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The 17th Biennial ISHE Conference was held in Ghent, Belgium from July 27-30. The program was published in the June 2004 issue, and the Minutes of the General Assembly appeared in the previous issue. This issue includes additional photographs from the meeting, as well as a report on the meeting authored by conference host (and recently appointed Associate Book Review Editor), Kris Thienpont. Also in this issue is a revised version of the tribute to Linda Mealey that Andy Thomson delivered in Ghent.

Additional information on the conference, including photographs and abstracts of papers, can be found at:

www.psw.ugent.be/bevolk/ishe2004



Ghent: City center, near conference venue

Report on ISHE 2004

by Kris Thienpont

Ghent is a city with many faces. One of the better known sides is its annual week of exuberant festivities at the end of July, with hundreds of concerts, performances, street art exhibits, thousands of people in and around the city center, and the odd scientific society that considers that particular week as a good occasion for organizing a conference.

ISHE participants arriving in Ghent on Monday 26th were met with the state of pleasant chaos that accompanies the Ghent Festivities and could enjoy the last day and night of this annual bacchanaal. Fortunately, our meeting began the day after, when the dust had settled, the streets had been cleaned, and the public transport system had gone on strike. To my knowledge, all these conditions did not prevent anyone from joining the meeting in time, and no search party across Flanders had to be started up to look for lost human ethologists.

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The opinions expressed in the *Human Ethology Bulletin* do not necessarily reflect those of the editorial staff or ISHE. Informed responses offering alternative views are welcome and can be sent directly to the Editor.

Correction: Previous issues of the *Human Ethology Bulletin* have listed an incorrect e-mail address for **Peter Gray**, now our Chief Book Review Editor. His correct e-mail address is grayp@bc.edu, as listed above.

Attention ISHE Members

Please note that this issue contains a call for the election of a new ISHE officer: Information Officer. A description of the position and voting instructions can be found on p. 22.

Report on ISHE 2004 (continued from Pg. 1)

For the first hours of the meeting on Tuesday morning, I posted myself behind the registration desk and saw familiar faces walking into the Sofitel Hotel lobby: Iraneus Eibl-Eibesfeldt, Kevin MacDonald, Peter Meyer, Frank Salter, among others. I had already met my good friend and co-organizer Johan van der Dennen the day before who had introduced me then to Astrid Juette and the indefatigable Bill Charlesworth. As Bill entertained me enthusiastically on the habits and customs of ISHE meetings, in one and the same breath he informed the hotel manager in fluent German on his family roots.

Among the other board members that I met that morning were Russ Gardner, John Richer, and Glenn Weisfeld. I also observed unknown faces walking into Sofitel, whose demeanour was nevertheless unmistakably that of the conference attendee: a slightly hesitant walk, a screening glance across the

hotel lobby, and the enthusiastic recognition of a colleague not seen for months.

The welcoming reception was one of the several occasions we had to enjoy some culinary delights. The daily lunch at Sofitel and the banquet were other such occasions. To my delight, I learned afterwards that many guests escaped from Sofitel and explored the restaurants in Ghent city center. Sofitel food was great but the local catering obviously has a charm of its own. And of course, we can't refer to the conference banquet while leaving Bill Charlesworth's performance there unmentioned. Hard evidence of this is about to be published on the conference website.

Although this was my first ISHE meeting, I soon learned that giving students and young researchers the floor to present their work is a priority for the society, and rightly so. First of all, the average age of the participants at ISHE-2004 was very likely a lot lower than that at the sociology conferences I used to attend, but more importantly, the age variance was large. Pioneers of human ethology like Iraneus Eibl-Eibesfeldt, Bill Charlesworth and Jerome Barkow among others were there to stimulate and encourage students and young researchers. Plenary presentations are a war of nerves to the unexperienced (and to many professionals as well!), but they do provide an excellent forum for presenting one's findings. However, that does imply that after the presentation questions are raised and discussions are opened. Although we had some debate once and a while, in general the after presentation atmosphere was a bit too relaxed I think.

Fortunately, there were numerous opportunities to discuss presentations. One

of those was the slightly chaotic poster session in the medieval cellar of Sofitel Hotel.



Medieval venue for the ISHE 2004 poster session

Perhaps this was not the best of places to present posters, medieval cellars have pillars and low ceilings and some posters were so impressive in size, colour and layout that the room itself was on the small size. Having a beer or a glass of wine while strolling through the bush of posters on the other hand certainly stimulated talks and prolonged attendance.



Prof. Eibl-Eibesfeldt speaks with Elizabeth (Lisa) Oberzaucher during the underground poster session

At the poster session, the activity of young researchers was striking, but they

performed remarkably well in the conference room too. Many of them presented good quality research and did so in an enthusiastic, self confident manner. I certainly remember Mark Sergeant's conclusion that some of his findings contradicted his evolutionary theory and that he had no idea how to reconcile both: a true scientific conclusion of the sort we do not hear frequently enough at conferences. Jan Havlicek was another presenter successfully employing the olfactory senses for the good of science. And what about Andreas Wilke's splendid presentation, brought with flair, self-confidence and a very handy remote control to the laptop? It is no coincidence that both Andreas and Mark are among among the winners of the Linda Mealey Award 2004, together with Bernhart Ruso. Other highlights with a youthful origin included Elizabeth Oberzaucher's dynamic dancing slides, Thomas Pollet's ambitious theory of conspicuous consumption, Marc Mehu's seductive smile ("Smile in Naturally Occurring Human Interactions"),



Linda Mealey Award winner Mark Sergeant speaking about his research on body odor

and Ines Blantar's evidence that facial surgery may enhance your chances in the marriage market.

There is not enough space here to mention all of the presentations, but permit me to take advantage of the occasion to congratulate the young researchers for their contribution to both the scientific standard of the meeting as well as its brilliant atmosphere. It would seem that to see the age distribution of the active members of a society getting skewed in one or the other direction is a health warning for any society. If that is correct, ISHE has nothing to worry about. And I say this with confidence. Many of the young folks there at some point thanked me for a conference with such a pleasant atmosphere. I had the impression they enjoyed themselves. They have not me to thank for that but rather themselves. Having several of my students hanging around there as well, it was such a delight for me to see that my advice to skip HBES-Berlin and to join the ISHE meeting in Ghent turned out to be well-informed.

Each meeting – indeed each society – has its classics, its hard core of reputed and active scientists who shape the field of human ethology, broadly defined. Phil Rushton's introduction to his presentation ("A Twin Study of Best Friends") was a good laugh and I took the liberty of stealing that idea from him. I can therefore certify from my experience: begin lectures with the picture of a dog and its owner and the audience eats out of your hand. By the way, the original study referred to by Rushton [Roy, M. M., & Christenfeld, N. J. S. (2004). Do dogs resemble their owners? *Psychological Science*, **15**: 361-363] is a good laugh in itself. Genetic similarity is the topic Phil Rushton is returning to right now and I look forward to seeing the empirical backup of that

interesting idea develop. The ever active and attentive Frank Salter volunteered to fill an unexpected gap in the program with a thought provoking challenge to Richard Dawkins' concept of inclusive fitness. Among the many interesting dimensions of Frank's point, I certainly remember his plea for backing up the "old" sociobiological idea of inclusive fitness with data from population genetics. Karl Grammer's renowned work on the simulation of facial expression once again got the audience fascinated. Johan van der Dennen argued that rituals are derived from the operation of the reptilian brain. Detlev Ploog, Tatu Vanhanen, Kevin MacDonald, Wulf Schiefenhövel, John Locke, and other presenters reminded us of the diversity and richness of the human ethology approach to social affairs.

If I am permitted one critical remark, let me perhaps suggest that we pay less attention to methods than to theory; at least that was the feeling that came up while listening to presentations. The program of the meeting displayed a rich diversity of issues amenable to human ethological analysis and a series of stimulating and interesting ideas. But without any serious attempt to back up ideas with data, ideas remain simply ideas. Of course, many models and hypotheses presented showed a sophisticated operationalization and testing. But on the whole, I heard more interesting and convincing ideas than data-based scientific arguments.

This might well be my sociological indoctrination coming into play. Sociologists have no theory because they have too many and derive their authority often solely from the basket of methods and statistics they so happily open up. To

paraphrase Pierre van den Berghe, the well-known sociological sociobiologist with family roots in Gent, the modern sociologist has become "an enviscerated cipherer". However, the message for us should be to indulge in the operationalization of theory – of which we have many good ones – and to have ISHE meetings as a forum to discuss and improve both theory and methodology.

By Friday, the preceding days full of organizer's stress took their toll. I was beginning to degenerate and to perform on automatic pilot. So to my great regret, one of the sessions that interested me the most, the one on evolutionary psychopathology, largely escaped my tired and sleep-deprived brain. Now I was probably not the only one in a state of lethargy by then; apparently, by Friday many participants were ready for some sort of physical treatment. That was obvious from the enthusiasm for Russ Gardner's invitation to join him on a stretching session. I can still see that conference room wake up at some point late Friday afternoon to stand up and wave their arms about and making all sorts of silly bows. I have tried this with my students but it doesn't seem to work. Russ, what's your secret?

Linda Mealey is, of course, one name that forever will remain with the society. I never met her in person, although her work is of course well-known to me as it should be to anyone with a basic knowledge of human ethology. When we remembered her on the first day of the meeting I gained a glimpse of the rich and strong personality she must have been. Nancy Segal, J. Andy Thomson, Elizabeth Hill, Russ Gardner and Carol Weisfeldt each enlightened one aspect of Linda's work for example by means of video fragments or, like Andy did, by

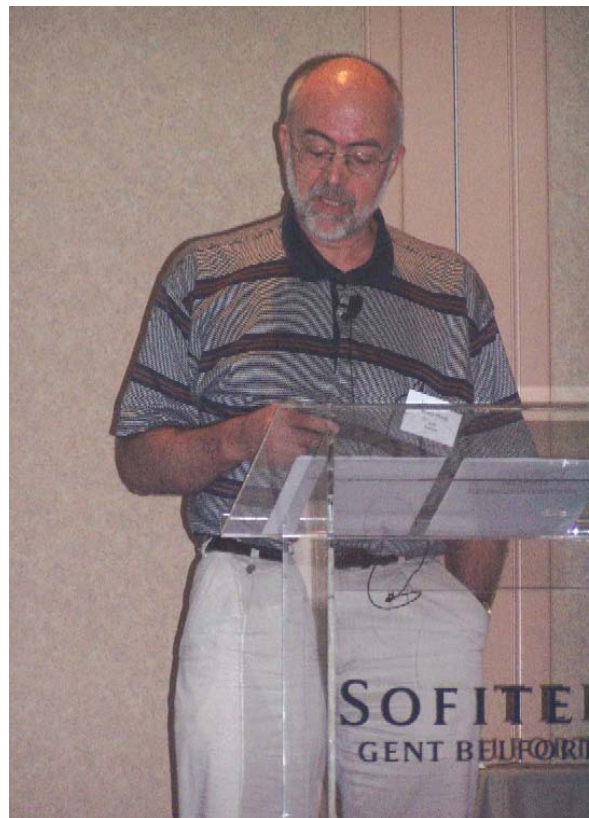
bringing her laugh back to memory. [See Andy Thomson's tribute to Linda elsewhere in this issue – Editor]. After that, members of the audience shared their thoughts and feelings. This was a respectful and appropriate tribute for a highly esteemed colleague who is clearly missed.



Andy Thomson speaking on Linda Mealey's legacy

Before ending a report of the meeting, I should mention the four plenary speakers at ISHE-2004. Francisco Abati had the honour of giving the first plenary, a fascinating film/lecture with a strong anthropological input showing the interaction of evolutionary biological models of behaviour and gender role socialization. New York weather conditions nearly held Allan Mazur across the Atlantic. He made it just in time to talk about the biosociology of dominance, one of the most biological dimensions of human behaviour as any academic faculty member very well knows. Allan is a gifted speaker and gave an overview of variations in dominance and deference behaviour illustrated by movie items such as *Butch Cassidy and the Sundance Kid*. Anne Campbell from Durham University is best known for her work on female aggression and in a truly multidisciplinary talk – linking social expression to evolutionary-biological drives

– she gave an enriching overview of the development and testing of the model linking sex specific adaptations to different phenomenological experiences. The last plenary of the conference, Frans Plooij's exploration of the regression periods in child development, was impressive in terms of theory and empirical backup.



Frans Plooij delivering his plenary address

The last day of the meeting began with Allan Mazur and ended in a boat. The symposium on evolutionary psychopathology closed the academic program of the meeting, and we smoothly went on with the general assembly. Under Glenn Weisfeld's gentle but firm lead



Glenn Weisfeld directing the General Assembly

(“we’re gonna miss the boat”) society issues were discussed and Detroit was selected as the next conference location.

Finally, we took a boat trip through the historic city center of Ghent. Getting a view of Ghent from the river reminded me of the beauty and history of my own city, and with some pride I noticed it impressed many on the boat. For me it was the end of a hectic four day period and the start of a long night. I have received many congratulations and thanks, both during and after the meeting. This is my opportunity to return the compliments. An organizer can, at best, create the conditions for a successful meeting but it is the participants who determine the academic standard and the atmosphere. And you did well.



Previous page: A conference lunch at the Ghent Sofitel Hotel.

Below: ISHE-2004 attendees enjoy a canal tour at the end of the conference.



Linda Mealey's Clinical Legacy

J. Anderson Thomson, Jr., M.D.

How might we honor Linda Mealey's clinical legacy? May I suggest all of us build a WME: a Weapon of Mass Enlightenment. Or, perhaps name it a Weapon of Mealey Enlightenment. One needs only four readily accessible ingredients. Once built, the weapon sits on your shelf, awaiting launch. By now, the reader might wonder what the hell is he talking about? Launch a weapon? To honor Linda? When? At whom? Typical male!!

Even though few of us are clinicians, we all have students express interest in clinical issues or a clinical career. So, when an undergraduate, a graduate student, a

medical student, a social worker, a clinical psychologist or psychiatrist asks you what does this ethological, evolutionary, sociobiological, Darwinian 'stuff' have to do with suffering humanity, you say not a word. You reach up for your WME, hand it to him or her, and say, "Just read this." The weapon will grab their attention, change their perspective, and, if they are already clinicians, help their patients.

How do you build the weapon? Easy. The four ingredients are:

(1) Linda's final publication, significantly on clinical topics: "Evolutionary Psychopathology and Abnormal Development," [in *Evolutionary Perspectives on Human Development*, Robert Burgess & Kevin McDonald (Eds.), Sage 2004];

- (2) "The Sociobiology of Sociopathy," *Behavior and Brain Sciences*, **18**: 523-599, 1995;
- (3) "Anorexia: A Losing Strategy?" *Human Nature*, **11**: 105-116, 2000; and
- (4) Linda's textbook, *Sex Differences: Developmental and Evolutionary Strategies* [Academic Press, 2000].

Linda always kept a keen eye on the clinical implications of research in ethology and evolutionary psychology. The alleviation of human misery remained a priority to the end. As noted previously, it is reflective of her life's work that Linda's final publication will be clinical. In that paper we see Linda at her best. She opens with a different view of how to define normality and abnormality, and then leads the reader into an evolutionary perspective. She does this beautifully, so that when the various forms of psychopathology are addressed, it is from a different foundation. Only after a challenge to old ways and the offer of a new lens, does she plunge into evolutionary views of depression, anorexia, anxiety and phobias, antisocial personality disorder, and schizophrenia.

Let's add our second ingredient, her masterpiece, "The Sociobiology of Sociopathy." Those who know forensic work are familiar with the established criteria for the diagnosis of antisocial personality disorder (ASP) in the *Diagnostic and Statistical Manual of Mental Disorders*, [DSM]. And, we all know that DSM sacrificed discrimination for accuracy. Assemble any prison population. If you utilize DSM's criteria for the diagnosis of ASP, 80 percent of the inmates will have the diagnosis. That does little to help us make important distinctions between individual defendants. The excellence of the article resides in her placement into sociobiology

what every clinician knows to be true: there are sociopaths who are born and those who are made. She supports her conception of primary and secondary sociopathy with the traditional literature as well as with newer discoveries from our field.

The importance of Linda's paper is that it provides an opportunity for someone, either novice or skilled, to have the standard approach and theories of sociopathy corrected and enhanced by the evolutionary perspective. Within the article she describes the evolution of emotion, the theory of evolutionary stable strategies (ESS), behavior genetics, and life history.

Let's move to our third ingredient, her article "Anorexia: A Losing Strategy?" Models of anorexia and eating disorders have long been divorced from a solid foundation in biology. Linda takes the approach that anorexia is a disordered variant of the adaptive ability to alter the timing of reproduction. In her *Human Nature* article she expands on the general model of reproductive self-suppression of Wasser and Barash (S.K. Wasser & D.P. Barash, "Reproductive suppression among female mammals: Implications for biomedicine and sexual selection theory." *Quarterly Review of Biology* **58**:513-538, 1983). They noted that in response to physical danger many animals self-suppress reproduction through fetal miscarriage, embryo reabsorption, and restraint of ovulation. They postulated that animals might do the same with social threats.

Like Charles Crawford and his group at Simon Frazier University, Linda focuses on the stress of female/female competition as a precipitant to anorexia. Linda outlines a theory of anorexia as an adaptive reproductive self-suppression, a retreat

from female/female competition until conditions improve. Recovery occurs. The research bolsters her: recovered anorexics have no loss of fertility compared to controls.

Linda sees severe anorexia as maladaptive and the end product of female/female competition. The sufferer defers to, and is manipulated by, more dominant women. The hotly debated question about the role of culture posed no problem for Linda. Culture, especially the mass media, constitutes supernormal stimuli. The anorexic fails to recognize that she competes with airbrushed models. Instead, more than others, her brain sees the cover girls as actual and real competitors, and the comparison leaves the anorexic woman devastated.

Linda Mealey's model makes sense of what all clinicians observe. Eating disorders emerge at times of transition in young women's lives; transitions into arenas of greater female/female competition. Symptoms surface with the move into middle school or high school or college. The competitive arena expands with each new step up the developmental ladder. As it does, the risk for anorexia increases in vulnerable women.

The prevailing clinical model of Hilda Bruch, anorexia imbedded in separation and individuation conflicts with the nuclear family, no longer holds water. Armed with Linda's formulation, the clinician will see and hear the competitive conflicts that torment these starved young women. So armed, therapists can make more useful interventions.

The main explosive in our WME awaits in Linda's book on sex differences. In an age

of political correctness, Linda's voice stood out as one of commitment to the reality of sex differences coupled with a fierce feminist narrative on the politics of life. Nancy Segal showed a video interview of Linda during her tribute at ISHE and HBES. The video showed how Linda Mealey embodied the corrected naturalistic fallacy: a clear eye as to what *is* and an equally clear eye as to what *ought to be* and *ought not to be* in the sexual body politic.

Other speakers at the memorial symposia at ISHE and HBES spoke about her textbook in more detail. Although the book contains numerous clinical implications in each chapter, she wrote a separate section on clinical issues. It deserves our attention.

Linda emphasized the sex differences in stress, which may moderate the different rates of depression in men and women. And, Linda was unafraid to talk about the harsher side of women's greater social support networks. There are times in most women's lives when they have one too many friends who are in need of support. That can become a burdensome stress and trigger depression.

She highlighted in her clinical section the interesting parallel between male risk-taking and anorexia. Many male suicides arise from the risk-taking derived from male/male competition. Anorexia surfaces with intensification of female/female competition.

Who among us clinicians ever thought to illustrate sex differences with the divergent emotional problems that appear from intrasexual competition? No one before Linda, at least no one known to me, confronted us with the observation that that

almost all the recent controversies in the DSM swirl around disorders that carry considerable sex differences. Hers would have been a voice to listen for as the debates begin over the next version of the *Diagnostic and Statistical Manual*.

These four ingredients make an effective weapon. When used, this weapon eliminates countless inaccurate opinions that impede clinical theory and practice. The more accurate the view of human nature that we hold, the more we will be able to intervene effectively in human suffering. Linda stood at the forefront of this intersection of carving human nature at its joints and the reformulation of old notions of psychopathology - yet another reason her premature death was so sad. Other speakers at the memorial symposia talked of her intelligence and honesty, certainly standout aspects of her character. But, let's talk of her humor. The audiences

at HBES and ISHE laughed at the numerous cartoons included in my talk. These cartoons were there for a reason - Linda loved to laugh. And, she also used cartoons, prominently in the textbook, and to good effect. They illustrated topics she held dear. My hope is that if she attended the memorials for her, the selection of cartoons would have made Linda laugh out loud and love the connection to the ideas.

So, for those who knew her, if you will just close your eyes and listen real hard, perhaps you can call up that wonderful, candid laugh. Hear it? Such a nice memory...

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BOOK REVIEWS

Literary Darwinism: Evolution, Human Nature, and Literature

By Joseph Carroll. Routledge, 29 West 35th Street, New York, NY 10001, info@routledge-ny.com, 2004, 276 pages, ISBN: 0415970148 [Paperback US\$23.95]

Reviewed by Jonathan Gottschall.

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The various essays, articles and book reviews comprising Joseph Carroll's Literary Darwinism are rooted in two principles: first, humans share a common nature that can be revealed through the scientific method; second, this universal nature is the product of relentless Darwinian selection over eons. While this is obviously orthodox stuff in the world of behavioral biology, these notions remain quite heretical among the social constructivists who continue to dominate the world of literary studies. From Carroll's simple principles flow corollaries with large implications for literary studies and behavioral biology. The most important corollary for literary scholars is that a large proportion of all that has been said, written, or merely thought in the realm of literary theory and criticism over the last several decades is obviously and often breathtakingly wrong. This is because all of the dominant "poststructuralist" approaches--Lacanian, Foucauldian, Marxist, radical feminist, deconstructionist, and others--are organized around an adamant core of social constructivist theory that is profoundly at odds both with Darwinian theory and with practical research in what Steven Pinker calls

"the new sciences of human nature." As Carroll writes:

"The poststructuralist explanation of things cannot be reconciled with the Darwinian paradigm.... It operates on principles that are wholly different and fundamentally incompatible with those of evolutionary theory. It should consequently be rejected. Let me face squarely the historical and institutional implications of this rejection. *If I am basically right in my contentions, a very large proportion of the work in critical theory that has been done in the last twenty years will prove to be not merely obsolete but essentially void. It cannot be regarded as an earlier phase of a developing discipline, with all the honor due to antecedents and ancestors. It is essentially a wrong turn, a dead end, a misconceived enterprise, a repository of delusions and wasted efforts*" [italics mine] (p. 25).

Carroll's argument is really quite simple. All literary criticism and theory is ultimately based on theories of human nature (even the theory that there is no such thing as human nature *is* a theory of human nature). Literary scholarship constructed on unsound theoretical foundations--on essentially faulty premises about human tendencies and potential--must itself be unsound, no matter how internally self-consistent. Which idea more successfully describes the source of *Oedipus Rex*'s enduring power--that Sophocles cannily manipulates secret incestuous desires or that he plays upon our evolved revulsion for incest? Which idea is more likely to serve as a successful starting point for exploring sexual and gender dynamics in literature--that sexuality and gender are arbitrary social constructions forced on us by patriarchs and capitalists or that they are co-determined by genetic as well as socio-cultural influences?

As the above excerpt suggests, Carroll is a scrapper who writes cruelly-honed polemic. But the writings that comprise Literary Darwinism are not mere violence against the soft target of contemporary literary theory and criticism. What distinguishes Carroll (see also Evolution and Literary Theory 1995) from some other writers who have ably exposed the failures and fatuities of poststructuralism, is that after bombing the poststructuralist edifice to dust, Carroll is able to offer the shell-shocked literary scholar a clearly superior alternative. The chapters of Literary Darwinism articulate Carroll's vision of a foundation-up reorganization of literary studies along Darwinian lines. In place of the sophistry of the poststructuralists, the political advocacy of the Marxists and radical feminists, the equivocations and knotted circumlocutions of the deconstructionists, the defunct psychology of Freud and his epigones, and the laxities of purely unquantitative methodology, Carroll describes a Darwinian literary study where judgments about literary plots, characters, and themes are rooted in the bedrock of evolutionary theory, are disciplined by the findings of scientific research, and, when possible, are tested using scientific methods. (If anything Carroll's advocacy for quantitative methodology is more radical in the world of literary studies than his advocacy for Darwinian theory--see Part I, Chapter 3, "Theory, anti-theory, and empirical criticism.")

The big question, as Carroll himself recognizes, is whether literary scholars will embrace the opportunity offered in Darwinism or whether they will continue to scorn it--whether literary studies as a discipline will collaborate in the large Darwinian project or whether it will continue down the road to total irrelevance in the progressive study of humans and their products. On this question, the jury is out. Darwinism has not taken literary studies (or the humanities generally) by storm, but Carroll's survey of a now substantial

corpus of work in Darwinian literary study gives cause for cautious optimism (see introduction, *xv-xvii*). My own feeling, to loosely paraphrase Max Planck, is that Darwinism will eventually win out, but that constructivist inertia is so strong that it may only happen gradually, death by tenured death.

But Literary Darwinism is not limited to narrow questions concerning the academic study of literature. On the contrary, Carroll is as competent and sophisticated an evolutionist as he is a literary scholar, and his sixteen chapters (mostly previously published material that has been featured in journals as various as Evolution and Human Behavior, Human Nature, Philosophy and Literature, and the Times Literary Supplement) reflect his dual track mind. In addition to punishing attacks on the postmodern literary establishment (e.g., Part I, Chapter 2, "Biology and poststructuralism"), sweeping efforts to lay foundation stones for a systematic Darwinian theory of literature (e.g., Part II, Chapter 1, "The deep structure of literary representations" and Chapter 6, "Human nature and literary meaning"), and practical examples of what Darwinian literary criticism and evaluation look like (e.g., Part II, Chapter 3, "Human universals and literary meaning" and Chapter 5, "Adaptationist criteria of literary value"), Carroll enters debates that have been increasingly prominent in the world of behavioral biology. Specifically, several chapters address different pieces of the evolutionary puzzle of the human proclivity for art. In an ancestral environment characterized by intense struggle for survival and reproduction, how could the evolutionary process "allow" any animal to spend (waste?) so much time producing, elaborating and consuming art--time that could be spent pursuing mates and other quarry? This puzzle--akin in some ways to the puzzle of altruism (how does one account for behavior

that produces such ostensibly unfavorable cost-benefit ratios?)—has recently attracted many prominent evolutionists who have argued either that art making/consumption is an adaptive product of natural selection (e.g., E. O. Wilson 1998, Tooby and Cosmides 2001), an adaptive product of sexual selection (Miller 2000), or that it is a non-adaptive by-product (e.g., Pinker 1997; Buss 1999, 407-410).

In short, Carroll takes the side of the adaptationists, favoring E. O. Wilson's argument in Consilience that "the arts are means by which we cultivate and regulate the complex cognitive machinery on which our more highly developed functions depend" (p.65; see also "Introduction," Part I, Chapter 6, "Pinker, Dickens, and the functions of literature," and Chapter 7, "Wilson's Consilience and literary study"). He reserves his severest criticism for Geoffrey Miller's sexual selection hypothesis, calling it "almost comically far fetched" (p. xx) and "provocative but ultimately frivolous" (p. xi).

My major disappointment with Carroll's treatment of this subject – and this criticism applies equally to the other contributors to this literature – is that he proposes no means by which his adaptive scenario could, even in principle, be subjected to scientific falsification. We have now arrived at a point where we have a multitude of plausible and clearly defined competing hypotheses; those who ponder the adaptive significance of art should now put rhetorical duels aside and start generating predictions and conducting tests. Doing so will not be easy given the nature of the problem and the complexity of the evidence, but until this happens we will only be mongering just so stories.

Also of interest for evolutionists will be Carroll's criticism of prominent biographies of Darwin (Part III, Chapter 1, "The origin of Charles Darwin"—Carroll is a scholar of the

life and work of Darwin who has recently produced a critical edition of *On the origin of species*, 2003), his critique of "orthodox" evolutionary psychology (Part II, Chapter 6, "Human nature and literary meaning," pp.190-206), his discussion of literary universals (Part II, Chapter 2), and his singularly comprehensive and devastating analysis of Stephen Jay Gould's crusade against sociobiology, evolutionary psychology, and the whole modern synthesis (Part III, Chapter 2, "Modern Darwinism and the pseudo-revolutions of Stephen Jay Gould"). In this essay, Carroll draws a shrewd parallel between the charlatanism of poststructuralist literary scholars and that of Gould and Lewontin, but he considers the latter to be more dishonest: "Gould and Lewontin use the techniques of sophisticated equivocation in a virtuoso way, but they do not [like the poststructuralists] overtly and forthrightly declare that their purpose is to suspend the capacity for rational thought" (p.240).

In sum, Literary Darwinism is not only about preaching the Darwinian gospel to literary scholars. Rather, like Consilience, Carroll's book emphasizes that evolutionists have as much to gain from the study of literature as literary scholars have to gain from the study of evolution. As described above, the human propensity for art making and consumption represents an important evolutionary puzzle. Moreover, literature represents an inexhaustible, vastly underutilized, and cross-cultural reservoir of data about human behavior and psychology that can be used for quantitative and qualitative tests of evolutionary hypotheses (pp.145, 216). For instance, evolutionary hypotheses about sex differences have been tested through quantitative content analyses of folk tales from diverse band and tribal societies (e.g., Gottschall, 2004a; 2004b), and Donald Symons and his collaborators have often turned to erotica as a rich source of information about

human sexuality. Evolutionists who take the concept of consilience seriously will be interested in Literary Darwinism, which represents one of the most serious and sustained attempts to establish consilience between the humanities and behavioral biology — and to plumb its implications.

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Freedom Naturalized

A review of *Freedom Evolves* by Daniel C. Dennett. Penguin Books, 80 Strand, London WC2R 0RL, England, 2003, 347pp. ISBN 0 14 20.0384 0 [pbk, \$17.00]

Reviewed by **Stuart Silvers**, Dept. of Philosophy, 126d Hardin Hall, Clemson University, Clemson, SC 29634. [E-mail: sstuart@clemson.edu]

This book is Dennett's second major foray into the murky metaphysical morass of enigmas that constitute the philosophical problem of (human) freedom and causal determinism. His first, *Elbow Room: The Varieties of Free Will Worth Wanting* (1984) was an analysis of how, from the evolutionary biological point of view of humans as complex machines, subject to the laws of nature, there can be and is sufficient room for us to maneuver to satisfy any and all concepts of freedom, worth wanting. In *Freedom Evolves* (2003) he develops in detail his case for the compatibility of free human action and causation. The details in question are drawn quite liberally from his two most important books, *Consciousness Explained* (1991) and *Darwin's Dangerous Idea: Evolution*

and the meanings of life (1995), which were selected by the *New York Times* as among the ten best science books of their respective years. In this sense then, *Freedom Evolves* is something of a synthesis of Dennett's naturalistic philosophy. Here he weaves the multifarious strands of arguments he elaborated in those two major works into a tapestry depicting a staggeringly complex Darwinian world. This world operates wholly within the constraints of physical laws, and it turns out to be a world in which one kind of creature, uniquely we humans, acquired through natural selection the capabilities comprising agency. Dennett here clarifies some of the arguments, especially on consciousness, that he developed in those earlier works and that have proven contentious and, he believes, not well understood. The result is prototypically Dennett: bold, brash, clear, clever, and with the panache that we've come to expect. Most important, it is enlightening.

Naturalism in philosophy is the view that all phenomena can be accounted for compatibly with the laws of nature, that is, all events can be explained in terms of the causal properties and relations of physical objects. Naturalism then brooks no *extra-* or *supernatural* phenomena. Human freedom (or agency), along with consciousness and intentionality, challenges naturalism's explanatory power by seeming to defy explanation in terms of causal properties and relations. William James famously despaired of explaining free will naturalistically. The problem is that if, contrary to Western philosophical tradition, we humans are as fully part of the natural causal order as everything else, then we too are subject to the inexorable operations of the laws of nature. Although we seem to be the causal locus of our actions, each of us is the causal product of events over which we have no control, namely our individual genetic inheritance and external environmental history. To think that we do have such control

requires the impossibility of having pre-existed ourselves. We cannot choose the genetic structures with which we are born nor can we select our pre-natal and early environment. Insofar as these factors do figure causally in our make-up, our actions that flow from it are thus part of this causal chain and so we are neither causally nor therefore morally responsible for them. Causal determinism is countered by the libertarian view that there is overwhelming evidence of free human action.

Dennett begins by delineating two sorts of environments. In addition to the physical atmosphere of our planet that evolved (and continues to evolve) over hundreds of millions of years, there is another environment, free will, having an "atmosphere of intentional action, planning, ...and blaming, resenting, punishing, and honoring." While this atmosphere "*appears* stable and a historical...it is not. It evolved as a recent product of human interactions" (p. 10). He develops a naturalistic account of how these two atmospheres are related that forestalls what he calls "the Specter of Creeping Exculpation." This is the idea that if, as naturalism claims, our behavior is the causal product of genetic and environmental forces, then in the intentional action atmosphere we are not causally responsible and thus not morally responsible for our actions. Dennett's long argument is designed to relieve the anxiety that Creeping Exculpation generates in the question: "Is science going to show us that nobody ever deserves punishment? Or praise, for that matter?" (p. 21)

Dennett is a master in the art of clarifying profound philosophical concepts by filtering out the errors, misconceptions, and distractions in both our ordinary and intellectually sophisticated intuitions of them. He uses Van Inwagen's (1983, p. 3) formulation of determinism "there is at any instant exactly one physically possible future"

to guide us through the maze of errors regarding this thesis. These errors have led thinkers to argue mistakenly that determinism entails inevitability and that it offers not real but only apparent options. Dennett defuses the arguments that determinism entails the inexorability of human behavior and that the conception of our space of choices is illusory. He critically examines in detail the libertarian view that indeterminism provides some freedom (elbow room) for agents. He devotes a chapter to each of these. The case for *evitability* in a deterministic world is based on the British mathematician John Horton Conway's toy model of determinism, Game of Life and rehearses the discussions in *Darwin's Dangerous Idea* and *Consciousness Explained*. Dennett offers a detailed discussion of how from a "world" consisting of a "two-dimensional grid of pixels, each of which can be ON or OFF" (p. 36), one gets replication and avoidance behaviors from the pixel world's level of simple physical, deterministic mechanisms to ingeniously complex design levels. How complex a design? Conway and his students "were able to prove that there are *Life* worlds—they sketched one of them—within which there is a Universal Turing Machine, a two-dimensional computer that in principle can compute any computable function." (p. 46). Having now shown the way appearance of ingenious design can be generated from simple deterministic resources, Dennett illustrates how it took evolution billions of years for the simplest life forms to "work out the best designs for the basic processes of replication." (p. 51)

In articulating determinism, Dennett exploits the thought experiment device of possible worlds to untangle the knot of confusions about causation and real options available to denizens of deterministic worlds. Along the way we are treated to lively and provocative discussions of how in a deterministic world there can be events without causes and why

determinism implies nothing about the ineluctability of human nature.

The fundamental intuition of both so-called *hard* determinism and libertarianism or indeterminism is that if determinism is true, then we don't have free will: Both views claim that determinism and freedom are incompatible. The libertarian argues that since we do have freedom, determinism is false and thus we get indeterminism. Robert Kane's (1996) *The Significance of Free Will* provides what Dennett considers the best attempt at a positive account of indeterminism, and Dennett devotes the longest chapter of his book to it. While Kane's libertarian view discloses many important insights into the nature of freedom, these are, Dennett claims, independent of the question of the truth of indeterminism. He argues that Kane's view succumbs to a Cartesian-like seduction of needing something internal to an agent for its choices to be "up to," i.e., to needing an internal bearer of responsibility where the causal buck stops. Kane's "Ultimate Responsibility requirement...burden(s) the *specs* of a free agent with conditions that are both unmotivated and undetectable." (p. 135) The failure of the libertarian idea of Ultimate Responsibility lies in its having to postulate some *device* internal to the agent to rationalize ascriptions of responsibility. Such postulates are unmotivated for we can explain an agent's actions naturalistically, i.e., without the burden of such mysterious devices. They are undetectable empirically and postulating them is *ad hoc* and begs the question against the naturalist's account of free agency.

With the way now cleared of the confusions about causation and determinism and the seductions of libertarianism, Dennett develops his argument for the evolution of human freedom. He retraces much of the account in his *Darwin's Dangerous Idea [DDI]*. While this might disappoint some, I believe that it's a welcome and healthy exercise. Not everyone

has read *DDI*, and, moreover, the argumentation for how Darwinian mechanisms of variation and selection can explain universal features of human culture is well worth re-visiting. Dennett's exposition of the operation of the Prisoner's Dilemma in mediating the evolutionary arms race could (should?) be a primer for everyone.

Human freedom evolves in a Darwinian world like everything else, by way of successful reproduction. The lancet fluke is a parasitic worm that reproduces in the intestines of cows and sheep. How do they get there? By a cosmic contingency (a fluke, Dennett reminds us) the fluke invades an ant's brain, causing the hapless ant to climb grass stalks, where there are good prospects of getting eaten by a ruminant. Correspondingly, Dennett elaborates the controversial concept of the *meme*, Dawkins' (1976) cultural analog of his *selfish gene*; they are information-based parasites that infect human brains. To explain how, via evolutionary strategies, we get from a "meme's-eye perspective" (p. 178) to a morally equipped species of rationally self-interested and genuinely altruistic agents, Dennett offers a detailed excursion into evolutionary game-theoretic models to answer the question of *cui bono* (who benefits). The picture that emerges seems at odds with the traditional view of ourselves as conscious egos, deciding our actions from within. To dispel the apparent conflict, Dennett offers a lengthy, *corrected* re-interpretation of Benjamin Libet's well-known Readiness Potential experiments that he treated in detail in several earlier works. The freedom of decision that is presupposed by the idea of moral responsibility is realized in a concept of self that is spatio-temporally distributed in human brains and disavows the idea of some wholly internal, private, homuncular agency. Here Dennett continues to dismantle the Cartesian myth of the miraculous immaterial "I" residing in our *theaters of consciousness*.

In his discussion of *memetic engineering* or meme selection, Dennett guides us through stages of cultural evolution that, because of our unique language capacity and despite our manifestly imperfect rationality, set us apart as creatures with agency and the potential for moral responsibility.

Having set out the framework for a naturalized free will, Dennett concludes with a discussion of how, within such a context, one deals with (and resolves) questions of moral responsibility. At issue are the kinds of problems confronting only human agents. The real problems of human freedom are not, as tradition has it, metaphysical but social and political. They derive from the real problems of how to accommodate and adjust to the growing scientific knowledge of ourselves that threatens to erode our sense of moral responsibility. This is the problem of *creeping exculpation*. Not surprisingly, and I think, wisely, the solution Dennett recommends is to adopt an evolutionist's perspective.

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ANNOUNCEMENTS

Linda Mealey Award for Young Investigators

The International Society for Human Ethology has officially established a fund to maintain the **Linda Mealey Award for Young Investigators** in perpetuity. The Society wished to honor Linda, a past president and chief book review editor, for her tireless work for the Society, her outstanding scholarship, and her devoted mentoring of students. The Society seeded the fund with \$40,000 and Linda's father, George Mealey, matched that amount. The award will go to outstanding researchers at the graduate school level in Linda's field, human ethology.

In the past, the equivalent award, the Young Investigator Award, went to one or more young researchers at each biennial congress, who received a nominal sum. With the new, well-endowed fund, ISHE will be able to provide appreciable funds for winners. Fund earnings over the two year period between conventions should cover most of the recipients' travel expenses to the subsequent congress, and an additional cash award may also be possible. To make the award even more substantial and thereby further encourage and reward researchers in human ethology, ISHE is hereby soliciting additional contributions to the fund. Mr. Mealey has kindly offered to match additional contributions by individuals, dollar for dollar, up to \$10,000. Donations should be sent to our treasurer, Dori LeCroy (see back cover for her address and payment information), made out to ISHE but designated for the Linda Mealey Fund.

Note: The 2004 winners of the Linda Mealey Award were announced at the 17th biennial ISHE conference in Gent, and were listed in the minutes from the conference published in Vol. 19, #3 (2004) of the *Bulletin*.

JEAN-MARIE DELWART FOUNDATION

2005 Animal and Human Ethology Award

The Jean-Marie Delwart Foundation will award in 2005 a prize for an original work or series of works, individual or collective, realized in the joint perspectives of **Ethology and Cultural Anthropology**. The Prize of \$10,000 will be given to works written or translated in French or English, which should be sent by **15 April, 2005** to the following address:

Fondation Jean-Marie Delwart
A l'attn de Raphaëlle Holender
U.C.L. Bâtiment Pythagore
4, Place des Sciences (Bte 4)
B-1348 Louvain-la-Neuve
Belgique

Candidates can submit their own application or be presented by a specialist in the field or an academic institution. All applications should be accompanied by a letter of presentation, a detailed C.V., and a complete list of publications, in 4 copies. The candidate should include reprints, books and anything else he would consider relevant.

The Jury is composed of members of the scientific committee of the Jean-Marie Delwart Foundation and of members of the Académie Royale des Sciences de Belgique. The Prize will be awarded in **December 2005** at the occasion of the Public session of the Académie Royale des Sciences de Belgique.

info@fondationdelwart.org
<http://www.fondationjeanmariedelwart.org>

Upcoming Conferences:

13th biennial International Conference on Perception and Action (ICPA13)

Asilomar Conference Grounds, Monterey, California (U.S.A.)

5 - 10 July 2005

This conference will provide an opportunity for researchers from multidisciplinary backgrounds to discuss issues broadly related to information-based perception and action. Topics typically presented and discussed at ICPA include perception, visual, auditory, and haptic information, action and coordination, dynamical systems modeling, event perception, affordances, infant

perception and action, social coordination and affordances, speech/language perception and production, human and animal cognition, neurodynamics, human factors and tool use, robotics, physical biology and psychology, intentionality and issues in philosophy of mind. Prospective authors and symposium organizers are invited to submit abstracts and symposia proposals following the guidelines posted on the ICPA13 website (<http://www.psych.ucr.edu/ICPA13/index.html>)

Measuring Behavior 2005

5th International Conference on Methods and Techniques in Behavioral Research

Wageningen, The Netherlands

30 August - 2 September 2005

An interdisciplinary event for scientists and practitioners concerned with human or animal behavior. Presentations deal with methods and techniques in behavioral research, with special emphasis on the methodological aspects.

Conference website: www.noldus.com/mb2005

18th biennial conference of the International Society for Human Ethology

Wayne State University in Detroit, Michigan (U.S.A.)

Tentative dates are **30 July - 3 or 4 August 2006**

New dues/subscription policy

Thanks to the financial consequences of the generous bequest of former member Owen Aldis, ISHE has lowered its membership dues. The new rates are printed on the membership application included in this issue.

Election Results

Congratulations to **Astrid Jüette** and **Frank Salter** who have been re-elected to the positions of **Membership Chair** and **Secretary**, respectively. Full contact information for each officer is available in the Editorial Staff box located on the back cover of this issue.

ISHE Board of Officers Election Notice

All current ISHE members are encouraged to vote for **one** person for the position of **Information Officer**. Any current ISHE member is eligible to serve and write-in votes will be accepted.

Voting: Ballots may be submitted by e-mail or postal mail to ISHE Secretary Frank Salter (see Editorial Staff box for addresses).

Deadline: 24 February, 2005

Nominee: Elisabeth Oberzaucher: Ludwig-Boltzmann-Institute for Urban Ethology (Vienna, Austria).

Brief bio: Educated as a zoologist and anthropologist, Elisabeth (Lisa) did her Masters and Ph.D. Theses in the field of Human Ethology. Since 2003 she has been a scientist and lecturer at the LBI for Urban Ethology/ Vienna and the University of Vienna. Her scientific interests are mainly in the area of social networks and urban ethology (Environmental Psychology).

NEW BOOKS

Any qualified individual interested in writing a review of one of the following books, or any other recent and relevant book, should contact one of the Book Review Editors.

Publishers, authors, and others may call attention to recently published or forthcoming books by contacting the Chief Book Review Editor.

Cronk, L. (2004). From Mukogodo to Maasai: Ethnicity and cultural change in Kenya. Westview Press, 172pp. ISBN 0-8133-4094-2.

Friend, T. (2004). Animal Talk: Breaking the codes of animal language. Free Press, 288pp. ISBN: 0743201574

Rottman, J. (2004). Fiscal Disobedience: An anthropology of economic regulation in central Africa. Princeton Univ. Press, 216pp. ISBN 0-691-11870-1.

Roughgarden, J. (2004). Evolution's Rainbow: Diversity, gender, and sexuality in nature and people. University of California Press, 472pp. ISBN: 0520240731

Smith, J. M., & Harper, D. (2003). Animal Signals. Oxford Univ. Press, 208pp. ISBN: 0-198526857.

Watters, E. (2003). Urban Tribes: A generation redefines friendship, family, and commitment. Bloomsbury, 272pp. ISBN: 1582342644

Wynne, C. D. L. (2004). Do Animals Think? Princeton University Press. 288pp. ISBN: 0691113114

For a list of books (in all European languages) on human ethology, sociobiology, evolutionary psychology, Darwinian psychiatry, biopolitics, hominid evolution and related disciplines visit:

<http://rint.rechten.rug.nl/rth/ess/books1.htm>

CURRENT LITERATURE

Compiled by Johan van der Dennen

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