

The 25th Adult Development Symposium
Society for Research in Adult Development
(Preconference meeting of the Society for Research on Adolescence)

Sofitel Hotel
Philadelphia, PA
March 9-10, 2010

Tuesday, March 9, 2010

9:00am-12:00pm	Registration Table Open
9:00am-10:00am	Welcome Remarks, SRAD Program Committee
10:00am-12:00pm	Session 1: Student Learning and Development
12:00pm-1:00pm	Lunch Break
1:00pm-3:00pm	Session 2: Development of Moral Reasoning, Wisdom, & Higher Thought
3:00pm-5:00pm	Session 3: Wellbeing in Middle and Older Adulthood
6:00-9:30pm	Workshop: The Model of Hierarchical Complexity: Scoring for Stage of Development, Creating New Problems & Dilemmas, and Analyzing Social Problems

Wednesday, March 10, 2010

9:00 - 10:00am	Registration Table Open
9:00am- 11:00am	Session 4: Measuring and Modeling Adult Development
11:00am- 12:00pm	Business Meeting:
12:00-2:00pm	Session 5: Contexts of Emerging Adulthood
2:00-	Meeting wrap up

Program

Tuesday, March 9th

Session 1: Student Learning and Development

Carol Y. Yoder Professor (Trinity University)

Comprehension and reasoning about belief-consistent and belief-inconsistent political commentary in a traditional college-aged sample

How well do college students reason and learn information inconsistent with their beliefs? In this series of four studies students determined which issues would be most effective for a hypothetical Senate candidate to include in a successful campaign. After assessing attitudes toward several topical issues (e.g., health care reform, immigration reform, stem cell funding), left- and right-slanted persuasive statements were presented in a random order, and comprehension of particular facts and perspectives related to these issues were assessed. We found that participants were better at reasoning when confronted with information contrary to their beliefs and that they learned belief-inconsistent information better than when learning information more consistent with their beliefs. However, this relationship was influenced by individual differences and age even in a traditional college-aged sample. The implications for dual process development theory, prefrontal cortical development, and real-world applications will be discussed.

Darlene E. Crone-Todd (Salem State College)

The Effect of Mastery-Based Contingencies on Undergraduate Progress in a Research Methods & Statistics

Typically, undergraduate students demonstrate high rates of anxiety or fear when taking courses involving statistics. Completion of work and mastery of the subject matter is hampered by low engagement on the part of students. In this 3-year study, students in three different sections were exposed to either (a) no contingencies, or (b) contingencies for completing work in an online mastery-based program. The results clearly suggest that when contingencies are in place which demand work be completed prior to test-taking, that students complete all of the work in the course, and learn more of the material. The implications of mastery-based learning for future research will be discussed.

Darlene E. Crone-Todd (Salem State College) and Joanna Gonsalves (Salem State College)

The use of the Model of Hierarchical Complexity in Scoring Senior-Level Undergraduate Writing Samples

The use of Bloom's taxonomy has been ubiquitously used in education at all levels. Recent developments in the assessment of higher-order thinking skills on the part of college students has spurred interest in using it at higher educational levels. Recent research indicates that parts of the taxonomy produce high inter-rater reliability, but that it suffers in other areas, perhaps due to no empirical basis for a hierarchy in the taxonomy. In the current study, assessment of students'

writing in senior-level Psychology courses is assessed using the Model of Hierarchical Complexity. Inter-rater reliability, as well as level at which students write at this level will be presented, and contrasted with previous research on the taxonomy.

Maria Sucupira Lins, (Universidade Federal Rio de Janeiro)

Adults' motivation and teachers' training curriculum

This study focuses on adults' motivation concerning Psychology of Development as a subject in teachers' training course curriculum. Theoretical foundation is Anatrella's hypothesis that adults are people up to 30 years because adolescence extends from 12 to 30 years. 32 students had class during a semester (60 hours). They had to read the same texts and had the same orientation. For the purpose of this study they were analyzed in two groups. 12 students in Group A: 30 to 49 years old students. 20 students in Group B: 18 to 29 years old students. It was observed that they preferred working in small groups inside their age groups. Group A showed greater interest and stronger motivation than Group B for all activities. At the end of the course data show in a scale 0-10 that the average score for group A was 7 and it was 5 for group B.

Alexandre Palma da Silva (Universidade Federal do Rio de Janeiro)

Perceptions on Adults

The purpose of this work is to situate within a context the singular nature of the educational universe in the penitentiary system, revealing a brief overview of the Brazilian case, and in particular that of the state of Rio de Janeiro. For this purpose there is another problem: how do inmate students and teachers perceive the educational system in a prison-school? To discuss this, and having State School Mario Quintana as a parameter, we must answer a question: what is the school community's view on adult education? The theoretical discussion was based on Paulo Freire, Moacir Gadotti and Jose Romão. These thinkers provided the basic subsidies for the drafting two qualitative questions. This methodological resource permitted two kinds of revealing analyses. In concluding, it is suggested that reality, participation and affectivity are three words inserted in the education of adults as carried out in the public schools located in penitentiaries.

Rebecca Givens Rolland (Harvard Graduate School of Education)

Finding the Through-line: Exploring the Impact of an Arts Organization on Adult Development

Although research has suggested that adult arts education can assist participants in fulfilling a range of personal and professional goals, little is known about the nature of organizations that provide such education most effectively. What instructional practices and institutional cultures affect students' ability to develop in new directions and deepen their commitment to the creative process? This portraiture study evaluates the supports provided by a non-profit creative writing organization, utilizing instructor and student interviews and participant observation to create a more complex picture of the institution as a whole. A particular focus is placed on goals and challenges of community-building, professional development, and financial management. In my evaluation, I conclude that non-hierarchical relationships between teachers and students and a

consistently "supportive but rigorous" atmosphere allow students the opportunity to take creative risks while maintaining respect for their own and others' differing experience levels and range of stylistic approaches.

Eduardo R. Santos (University of Coimbra)

Life after High School: Socio-cognitive, affective, and demographic predictors of Portuguese high school seniors' expectations to enter college or work

The purpose of the present study was to investigate the influence of socio-cognitive (career decision self-efficacy, vocational identity), affective (dispositional optimism), and demographic variables (age, gender, socio-economic status), in outcome expectations of transition pathways after high school: college; work; college and work. The sample includes 622 Portuguese high school seniors, 376 females and 246 males, ranging from 16 to 23 years old. Results of the logistic regression revealed that high scores in social-cognitive factors (career decision self-efficacy and vocational identity) are negatively associated to the expectation to enter the world of work, and positively associated to the success in making a transition to college. Socioeconomic status and vocational/technological training in high school are the major predictors of school-to-work transition. Age and dispositional optimism are the major predictors for students who anticipate to both study and work after finishing high school. Implications of the results for career counseling interventions will be addressed.

Garrett J. McAuliffe (Old Dominion University), Rebecca E. Michel (Old Dominion University), Margaret J. Jensen (Old Dominion University), Tim Grothaus (Old Dominion University)

Ethnocentrism challenged: A study of cultural de-centering using subject-object and moral development theory.

It is common for individuals to be ethnocentric, in fact it is universal in a pure sense. However, cognitive development theory poses the possibility of individuals being relatively culturally de-centered. Personal epistemology might predict the nature of one's relationship to culture. In this session, the presenters will share results of a qualitative study in which individuals who were largely conventional thinkers were compared with those who were largely post-conventional. The comparison involved differences in the outcome of an intentional cultural de-centering exercise and subsequent course. Kegan's subject-object theory was the basis for providing the "culture of contradiction" to individuals' cultural assumptions about gender, sexual orientation, religion, race, and social class. The researchers discovered differences between the two groups.

Session 2: Development of Moral Reasoning, Wisdom, and Higher Order Thought

Dorothy Danaher White (Psychsource, Inc.)

Lessons From History: A Historical Example of High Level Reasoning from a Medieval Knight

Lessons for modern leadership Although it is tempting to romanticize the past and to assume that knights were involved in simplistic exercises such as defending their own castles or laying siege

to others, a in depth analysis of history reveals that the knights of old had to modernize and develop systems of both military strategy/equipment as well as legal systems in order to succeed. The leaders and their knights who did not modernize, the Lancastrians, lost to those who did, the Yorkists. Overall, the pace of change in the Middle Ages and later the Renaissance might seem quite slow compared to our recent history, but the basic principles of leadership are the same.

Michael Lamport Commons (Harvard Medical School)

Criteria for scoring Paradigmatic Order and Stage 13

Scoring of performance has always been a great problem, especially at the highest stages. This is because to do so requires reflection upon the stage being scored. As Arlin points out, this requires a next stage action. Therefore, a lot of support is needed to do scoring at the highest stages. One way to increase accuracy in scoring in this instance is to make sure that the three Model of Hierarchical Complexity conditions for an action to constitute the next higher order are met. One needs to have the transition steps mapped out as well. This process will be illustrated with respect to scoring of the Paradigmatic Order. The Paradigmatic Order and Stage 13 integrates or discriminates how to fit metasystems together to form new paradigms: $\Omega_1 \circ \Omega_2 = \Psi$ a There are a number of steps. The first step is to determine whether there are at least two metasystems that are being referred to. Second, one should score each metasystem for transition steps. This will make clear how fully explicated each metasystem is. Third, one has to find what paradigmatic action coordinates the two metasystems.

James M Day (Universite catholique de Louvain), Michael Lambert Commons (Harvard Medical School) and Andrew Richardson (DARE Institute)

New Evidence for Postformal Stages in Moral Judgment and Religious Judgment Using the Model of Hierarchical Complexity: Stage, Structure, and Religious Belonging

This poster/paper presents data from recent research using standard measures of moral and religious reasoning, and questionnaires and analyses, including Rasch analyses, associated with the Model of Hierarchical Complexity, to demonstrate that it is possible to confirm the existence of postformal stages in moral and religious reasoning. Drawing on research with hundreds of subjects in Belgium, England, and the United States, we show how postformal reasoning can be measured in these domains, and explore correlations between patterns of moral and reasoning judgment levels and belonging to religious groups. The research is associated with the Louvain-Harvard Research Project in Cognitive Complexity, Moral Reasoning, and Religious Cognition.

Ulas Kaplan (James Madison University)

Moral Development and Moral Sense: A Possible Integration from a Motivational Perspective

This study explores one of the possible ways of integrating developmental and evolutionary perspectives in moral motivation. In this process Kohlberg's stages of moral development have been reconceptualized as structures of motivation, rather than explicit reasoning. Considered this way, stages of moral development are closer to evolutionary formulations of moral sense than traditionally presented. Although these two perspectives have usually been considered in

opposition, relating them on the basis of motivational structures could provide insights into the complexity of moral judgment. Recent empirical evidence from a Self-Determination Theory perspective is discussed as revealing the operation of multiple stages of moral motivation in a way that is compatible with evolutionary formulations.

Suzie Benack (Union College) and Thomas Swan (Siera College)

What can an understanding of adult moral development contribute to moral philosophy? The example of Gert

When Kohlberg wrote 'From Is to Ought' he was addressing the common assumption among moral philosophers that facts about how people make moral judgments could not be relevant to the rightness of the judgments. In the last two decades, however, moral philosophers have increasingly turned to empirical study of people.

Caroline Bassett (The Wisdom Institute)

Practical Wisdom: A Challenge to Conventional Wisdom

Wisdom, according to conventional wisdom, is abstract, elusive, and powerful. It's big. It's important. Only exceptionally developed people achieve wisdom. However, wisdom is available to many of us much of the time if we know how to look for it and use it. That's because, contrary to conventional wisdom, wisdom is quite accessible – and also useful in our daily lives. It is eminently practical. It's how we can get out of or through difficult interpersonal situations in ways that usually work. In this poster session I'll present my model of practical wisdom and its development with examples. I'll show some ways that we all can become more adept at accessing and using our wisdom. Wisdom may be developmental, complex, and not learned in ten easy steps. At the same time, small daily wisdom is around us all the time. We can – and should - take more advantage of it. Wisdom is for everyone.

Michael Lamport Commons (Harvard Medical School), Sara Nora Ross (Antioch University), and Jonas Gensaku Miller (University of California at Davis)

Why Postformal Stages of Development are not Formal, but Postformal

Kallio (1994), Marchand (2001, 2008) and Meyerhoff (2005) say postformal stage actions could still just be formal stage actions. Formal stage actions are characterized by empirical evidence and univariate linear logic (Commons, Trudeau, Stein, Richards, & Krause, 1998). A formal stage action contains only one relation. Using the Model of Hierarchical Complexity, it is only necessary to show that the systematic order actions cannot be reduced to formal. Systematic order actions are sets of formal order actions: $A = \{a, b\}$ where A is the higher order set of actions, and a and b are lower order actions that are elements of that set A . This creates the hierarchy because $A \neq \{A, \dots\}$ --. Sets cannot be equal to their members. For example, consider the empty set \emptyset . Note that $\emptyset = \{ \}$ has no members. No members means there is nothing in it, and therefore, $\emptyset = \text{nothing}$. How can $\emptyset = \text{nothing}$ when \emptyset is a set, and therefore it is “some thing” Something cannot equal nothing. Therefore, the empty set, does not equal any of its

members. Likewise, a higher order action cannot equal any lower order action from which it is are made.

Session 3: Wellbeing in Middle and Older Adulthood

Theresa Mary Donovan Odell (Reverend)

Celebrate Don

What is the possible connection between the angry, vengeful God and the current level of anxiety within our society? This paper will focus on the image of an angry, vengeful God within the Baby Boomer population and where it came from, how it may have impacted lives impairing function rather than supporting healing and how it might be transformed leading to a fuller, more peaceful life. The possible relationship between the image of an angry, vengeful God and anxiety as well as self abuse will be explored and the use of Ritual and Symbol will be illustrated and analyzed as a means to break a stress response resulting from guilt and fear. Spiritual Needs for Wholeness: Belonging, Meaning and Purpose, Love, Creativity, Hope, and Forgiveness will be examined offering possibilities for a more complete integration of Body, Mind and Spirit along the Life Span. Case studies of clients from the acute care setting inclusive of their Personally Designed Spiritual Care Practices offering healing and hope will be shared and evaluated as well as interviews obtained in the development of this paper.

MaryAnn Sutton (Lehigh University) and Grace I. L. Caskie ((Lehigh University)

Mexican American Older Adults' Self-Rated Health as a Predictor of Concurrent and Later Psychological and Physical Outcomes

Lower self-rated health is associated with decreased cognitive ability, greater depressive symptoms, and increased mortality rates. However, few studies have examined the relationship of self-rated health to psychological and physical outcomes for Mexican American older adults. Using Hispanic EPESE data (n=1,009), we examined differences in depression, cognition, doctor visits, and number of co-morbid health conditions based on self-rated health (excellent, good, fair, poor) at baseline. One-way MANOVAs indicated significant differences between self-rated health groups for both baseline ($p<.001$) and 11-year outcomes ($p<.001$). Individuals self-reporting poor health at baseline had lower MMSE scores, higher depression, greater co-morbid health conditions, and more doctors' visits at baseline and, with the exception of MMSE, also at the 11 year follow-up (all $ps<.01$); self-reported excellent or good health resulted in better outcomes at baseline than self-reports of fair health. Self-rated health may be an important predictor of both concurrent and long-term mental and physical health.

Karen VanderVen (University of Pittsburgh)

Life Cycle, Life Span, Life Course; Ages, Stages, Phases: Reconceptualizing Erikson for the 21st Century

Erikson proposed his still widely used "8 Stages of Man" theory in 1950. Gender roles have changed and people live longer to name just a few. This poster session will present a reconceptualization of Eriksonian life course theory that recognizes these transformational changes. The presenter's new theory, based on an extensive literature review, interviews with life span experts and people of different ages, and an examination of Erikson's papers, will be outlined. In this new model, there are now 14 identifiable phases of the life course that have emerged through the presenter's research, most particularly in the adult years where greater differentiation of developmental phases is needed. Each phase is named in an Eriksonian tradition, e.g. "trust vs. mistrust" and Eriksonian concepts are applied to describe and interpret it. The model includes retention of still viable Eriksonian phases, modification and redefinition of some Eriksonian phases, and description of some completely new ones that best seem to reflect the contemporary human life course.

Tommy M. Phillips (Mississippi State University) and Joe D. Wilmoth (Mississippi State University)

Keys to Longevity: A Study of Enduring African American Marriages

Most studies of African Americans focus on what's wrong rather than what's right, emphasizing problems rather than strengths. Research on African American marriages has followed this deficit perspective. Indeed, most studies of African American marriages leave one feeling fairly pessimistic regarding the prognoses of such marriages. This is a study of enduring African American marriages. Our aim is to take one small step toward reversing the problem-oriented focus of research on African Americans by examining marriages that last rather than those that fail. Participants include African American couples who have been married for at least 15 years. Although the study is still in the data collection phase, early qualitative results show promise for providing insights into the "secrets" of marital longevity among study participants.

Jamila Bookwala (Lafayette College) and Brett Strouse (Lafayette College)

Links between Different Types of Social Exchanges and Late Life Wellbeing

This study compared the role of exchanges with one's spouse and with other sources (non-spouse family and friends) in married older adults' wellbeing. Data were used from 1423 individuals aged 57+ years who participated in the National Social Life, Health, and Aging Project. Links were examined between positive and negative social exchanges with each source (measured using parallel measures) and three measures of wellbeing (life satisfaction, loneliness, and depressive symptoms). Regression models using sociodemographic variables and self-rated health as controls and in which spouse exchanges were introduced after controlling for the other kinds of social exchanges showed that spouse exchanges explained a larger proportion of unique variance in all three models of wellbeing. This pattern was confirmed with alternate models in which social exchanges with non-spouse family and friends were introduced after spouse exchanges. Results indicate that different forms of social exchanges are differentially associated with late life wellbeing.

Joaquim A. Ferreira (University of Coimbra)

Psychological well-being of Portuguese older adults: the role of personality and demographic variables

The purpose of the present study was to analyze the relationships between psychological well-being with extraversion, self-esteem, dispositional optimism, and demographic variables (e.g., sex, age, marriage and retirement status). The sample consisted of 320 participants, 200 females and 120 males, ranging from 60 to 96 years old (mean of 70.46). 181 were married, 93 widowed, 21 single, 15 divorced. 275 participants (86%) were retired, 31 (10%) were still working. Instruments: Demographic questionnaire, Ryff's Psychological Well-Being Scales, Rosenberg's Self-Esteem Scale, Extraversion Scale of the NEO-PI-R, and the Optimism Scale (LOT-R). Results indicate that 141(44.1%) participants were very satisfied and 117 (36.6%) satisfied with their lives. Significant positive correlations were found between the six dimensions of psychological well-being with self-esteem, extraversion, optimism, and satisfaction with life. The best predictors for the psychological well-being dimensions were, in the following order, self-esteem, optimism, and extraversion. Implications for counseling and social policy will be addressed.

Barbara-Ann Kaidy (Alliant International University)

Higher Education: Do Completing a Degree and Including Online Courses Influence Locus of Control in Returning Adults?

The study will examine the relationships amongst completion of a degree in adult higher education, Rotter's locus of control and the use of technology tools and online classes in degree completion. Questions pertaining to unsuccessful completion of degrees by adults in college have led to answers, like finances, family, work, etc. But are these only symptoms of an overarching need for personal control over these external pressures in their lives? Is the real reason adults return to school because they need to learn new ways to gain that control back, and could technology tools and online classes be part of the answer? Approximately 250 adult college students will complete educational background surveys and scales related to education, technology usage and locus of control. T-tests, Confidence intervals and Pearson's correlation will be used to test the two hypotheses. Gender and age data will be included in the study.

Session 4: Measuring and Modeling Adult Development

Al Erdynast (Antioch University Los Angeles)

Structures and Types: A Four Domain Model of Intellectual, Moral, and Aesthetic Development

The empirical study of the types of structural-developmental stages central to research such as that of Piaget, Commons, Kohlberg and Erdynast addresses five factors in problem, dilemma and questionnaire design and in the organization of rating and scoring manuals for reliable data assessment. These factors are: 1. Distinctions between domains and types of problems posed by the dilemmas or questionnaires. 2. Levels of complexity of tasks and problems presented to

subjects.3.Types of probe questions addressed within questionnaires. 4. Meta-ethical categories of judgments incorporated into the assessment of structures of moral and ethical thought.5. Normative principles resolve domain-specific problems. A four domain developmental model that studies invariant sequences of progressive constructivist, transformational levels of: 1) factual reality, 2) judgments of value (conceptions of the good), 3) a. judgments of requirements of justice (obligations and duties) and 3) b. supererogatory judgments, and 4) judgments of the beautiful will be presented.

Michael Lamport Commons (Harvard Medical School)

Computing item and person stage of performance

To report results based on the Model of Hierarchical Complexity, one would like to have both a person and item scores that represent stage of performance. But there is no direct way of obtaining those scores from a Rasch analysis. The dilemma is that the orders of hierarchical complexity are an ordinal-scale analytic measure, and the corresponding Rasch-scaled measure of item and person performance scores are on the real line (interval scale). The Rasch map displays the person performance scaled values on the left side of a linear vertical scale and the items scores on the right side of that same scale. Thus, Rasch scores are not in the stage metric. The orders of hierarchical complexity of items is ordinal so they cannot be averaged, summed, or even subtracted. But the Rasch scores can. We have developed a method that allows for an interpolation between adjacent orders of hierarchical complexity of items on the Rasch scale for which interpolation is fine. There is no assumptions about the size and nature of a possible gap.

Hudson F. Golino (Universidade Federal de Minas Gerais) and Christiano Mauro Gomes (Universidade Federal de Minas Gerais)

Psychometric properties of three developmental instruments: analyzing a Brazilian sample.

This exploratory study investigates some psychometric properties of three instruments for developmental stage evaluation, in a Brazilian convenience sample composed of 144 people (88 female, 56 male) ranging from 7 to 58 years ($M = 19.10$, $SD = 10.65$). The Balance Beam Task Series (Commons, Goodheart & Richards, 1995) and the short version of the Laundry Problem (Commons, Goodheart, Dawson, Draney & Wilson, 1996) were translated and adapted to Brazilian language and culture. The third instrument (TDRI - Inductive Reasoning Developmental Test) was developed by Gomes and Golino (2009), to assess developmental stages of inductive reasoning. The result of Rasch analysis shows excellent reliability for items (from .97 to .98) and subjects (from .94 to .96) in all three instruments. The correlations vary from .571 to .686 (0.01 level, 2-tailed). Factor analysis (PCA) of the Rasch scale generated for each instrument shows unidimensionality, explaining 76% of the variance. Further results will be presented and discussed.

Lucas Alexander Hayleigh Commons-Miller (DARE Institute), Nicholas Hewlett Keen Commons-Miller (Tufts University), Jonas Gensaku Miller (University of California, Davis), Michael Lamport Commons (Harvard Medical School)

Development of Atheism, Religiosity, Superstition and Beliefs

Is there a difference between thinking and arguments pertaining to religion versus atheism? Fowler studied stages of development in religious reasoning. Previous work of this research group showed that the stages he named also apply to atheistic thought. We have collected empirical data in an attempt to determine whether reasoning on all supernatural matters (everything from belief/non-belief in monsters, to belief/non-belief in god) forms a single domain, and does development in this domain follow the orders of complexity predicted by the Model of Hierarchical Complexity? The data suggest that people who believe in things like monsters make less Hierarchically Complex arguments about monsters (probably because this is the type of belief people have when they are young) than they do about belief in god. Thus arguments about atheism should be the most hierarchically complex.

Samuel C. Albertson (Harvard Graduate School of Education)

Growth and Construction: The Subject-Object Dialogue

This investigation, under the guidance of renowned theorist of adult development Robert Kegan, reviews the birth of subject-object theory out of Piagetian genetic epistemology. The goal of the paper is to rekindle the dialogical elements of Piagetian theory, which has been overshadowed within American psychology by the focus on Piaget's stage analysis. The inquiry is thus based on Piaget's central concept of the dialogically-enhancing organizational activity of the person, and reviews Piaget's core principles (assimilation/accommodation, equilibrium, organization), how neo-Piagetian and constructive-developmental successors have responded, common Piagetian criticism, and what this all means for subject-object relations. The overall discussion is couched in subject-object inquiry, with an explanation of how dialogue between subject and object enhance mental operations or organization.

Michael Lamport Commons (Harvard Medical School)

How content and language affects stage of performance: Is there synchrony in performance?

This study analyzed items from the following instruments to help determine the relationship between hierarchical complexity, content, and language where the instrument was given: 1) Arabic Laundry; 2) United States Laundry; 3) Short Laundry; 4) Combustion; 5) Atheism and Belief. A Rasch analysis produced stage scores for each of the items from each of the instruments. These item Rasch scores were regressed against the order of hierarchical complexity of each of the items, $r = .95$ (Arabic Laundry); $r = .963$ (United States Laundry); $r = .940$ (Short Laundry); $r = .797$ (Combustion); $r = .787$ (Atheism and Belief). The analysis showed that Hierarchical Complexity was the greatest predictor of variance ($r = .898$, $r^2 = .806$ $p < .01$) when compared against both content and language, together and individually.

Sara Nora Ross (Antioch University, McGregor)

Examples of Paradigmatic Stage 13 and Scoring their Hierarchical Complexity

In the Model of Hierarchical Complexity (MHC), the Paradigmatic Order and Stage 13 accounts for and measures tasks/actions that coordinate tasks/actions of the previous order, Metasystematic 12. The MHC's definition of Order/Stage 13 was corrected in a SRAD presentation in 2008 (Ross, 2008). To "coordinate tasks/actions of the previous order" is to reflect on, compare, contrast, transform, define and/or synthesize the outcomes or the properties/behaviors of those tasks/actions. The few examples of Paradigmatic performances discussed previously (Commons & Bresette, 2006) were confined to historical rather than contemporary persons. Here, recent paradigmatic performances are presented for discussion of their hierarchical complexity scoring. These examples take the form of theories, proposals, analyses, and process designs. The multidisciplinary breadth includes higher education, international relations and monetary policy, and developmentally-designed interventions. Implications for scoring paradigmatic performances "in the spiritual domain" are considered in light of these examples.

Session 5: Contexts of Emerging Adulthood

Chrysalis L. Wright (Florida International University) and Mary J. Levitt (Florida International University)

Predicting Courtship Behaviors of Emerging Adults from Immigrant and Nonimmigrant Families

Acculturation, gender, and religiosity were examined as predictors of courtship behavior, using regression analyses, in a study of 495 emerging adult college students of Hispanic origin. The interaction of gender and acculturation were also examined by performing separate analyses by gender because a strong relationship between the interaction of gender and acculturation for courtship behaviors was determined. Religiosity was found to be related to the age at which parents allowed dating, age at first date, number of dating partners, and age at first sexual encounter. Gender, age, and immigration status were also found to be good predictors for these outcomes. Gender specific analyses indicated that age and frequency of religious meeting attendance was related to age when parents allowed dating and age at first date for females but not males. There were also gender differences in the age at first sexual encounter and number of dating partners.

Danielle Kristen Nadorff (West Virginia University) and Julie Hicks Patrick (West Virginia University)

Anticipated Parenting Efficacy among Emerging Adults: A Replication and Extension Study

Little is known regarding the ways emerging adults envision their future parenting skills. Based on existing literature, a model of anticipated parenting efficacy was developed. Study 1 included data from 481 adults (mean age = 19.9 yrs) who completed measures of knowledge of childhood development, contact with children, affinity for children, and androgyny. Results of a hierarchical linear regression showed that by itself, biological sex was a unique predictor of anticipated parenting efficacy ($F(1, 478) = 4.01, p < .05$; ($R^2 = .01$), $\hat{I}^2 = -.52$). However, when knowledge, contact, affinity, femininity and masculinity were entered in subsequent steps, the effects of biological sex were significantly reduced $F(3, 473) = 12.30, p < .001$, ($\hat{I}^2 \text{ sex} = -.25, p > .05$). Study 2 extended Study 1 by adding improved measures of knowledge. Data from 449

adults were used to test a mixed model of anticipated parenting efficacy. The summary statistics suggest a good fit of the data to the initial model [χ^2 (df = 30, n = 449) = 201.07, $p < .001$; GFI = .878; RMSEA = .080]. Study 1 results were replicated. The improved measure of knowledge failed to emerge as a significant predictor. Results are discussed in terms of emerging adults' readiness to assume the parenting role.

Dawn E. Schrader (Cornell University)

Friend or Foe?: Ubiquitous Technology, Privacy, and Adolescent Development

Research on brain development indicates that adolescents have not fully developed their reasoning capacities; yet make important decisions about self and morality with increasing frequency. Ubiquitous technology encourages adolescents to make decisions about their lives that involve the public sharing of private information. This information is used by others--both friends and corporations--and has implications for identity development, and moral development and action. Adolescent understanding of what counts as private, the voluntary-ness of sharing private information, and the stealth collection and use of private information have potential risk for exploitation about which adolescents may not be aware (nor care about at this moment), but have far-reaching implications for their future. This paper explores ideas of how self and morality can be prosocially developed or adversely threatened by the sharing of private information, and presents implications for increasing awareness of how ubiquitous technology encourages unreflective disclosure, which threatens individual autonomy.

Erik Turkman (University of Maryland, College Park)

Asynchronous Human Dispersal: the Role of Circadian Rhythm Shift in the Home Leaving Process

In many ways, home is defined by our sleep patterns: where we sleep, when we sleep, and with whom we sleep. It makes sense that when leaving home during early adulthood, sleep patterns should also change. It has been noted that sleep cycles do in fact change during emerging adulthood, but this phenomenon has not been examined in conjunction with the home leaving process. In my presentation, I will explore the possible connections between emerging adult shifts in circadian rhythm and home leaving. I will present an overview of my theory of Asynchronous Human Dispersal, the basic premise of which is that leaving home involves behavioral changes in two dimensions: temporal and spatial. I propose that shifts in daily sleep patterns are associated with preparing to leave one's family, making home leaving a complex developmental process rather than a single event. After presenting my theory, I will welcome active discussion.

Chana Etengoff (CUNY Graduate Center)

God and I: A Gendered Experience?

This mixed-methods study explores gender differences in the religious orientation and experiences of 429 Jewish emerging adults (Secular, Traditional, and Modern-Orthodox). Findings reveal that while gender differences in religious experience exist, these differences are

best assessed via an analysis of individual items rather than the summary score of the Arnett Religiosity Questionnaire, as gender differences are significant in only some aspects of religious experience. In addition, although Arnett (2002) found that Christian women are more likely than men to rate religious service attendance as important, similar percentages of Modern-Orthodox and Traditional Jewish men and women rated service attendance as being quite important. Arnett's finding was only significantly ($p < .01$) replicated with the Secular participants. This and similar findings suggest that the future of religious developmental research lies in the gradations of difference model and that efforts must be made to explore within group as well as between group differences.

Theresa Mary Donovan Odell (Reverend)

From Chrysalis To Butterfly

This presentation will focus on ways in which the Educator creates a Cocoon for optimum Spiritual Development in an affirming, gently confrontational, highly accountable and challenging environment guiding students toward decision making from a more grounded perspective. The Spiritual Needs for Wholeness of both the High School and Undergraduate populations will be explored as they pertain to healthy, holistic development assisting students build self esteem and move forward into the world with strength and courage. Obstacles to the creation of such an environment will be discussed such as but not limited to: (1) prevalent confusion around and misrepresentation of both Religion and Spirituality, (2) possible objections from family and/or staff, (3) role of confidentiality within the classroom context and the (4) need for teacher support and supervision while undertaking such a project and persona. Both the roles of Teacher and Student in such an experience will be illustrated through resources, ideas and concrete activities.

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