive as a section. Throughout this year, I have been getting e-mails around the globe from individuals interested in evolutionary sociology. Graduate students, in particular, are especially enthusiastic and eager to bring evolutionary thinking back into sociology. For my part, I am now regularly teaching an undergraduate course on evolutionary sociology and right now I am teaching for the first time a graduate course on evolutionary theory. I am also encouraged that a number of established sociologists are rethinking some of their own biases against evolutionary theory. Real change is always slow but it is coming and I am delighted to see the progress we have made in just a few years.

If you can, please come to our business meeting as we have much to discuss. For openers, I would appreciate your help on how to increase our membership. I also think we should follow up on last year's proposal to organize an ASA seminar to teach evolutionary theory. I think one reason we have problems in recruitment stems from the fact that many sociologists feel uncomfortable joining a section on a field of research they know so little

about. Yet, the recent popularity of our paper sessions suggests that we have caught the attention of some of our fellow sociologists. So an evolutionary seminar would be timely and perhaps help us to recruit new members.

Finally, let me take this opportunity to remind you to vote in our section election. We are fortunate to have six excellent candidates: For Chair-Elect-- Timothy Crippen, University of Mary Washington; and Stephen Sanderson, University of California, Riverside. For Council members-- Christine Horne, Washington State University; Patrick Nolan, University of South Carolina; Richard Machalek, University of Wyoming; and Brent Simpson, University of South Carolina. You have until June 1st to cast your ballot.

I look forward to seeing you in Boston this summer!

All Good Wishes
Alexandra

NEW PUBLICATION SERIES

Transaction Publishers of New Brunswick NJ and London England Announces the introduction of a new series ANTHROPOLOGY AND HUMAN NATURE. It will be edited by Lionel Tiger who is the Darwin Professor of Anthropology at Rutgers University.

The publishers are interested in works of social science, history, and General intellection which provide insight and contribution to the growing literature on what may be and may not be "human nature." Transaction also publishes the journal HUMAN NATURE and is receptive to works of interest to scholars and informed persons provoked by a subject matter only recently returned to active scrutiny. Even though Aristotle announced that "man is by nature a political animal," the emphasis on "political" has heretofore overwhelmed attention to "by nature." This the series hopes to remedy by publishing works widely advertised in the scholarly community and maintained in print durably and with care.

Anyone interested in proposing or contemplating a book appropriate to this adventure should contact Lionel Tiger either at ltiger@rci.rutgers.edu or at the Department of Anthropology, Rutgers University, 131 George Street, New Brunswick NJ 08901-1414.

Teaching Neurosociology

David D. Franks
Professor Emeritus of Sociology
Virginia Commonwealth University and

Anne F. Eisenberg
Assistant Professor SUNY-Geneseo

When I (Franks) was writing for the emotions newsletter I used to tell people that the social psychology of emotions was the "sky-diving of teaching": it is academically risky, it's exciting and you are on your own--like edge-work. There will be many people--colleagues as well as administrators-- who will question what you are doing, mainly out of unfamiliarity with the field. It was the same for the three hour course in neurosociology I taught for the Honors College at Virginia Commonwealth University last spring semester, but I have to say it was more difficult. One reason is that you are actually teaching two courses: advanced social psychology and neuroscience. Also more than several of my students had no previous sociology exposure. To help with this, I wrote "essays" for the class every week that I hope will end up as a book and make things go more smoothly for myself and others teaching neurosociology in the future. Next winter I plan to teach it to graduate students. In this essay we highlight how the idea of a "neurosociology" is becoming more formalized as illustrated through the two courses that bear its name, The first two parts of this essay represents Franks' discussion of the term neurosociology and describe how he taught it this past semester. The last part of the essay presents Eisenberg's discussion of teaching neurosociology and how the class is driven by her own research interests. Consider this a dialogue in which we ask you to join.

Neurosociology: The Term and its Focus by David Franks

First let me say a few words about the term "neurosociology". Warren TenHouten had first sent me copies of his newsletter from 1993 entitled Social Neuroscience Bulletin. I was hooked by his essay about the neurosurgeon

Roger Sperry's argument for a materialistic, but emergent theory of mind that opened the door to a sociological view of the workings of the brain. Later, however, Warren suggested the use of the term "neurosociology". This was during a hastily organized dinner session at the ASA meetings in about 1997 when we were deciding to devote the last volume of my JAI emotions series to launch the field. (Mind, Brains and Society came out in 1999.) This was in part to distinguish it from the nascent field of social neuroscience that had become associated with psychology. Certainly the fields would overlap, but we wanted a clear focus on social interaction as the unit of analysis that avoided a one-sided, exclusively reductionistic approach. One may wonder how you could avoid an exclusive focus on reductionism while studying the brain, but we were interested in working brains and one brain doesn't work without other brains that are joined in everyday symbolic discourse. Ours was a bottom-up/top-down approach. In 2006 my entry describing neurosociology came out in George Ritzer's The Blackwell Encyclopedia of Sociology. This solidified ownership of the term by sociology (at least to me) and emphasized the fusion of brain processes with linguistic, cultural and self-processes. This premise was taken from Brothers (1997) who argued that the living content of the brain's capacities (meanings) were supplied by culture and human talk (Brothers 1997). The entry gave examples of research by sociologists compatible with this view-point. Contrary to their pragmatic tradition, many symbolic interactionists reject terms like mind and meaning that were once essential to its founders. While there is nothing amiss about departing from one's mentors, it is still interesting that these terms, including emergence, are critical to much of the current neuroscience literature that I have read since the 90s. Much of this literature adds confirmation to the pragmatic framework dominant in the pre-second world war "Golden Age of Chicago" (See Franks 2003). Following much of the same logic, Mead's early social behaviorism and current neuroscience "drive a stake in the heart" of the anti-social, tabula rasa, correspondence theories popular with the

western enlightenment thinkers and still assumed today (Lakoff and Johnson 1999).

Introduction to the Contents of Two Courses Exclusively Devoted to Neurosociology by David Franks

There are currently only two or three sociologists teaching a separate course reflecting a neurosociological approach. We would imagine many more teachers "mainstream" parts of neuroscience in courses with a social psychological theme. Anne Eisenberg at SUNY-Geneseo is teaching an undergraduate neurosociology course that is described on the newsletter website and can be googled under neurosociology. She was a student of Thomas S. Smith's at the University of Rochester, who helped me co-author the "Mind, Brain and Society" volume. According to Dr Eisenberg's syllabus, her course focuses on social aspects of mental disorders and is also demanding of teacher as well as student (she describes the course and its goals below). I often thought of her this winter as I struggled along because I am retired and only teaching this one course and Anne is working through these ideas while teaching a full load among other duties.

My Course (David Franks)

Two major objectives structured my own course. The first was to show how neuroscience deepens the evidence for the social nature of human beings and their physiological as well as social reliance on others for their individual existence. I found Leslie Brothers' *Friday's Footsteps* (1997), as well as her *Mistaken Identity* (2002) very helpful here. Brothers makes much of concepts like intersubjectivity and public discourse, both of which make the working brain and society possible. These concepts and others equally sophisticated necessitated teaching the advanced social psychology component of the course. Also helpful was Paul Cozolini's 2006 volume on "the Neuroscience of Social Relationships". The various works by John Cacioppo on the social brain hypothesis were also relevant. These neuroscience

sources give contemporary scientific support to those relative few who argued powerfully against the western ideological tenets of the self-contained, "self-interested" individual so convenient to capitalism. You will remember these social science "precursors" to the social brain hypothesis as Clifford Geertz, Norbert Elias, Edward Sampson, Thomas Scheff and others.

While this confirmation of our social natures may be gratifying to some, it will alarm others by its inescapable implication that even given our tremendous plasticity, we do have a biological nature that some social forms may violate. I grant that the devil is in the details neurosociologically (House 2001) and we are not quite there yet, but it still warrants consideration. (See William Reddy (2001) and Lynn Smith-Lovin's (2006) work on social isolation in America). Students responded particularly well to the implications of mirror neurons for G.H. Mead's notion of role-taking. The importance of imputing intentions for the activity of mirror neurons fits in nicely with Ralph Turner's refinements of role theory. Gazzaniga's studies of split-brain patients confirms the basic assumptions of post hoc "accounts" by Scott and Lyman.

The second major goal was to demonstrate how neuroscience can serve as a nexus course connecting empirical brain science to issues that are traditionally considered philosophical ones, e.g.' epistemology. Here, the sensory brain is a huge transducer adding to other things like the selectivity of perception that drive a nail into the heart of rote correspondence theory and opens the door to a balanced constructionism and the important interpretive function of language. Issues of free will and determinacy and mind/ body problems are common place in neuroscience. For example, Libet's findings that our bodies gear up to perform our intentions before these intentions reach consciousness gives an interesting springboard for important sociological issues about determinacy and agency. The importance of agency and mind as a corrective to ever popular deterministically oriented behavior modification practices is also dramatized by Schartz and Begley, in "The Mind and The Brain: Neoplasticity and Mental Force" (2002).

Here, a structured program of minded procedures apparently changed the synaptic structures causing obsessive compulsive disorder. This grants causal status to mind (or its correlates) which is as dependent on social processes as it is biological ones. Their work fits in nicely with G.H. Mead's notion of mind as emergence — a position important to theoretical social psychology which on the general level was also argued by the late neuroscientist Roger Sperry (1965). The findings on unconscious emotions and cognitions provide another case in point, challenging the exclusive focus by some on conscious deliberation. For those who are epistemologically inclined, the pragmatic nature of the motor cortex and its role in cognition and perception provides another springboard to issues thought important by our foundational thinkers. Damasio's work demonstrating the importance of certain social emotions for rational choice-making is another example which can provide important correctives to sociological thought. The course offered many other very concrete avenues to framing abstract issues. I look forward to sharing the syllabus or bibliography with anyone interested in teaching sociology through neuroscience. Eventually I would like to use what we know about unconscious thought and the concepts of ideology and root-metaphors to show how a power structure which is inept in everything else, can be so efficient in the mind-control of its public.

A Neophyte's Endeavors by Anne Eisenberg

My interest in neurosociology developed while caring for my mother whose early onset of Alzheimer's occurred in her late 50's. I ferociously read the Alzheimer's literature as her disease progressed, searching for ideas on how to best treat her condition medically as well as how to best deal with her interpersonally. One thing that became apparent was the lack of attention in the literature to the role that social interactions might play with regard to any aspect of the disease onset and its progress, other than in discussing what happens to the caregivers. This led me to develop a research agenda

focusing on how to better understand the onset, progression, and treatment (more generally) of what are commonly considered to be neurological or physiological disorders. More to the point, my interest in this area is in exploring and improving our understanding of neurological disorders using key social psychological ideas that could then result in significantly better care and treatment plans for patients. As part of this initial exploration of the area I spoke with Tom S. Smith, my mentor as an undergraduate at the University of Rochester, who introduced me to the idea of neurosociology as well as key writings in the area including his and David's volume. However, as David mentioned above, it is difficult to do this type of research development when teaching three classes a semester along with requisite service to the college. I decided that one way to work through the many ideas with which I was dealing was to teach an experimental class studying the idea of "neurosociology". Below I describe the goals of the course as well as the key topics addressed and the assignments that allowed course participants (the students as well as I) to achieve the stated goal. Note that a copy of my syllabus appears on the section website.

My Course (Anne Eisenberg)

As noted on my class syllabus, the course goal is "to introduce students to a broad understanding of sociological social psychology as well as key aspects of neuropsychology. Specifically, the course accomplishes three things:

- 1) Develops students' critical skills through a variety of class assignments that ask students to apply their understanding of social psychology to existing neurological knowledge,
- 2) Provides students with in-depth knowledge of a specific disease process from both the social psychological and neurological view, and
- 3) Highlights the potential for future interdisciplinary work that addresses key aspects of human health that impact on the quality of life." I argue on the syllabus that recognized and acknowledged population trends show an increasingly aging population whose quality of life will be significantly affected by a range of what are currently

considered to be neurological or mental disorders. I state in class that such disorders are most likely to be treated either chemically or through therapy. I then posit that social interactions play a significant role in the development and progress of such diseases (disorders/illnesses). However, current explanations do not reference social interactions and I further argue that this omission seriously impacts the utility and success of related treatment plans. Therefore, in order to truly understand the development of these types of illness as well as to definitively impact their progress, requires integrating our sociological knowledge with existing explanations.”

SUNY-Geneseo is a four-year undergraduate college which draws some of the top students in the state, all of whom select a traditional major, only one of which is actually interdisciplinary – biochemistry. Therefore, I knew that a new and experimental class entitled “Neurosociology” would attract two types of students – those who were familiar with my teaching style and interest in neurosociology as well as those who had taken some type chemistry, biology, or psychology class that focused on human health issues. With an enrollment of twelve students of whom only two were sociology majors and two psychology majors – the others being biology, chemistry, or English – I knew that the class needed to first introduce students to some key ideas in both neuroscience as well as sociological social psychology. For this purpose, I used DeLameter’s and Myers’ Social Psychology, 6th Edition and Elias’ and Sauciere’s Neuropsychology. Throughout the semester, each week students would read one chapter from the DeLameter and Myers text and one chapter from the Elias and Saucier text, such that the two chapters were matched for highlighting a particular neurological process with a particular set of discussions in social psychology. For example, students read about attention processes from a neuropsychological/ neuroscience perspective that focuses on the actual anatomy of the brain as well as the mechanisms that allow attention to be activated. They also read how social psychologists focus on the outcome of that mechanical process. To further illustrate the

goal of the class as well as model the type of interdisciplinary thinking required for developing the language of neurosociology, we also read Ratey’s User’s Guide to the Brain during the first half of the semester and then Goleman’s Social Intelligence during the second half of the semester. Both authors’ do a wonderful job of highlighting the intersection between social interactions and the brain. Additionally, all of the course assignments required students to explore how social interactions, specifically, and social psychology more generally can help us better understand, explain, and treat neurological and mental disorders. For example, students worked in groups throughout the semester with each group studying one specific disorder that they selected. The four disorders studied were schizophrenia, Asperger’s Syndrome, depression, and bipolar disorder. They read both the medical and social sciences literature, critiqued the literatures, and finished the semester by proposing a specific future research project from a neurosociological perspective. Also, their take-home exam asked them to more clearly define the neurosociological perspective by selecting a disorder different than the one with which they worked in a group. They were asked to describe the disorder by reviewing the literature from the two different perspectives (neuropsychological/neuroscience and social psychological) and to then explain how a neurosociologist would diagnose and treat the disorder. This included discussing a typical medical history and then proposing the type of medical history necessary for a neurosociologist. I believe that the course successfully achieved the stated goal as evidenced by the discussions we had in class where we worked through the ways that social psychological ideas could be used to explain neurological processes and related disorders as well as the fact that all of the students have contacted me since the end of the semester highlighting new literature or articles they read and their further thoughts on the topic. More importantly, by being able to spend a large part of my “work” time working through these different ideas and discussing them with students, I am now in the process of preparing a proposal for a community-based pilot study

of Alzheimer's from a neurosociological perspective. Finally, my experience highlights how those of us in teaching institutions can best continue our research interests by explicitly and directly linking them to the classes we teach.

Conclusions by Franks and Eisenberg

On the surface it may appear as though the two classes described above represent very different approaches to studying neurosociology. We think a more accurate representation of the classes is that they represent different aspects of the same perspective. Franks defined neurosociology as focusing on social interactions as the unit of analysis for understanding the brain and brain processes, including an emphasis on the self and linguistics. Eisenberg's class represents an elementary level of discussion that introduces students to key ideas in social psychology and neuroscience as a way of developing a language for neurosociology. David's class represents an intermediate level of discussion that utilizes more advanced and sophisticated ideas that illustrate key neurosociological ideas. Additionally, Anne's goal is to link these neurosociological ideas to applied settings through analysis of specific disorders in terms of their diagnosis, analysis, and treatment. David's' goal is to develop a more epistemologically formal approach to neurosociology. These two approaches literally represent the different dimensions, or faces, of sociology – the applied/empirical and the theoretical, the inductive and deductive, and the academic and the public sociologies. We hope this essay encourages further discussion of neurosociology in terms of research, teaching, and scholarship.

References

- Begley, Sharon. 2007. *Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves*. New York: Ballantine Books.
- Brothers, Leslie. 1999. *Friday's Footprint: How Society Shapes the Human Mind*. New York: Oxford Press.

- 2001. *Mistaken Identity: The Mind-Brain Problem Reconsidered*. New York: State University of New York Press.
- Cozolino, Louis. 2006. *The Neuroscience of Human Relationships: Attachment and the Human Brain*. New York: W.W. Norton and Company.
- Damasio, Antonio. 1994. *Descartes' Error: Emotion, Reason, and the Human Brain*. New York::Avon Books.
- DeLamater, John D. and Daniel J. Myers. 2007. *Social Psychology*, Sixth Edition. CA: Thomson-Wadsworth.
- Elias, Lorin J. and Deborah M. Saucier. 2006. *Neuropsychology: Clinical and Experimental Foundations*. MA: Pearson/Allyn and Bacon.
- Franks, David D. 2003. "Mutual Interests, Different Lenses: Current Neuroscience and Symbolic Interaction." *Symbolic Interaction* 26(4):613-630.
- Goleman, Daniel. 2006. *Social Intelligence: The New Science of Human Relationships*. NY: Bantam Books.
- House, James S. 2001. "Social Isolation Kills but How and Why?" *Psychosomatic Medicine* 63: 273-274.
- Lakoff, George and Mark Johnson. 1999. *Philosophy and the Flesh*. New York: Basic Books.
- Ratey, John J., MD. 2002. *A User's Guide to the Brain*. NY: Vintage Books.
- Reddy, William M. 2001. *The Navigation of Feeling: A Framework for the History of Emotions*. New York: Cambridge
- Smith-Lovin, Lynn, Miller McPherson and Mathew Brasheare. 2006. "Social Isolation in the United States". *American Sociological Review*. June. 353-375.
- Sperry, Roger. 1965. "Mind, Brain and Humanistic Values." Pp. 588-590 in *New Values on the Nature of Man* edited by J.R. Platt. Chicago: University of Chicago Press.
- Schwartz, Jeffery M. and Sharon Begley. 2002. *The Mind and the Brain: Neuroplasticity and the Power of Mental Force*. New York: Regan Books.

The Revolution in Evolution: Evolution for Everyone

A Review Essay

by

Darrell La Lone & Thomas D. Hall
dlalone@depauw.edu & thall@depauw.edu

Department of Sociology and Anthropology
DePauw University

In this review essay we seek to call the attention of members of the Evolution & Sociology section to several recent books that depict and apply recent, sometimes radical, changes in evolutionary thinking among biologists, and provide some 'teases' about how they might be used in the social sciences. Some of these include: Lamarck was not entirely wrong; Mendel was not entirely correct; we can make sound arguments for group selection in a number of conditions; "junk DNA" is, of course, not junk, but plays important roles in a number of genetic and epigenetic processes; and evolution is not just for biologists.

David Sloane Wilson (2007a: 3) notes: Evolutionary theory has already unified the biological sciences, enabling Theodosius Dobzhansky to make his famous remark in 1973 that "nothing in biology makes sense except in the light of evolution." For most of the 20th century, however, evolutionary theory has been *confined* to the biological Sciences and a few specialized human-related subjects, such as biological anthropology and human genetics.

But this situation is rapidly changing. Professor Wilson is a leader in promoting such change as he demonstrates with organization of EvoS, the Institute for Advanced Study in Evolutionary Sciences at Binghamton University. This program draws together faculty and students from a broad array of disciplines and demonstrates the power of evolutionary thinking in inspiring original thoughts in any disciplines.

But for now, following an extensive review of sociology texts, Wilson notes the near

absence of references to evolution. What we find instead is that for some time social scientists have been absorbed in a linguistic (and intellectual?) swamp. Jerome Barkow in *Missing the Revolution: Darwinism for Social Scientists* notes that while many social scientists have become mired in postmodernism, while "other disciplines have been having their own revolution: Darwin's revolution" (Barkow 2006:3).

This is not news to members of the Evolution & Sociology section, but it is news to many other social scientists, most surprisingly cultural anthropologists who should know better. Of course all scientists, including social scientists, and especially anthropologists, acknowledge biological evolution and recognize the triumph of Darwin's framework for explaining evolution. But it seems that for most social scientists the topic has been dropped as irrelevant to the understanding of social behavior.

The charter myth for this position nods to the recognition that indeed all life on earth is the product of natural selection. Then the story of human evolution is commonly traced from our common ancestor with the other apes up until the revolutionary emergence of fully modern humans (the Upper Paleolithic Revolution). And what defines "fully modern human" is the appearance of culture. Sometime between 90,000 and 50,000 years ago the "human revolution" erupted, and from that time forward the dominance of culture is said to make biology "irrelevant."

This disastrous form of "secular creationism" in its attempts to separate humans from the world of "lesser" non-cultural living beings has in fact separated many social scientists from the world of science. As an example of the impact of culture in how we frame our understanding of the world, an American preoccupation with genetic determinism has led all too many social scientists to believe that when we talk about biology what we're really talking about is genes. Genes are understood as blueprints that ineluctably determine the structure of organisms as well as their behavior.

Having equated biology with genetic determinism, social scientists have indeed missed the revolution that has transformed

many disciplines. A central part of this revolution has in fact been new understanding of how traits are transmitted. Genes are not in fact blueprints that relentlessly build structures and behaviors. Current understandings and research in genetics differ, sometimes radically, from what students may have studied even within the past 10 years.

An accessible yet challenging account of some of the radical changes in our understandings of genetics and heredity may be found in Eva Jablonka and Marion J. Lamb's *Evolution in Four Dimensions* (2005). Despite widespread fascination with (and frequent misunderstanding of) the "selfish gene" paradigm, heredity is not just about genes. In the broad sense, heredity is about transmission of information, and Jablonka and Lamb explore four inheritance systems: genetic, epigenetic, behavioral, and symbolic.

For non-biologists, perhaps the least familiar and perhaps formidable of these may be the epigenetic inheritance system. But, to put it simply, if DNA and genes are blueprints, then how can it be that every cell has the same DNA but ends up in so many different outcomes? How does a cell know whether to become part of an ear rather than part of a toenail? To understand this, we look to epigenetics, and Jablonka and Lamb offer a gentle yet rigorous introduction.

As they explain these four inheritance systems, we find many ways in which natural selection shapes transmission of information other than a simplistic gene-based model of transmission and change. This is original work with sometimes startling arguments that may stretch knowledge and imagination of biologists no less than social scientists. We are finally challenged to make connections between their four dimensions of evolution, and, though much will be subject to sometimes contentious debate, the implications are always provocative in the best sense of the term. It challenges us to explore many issues in ways that lead us to new visions and understandings.

To turn our attention toward two social science examples of new applications of evolutionary thought, we may look toward one recent contribution from sociology and one from anthropology.

Joan Huber's new book, *On the Origins of Gender Inequality* (2007) offers arguments intended: 1) to correct some feminists' absolute rejection of evolution as part of an explanation for gender inequality; 2) to argue that gender inequality is rooted in breast feeding; and 3) to argue that this is not an "anatomy is destiny" argument, but rather an exploration of how technology can reshape consequences of "anatomy."

Huber reviews many findings in biology, genetics, evolution, and human physiology. She finds that the conditions under which humans lived for most of their existence (except the last century or so) resulted in high infant mortality rates and that the physiology of breast feeding and infant development prevented women from participating in those activities that most often can lead to power.

Typically infants must be breast fed for two or more years. Breastfeeding can be supplemented with other foods only late in the first year, sometimes much later. Typically, infants feed about every 10 to 15 minutes for 5 minutes or so. When combined with high infant mortality rates, this means that most women spend most of the adult lives pregnant or lactating. This prevents them from engaging in activities that require extended time away from their infants. That, in turn, all but prohibits participation in those activities that lead to power and wealth accumulation. The exceptions that occur among many foragers that allow women who cannot bear children to participate in predominantly male activities underscores that this is a pragmatic social adaptation, not a "wired-in" biological imperative.

It is only in the last two centuries that technological and social (wet nurses) alternatives have become sufficiently available to remove these restrictions on women's activities. This then promotes feminism and makes greater gender equality possible, if as yet far from achieved.

The key arguments take biology and genetics seriously, without being reductionist. They also point to why and how gender inequality is and can continue to change. Given how recent these changes are in terms of human social-cultural evolution, it is no surprise that the change is far from complete. Rather,

what is surprising is that so much has changed so quickly.

Many of the issues developed in evolutionary anthropology may be encapsulated in the "Three Cs": cognition, co-operation, and culture (Wilson 2007b:154). Much of the recent literature in anthropology (including primatology) explores the importance of co-operation. This has become increasingly salient in view of widespread acceptance (and misunderstanding) of the "selfish gene" metaphor.

In *Why Humans Cooperate: A Cultural and Evolutionary Explanation*, Natalie Henrich and Joseph Henrich rebut the old saw that ethnographers have no need to consider evolutionary frameworks in their fieldwork. Their ethnography is richly informed by evolutionary theory as well as economic experiments as it addresses the question of why people are willing to help others at a cost to themselves.

The opening chapter draws extensively on both laboratory and field studies across several disciplines, to present an overview of dual inheritance theory, especially exploring evolved psychological mechanisms for learning culture. They argue that "...our capacities for cultural learning, which are genetically evolved, give rise to a second system of cultural inheritance that has shaped our genome" (2007:32). This of course connects with Jablonka and Lamb's discussion of different systems of inheritance.

Following the introduction to dual inheritance theory, they proceed to examine five theories for evolution of cooperation in humans, again showing genetic and culture-gene interactions. In succeeding chapters they offer laboratory evidence from behavioral economics and other approaches before finally proceeding to systematic application of their framework to ethnographic study of ethnicity and cooperation among Chaldeans in metropolitan Detroit. They show how the theoretical concepts contribute to understanding of "social behavior and how universal psychologies for cooperation lead to culturally specific norms, beliefs, and practices."

Why Humans Cooperate demonstrates the value of research in a number of disciplines for enriching ethnographic understanding. How is culture learned? How is culture transmitted and shared? Whether our focus is on culture "or" biology, our common questions are about the transmission of information. In this enterprise,

social scientists do in fact have a great deal to learn from bio-cultural research, and missing this revolution is a serious mistake.

Evolution for Everyone

An excellent starting point for catching up to the revolution is David Sloan Wilson's *Evolution for Everyone* (2007b). Wilson begins with a simple, but not simplistic, review of evolutionary principles. He then describes a series of applications of these principles to various problems. He notes the many contributions to evolutionary research and journals are by non-biologists, and some undergraduates, using these principles.

With wonderful clarity and humor, Wilson shows many fascinating applications of evolutionary thought and in the process models how scientists think, formulate ideas and hypotheses, and then test them. Anthropologists may take special delight in the way Wilson shows how we might inspire our students to figure out what conditions might make infanticide adaptive (in the process illustrating that adaptations are not necessarily benign!). How might we maximize egg production on our chicken farm? Wilson shows why selecting the most proficient hens to form production teams is more likely to be a disaster than selecting less individually proficient but more cooperative hens for the team. Throughout the book Wilson repeatedly underscores selective advantages of cooperation, even to the extent of making a case for the often misunderstood and maligned concept of group selection.

Evolution for Everyone is not an introductory text in evolutionary biology, but a tour de force demonstration of how we may all think more creatively and effectively as scientists, even to the extent that we may come to believe that we, and our students, perhaps can attain genius. In the vast and growing literature on evolution, *Evolution for Everyone* is unparalleled in its clarity, exuberance, and inspiration to discover how powerful the evolutionary framework is in endless realms of thought in addition to evolutionary biology.

For a further sense of how this might be followed up, we would highly recommend a visit to Wilson's EvoS Website:

<http://evolution.binghamton.edu/evos/index.html>

Whether one agrees or not with these authors, and whether or not all their arguments stand up to further empirical research, they are stimulating reading for any who take evolution seriously.

References

Barkow, Jerome H. 2006. *Missing the Revolution: Darwinism for Social Scientists*. New York: Oxford.

Henrich, Joseph and Natalie Henrich. 2007. *Why Humans Cooperate: a Cultural and Evolutionary Explanation*. New York: Oxford.

Huber, Joan. 2007. *On the Origins of Gender Inequality*. Boulder: Paradigm Publishers.

Jablonka, Eva and Marion J. Lamb. 2005. *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life*. Cambridge, MA: MIT Press.

Wilson, David Sloan 2007a. "On the status of evolutionary research in the human behavioral sciences and evolutionary training in higher education." Ms., Sep. 22, 2007. <http://evolution.binghamton.edu/evos/pdf%20files/BBS%20analysis.pdf> last retrieved April 8, 2008.

Wilson, David Sloan. 2007b. *Evolution for Everyone: How Darwin's Theory Can Change the Way We Think About Our Lives*. New York: Delacorte Press.

ASA Sessions

Biosociology/Biosocial Interaction Regular Session

Scheduled Time: Fri, Aug 1 - 10:30am - 12:10pm Building: Hilton Back Bay

Session Organizer and President: Francois Nielsen, University of North Carolina;

Participants:

Edward O. Laumann, University of Chicago;
Linda J. Waite, University of Chicago;
Aniruddha Das, University of Chicago:
"Sexual Problems Among Older Adults: Prevalences and Risk Factors from a Nationally Representative Probability Sample of Men and Women 57 to 85 Years of Age."

Alan Booth, Pennsylvania State University;
Cassandra J. Dorius, Penn State University;
Jacob Hibe, Penn State University; Doug Granger, Penn State University: "Do Testosterone and Estradiol Influence Parent-child Relationship Quality?"

Jason D. Boardman, University of Colorado),
Tanya M.M. Button, University of Colorado),
Robin P. Corley, University of Colorado),
Michael C. Stallings, University of Colorado:
"Peer delinquency and the heritability of dependence vulnerability."

Jiannbin Lee Shiao, University of Oregon:
The Genomic Challenge to the Social Construction of Race

Discussant: Rosemary L. Hopcroft, University of North Carolina-Charlotte

Section on Evolution and Sociology Paper Session. New and Current Approaches to Evolutionary Thinking in Sociology
Scheduled Time: Mon, Aug 4 - 8:30am - 10:10am, Building: Sheraton Boston.

Session organizer: Joan Huber
President: Alexandra Maryanski, UC Riverside

Abrutyn, Seth, UC Riverside "Putting the 'institution' back in institutional analysis: An evolutionary approach.

Crenshaw, Edward, Ohio State and Kristopher Robison, Northern Illinois "Macrosocial evolution and economic development: An ecological-evolutionary and functional account of economic growth"

Hammond, Michael, Toronto "Reversal of fortune: How evolutionary adaptations to limit inequality become fuel for inflated inequality"

Maryanski, Alexandra, UC Riverside "Why were totems so crucial to Durkheim's theory on the origin of religion?"

Taylor, Catherine, Cornell "Stress, status, and gender in decision-making groups: A biosocial approach"

Section on Evolution and Sociology Paper Session. New and Current Approaches to
Scheduled Time: Mon, Aug 4 - 12:30pm - 2:10pm, Building: Sheraton Boston
 Organizer and Presider: Richard Machalek

Participants:

Jeff Davis, California State University, Long Beach: "A Measurement of Uncertainty for Use in Non-Experimental Studies of Human Life History Behavior."

Warren D. TenHouten, University of California: "Anticipation: A Key Cognitive-Affective Resource for the Evolution of the Human Mind."

Stephen K. Sanderson, University of California, Riverside: "Evolutionary Approaches to Religion: Is Religion an Evolved Adaptation?"

Ruud Koopmans, WZB, Berlin: "Neighborly Love: A Cultural-Evolutionary Explanation of Altruism in Religious Morality."

Discussant: Timothy Crippen, Mary Washington University

Section on Evolution and Sociology Council and Business Meetings
Scheduled Time: Mon, Aug 4 - 10:30am - 12:10pm, Building: Sheraton Boston

New Publications of Section Members

Blute, Marion. "The Evolution of Replication." *Biological Theory* 2(1) 2007:10-22.

-----."Cultural Ecology." In D. M. Pearsall, ed. *Encyclopedia of Archaeology*. Academic Press, New York. 2008: 1059-1067.

-----."Review of Robert K. Merton & Elinor Barber, *The Travels and Adventures of Serendipity: A Study in Sociological Semantics and the Sociology of Science.*" *History and Philosophy of the Life Sciences* 28(2) 2006: 291-292.

-----."Gene-Culture Coevolutionary Games." *Social Forces* 85(1) September 2006: 151-166.

-----."The Evolutionary Socioecology of Gestural Communication." *Gesture* 6(2) Nov.-Dec. 2006: 177-188.

-----."Origins and the Eco-Evo-Devo Problem." *Biological Theory* 1(2) 2006: 116-118.

-----.Review of Richard Dawkins, "The Ancestor's Tale: A Journey to the Dawn of Life." *The Quarterly Review of Biology*. 81: Dec. 2006 394-5.

Hall, Thomas D. and James V. Fenelon. 2008. "Indigenous Movements and Globalization: What is Different? What is the Same?" *Globalizations* 5:1(March):1-11.

Hall, Thomas D.2007. "Incorporating North America into the Eurasian World-System, in World System History," in World System History, [Eds. George Modelski ,Robert A. Denemark], in *Encyclopedia of Life Support Systems* (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford ,UK, [<http://www.eolss.net>] [Retrieved December 7, 2007].

Huber, Joan. 2007. *On the Origins of Gender Inequality*. Boulder: Paradigm.

-----."Reproductive Biology, Technology, and Gender Inequality: An Autobiographical Essay." *Annual Review of Sociology*.

Kardulias, P. Nick and Thomas D. Hall. 2007.
 "A World-Systems View of Human Migration Past and Present: Providing a General Model for Understanding the Movement of People." Forum on Public Policy, on-line:
<http://www.forumonpublicpolicy.com/archive/sum07/kardulias.pdf>

Turner, Jonathan H. and Alexandra Maryanski,
On The Origin of Societies by Natural Selection. Paradigm Press, June 2008.

People

J. Scott Lewis has left Urbana University effective May 2008. Fall semester of 2008, he begins at Penn State—Harrisburg.

Neil Johnson
 (<http://www.physics.miami.edu/~njohnson>) and
Mike Mesterton-Gibbons
 (<http://www.math.fsu.edu/~mesterto>) are starting a Florida-based network of academics for research and education in complexity science, to share expertise across disciplinary boundaries and exploit potential for synergy among the social and natural sciences. They would like to hear from any sociologist in Florida with an interest in complexity science. Please contact Mike Mesterton-Gibbons at mesterto@math.fsu.edu if you either are or know of such an individual.

The Biosociology of Dominance and Deference

Rowman and Littlefield will send free exam copies of the book by Allan Mazur, *The Biosociology of Dominance and Deference*, to everyone who requests one for possible class use.

Requests for exam copies (for professors considering adopting the book) go to Renee Legatt in Rowman & Littlefield's college marketing department. Her email address is rlegatt@rowman.com.

Social Evolutionism and its Critics: Deconstructing and Reconstructing an Evolutionary Interpretation of Human Society

Section members may qualify for a free exam copy of Steve Sanderson's new book, *Social Evolutionism and its Critics: Deconstructing and Reconstructing an Evolutionary Interpretation of Human Society* by sending relevant course title, expected number of students, and semester/quarter to be taught to Patriciag@paradigmpublishers.com

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Heinz-Jurgen Niedenzu Tamás Meleghy
Peter Meyer (Editors)

For a long period of time, social scientists declared their autonomy from the life sciences, thereby neglecting important biological constraints on human nature. Many sociological theories suggest a nearly complete malleability of patterns of social life. Recently, however, Stephen K. Sanderson's "Darwinian conflict theory" set out to synthesize sociological theories with key findings from biology into an overarching scientific paradigm.

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Heinz-Jürgen Niedenzu is Associate Professor of Sociology at the University of Innsbruck, Austria.

Tamas Meleghy is Professor of Sociology at the University of Innsbruck, Austria.

Peter Meyer is Professor of Sociology at the University of Augsburg, Germany.

***SEX DIFFERENCES
Summarizing More than a Century of
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Lee Ellis, Scott Hershberger, Evelyn Field, Scott Wersinger, Sergio Pellis, David Geary, Craig Palmer, Katharine Hoyenga, Amir Hetsroni, and Kazmer Karadi

This book is the first to aim at summarizing all of the scientific literature published so far regarding male-female differences (and similarities).

No exclusions were made in terms of subject areas, cultures, time periods, or even species.

Results from over 22,000 studies are summarized within approximately 3,000 tables, with each table pertaining to a specific possible sex difference. The book's length is 1,019 (+14) pages plus a CD insert containing a 650 page file of references to all of the studies cited throughout the book.

Publisher: Lawrence Erlbaum Associates (Taylor and Francis), 2007.

For pre-publication orders:

<http://www.psyppress.com/9780805859591>

Criminology: An Interdisciplinary Approach

Section members who are teaching criminology and who want to emphasize a biosocial approach, including evolutionary arguments about crime causation, may request a review copy of Anthony Walsh & Lee Ellis (2007). *Criminology: An Interdisciplinary Approach*. Email: Jennifer.Reed@sagepub.com