

PSYCHOLOGY 8935
READINGS IN BEHAVIORAL GENETICS AND INDIVIDUAL DIFFERENCES
PSYCHOLOGY (1 Credit S/N)

Spring, 2007
MONDAY, 12:00 – 1:00; N227 ELLIOTT HALL

The journal club in Individual Differences Psychology and Behavioral Genetics continues this Fall. The format for the journal club is relatively freewheeling and eclectic. Each week participants are expected to read 2-3 related articles and come prepared to discuss that article during the appointed hour. Nobody takes primary responsibility for leading the discussion; rather the expectation is that each participant will come prepared to discuss the readings for that week.

There are no prerequisites for enrolling in this seminar other than intellectual openness. In the past, the seminar has had participants from a broad array of backgrounds including Behavior Genetics, Social, Clinical, Industrial/Organizational Personality, Cognitive and Biological, and Counseling. All are welcome. Students who are interested should let Matt McGue know and **register for 1 credit S/N**. The seminar will begin on Monday September 11. The readings for the first and remaining meetings are given below. Readings are available in pdf format from the course website (if queried the account # is psy8935, the pw is behgen). **Note that we will begin discussing articles at our first meeting.**

Week #1 –January 22: Should we just give up and become social psychologists?

Comment: Over the years our group has followed the emerging research on stereotype threat with great interest. It is an important yet perplexing phenomenon. This week we will read and discuss the most recent round of research on stereotype threat. These articles are notable because they were published in *Science*, they purport to show how research on stereotype threat can be applied to boost academic achievement (Aronson, Fried, & Good, 2002; Cohen, Garcia, Apfel, & Master, 2006)}, and they show why ex-Harvard president Larry Summers was so wrong (Dar-Nimrod & Heine, 2006). The brief note by Wilson (2006) provides a compelling argument of why social psychologists are just smarter.

Week #2 – January 29: Genotype-Environment Interactions

Comment: This is one of our all-time favorite topics. McClearn (2006), one of the great thinkers in behavioral genetics, provides an interesting conceptual overview for what has come to be called gene-environment interplay. Hemminki et al. (2006), although writing about cancer, has a somewhat different take on the gene-environment interaction bandwagon.

Week #3 – February 5: Behavioral Genetics of Attachment

Comment: While the title for this week's readings may sound like a bit of an oxymoron, there is in fact a growing literature on one of developmental psychology's favorite variables – mother-infant attachment. Roisman & Fraley (2006) conclude that research on attachment underscores the limits of genetic influences on behavior. Fearon et al. (2006) also find little evidence for a genetic influence on attachment but nonetheless see research in this area as a challenge for standard theories on the role of attachment in infant behavior.

Week #4 – February 12: Finding Genes for IQ – Are We Making Progress?

Comment: This week we will hear from the two most prominent research groups searching for genes for IQ. There is no doubt – at least to us – that IQ is at least moderately and probably substantially heritable. Nonetheless, it has been difficult to find the underlying genes. The readings this week should not only inform us about progress in finding IQ genes, but also might provide a broader perspective on gene identification for behavioral phenotypes. Plomin et al. (2006) conclude that gene effects here might max out at .5% of the variance, which will make it very difficult to find the relevant genes. Alternatively, Posthuma & de Geus (2006) believe that we already have some good candidates.

Week #5 – February 19: Why do girls do so much better than boys, and does it help them anyway?

Comment: We have discussed before the existence of gender differences in academic achievement. Duckworth and Seligman (2006) think they have an explanation for the difference – girls just try harder. But at what cost? Taylor et al. (2005) report that having a high IQ increases a male's but reduces a female's chance of finding a life-long mate.

Week #6 – February 26: If girls are so smart how come they don't make more money than boys?

Comment: Continuing the theme from last week, we will look at explanations for the gender gap in pay, which seems especially paradoxical given the academic advantage that girls appear to enjoy. Mueller & Puig's (2006) explanation is that you have to be a little bit nasty to get ahead and girls are just too nice. Alternatively Browne (2006) believes the discrepancy reflects our evolutionary past, which I think disqualifies him from the presidency of Harvard.

Week #7 – March 5: Evolution

Comment: We at Minnesota might quibble over the predominance of the Big Five Model of personality, but Nettle (2006) shows that it has an evolutionary basis. In a much different article, Anderson (2006) addresses in a comprehensive empirical analysis a

question many men wonder about – What is the rate of cuckoldry in humans? I was surprised by their analysis since it appears that conventional wisdom may be misstating rates of cuckoldry.

Week #8 – March 12: SPRING (?) BREAK

Week #9 – March 19: Epigenesis

Comment: Okay we have to talk about it at least once each term, so what better time than after a refreshing break. Whitelaw & Whitelaw (2006) is an excellent theoretical discussion of the phenomenon, while Canli et al. (2006) provide an interesting empirical demonstration using the 5-HTTLPR, stress, and depression system.

Week #10 – March 26: Why are liberals and conservatives different?

Comment: We have read several articles on this topic, including Block & Block's interesting piece showing that conservatives were more likely than liberals to be whiners in the nursery. Jost (2006) argues that the study of ideology is something that psychologists are returning to, and with much success. Simonton (2006) provides an analysis of the IQs and personalities of US presidents, from Washington to George W. Bush. Warning: reading the latter may reveal that George Bush is intellectually more gifted than you are, so treat with caution.

Week 11 – April 2: No Meeting

Week 12 – April 9: How much of an advantage are rich parents?

Comment: This week we will read two adoption studies. Both US (Björklund, Lindahl, & Plug, 2006) and Swedish (Sacerdote, 2002) adoption studies suggest that there is a family of origin effect on educational attainment and income, but perhaps less of an effect on ability. In a series of Wall Street Journal editorials, Charles Murray (2007), of The Bell Curve fame, provides a somewhat different perspective on the role of education and ability in life success.

Week 13 – April 16: Methodology I

Comment: This week we will read two unrelated articles. Spencer et al. (2005) provide a critique of the widespread use of “mediational analyses” in psychology. Visscher et al. (2006) describe an assumption-free method for heritability estimation, of course it required typing several hundred genetic markers in a large sample of sibling pairs.

Week 14 – April 23 – Show me the money

Comment: Kathleen Vohs is a professor in the Carlson school and has written a very interesting Science article on the psychological significance of money (Vohs, Mead, & Goode, 2006). We will also read an interesting article by Westen et al. (2006) that helps

explain why some have irrational reactions to politicians like Bill or Hillary Clinton, and George W. Bush.

Week 15 – April 30 – Methodology II (Our last meeting of the year)

Comment: Landrigan et al. (2006) describes a study, The National Children's Study, that we should all be aware of. It is a massive (N=100,000) and long-term (21 years) effort to identify the environmental contributors to a range of health problems. The article by Braveman et al. (2005) was recommended to us by Tom Bouchard. It shows that measuring SES is just a lot more complicated than most of us appreciate.

FULL CITATIONS

- Anderson, K. G. (2006). How well does paternity confidence match actual paternity? Evidence from worldwide nonpaternity rates. *Current Anthropology*, 47(3), 513-520.
- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38(2), 113-125.
- Björklund, A., Lindahl, M., & Plug, E. (2006). The origins of intergenerational associations: Lessons from Swedish adoption data. *Quarterly Journal of Economics*, 121(3), 999-1028.
- Braveman, P. A., Cubbin, C., Egerter, S., Chideya, S., Marchi, K. S., Metzler, M., et al. (2005). Socioeconomic status in health research - One size does not fit all. *Jama-Journal of the American Medical Association*, 294(22), 2879-2888.
- Browne, K. R. (2006). Evolved sex differences and occupational segregation. *Journal of Organizational Behavior*, 27(2), 143-162.
- Canli, T., Qiu, M., Omura, K., Congdon, E., Haas, B. W., Amin, Z., et al. (2006). Neural correlates of epigenesis. *Proceedings of the National Academy of Sciences of the United States of America*, 103(43), 16033-16038.
- Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313(5791), 1307-1310.
- Dar-Nimrod, I., & Heine, S. J. (2006). Exposure to scientific theories affects women's math performance. *Science*, 314(5798), 435-435.
- Duckworth, A. L., & Seligman, M. E. P. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology*, 98(1), 198-208.
- Fearon, R. M. P., Van Ijzendoorn, M. H., Fonagy, P., Bakermans-Kranenburg, M. J., Schuengel, C., & Bokhorst, C. L. (2006). In search of shared and nonshared environmental factors in security of attachment: A behavior-genetic study of the association between sensitivity and attachment security. *Developmental Psychology*, 42(6), 1026-1040.

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- Jost, J. T. (2006). The end of the end of ideology. *American Psychologist*, 61(7), 651-670.
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- McClearn, G. E. (2006). Contextual genetics. *Trends in Genetics*, 22(6), 314-319.
- Mueller, G., & Plug, E. (2006). Estimating the effect of personality on male and female earnings. *Industrial & Labor Relations Review*, 60(1), 3-22.
- Murray, C. (2007). Intelligence in the classroom; What's wrong with vocational school; Aztecs vs. Greeks. *Wall Street Journal*, January 16, 17 & 18.
- Nettle, D. (2006). The evolution of personality variation in humans and other animals. *American Psychologist*, 61(6), 622-631.
- Plomin, R., Kennedy, J. K. J., & Craig, I. W. (2006). The quest for quantitative trait loci associated with intelligence. *Intelligence*, 34(6), 513-526.
- Posthuma, D., & de Geus, E. J. C. (2006). Progress in the molecular-genetic study of intelligence. *Current Directions in Psychological Science*, 15(4), 151-155.
- Roisman, G. I., & Fraley, R. C. (2006). The limits of genetic influence: A behavior-genetic analysis of infant-caregiver relationship quality and temperament. *Child Development*, 77(6), 1656-1667.
- Sacerdote, B. (2002). The nature and nurture of economic outcomes. *American Economic Review*, 92(2), 344-348.
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