## Second Biennial Meeting, 2001, Posters

Second Biennial Meeting (with support from NICHD and NIMH) October 26-27, 2001 - Virginia Beach, VA

Posters
[Friday, October 26th] [Saturday, October 27th]

	Posters on Friday evening, Oct 26th		
1	Sandra Leanne Bosacki	Gendered Linkages between Sociomoral and Self- Understanding in Preadolescents	
2	Meira Torenberg & Fran Blumberg	Spatial support for preschoolers' selective attention and incidental learning	
3	Carrie Pritchard & Charles W. Kalish	How do children discriminate between epistemic mental states?	
4	Jessica McDermott Sales, Derek Turesky & Robyn Fivush	Maternal Socialization of Children's Coping Skills	
5	Hala S., Henderson, A. M. E., Turner, J. N., & Schreiber, C.	The Role of Inhibitory Control in Preschoolers Internal Source Monitoring	
6	Ryann E. Galganowicz & Deborah L. Best	Learning and Memory Strategy Use in Headstart and Middle- Class Preschoolers	
7	Susan Birch & Paul Bloom	Children's Appreciation of Mental States: A Curse of Knowledge Account	
8	Nicole M. McNeil & Martha W. Alibali,	Don't be too sure about that: Certainty about an incorrect strategy hinders cognitive change	
9	Barbara Havlik & Catherine Haden	Improving Preschoolers' Literacy and Language Development Through Mother- Child Book Reading	
		Mother-Child Talk about the	

12	14/2016	Second Diennia	ii Meeting, 2001, Posters   Cognitive Development
	10	David J. Rudek & Catherine A. Haden	Past and Children's Understanding of Remembering.
	11	Holger B. Elischberger, Caroline H. Staneck, Sean Bilsborrow-Koo, Peter A. Ornstein & Catherine A. Haden	Characterizing nonverbal memory and its development in young children
	12	Melissa Burch, Evren Kavas, Jennifer L. Coffman, Jill Zukerman, Peter A. Ornstein & Catherine A. Haden	Linkages Between Young Children's Nonverbal Memory and Language Skills
	13	David J. Rudek, Barbara S. Havlik, Amy M. Hedrick, Marisa R. Greco, Joy M. Ippolito, Catherine A. Haden &Peter A. Ornstein	Linkages Between Event and Deliberate Memory in Young Children
	14	Alexander, J. M., Johnson, K. E., Sokas, M., Kendrick, C., Spencer, S., & Neitzel, C.	The Effects of Increasing Domain Knowledge on a 20 Questions Task
	15	Araceli Valle, Margarita Azmitia, Maureen A. Callanan, Monika Stampf Soennichsen, Emily Nishibori, & Alexandra Marinovic,	Parent's and Children's Use of Scientific Knowledge and Personal Experience in Conversations About Earthquakes
	16	Tony Charman, Auriol Drew, Claire Baird & Gillian Baird	Measuring early language development in pre-school children with autism spectrum disorder using the MacArthur Communicative Development Inventory (Infant form)
	17	Ellen Bialystok & Michelle M. Martin	The Development of Conceptual and Motor Inhibition in Monolingual and Bilingual Children
	18	Michelle Verges, Katherine Kipp, Kacy Welsh & Steffen Wilson	Early development of cognitive inhibition in a picture-naming task.
	19	David M. Sobel, Joshua B. Tenenbaum, & Alison Gopnik	Children and adults use prior probabilities to resolve ambiguous causal data
	20	Maciej Haman	Shape bias: Dumb attentional mechanism or a product of conceptual processes?
	21	Roberta Corrigan	Children's Acquisition of Word Connotations

22	Melinda S. Mull & E. Margaret Evans	Did she mean to do it? Factors influencing children's understanding of the mental states underlying intentional acts
23	Janet Astington & Jodie Baird	Language and theory-of-mind development: Children's performance on verbal vs. visual false-belief tasks
24	Claudia Thoermer & Beate Sodian	One-year-olds' understanding of the pointing gesture: reference or movement?
25	Joann P. Benigno & Tricia Striano	Development and Meaning of 9 to 12 month-olds' Looking to Mother
26	Cristina Atance & Daniela O'Neill	Does Acting on a false belief aid in false belief retrieval in 3-year-olds?
27	George J. Hollich, Peter W. Jusczyk, & Rochelle S. Newman	The cocktail party effect: Infants' use of visual information in speech segmentation
28	Sharpe, D., Veres, E., Mashari, A., & Zelazo, P.D.	Beyond early linguistic competence: The development of children's ability to interpret adjectives flexibly.
29	J.G. Bremner, S.P. Johnson, A.M. Slater, U. Mason & K. Foster	Young infants' perception of moving object occlusion events: Effects of varying the spatial and temporal gap
30	Lili Senman & Ellen Bialystok	Inhibition of Attention and Theory of Mind in Children
31	Jacqueline E. Muir-Broaddus, & Leslie D. Rosenstein	Neuropsychological Test Performance of Children with ADHD Relative to Test Norms and Parent Behavioral Ratings
32	Keil, Frank C. & McManus, Courtney B.,	Framework knowledge about causal centrality
33	Maja Ninkovic & Keith E. Nelson	Accelerating Development in Art, Language, and Creativity
34	David Liu, Susan A. Gelman, & Henry M. Wellman	Early Understanding of Traits

35	Simone P. Nguyen & Karl S. Rosengren,	Parental reports of children's misconceptions regarding biology: A preliminary report
36	Candice Mills, Harlyn Skinner, David Goldenberg, & Frank Keil	Thinking you know more than you do: Children's assessment of their own knowledge and explanations
37	Rachel K. Baker, Diane Poulin- Dubois, & Valentina Munoz	Of children and self-starting strollers: Infants' understanding of the association between animacy and self-propulsion
38	Sean M. Shiverick & Charles W. Kalish	Traits or Rules? Children's Reasoning About the Causes of Behavior
39	Stacie L. Kovacs, Nora S. Newcombe & Marcia K. Johnson	The Effect of Emotional Focus on Children's Recognition and Source Memory
40	Lucia M. Flevares & Michelle Perry	First Graders' Strategy Change During a Computer Mathematics Activity
41	Juanita N. Turner, Suzanne Hala & Jana Prete,	The Role of Planning in Preschoolers' Reality Monitoring Errors
42	Melissa S. Atkins & Anne C. Watson	Variability in Infant Social Referencing
43	Suzanne Macari, John D. Bonvillian, & Georgina Slavoff	Resistance to Change, Fluid Reasoning, and Motor Imitation in Children with Autism.
44	C. Ryan Kinlaw & Beth Kurtz- Costes	Effects of Differential Praise on Young Children's Achievement Striving
45	Patrick L. Craven & Keith E. Nelson	Effects of Language Intervention on Children's Performance on Theory of Mind and Executive Function Tasks
46	Jennifer L. Jipson, Harriet R. Tenenbaum, Monika Stampf Soennichsen & Kevin Crowley	Gender Differences in Parent- Child Conversation about Biology and Electricity at a Children's Museum
47	Judith Danovitch, Mari McGrath & Frank Keil	Developmental Shifts in Clustering Knowledge
		The role of contrastive

12/14/2016	Second Biennia	ıl Meeting, 2001, Posters   Cognitive Development
48	Sophie Jacques & Stella Felix Lourenco	information in the effectiveness of labels on inducing flexible thinking
49	Rhonda Douglas Brown, C.Y. Peter Chiu, Scott Holland & Scott Dunn	Age Differences in False Recognition of Sentences
50	Erica E. Kleinknecht, Christina Phill & Patricia J. Bauer	Whose understanding matters more? Exploring the direction of influence between preschooler's ToM and parents' use of internal states words in conversations about the past
51	Shilpi Majumder	Factors in mathematical word problem solving: the role of inhibition
52	Cheryl A. Browne	Preschoolers' use of magical explanations for violations of social and physical laws
53	Marissa L. Greif, Elizabeth Seiver, Holli Beasley & Frank Keil	Intentional, Teleological, and Mechanical Modes of Construal Are Used to Explain Science Concepts to Children: An Analysis of Children's Storybooks about Biology and Physics
54	David J. Lizotte & Jennifer A. Amsterlaw	Reasoning about Reasoning: A Descriptive Study of Young Adults' Everyday Theories of Cognition
55	Natasha Z. & Daniel C. Richardson	Eye tracking evidence of spatial indexing in infants: Binding multimodal properties by location
56	Katherine H. Grobman	Is means-ends analysis innate?
57	Christina G. Phill, Erica E. Kleinknecht & Patricia J. Bauer	Some Parents Sort More Than Just the Laundry: Parental Strategy Use in a Recall Task
58	R. Breckinridge Church, S. Ayman- Nolley, Martha W. Alibali & Wayne Anderson	Multi-Modal Representation and Deep Learning
59	Megan M. Saylor & Dare A. Baldwin	Understanding Talk about Absent Things from 12 to 31 months
60	Susan M. Wagner, Susan Goldin- Meadow, Howard Nusbaum &	Cognitive Benefits of Gesturing

	Spencer Kelly	
61	Darlene DeMarie & John Ferron	Path Analyses of Three Theoretical Models of Children's Memory:The Limits of Generality
62	John E. Opfer & Robert S. Siegler	Teleological Action Speaks Louder than Words:A Microgenetic Study of Biological Categorization and Conceptual Change
63	Harriet S. Waters, Jonathan B. Holmes & Michelle A. Steiner	Children's Theory of Mind in Early Problem-Solving Behavior
64	Susan J. Parault, Paula J. Schwanenflugel, William Fabricius & Jolan Hsieh	Development of an Understanding of the Constructive Nature of Mental Activities and its Relation to Social Problem Solving

	Posters on Saturday evening, Oct 27		
1	Keith E. Nelson, Patrick L. Craven, Yue Xuan & Marnie E. Arkenberg	Treating Children with Specific Language Impairment Within a Dynamic Systems Theory Framework	
2	Katherine Kipp & Michelle Verges	Giving Cognitive Developmental Research Away: A Memory Research Workshop for Children, Teachers, and Parents	
3	Georgene L. Troseth & Judy S. DeLoache	Where's Mommy? The Role of Motivation in Children's Object-Retrieval Performance	
4	Elizabeth A. Boerger & Jacqueline D. Woolley	Factors influencing children's belief in a novel fantastic entity.	
5	Katrina Phelps, Christy Bryce & Kara Yeckering	Luck in the minds of children: Early understanding of superstitions	
6	Jill M. Zukerman, Rocio Quinonez, Kevin A. Pelphrey & Peter A. Ornstein	Say "Ah": The Effects of Stress on Children's Memory for a Minor Operative Dental Procedure	
7	Caroline H. Staneck, Peter A. Ornstein, Lynne Baker-Ward &	Predicting Consistent and Reconstructive Memory	

	Betty N. Gordon	Reports
8	Bradford H. Pillow	Children's Evaluation of the Certainty of Deductive and Inductive Inferences
9	Isabelle Cherney & Brigette O. Ryalls,	The Development of Gender- linked Differences in Spatial and Object Memory
10	Zopito Marini & Sandra Bosacki	Gendered Bullying Narratives in Preadolescents
11	Sandra Leanne Bosacki & Zopito Marini	ToM, Self-Concept, and Bullying in Preadolescents
12	Alycia M. Hund & Jodie M. Plumert	Does information about what things are influence memory for where things are?
13	Dana L. Byrd, Tanja K. van der Veen, W. Keith Berg & Joseph P. McNamara	Spoken Language and Motor Response Requirements Impact Preschoolers' Executive Functioning Performances.
14	Gayathri Narasimham & Gedeon O. Deák,	Flexibility in Inductive and Deductive Inferences: Changes from 3 to 4 years
15	Jodie A. Baird, Megan M. Saylor & Ainsley R. Brown	Preschoolers' ability to talk about the absent: The importance of knowing what others know
16	Amy Carr & Chris Moore	Look Both Ways! Fourteen- Month-Old Infants' Saccadic Responses to Peripheral Targets Following Nonpredictive Gaze Cues
17	Tanya Sharon	Strategy Variation in the Symbolic Object-Retrieval Task
18	Anne R. Schutte, John P. Spencer & Vanessa Simmering	Look'don't touch: 2-year-olds make A-not-B-type errors in a looking version of the sandbox task
19	Chris A. Lawson & Charles W. Kalish	Children's inductive inferences about psychological and biological properties
20	Siu Fung Lin & Glyn V. Thomas	Children's Drawing And Photography, and Their Comments About The Two Media

21	Lauren R. Shapiro & Abbi R. Waymire	Children's Knowledge for Pediatric Check-ups
22	Lauren R. Shapiro & Telisa L. Purdy	Implanting false memories in children
23	Larissa K. Samuelson & Anne Schutte	The Effects of Syntax On A Curvilinear Trend in How Young Children Name Deformable Objects
24	Julia Sluzenski, Nora Newcombe & Janellen Huttenlocher	Infants' Knowledge of Normal and Anomalous Spatial Events
25	Elaine S. Barry & Mary J. Naus	Developmental Parallels of Implicit and Explicit Memory
26	David H. Rakison	A snake in the grass? Categorization of dangerous animals by 10-month-old infants
27	Paul A. Klaczynski, Katherine H. Grobman, & M. Schuneman	A Developmental Study of Decision Making Heuristics and Biases
28	Robert F. Goldberg	Adult Category Verification of a Developmental Concept: Vestiges or Processing?
29	Paula T. Markham & Elaine M. Justice	Does the Iconicity of Sign Language Aid Performance on Object Function Questions?
30	Julie Hanauer, Patricia Brooks, Devin Bracco, Jose Colon, Maya McLawrence & Barbara Padowska	Executive and Semantic Components of the Cross- modal Stroop effect
31	Benjamin E. Yerys & Yuko Munakata	More flexible than you think: Feedback improves children's switching in a card-sorting task
32	Su-hua Wang	Young infants possess general expectations about the continuity and solidity of objects: Evidence on covering events
33	E.J. Robinson & E. Whitcombe	Children's source reporting in relation to their decisions about the believability of utterances.
34	Jennifer Amsterlaw & Henry Wellman	How do theories of mind grow?: Insights gained from microgenetic research

2/14/2010	14/2016 Second blefillial Meeting, 2001, Posters   Cognitive Development		
35	Lauren J. Myers & Sophia L. Pierroutsakos	Meaningful Scribbles: Young Children's Understanding of Simple Drawings.	
36	Melanie Harris, Stacey Ivanko, Sara Jungen, Suzanne Hala & Penny M. Pexman	You're <i>Really</i> Nice: Children's Understanding of Sarcasm and Personality Traits	
37	James A. Dixon, Ashley S. Bangert & Brian Tillman	The Development of Mathematical Problem Solving: Effects of Changing the Representation of Mathematical Operations	
38	Lipina SJ, Martelli MI, Vuelta B & Colombo JA	Dissociated effect of socioeconomic status on executive functioning in a sample of Argentinian preschoolers.	
39	Melissa A. Koenig & Catharine H. Echols	Belief as a Normative Concept: Who should one believe?	
40	Daniela K. O'Neill & Michelle J. Pearce	A new perspective on the predictive relation between narrative perspective-taking ability in preschoolers and academic competence	
41	Simone P. Nguyen & Gregory L. Murphy	Children's Taxonomic and Script-based Categories	
42	Mark A. Sabbagh, Fen Xu, Louis J. Moses, Kang Lee &, Samantha Samonte	Relations between inhibitory control and false belief understanding in North American and Chinese preschoolers	
43	Keith R. Happaney	The Development of Hot Executive Function in Preschoolers	
44	Bruce D. Homer, Jason T. Ramsay & Gerald T. McFadden	Theory of Mind Performance and Adaptive Functioning in Children with Brain Injury	
45	Carolyn A. Schult	Wanting this but planning that: Children's understanding of conflicting intentions and desires	
46	Robert Kail	Developmental Change in Proactive Interference	
	Hanna Kovshoff & David I. Shore &	The Development of Global and Local Processing: Evidence	

2/14/2016	Second Brennia	al Meeting, 2001, Posters   Cognitive Development
47	Jacob A. Burack	From Selective and Divided Attention Tasks.
48	Mashari, A., Sharpe, D. & Zelazo, P.	Frequency Monitoring and the Development of Category-based Induction
49	Simona Ghetti	Age Differences in Confidence for Recognition Memory Judgments
50	Lara Triona & David Klahr	"Should I write or draw pictures?" Elementary school children's notational skills for communicating instructional sequences
51	Bradley J. Morris	Logically Speaking: Adult and child use of logical connectives in natural language
52	Kristen Weede Alexander, Melanie L. Peterson, Laura M. Rubin, and Carolyn B. Toy	"What is the first word that comes to mind?" Child-based norms for semantic associates
53	Paula J.Schwanenflugel, Gregory P. Strauss, Elizabeth B. Meisinger, Steven A. Stahl & Melanie R. Kuhn	The Influence of Unit Size on the Development of Stroop Interference in Early Word Decoding
54	Matthew Schlesinger	Simulating Infants' Expectations for Possible and Impossible Events
55	Mari Strand Cary	Continuity of Children's Memory Contributions Over Time and Conversational Partners
56	Sarah Norgate, Vicky Lewis & Glyn Collis	Vision and Object Understanding: New Perspectives from Congenitally Blind Infants
57	William J. Friedman	Children's Differentiation of the Past and the Future
58	Beate Sodian, Claudia Thoermer & Johannes Guenther	4 <sup>th</sup> graders' understanding of the nature of scientific knowledge
59	Kyle E. Chambers, Kristine H. Onishi & Cynthia Fisher	The continuity of phonotactic learning
60	Lori Skibbe & Stephanie Curenton	Theory of Mind and Social Skills in Low-income Children
	T	T

61	Ulrich Müller & Suzanne Hood	The Development of the Ability to Use Rules in a New Strooplike Task
62	Susan Hespos & Elizabeth Spelke	Conceptual Perecursors to spatial language: Knowledge of containment in 5-month-old infants

## Second Biennial Meeting, 2001

## Second Biennial Meeting (with support from NICHD and NIMH) October 26-27, 2001 - Virginia Beach, VA

## Program

[Friday, October 26th] [Saturday, October 27th]

#### Fri Oct 26, 2001

8:00-9:00 am Ocean Grand Foyer Registration/Breakfast 9:00-7:00 False Cape Exhibitors 9:00-9:15 Hatteras/Charles Plenary Welcome

Steve Reznick, University of North Carolina at Chapel Hill Welcome and Introduction of new CDS President Patricia Bauer

Patricia Bauer, University of Minnesota Welcome

Susan Goldman-Meadow, University of Chicago Dedication of CDS 2001 to the memory of Peter Jusczyk

9:15-10:15 Hatteras/Charles Invited Plenary Address

Martha W. Alibali, Carnegie-Mellon University Introduction of Robert Seigler

#### Robert Siegler, Carnegie-Mellon University

"Relations Between Short-term and Long-term Cognitive Change"

10:15-10:45 Ocean Grand Foyer Break

10:45-11:45 Hatteras/Charles Invited Plenary Address

Gedeon O. Deak, University of California at San Diego Introduction of Joan Stiles

#### Joan Stiles, University of California at San Diego

"Neural plasticity and cognitive development: Insights from children with early focal brain injury"

12:00-1:00 Lunch (ad lib)

1:00- 2:45 Hatteras Symposium

# Cognition and Social Interactions: The Effect of the Group on Cognition in Human and Non-human Primates

ORGANIZER: Mary Jo Rattermann, Franklin & Marshall College

PARTICIPANTS:

David F. Bjorklund, Jesse M. Bering, Jennifer L. Yunger, and Patricia Ragan, Florida Atlantic University

David Oden, Center for Research in Science Pedagogy Mary Jo Rattermann, Franklin & Marshall College Roger K.R. Thompson, Franklin & Marshall College

We primates, both human and non-human, are social creatures. Psychologists, however, have tended to study the social thinker in isolation taken for granted the nature of this thinker. In this way we have neglected the social origins of the individual thinker and the ways in which cognition has a social character. In a word, developmental and comparative psychologists have essentialized the individual (Harre & Gillett, 1994; Oyserman & Packer,1996), studying our subjects individually rather than as part of an entire social group. In this syposium we present evidence from human and non-human primates stressing the importance of the individual as a member of a group, and address several key questions. Mary Jo Rattermann describes the effects of social dominance on access to tools that can be used to acquire valuable resources in both human infants and adult capuchin monkeys. Roger Thompson then discusses some of the consequences of the group on the distribution of information and its non-uniform availability to individuals within the group. David Bjorklund discusses the role of culture on imitation in apes, a form of learning based on social interaction with others in the group. Finally, David Oden discusses how social bonds between human experimenters and, in this case, infant chimpanzees profoundly affects cognitive performance by the latter because of their categorization of humans as "teacher" or "playmate."

1:00- 2:45 May Symposium

#### **Cognitive Development: A Photographic View**

ORGANIZER: Lynn S. Liben, Penn State

PARTICIPANTS:

Sophia L. Pierroutsakos, Furman University Judy S. DeLoache, University of Virginia Lynn S. Liben and Lisa E. Szechter, Penn State

Glyn Thomas, Laura Davison, and Mike Sharples, University of Birmingham, U.K.

DISCUSSANT: Elizabeth Robinson, Keele University, U.K.

Developmental psychologists who wish to explore children's understanding of representation and aesthetics have traditionally been more likely to use paintings or drawings as their focal medium than to use photographs. The relative dearth of photography-based research probably stems from the common assumption that photographs are simply snapshots of reality. Writers as diverse as sociologist Howard Becker, literary figure Susan Sontag, and philosopher Nelson Goodman have commented on the flawed nature of this assumption. Some developmental psychologists have likewise rejected this "snapshot" assumption, and have thus begun using photography in their empirical work. This symposium is designed to present emerging empirical findings and to provoke colleagues to consider photography-based methods in their own work.

The symposium includes four empirical presentations. Pierroutsakos addresses very early beginnings of understanding as infants explore how qualities of photographs differ from those of three-dimensional objects; DeLoache considers toddlers' growing

understanding of the relation between photographs and what they depict; Liben and Szechter describe children's developing understanding of the view-specific nature of photographs, and of how spatial qualities are affected by photographers' actions; and Thomas, Davison, and Sharples describe results from a study in which 7- to 15-year-old children were allowed to photograph what they pleased, and were later asked to discuss motivations for particular photos. The discussant, Robinson, integrates empirical findings and considers how photographic processes and products may be extended to other research questions and paradigms.

1:00- 2:45 Fear Symposium

#### The Development of Language, Thinking, and Understanding in Personally Significant Situations

ORGANIZER: Nancy L. Stein, University of Chicago
PARTICIPANTS:
Linda Levine, University of California, Irvine
Elizabeth Albro, Wheaton College
Catherine A. Haden, & Peter A. Ornstein, Loyola University of Chicago, & UNC-Chapel Hill

The four presentations in this symposium speak to the importance of studying cognitive development, thinking, and language in real world situations that are personally meaningful to children and their parents. Each researcher provides a different perspective on the development of thinking, language, and understanding. Yet, each addresses issues that focus on the importance of the input in determining understanding and memory and the degree of motivation and familiarity that children have about the situations they are asked to remember. Rather than characterizing young preschool children as being deficient in certain cognitive abilities, each of the researchers shows the importance of the situation in determining what children understand and remember. All of the presenters focus on the <u>processes</u> by which a representation gets constructed, and they describe how input in a situation or an interaction facilitates or hinders understanding and memory. Finally, each presenter shows how participation in personally significant situations affects the development and use of complex discourse schemas.

3:00- 4:45 Hatteras Symposium

#### **Analysis of Complexity in Cognitive Tasks**

Nancy L. Stein & Tom Trabasso, University of Chicago

ORGANIZER: Graeme S. Halford, University of Queensland
PARTICIPANTS:
Leslie B. Cohen, University of Texas
Joan Stiles, University of California at San Diego
Douglas Frye, University of Pennsylvania
Graeme Halford & Glenda Andrews, University of Queensland & Griffith University

Objective analysis of cognitive complexity is necessary for understanding cognitive development, to enable tasks to be compared, and equivalences recognized. This symposium will explore the extent to which task complexity, or more appropriately, the complexity of the cognitive processes that a task requires, can serve as a useful metric of cognitive development. Cohen will discuss the role of complexity in information processing by infants. Stiles will discuss age-related changes in the complexity of children's spatial constructions. Frye will review research that suggests that there are systematic age-related increases in the complexity of the explicit rules children can use. Halford and Andrews will discuss how capacity limitations are overcome, and why certain tasks tend to impose unexpectedly high processing loads. They will show relational complexity analysis (Halford, Wilson & Phillips, Behavioral & Brain Sciences, 1998, 21, 6, 803-864) can explain some sources of difficulty, and can predict some previously unrecognized cognitive abilities in young children. The importance of complexity is being increasingly recognized in cognitive development, cognitive psychology, and neuroscience. For example, in cognitive development, we need to determine whether precocity reflects a simpler performance, or improved performance on a task at the same level of complexity. Complexity has also been found to play a role in fundamental cognitive achievements such as concept of mind. In cognitive psychology there have been recent determinations of processing capacity (Cowan, Behavioral & Brain Sciences, 2001, in press; Luck & Vogel, Nature, 1997, 390, 279-281). In neuroscience, work with brain-damaged patients has found complexity to be an

important determinant of the regions of cortex that are implicated in dissociable attentional processes, including interference, negative priming, and inhibition of return.

3:00- 4:45 May Symposium

## The Nature of "Fast Mapping:" Insights into Lexical and Non-lexical Domains

ORGANIZER: Lisa Gershkoff-Stowe

PARTICIPANTS:

Susan Graham, Ann M. Penny, & Andrea N. Welder, University of Calgary

Lisa Gershkoff-Stowe and Erin Hahn, Carnegie Mellon University

Jane B. Childers, Trinity University

Lori Markson, Massachusetts Institute of Technology

DISCUSSANT: Amanda Woodward, University of Chicago

Fast mapping has been referred to as the rapid learning of a new word with only a few exposures to it (Carey & Bartlett, 1978). Recently, there has been renewed interest in the meaning of fast mapping: whether the term extends beyond word learning to the acquisition of new facts (Markson & Bloom, 1997; Waxman & Booth, 2000); how children differ in their ability to fast map nouns and verbs (Childers & Tomasello, 2001; Haryu, Iami, & Okada, 2001); and why children appear to fast map words in comprehension but not production (Hahn, Gershkoff-Stowe & Whipple, 2001). Additionally, there has been investigation into the types of developments that co-occur with rapid word learning (Graham, Penny & Welder, 2001), and at what age children first show evidence of it (Woodward, Markman & Fitzsimmons, 1994).

The goals of this symposium are to integrate past research and to extend the current debate by providing a comprehensive examination of the nature and processes involved in fast mapping. Among the questions this symposium will address is: how stable and long-lasting is fast mapping, what supports are needed for children to fast map, and is fast mapping a domain general or domain specific process of learning? All of the speakers who have agreed to participate in this symposium are conducting cutting-edge research on this phenomenon and on early word learning more generally.

3:00- 4:45 Fear Symposium

### Evidence of metaphysical thought in childhood

ORGANIZER: Rebekah A. Richert, University of Virginia

PARTICIPANTS:

Rebekah A. Richert, University of Virginia Carl N. Johnson, University of Pittsburgh Jacqueline Woolley, University of Texas Angeline S. Lillard, University of Virginia

DISCUSSANT: Marjorie Taylor, University of Oregon

With the exception of recent work examining children's theories of mind, there is a noticeable lack of research in developmental psychology on the development of concepts that are not based in physical reality. Broad cognitive development theories rarely incorporate the development of cognition about concepts that are outside the physical realm, such as pretense, fantasy, and religious concepts. Neglecting the incorporation of metaphysical thought into theory on cognitive development is surprising considering that this type of thinking about the world emerges seemingly naturally in the course of development, often precluding formal instruction. When theories do incorporate metaphysical thought, they often describe cognition as developing from metaphysical thought and explanations into physical thought and explanations. This may, however, be an inaccurate characterization of the developmental trajectory of metaphysical thought. The goals of this symposium are to present recent research and theory on metaphysical thought in childhood and call for further scientific inquiry into this neglected domain of cognition. The presenters of this symposium are active in researching the beginnings of metaphysical thought in childhood. Richert will discuss work concerning children's ability to understand religious entities, as it differs from their understanding of humans. Johnson will present new work comparing European American and African American children's beliefs in supernatural figures. Woolley will discuss new research on the role of context in children's belief in scientific and fantastical entities. Lillard will discuss

entry into alternative conceptual domains, including fantasy and pretense, and liken participation in such domains to philosopher's use of Twin Earth. Taylor will provide discussion.

5:30-7:00 Henry I-II, & Charles Poster Session 1 Ocean Grand Foyer Snacks & Cash Bar

9:00- 10:30 pm Hatteras Workshop & Dessert

#### **NIH Funding Workshop (and Dessert!)**

ORGANIZER: Peggy McCardle, NICHD

PARTICIPANTS:

Peggy McCardle, NICHD Margaret Feerick, NICHD

Melissa Welch-Ross, NICHD Howard Kurtzman, NIMH

This workshop is divided into two parts to meet two goals. The first goal is to alert the field about new research programs and seriously under-researched areas in cognitive development, and to stimulate interest in submitting collaborative and multidisciplinary research applications. The first part of the session, therefore, is dedicated to outlining the funding priorities that are currently being given significant attention across federal agencies, and the programs addressing these priorities that are led by the Child Development and Behavior Branch (CDBB) of the NICHD. This part of the session is targeted especially toward senior researchers whose expertise will be crucial for informing the field, developing research programs, and collaborating with and mentoring more junior investigators to produce research with the level of sophistication and multidisciplinary perspective needed to meet program goals. The presenters will be Dr. Peggy McCardle, Dr. Margaret Feerick, and Dr. Melissa Welch-Ross, the program officials leading these research programs.

The second hour of the workshop will be led by Dr. McCardle, who has held positions in NIH peer review, NIH policy, and is currently Associate Chief of the CDBB. The goal is to help both junior and senior investigators develop strong applications for these programs, and to familiarize investigators with the NIH funding mechanisms, and the application submission and review process.

Sat Oct 27, 2001

8:00-9:00 am Ocean Grand Foyer Registration/Breakfast

9:00-7:00 False Cape Exhibitors

9:00-12:00 Hatteras Invited Symposium

#### **Cognitive Developmental Research and Instructional Practice**

ORGANIZERS: David Klahr, Deanna Kuhn, Doug Frye

PARTICIPANTS:

Richard Anderson, Center for the Study of Reading, University of Illinois

Douglas Frye & Margalit Ziv, Graduate School of Education, University of Penn & Tel Aviv University

David Klahr, Department of Psychology, Carnegie-Mellon

Deanna Kuhn, Teachers College, Columbia

Kathy Metz, Graduate School of Education, UC-Berkeley

**DISCUSSANTS:** 

Susan Goldman, U. of Illinois, Chicago

Sid Strauss, School of Education, University of Tel-Aviv Melissa Welch-Ross, NICHD

This symposium was conceived in the spirit of "giving psychology away" by presenting a few current examples of research in the intersection between cognitive development and education. The five papers to be presented will (a) offer new conceptualizations of fundamental issues in education, (b) demonstrate how cognitively-based research can lead to effective educational applications, and (c) suggest new areas of research in cognitive development that are motivated by difficult problems in early education. In addition to these scientific goals, the symposium will address some professional issues, with a particular focus on how to motivate members of the Cognitive Development Society to include this area in their research agenda, and to stimulate, reward, and sustain this kind of research.

One of the many reasons that the recent passing of Ann Brown and Robbie Case was such a loss to our field is that they were among a very small set of excellent cognitive developmentalists who successfully braved the instructional waters. A glance at the literature in our field indicates quite clearly that projects focusing on instructional applications are few and far between. This symposium will provide a few illustrative examples of such work and address theoretical, practical, epistemological, and methodological similarities and differences in among them. A secondary goal of the symposium is to address broader professional issues such as: How to stimulate increased interest in the field. How to encourage the best young researchers in cognitive development to broaden their horizons beyond the next journal article, and undertake investigations that could contribute to improving educational practice. How to facilitate external funding and internal institutional support for this kind of work.

Discussants will evaluate the field as a whole -- as well as aspects of the presented papers -- from various viewpoints, including teacher-educator, long-time participant in a major cognitively-based curriculum reform project, and director of a major government funding program interested in scientifically grounded educational innovations.

9:00- 12:00 May/Lookout Invited Symposium

#### Intentionality

ORGANIZERS: Philip David Zelazo and Robyn Fivush PARTICIPANTS:
Dare Baldwin, University of Oregon
Paul Bloom, Yale University
Robyn Fivush, Emory University
Christopher Moore, Dalhousie University
Katherine Nelson, City University of New York
Amanda Woodward, University of Chicago
Philip David Zelazo, University of Toronto

The aim of this symposium is bring together researchers who are addressing the topic of intentionality in various ways and in various contexts. Our hope is to provide a fairly comprehensive survey of current work on intentionality across infancy and the preschool years, and to provide a forum in which participants will discuss fundamental questions in the field, including how one might usefully define intentionality (e.g., vis-à-vis subjectivity and consciousness), and how, as a matter of practice, researchers make inferences about intentional states on the basis of different types of behavioral data. To this end, we have asked all contributors to provide a brief review of current research in an area (in addition to describing their own research on a topic), and to address a common set of questions in their talks.

- 1. Philip David Zelazo, Introduction and overview
- 2. Amanda Woodward, Infant perception of intentional action
- 3. Christopher Moore, Intentional relations and social understanding in infancy
- 4. Dare Baldwin, Language learning: A window on emerging intentional understanding
- 5. Paul Bloom, Intentions, essences, and children's understanding of everyday objects
- 6. Katherine Nelson, Social and relational perspectives on the development of intentionality
- 7. Robyn Fivush, Framing of questions for discussion

12:00- 1:00 Lunch (ad lib)

1:00- 2:45 Hatteras **Symposium** 

#### **Spatial Cognitive Development: A Map to the Child's Mind?**

ORGANIZER: John P. Spencer, University of Iowa

PARTICIPANTS:

John P. Spencer, University of Iowa Jodie M. Plumert & Alycia M. Hund, University of Iowa Eric Satlow, Julia Sluzenski, & Nora Newcombe, Temple University Janellen Huttenlocher, University of Chicago Judy DeLoache, University of Virginia

The field of spatial cognition has had a rich empirical history, providing insights into how children organize actions in the world, remember the locations of objects, and use symbols as representations of real spaces. Although these insights are important in their own right, this symposium brings together researchers using spatial cognition as a model system to ask questions about how basic cognitive processes change over development.

The five talks in this symposium explore change in cognitive processes at different levels of complexity from micro, second-tosecond neural processes to the more macro processes that underlie spatial reasoning and symbolic thought. The first speaker will present evidence from a neural network model that proposes that increases in the precision of interactions in working memory underlie both quantitative and qualitative changes in children's ability to integrate location cues. The next talk discusses the integration of location cues over a longer time scale and presents a domain general view of category formation based on the relative weighting of cues. The third and fourth talks examine more macro cognitive processes-children's ability to operate upon and reason about spatial information. The third talk examines children's reasoning about spatial relations. The fourth talk presents evidence that young children rely on relative coding, rather than on formal measurement systems, when using maps. The final talk moves to the most macro level, examining children's understanding of spatial symbols. Taken together, these presentations will illustrate that results from spatial tasks have domain-general implications and truly provide "a map to the child's mind".

1:00- 2:45 May/Lookout Symposium

#### True or False: Do 4- and 5-Year-Olds Really Understand Belief?

ORGANIZER: William Fabricius, Arizona State University

PARTICIPANTS:

Josef Perner, University of Salzburg

William Fabricius, Arizona State University and Ty Boyer, University of Maryland

Ori Friedman, Boston College

DISCUSSANT: John Flavell, Stanford University

Recent evidence has been accumulating of some surprising errors by 4-, 5-,

and 6-year-old children in certain new versions of both false belief and true belief tasks. The goal of this symposium is to bring together the researchers who have examined these errors, to assess the robustness of

these errors and to evaluate their theoretical implications. The errors in the newer tasks suggest that the classic belief tasks may overestimate what children know about representational mental states. This is an important issue to address and resolve soon because the classic versions of the belief tasks are extensively used as assessment tools, and findings from the tasks provide foundation for current theories of cognitive development.

The presenters represent a combination of "expert" and "new" perspectives on assessing children's understanding of beliefs, and they are already familiar with each other's work which will allow a dialogue among the presentations as we try to arrive at some consensus. Josef Perner and Bill Fabricius examine the possibility that children might pass the false belief task by simply reasoning that Maxi does not know the chocolate is in B when he returns (because he doesn't see it), and that he would therefore look in the

"wrong" place for it (in A, which happens to be the false belief location). Both researchers discuss findings from new, 3-alternative false belief tasks. Perner finds evidence that 4- and 5-year-olds understand false beliefs. Fabricius, using a different questioning procedure, does not. Fabricius and Ori Friedman present findings that 4- and 5-year-old children also fail to attribute true beliefs. They use different tasks, but in each some change of location or contents leaves the true belief intact. John Flavell will provide the discussion

3:00- 4:45 Hatteras Symposium

#### Rule use through the lens of the Dimensional Change Card sort: What develops?

ORGANIZER: Ulrich Müller, Penn State

PARTICIPANTS:

Adele Diamond & Natasha Kirkham; UMass Medical School (Shriver Center Campus), & Cornell University

Yuko Munakata & Benjamin Yerys, University of Denver, Colorado

Josef Perner & Birgit Lang, University of Salzburg

Ulrich Müller & Philip David Zelazo, University of Toronto DISCUSSANT: Philip David Zelazo, University of Toronto

The Dimensional Change Card Sorting task (DCCS) is one of the most frequently used measures of children's ability to use verbal rules to control their behavior, and as such, it has the potential to shed light on the development of the conscious control of thought and action. In the standard version of the task, children are required first to sort cards according to one pair of rules (e.g., color rules), and then to switch and sort the same cards according to another pair of rules (e.g., shape rules). Research has consistently shown that the majority of 3-year-olds perseverate on the pre-switch rules during the post-switch phase of the task. In addition, 3-year-olds perseverate on the preswitch rules despite being able to state the post-switch rules, which suggests that they display a dissociation between action and explicit knowledge. By 4 years of age, children typically sort correctly during the post-switch phase.

The proposed symposium brings together 4 sets of researchers who have approached the DCCS from different theoretical perspectives. Adele Diamond and Natasha Kirkham will discuss the relation between the DCCS and task switching. Yuko Munakata and Benjamin Yerys will address the dissociation between action and verbal knowledge and examine the role of negative feedback on DCCS performance. Josef Perner and Birgit Lang will present recent data showing that performance on the DCCS hinges on the fact that it involves an extradimensional shift and employs target cards that create a "visual incongruency" on the ignored dimension. Ulrich Müller and Philip Zelazo will describe the results of recent research on the roles of selective attention and negative priming in the DCCS. Finally, Philip Zelazo will discuss the papers.

By focusing on a single paradigm, the researchers are able to provide detailed models of the cognitive processes underlying rule use and its development during the preschool years. The presentation of these models in one symposium will clarify the similarities and differences between them, and raise questions for future research.

3:00-4:45 May/Lookout Symposium

### Examining the relation between causal cognition and action.

ORGANIZER: David M. Sobel, Brown University PARTICIPANTS:

Jessica Sommerville, University of Chicago David M. Sobel, Brown University

Tamar Kushnir, University of California, Berkeley Laura Schulz, University of California, Berkeley

Daniel J. Povinelli, University of Louisiana at Lafayette

Damei J. Povinem, Oniversity of Louisiana at Larayette

Adults possess a coherent representation of the causal relations among events. This representation enables them to make predictions about future events, provide explanations of past events, and interpret current events in a causal manner. In addition, adults can

produce interventions that demonstrate an understanding of causal structure. Those interventions may consist of acting on the world to produce a novel causal action or searching for hidden potential causes.

The goal of this symposium is to explore whether infants', children's, and non-human primates' understanding of causality shares this coherent structure. Investigating various ages and species allows us to examine different theoretical perspectives on the development of causal knowledge. All four papers, however, are motivated by a unifying theme: that the participants' own actions are related to and reflect their knowledge of causal structure.

In her paper, Sommerville will present research demonstrating that infants' own goal-directed reaching behavior is predictive of their understanding of human actor's reaching. Sobel and Kushnir will show that preschool children can make inferences based on indirect evidence and use those inferences to intervene appropriately on objects to elicit causal effects. Although these two papers have similar findings, they argue for different theoretical perspectives. Schulz examines the role of interventions on slightly older children's understanding of causal structure. While Sobel and Kushnir find that children can base interventions on their inferences, she finds they are also capable of the opposite: that children can use interventions to make inferences. Finally, Povinelli will present studies on behavior measures of the explanatory abilities of children and chimpanzees. His research explores whether both children's and chimpanzees' search behavior reflects a desire and an ability to explain events in the world.

5:30-7:00 Henry I-II, & Charles Poster Session 1 Ocean Grand Foyer Snacks & Cash Bar