

KINSEY *Today*

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A new website space donated by Livebooks.com.

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IU's Themester on "Evolution, Diversity and Change" features KI research, a new art exhibit and a lecture by a featured artist.



The mission of The Kinsey Institute is to promote interdisciplinary research and scholarship in the fields of human sexuality, gender, and reproduction. The Institute was founded in 1947 by renowned sex researcher Alfred Kinsey. Today, the Institute has two components, an Indiana University research institute and a not-for-profit corporation, which owns and manages the Institute's research data and archives, collections, and databases.

Summer Research Update

Understanding Compulsive and Risky Sexual Behavior

Sexual compulsivity (also known as 'sex addiction') has been associated with increased risk for HIV and STI transmission, yet little is known about its origins, or about the factors that impact an individual's ability to control it. A new research project is investigating the role of learning processes in the development of compulsive patterns and of alcohol as both a trigger for sexual compulsivity and a facilitator of sexual risk taking.



At left (L to R): KI Scientist Dr. Erick Janssen with co-investigator Dr. Heather Hoffmann of Knox College, and Research Assistant Molly Wilson. Not pictured, David Goodrich.

"Other studies have shown the link between sexual compulsivity and an increased risk for transmission of HIV/AIDS and other infections, yet little is known about compulsivity or the factors that affect an individual's ability to control it," says Dr. Heather Hoffmann, affiliated researcher at The Kinsey Institute and Professor of Psychology at Knox College. "This study will be the first to look at the interaction of sexual compulsivity, learning processes and alcohol consumption, and their impact on self-regulation." Dr. Hoffmann and Dr. Erick Janssen are principal investigators of the study.

The long-term goal of the research is to generate information for more effective intervention programs for sexual compulsion and risk-taking that would contribute to reducing the spread of HIV/AIDS.

Privacy-Enhanced Online Human Subjects Data Collection



Since Alfred Kinsey began asking people about their sexual lives, researchers at The Kinsey Institute have been acutely aware of the need to protect sensitive information. With the turn to online surveys and data collection, the issues of cybersecurity are critical ones for sex researchers.

At left: Dr. Raquel Hill, School of Informatics and Computing, Indiana University

The Institute is proud to partner with Dr. Raquel Hill in the School of Informatics and Computing at Indiana University to test a model for a privacy-enhancing online survey system. Drs. Janssen and Sanders at The Kinsey Institute will collaborate with Dr. Hill to design a state-of-the-art system for protecting data and identities so that research can move from a one-time survey to more contributory and longitudinal outlook on sexual lives.

Funding for this study comes from the Center for Applied Cybersecurity Research at Indiana University.

Possible Barriers to Correct Condom Use

Associate Scientist Erick Janssen, and Stephanie Sanders, associate director of The Kinsey Institute and professor in Gender Studies, are heading a two-year project addressing barriers heterosexual men may experience using male condoms.

Condoms have been shown to be effective in reducing the transmission of HIV and other sexually transmitted diseases during sex when used consistently and correctly, yet many individuals and couples start intercourse without a condom or take off a condom and resume intercourse without it. Men who are concerned about losing erections during condom application or during sexual activity may be reluctant to use condoms. For other men, condoms may reduce sensation and stimulation, also influencing their willingness and ability to use condoms.

Sanders and Janssen decided to investigate this issue after finding that men who reported erectile problems also reported more unprotected sexual activity.

"Erection and arousal problems can interfere with correct and consistent condom use," Sanders said. "This project will help us better understand the mechanisms involved and possible interventions to address these problems."

New Podcasts Highlight KI Research

You can listen to Dr. Erick Janssen discuss his research on the dual-control model of sexual arousal, and the effects of mood on sexual arousal on the Kinsey Institute website at: www.KinseyInstitute.org/services/KI_presents.html

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Hormones and Reproduction in the Bolivian Highlands

Scientist at Work: Virginia Vitzthum

Life is all about tradeoffs, judging prospective investments by their risks and rewards, and an Indiana University evolutionary anthropologist has shown this to be true at the very beginnings of life: When costs outweigh benefits, successful pregnancies are less likely to occur.

Virginia J. Vitzthum, a senior scientist at the Kinsey Institute for Research in Sex, Gender, and Reproduction, and professor in the IU College of Arts and Sciences' Department of Anthropology, has studied pregnancies which are lost early in gestation, within seven weeks after conception. Her research on rural Bolivian women shows that rates of such early pregnancy losses more than double during periods of intense farm labor and low food intake.

Vitzthum's research challenges the past belief that nearly all early pregnancy losses are caused by genetic defects in the embryo. Genetic defects wouldn't change with the seasons, so Vitzthum's findings show that environmental factors must also play a major role in early pregnancy losses.

"This finding applies to U.S. moms just as much as Bolivians, and it applies to psychosocial resources just as much as food supply," Vitzthum said. "As well as healthy food, pregnant women also need good working conditions and adequate social support from family, friends and workplace to keep their risks of early pregnancy losses low."

Vitzthum's research is the first to show seasonality of early pregnancy loss in a non-industrialized population, and the first to demonstrate a relationship between economic activities and early pregnancy loss, she reported in the paper, "Seasonal Modulation of Reproductive Effort During Early Pregnancy in Humans," published in the American Journal of Human Biology.

In a second paper, "Seasonal and Circadian Variation in Salivary Testosterone in Rural Bolivian Men," Vitzthum reports a similar relationship between reproductive fitness and external influences like environmental conditions.

"This paper also concerns the effects of limited resources, this time on male physiology," she said. "In the worst part of the year, late winter, testosterone levels are suppressed. This is particularly interesting because it had been thought that males were much less sensitive, if at all, to environmental conditions because they don't need a lot of energy for a pregnancy. The effects of poor resources on males appear to be more subtle but can still be important for their own health and well being."

At right. Kinsey Institute Senior Scientist, Dr. Virginia Vitzthum. Photo by Aaron Bernstein.

Vitzthum's work has long been at the crossroads of biology and culture, focusing on how human female reproductive functioning has evolved in response to different environmental conditions. "Until recently, it was assumed that women everywhere had similar reproductive biology. We now know that women vary tremendously, and these differences affect women's health."



"For example, high hormone levels increase the risk of breast cancer and other diseases. By studying the international patterns of hormone levels and how they relate to different environmental conditions," she said. "We hope to learn more about which women are at the greatest risks for these diseases." Doctors could then recommend extra monitoring or screening tests for those women, she added. In the mid-1990s while doing research at the Bolivian Institute for High Altitude Biology, Vitzthum found that Bolivian women, despite consuming about 25% less calories per day than the typical American woman eats, were able to conceive with lower hormone levels than were considered normal for American women. "This proved that the reproductive system has evolved to function adequately even in harsh conditions," she said. "Previously it had been thought that hormone levels this low would cause infertility."

Scientists have long wondered which parts of the diet influence hormone levels. To investigate this, Vitzthum is currently studying nomadic Mongolian herders, who have a total caloric intake similar to Bolivians, but a fat intake similar to Americans. Most recently Vitzthum spent a year at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, comparing hormone levels in women born in the former East and West Germany, where diet and activity patterns differed prior to reunification.

Hormones and Reproduction in the Bolivian Highlands (continued)

Vitzthum is presented an invited lecture, "Darwin's Legacy: An Evolutionary View of Reproduction." at the 2009 annual meeting of the International Academy of Sex Research in San Juan, Puerto Rico. She came to Indiana University in 2008 after earning a Ph.D. in Anthropology from the University of Michigan in 1986. "Understanding how human physiology has evolved to allow humans to reproduce in almost every environment has implications for the lives of families around the globe. Healthy families require adequate resources for parents and children. Evolutionary theory helps to explain the impact of living conditions on women's reproductive biology and health, and the trade-offs faced by all living organisms."

Reprinted from IU Discoveries, Indiana University, August, 2009.

Vitzthum, V. J., Thornburg, J., and Spielvogel, H. (2009). Seasonal Modulation of Reproductive Effort During Early Pregnancy in Humans. *American Journal of Human Biology*. DOI: 10.1002/ajhb.20936. Online version available at Wiley Interscience website.

Vitzthum, V. J., Worthman, C. M., Beall, C.M., Thornburg, J., Vargas, E., Villena, M., Soria, R., Caceres, E. and Spielvogel, H. (2009). Seasonal and Circadian Variation in Salivary Testosterone in Rural Bolivian Men. *American Journal of Human Biology*. DOI: 10.1002/ajhb.20927. Online version available at Wiley Interscience website.

Vitzthum, V.J. (2008). Evolutionary models of women's reproductive functioning. *Annual Review of Anthropology*. 37: 53-73.

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MRI as a Tool for Uncovering Brain Responses to Stress and Sexual Imagery

A research team headed by KI Assistant Scientist Dr. Heather Rupp is studying the mechanisms behind postpartum depression, and the role of hormones in regulating this problem. Postpartum depression affects 10-15% of new mothers and can interfere with their ability to care for their babies and themselves.

Follow researchers as they conduct this MRI study to measure brain responses to imagery in women. The study includes three groups of women: those who have just given birth and are affected by postpartum depression, those who are not affected, and a control group of women who have not recently given birth.

Our volunteer, Danielle, had this comment about her experience:

"My biggest worry was drooling into a tube for the saliva sample. As it turned out, the drooling part was easy but the fMRI was a little scarier than I expected at first. Becky, the fMRI technician, warned me that it's scary for everyone, which helped - I was able to relax after just a few minutes. The process was not at all difficult and actually kind of fun. It was very cool to get pictures of my brain. I'd definitely participate in another one of these studies!"

A slideshow tour of Dr. Rupp's lab is available on the Kinsey Institute website at:

www.KinseyInstitute.org/newsletter/smr2009/rupp2.html

Recent Selected Publications by Kinsey Institute Scientists

It's been a busy research season at The Kinsey Institute. In addition to the studies we have highlighted in this issue of *Kinsey Today*, we'd also like to alert you to selected publications.

Because it Feels Good: A Woman's Guide to Sexual Pleasure and Satisfaction **Debby Herbenick, Ph.D.**

Kinsey Confidential sex educator and co-Director of the Center for Sexual Health Promotion at Indiana University, Dr. Debby Hebenick has been helping people find the language to talk about sex, answering questions, and generally helping people feel good about themselves, while educating on sexual health.

Her new book is inspired by the readers, who over the years have benefitted from Debby's research-based information, her openness and emphasis on communication, and her own desire for people to feel good in their sexual lives and relationships. Besides the podcasts and columns on KinseyConfidential.org, Dr. Herbenick is a regular contributor to *Time Out Chicago*, *Men's Health*, *PsychologyToday.com*, and her own blog, *MySexProfessor.com*

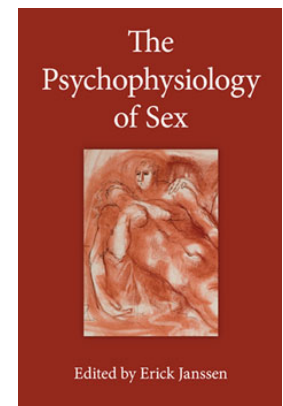


Dr. Debby Herbenick

The Psychophysiology of Sex **Erick Janssen, Ph.D., Editor**

Erick Janssen's *The Psychophysiology of Sex* was reviewed by John Delamater in the *Journal of Sex Research* earlier this year. Dr. Delamater described the collection of articles, originally presented at a scientific workshop at The Kinsey Institute: ". emphasizes the multi-disciplinary nature of research on the psychophysiology of sex, and assembles many of the 'best and the brightest' scholars in the field.a valuable reading for researchers and others seeking a broad understanding of the nature of human sexual expression."

In the journal *Sex Roles*, Rellini and Dundon also commend the book for re-creating the atmosphere of the workshop, with exchanges and critiques among the participants, and for the accessible language that makes the book suitable even for undergraduate students. They call for an update to incorporate more recent research from the past 2-3 years.



DeLamater, J. (2009). "What's the Body Got To Do With It?: A Review of: 'The Psychophysiology of Sex. Edited by Erick Janssen.'" *Journal of Sex Research*, 2009(4): 375-376.

Rellini, A. H. & Dundon, C.M. (2009). "The Psychophysiology of Sex: Finally a Book on Psychophysiology for the Sex Researcher." *Sex Roles: A Journal of Research*. DOI 10.1007/s11199-009-9650-4.

Recent Selected Publications by Kinsey Institute Scientists, continued

Selected scientific articles from Kinsey Institute researchers

- Bancroft, John, Graham, Cynthia A., Janssen, Erick, Sanders, Stephanie A. (2009). The Dual Control Model: Current Status and Future Directions. *Journal of Sex Research*, 46 (2 & 3): 121-142.
- George, W.H., Davis, K. C., Norris, J., Heiman, J. R., Stoner, S. A., Schacht, R., Hendershot, C. S., & Kajumulo, K. (2009). Indirect effects of acute alcohol intoxication on sexual risk-taking: The roles of subjective and physiological sexual arousal. *Archives of Sexual Behavior*, 38, 498-513.
- Herbenick, D., Reece, M., Sanders, S.A., Dodge, B., Ghassemi, A., & Forgenberry, J.D. (2009). Prevalence and characteristics of vibrator use by women in the United States: Results from a nationally representative study. *Journal of Sexual Medicine*, 6:1857-1866.
- Higgins, J.A., Tanner, A.E., and Janssen, E. (2009). Arousal Loss Related to Safer Sex and Risk of Pregnancy: Implications for Women's and Men's Sexual Health. *Perspectives on Sexual and Reproductive Health*, 41(3):150-156.
- Janssen, E., Goodrich, D., Petrocelli, J., & Bancroft, J. (2009). Psychophysiological response patterns and risky sexual behavior in heterosexual and homosexual men. *Archives of Sexual Behavior*, 38, 538-550.
- Koppel, J., Bradshaw, H. B., Goldberg, T.E., Khalili, H., Marambaud, P., Walker, J.M., Pazos, M., Gordon, M.L., Christen, E. and Davies, P. Endocannabinoids in Alzheimer's disease and their impact on normative cognitive performance: A case-control and cohort study. *Lipids in Health and Disease*, 2009 Jan 14;8:2.
- Peterson, Z., Janssen, E., & Heiman, J. (2009). The association between sexual aggression and HIV risk behavior in heterosexual men. *Journal of Interpersonal Violence*. DOI:10.1177/0886260509334414
- Reece, M., Herbenick, D., Sanders, S.A., Dodge, B., Ghassemi, A., & Fortenberry, J.D. (2009). Prevalence and characteristics of vibrator use by men in the United States. *Journal of Sexual Medicine*, 6:1867-1874.
- Rupp, H.A., Librach, G.R., Feipel, N.C., Ketterson, E.D., Sengelaub, D.R., and Heiman, J.R. (2009). Partner Status Influences Women's Interest in the Opposite-Sex. *Human Nature*, DOI: 10.1007/s12110-009-9056-6.
- Rupp, H.A., James, T.W., Ketterson, E.D., Sengelaub, D.R., Janssen, E. & Heiman, J.R. (2009.) Women's neural activation in response to masculinized versus feminized male faces: mediation by hormones and psychosexual factors. *Evolution and Human Behavior*, 30 (1):1-10.
- Rupp, H. A., James, T.W., Ketterson, E.D., Sengelaub, D.R., Janssen, E., & Heiman, J. R. (2009). Neural Activation in the Orbitofrontal Cortex in Response to Male Faces Increases During the Follicular Phase. *Hormones and Behavior*, 56, 66-72.
- Sanders, S.A., Milhausen, R.R., Crosby, R.A., Graham, C.A., & Yarber, W.L. (2009) Do phosphodiesterase type 5 inhibitors protect against condom-associated erection loss and condom slippage? *Journal of Sexual Medicine*, 6(5):1451-1456.

Vitzthum, V. J., Thornburg, J., and Spielvogel, H. (2009). Seasonal Modulation of Reproductive Effort During Early Pregnancy in Humans. *American Journal of Human Biology*. DOI: 10.1002/ajhb.20936. Online version available at Wiley Interscience website.

Vitzthum, V. J., Worthman, C. M., Beall, C.M., Thornburg, J., Vargas, E., Villena, M., Soria, R., Caceres, E. and Spielvogel, H. (2009). Seasonal and Circadian Variation in Salivary Testosterone in Rural Bolivian Men. *American Journal of Human Biology*. DOI: 10.1002/ajhb.20927. Online version available at Wiley Interscience website.

These and other new publications may be available in pdf form on our website.



IASR Brief

Congratulations to **Dr. Cynthia Graham**, Research Fellow at The Kinsey Institute, and to **Dr. Erick Janssen**, Associate Scientist, who were elected President and President-Elect of the International Academy of Sex Research at the 35th annual meeting, held in August, 2009 in San Juan, Puerto Rico.

Virginia Vitzthum, Kinsey Institute Senior Scientist and Professor of Anthropology at Indiana University, gave the invited opening address, "Darwin's legacy: An evolutionary view of reproduction." According to Dr. Ken Zucker, Editor of *Archives of Sexual Behavior*, Dr. Vitzthum's talk was 'terrific, with "extremely interesting data." You can read more about Dr. Vitzthum's research in this issue.

Opening Night at the 2009 Juried Art Show

The 2009 Kinsey Institute Juried Art Show opened on Friday May 29th, attended by a large audience in the School of Fine Arts (SoFA) Gallery. Enjoy the images of artists, show submissions, and Kinsey Institute staff and guests in our slideshow below.

At right: Impression, by Jennifer Ray of Chicago, Illinois, was awarded "Best in Show" at the 2009 Juried Art Show.

Two awards were presented at the opening reception. Best-in-Show was awarded to Jennifer Ray of Chicago for her photograph titled *Impression*, shown at right



Attendees to the reception voted on the People's Choice Award, which was awarded to two works: *Woman* (2008), a photograph by Alan Jordan, and *The 12 Tribes (aka: Phallism)* (2008-09), a three-dimensional work in glass by Jeff Rothenberg. You can see images of these works and learn more about the artists on the Kinsey Institute website.

A slideshow of photos from the Juried Show Opening is available on the online version of this article at <http://www.kinseyinstitute.org/newsletter/smr2009/JASreception09.html>.

Introducing a New Website for the Kinsey Institute Gallery

Have you noticed our new Gallery?

There's a seamless transition to KinseyInstituteGallery.com, where you can view past exhibits and learn more about the KI Gallery.

We are fortunate that the good folks at **Livebooks** have donated an elegant site for us to use to display artwork, documenting exhibits and focusing on the visual treasures at The Kinsey Institute.

Many thanks to Andy Patrick, Board member of The Kinsey Institute and CEO of Livebooks, for his generous contribution for showcasing the KI collections.

Watch for new online exhibitions in the coming months.



Tom Evert, from Herb Ascherman, *Infinitely Variable*, 2008

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