JESSICA D. PAYNE, PH.D.



Director, Sleep, Stress and Memory (SAM) Laboratory Assistant Professor, Nancy O'Neill Collegiate Chair in Psychology University of Notre Dame • Department of Psychology Haggar Hall, Room 122-B • Notre Dame, IN 46556



PRIMARY ACADEMIC POSITION

July, 2010- Assistant Professor and Nancy O'Neill Collegiate Chair in Psychology, Department of Psychology, University of Notre Dame

OTHER ACADEMIC POSITIONS

2011-2012 H. Smith Richa	dson Jr. Fellow , Ce	enter for Creative Le	eadership, Greensboro, NC
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July, 2009- Visiting Scientist, Harvard Medical School, Beth Israel Deaconess Medical Center, Dept. of

Psychiatry, Boston, MA

EDUCATION

2006-2009	Harvard University, Postdoctoral Fellow, Psychology/Cognitive Neuroscience <i>Advisors</i> : Daniel Schacter and Robert Stickgold
2005-2006	Harvard Medical School, Beth Israel Deaconess Medical Center, Postdoctoral Fellow, Cognitive Neuroscience Advisor: Robert Stickgold
2000-2005	University of Arizona, Ph.D., Psychology/Cognitive Neuroscience <i>Advisor</i> : Lynn Nadel

1997-1999 Mount Holyoke College, M.A., Experimental Psychology

1991-1995 University of San Diego, B.A., Psychology, summa cum laude

RESEARCH GRANTS AND TRAINING FELLOWSHIPS

2010-2013 Co-Principal Investigator National Science Foundation \$454,888

Sleep Dependent Preservation of Emotional Memory: EEG and fMRI Investigations (BCS-0963581).

In collaboration with Elizabeth Kensinger, Ph.D. at Boston College, this project uses polysomnographic (PSG) sleep studies and fMRI to examine emotional memory formation during sleep. Through the newly formed Notre Dame/Boston College Cognitive Neuroscience Exchange Program, undergraduates from Notre Dame spend a summer in Boston learning fMRI techniques, and Boston College students spend a summer here at Notre Dame to learn sleep polysomnography.

2011-2016 Co-Investigator National Institutes of Health \$3 million

Notre Dame Study of Well-Being (NDHWB). In collaboration with Cindy Bergeman, Ph.D. at the University of Notre Dame, this project aims to detail the types and qualities of life stress that initiate cascades of perceptual, emotional, and biological responses that can lead to disorder and disease, and to examine coping resources that protect against them.

Pending Principal Investigator Searle Scholar's Program \$300,000

The Sleep-Stress Continuum: Uncovering the interactions among sleep, stress, memory formation and emotional well-being. I was selected as Notre Dame's single applicant for this competition. The aim of the proposed research is to discover the basic mechanisms by which sleep, stress, and affect interact to influence memory formation and emotional well being.

Applied Principal Investigator Phillips/Respironics \$150,000

Sleep-Dependent Memory Consolidation Deficits in Obstructive Sleep Apnea and Potential Benefits of CPAP Treatment. In collaboration with Gabriel, Ph.D. this project examines whether people suffering from obstructive sleep apnea (OSA) have impaired sleep-dependent memory consolidation and whether CPAP therapy can remedy these memory impairments.

Past

2006-2009	Harvard University, Mind, Brain and Behavior Postdoctoral Research Fellowship	
	The role of sleep in episodic memory consolidation	
2000-2003	McDonald-Pew Cognitive Neuroscience/Flinn Foundation Graduate Fellowship	
	The effects of stress on human memory function	
2003	Fellow, Vivian Smith Advanced Studies Institute of the International Neuropsychological	
	Society	
2002	University of Arizona Research Grant	
1994-1995	Associated Students Research Grant (University of San Diego)	

HONORS AND AWARDS

Research/Academic

2011-14	Nancy O'Neill Collegiate Chair in Psychology – awarded for outstanding research, teaching and service at the University of Notre Dame (associated with a research award of \$60,000 to be used for projects of my choice)
2011-12	H. Smith Richardson Jr. Fellow, Center for Creative Leadership, Greensboro, NC (associated with a research award of \$20,000 to be used for a project of my choice)
2011	Notre Dame's single candidate to apply for Searle Scholars Funds
2010	Laird Cermak Award for early contribution to memory research – given to candidates who are
	less than five years from completion of training for outstanding research in memory or memory disorders
2010	Provost's interfaculty initiative on interdisciplinary research, funds awarded for program in
	Brain, Mind and Behavior
2006-2008	Abstract Awards for Scientific Merit, Sleep Research Society
1995	Psychology Research Award for Honors Thesis
1995	Departmental Honors in Psychology
1994-1995	President, Psi Chi: University of San Diego
1992-1995	Dean's List, First Honors
1991-1995	University of San Diego Honors Program
7 7. 1.	
Teaching	
2008-2009	Harvard University Derek Bok Center Certificate of Distinction in Teaching
2007-2008	Harvard University Derek Bok Center Certificate of Distinction in Teaching
2006-2007	Harvard University Derek Bok Center Award for Teaching Excellence
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PUBLICATIONS

- + Author is a postdoctoral fellow
- * Author is a graduate student
- o Author is an undergraduate

JOURNAL ARTICLES

In Press

^oSteinberger, A., **Payne**, **J.D**., & Kensinger, E.A. The effect of cognitive reappraisal on the emotional memory trade-off. *Cognition and Emotion*. (doi:10.1080/02699931.2010.538373).

2011

- **Payne, J.D.** (2011). Sleep on it: Stabilizing and transforming memories during sleep. *Nature Neuroscience*, 14(3), 272-274.
- **Payne, J.D.** & Kensinger, E.A (2011). Sleep leads to qualitative changes in the emotional memory trace: Evidence from fMRI. *Journal of Cognitive Neuroscience*, 23(6), 1285-1297.
- *Hoscheidt, S.M, Nadel, L., **Payne, J.D**., & Ryan, L (2011). Hippocampal Activation during Retrieval of Spatial Context from Episodic and Semantic Memory. *Behavioural Brain Research*, 212, 121-132.
- **Payne, J.D.** (2011). Learning, memory and sleep in humans. Sleep Medicine Clinics, 6(1), 15-30.

<u> 2010</u>

- **Payne, J.D.** (2010). Memory consolidation, the diurnal rhythm of cortisol, and the nature of dreams: A new hypothesis. *International Review of Neurobiology*, *92*, *101-136*.
- *Tamminen, J., **Payne, J.D.** Stickgold, R., Wamsley, E.M. and Gaskell, M. (2010). Sleep spindle activity is associated with the integration of new memories and existing knowledge. *Journal of Neuroscience*, 30(43), 14356-14360.
- *Waring, J.D., **Payne, J.D**. & Kensinger, E.A (2010). Impact of individual differences upon emotion induced memory trade-offs. *Cognition & Emotion*, 24, 150-167.
- **Payne, J.D.** & Kensinger, E.A (2010). Sleep's role in the consolidation of emotional episodic memories. *Current Directions in Psychological Science*, 19(5), 290-295
- Wamsley, E.J., Tucker, M.A., **Payne**, **J.D**., & Stickgold, R. (2010). A brief nap is beneficial for human route learning: the role of initial skill level and EEG spectral power. *Learning and Memory*, 17, 332-336.
- Wamsley, E.J., Tucker, M.A., **Payne, J.D**., & Stickgold, R. (2010). Dreaming of a Learning Task is associated with Enhanced Sleep-Dependent Memory Consolidation. *Current Biology*, 20(9), 850-855.

<u>2009</u>

Payne, J.D., Schacter, D.L., Tucker, M.A., Wamsley, E., ⁰Huang, L., Walker, M.P., & Stickgold, R. (2009).

The role of sleep in false memory formation. Neurobiology of Learning and Memory, 92, 327-334.

Payne, J.D., and Walker, M.P (2009). Does delta sleep matter? Insomnia and its optimal management, 10, 3-10.

2008

Payne, J.D., Stickgold, R., ^oSwanberg, K., & Kensinger, E.K. Sleep preferentially enhances memory for emotional components of scenes (2008). *Psychological Science*, 19(8), 781-788.

2007

- **Payne, J.D.**, Jackson, E.D., *Hoscheidt, S., Ryan, L., Jacobs, W.J. & Nadel, L. (2007). Stress administered prior to encoding impairs neutral but enhances emotional long-term episodic memories. *Learning & Memory*, 14, 861-868.
- Ellenbogen, J.M., Hu, P., **Payne, J.D**., Titone, D. & Walker, M.P. (2007). Human relational memory requires time and sleep. *Proceedings of the National Academy of Sciences*, 104, 7723-7728.

2006

- **Payne, J.D.**, Jackson, E.D., Ryan, L. *Hoscheidt, S., Jacobs, W.J., & Nadel, L. (2006). The impact of stress on memory for neutral vs. emotional aspects of episodic memory. *Memory*, *14*(1), 1-16.
- Ellenbogen, J.M., **Payne**, **J.D**., & Stickgold, R. (2006). Sleep's role in declarative memory consolidation: Passive, Permissive, Active or None? *Current Opinion in Neurobiology*, *16*, 716-722.
- Jackson, E.D., **Payne, J.D**., Nadel, L. & Jacobs, W.J (2006). Stress differentially modulates fear conditioning in healthy men and women. *Biological Psychiatry*, *59*, 516-522.

2005

Payne, J.D., Britton, W.B., Bootzin, R.B., & Nadel, L. (2005). Beyond Acetylcholine: Next steps for sleep and memory research. *Behavioural Brain Sciences*, 28, 77.

2004

Payne, J.D. & Nadel, L. (2004). Sleep, dreams and memory consolidation: The role of the stress hormone cortisol. *Learning & Memory, 11*, 671-678.

2003 and Prior

- **Payne, J.D.**, Nadel, L., Allen, J.J.B., Thomas, K.G.F. & Jacobs, W.J. (2002). The effects of experimentally induced stress on false recognition. *Memory*, 10, 1-6.
- Nadel, L. & **Payne**, **J.D**. (2002). The relationship between episodic memory and context: Clues from memory errors made while under stress. *Physiological Research*, *9*, 74-89.
- Deutsch, F.M., Servis, L. J. & **Payne**, **J. D**. (1998). Paternal participation in childcare and its effects on children's self-esteem. *Journal of Family Issues*, 22, 1000-1024.

BOOK CHAPTERS

- *Hoscheidt, S. M., **Payne, J.D.,** Dongaonkar, B. & Nadel, L. Emotion, stress and memory. In *The Oxford Handbook of Cognitive Psychology*, Reisberg (Ed). New York: Oxford University Press, Oxford, UK. In Press
- **Payne, J.D.**, Ellenbogen, J.M., Walker, M.P., & Stickgold, R. (2008). The role of sleep in memory consolidation. In, *Learning and Memory: A Comprehensive Reference* and *Concise Learning and Memory: The Editor's Selection (John H. Byrne, Ed), pp 547-569*. Elsevier Press. Oxford UK.
- **Payne, J.D.**, Nadel, L., Britton, W.B. & Jacobs, W.J. (2004). The biopsychology of trauma and memory. In *Emotion and Memory*, pp. 76-128, D. Reisberg and P. Hertel (Eds.). Oxford, UK: Oxford University Press.
- Nadel, L. & **Payne**, **J.D**. (2002). The hippocampus, wayfinding, and episodic memory. In P. Sharp (Ed.). *The neural basis of navigation: Evidence from single cell recording* (pp. 235-247). Boston: Kluwer Academic Publishers.

ARTICLES UNDER REVIEW

- **Payne, J.D.,** Tucker, M.A., Ellenbogen, J.M., Walker, M.P., Schacter, D.L. & Stickgold, R. Sleep's effect on memory for semantically related and unrelated paired-associates.
- **Payne, J.D.**, Stickgold, R., Tucker, M.P., Wamsley, E., & Kensinger, E.K. A daytime nap preferentially promotes emotional memory formation.
- *Braun, M.E., Bergeman, C.E., & **Payne, J.D**. Daily Associations Between Sleep, Stress, and Emotional Reactivity During Midlife.

ARTICLES IN PREPARATION

- ^oMattingly, S., Chambers, A., Wirth, M., Cunningham, T. & **Payne, J.D**. The impact of stress and cortisol on emotional tradeoff effects in long-term memory
- **Payne, J.D.**, Stickgold, R., Wagoner, A., & Kensinger, E.A. Sleep soon after learning promotes lasting emotional memories. *Manuscript in preparation*.
- **Payne, J.D.**, Schacter, D.L., *Chamberlain, J., & Stickgold, R. Sleep's influence on memory consolidation in Bartlett's "War of the Ghosts" paradigm. *Manuscript in preparation*.
- **Payne, J.D.** Dreams as a window into memory consolidation and the diurnal rhythm of cortisol. *Manuscript in preparation*.
- ^oTahir, A.M., Radvansky, G.A., McNerney, W., Chaundhary, B.A., & **Payne, J.D.** Memory Consolidation in Obstructive Sleep Apnea and the Implications of CPAP Treatment . *Manuscript in preparation*.
- *Hoscheidt, S.M., **Payne, J.D**., Jacobs, W.J., & Nadel, L. Stress administered immediately after encoding: Influence on emotional and neutral episodic memories. *Manuscript in preparation*.
- **Payne, J.D.** The influence of stress on false memory formation. *Manuscript in preparation*.

Payne, J.D. Sleep promotes qualitative changes in memory. *Manuscript in preparation*.

TEACHING EXPERIENCE

University of Notre Dame

2010-The Sleeping Brain (seminar)

2010-Introduction to Cognitive Neuroscience (lecture)

Harvard University

2006-2009 Neurobiology 95hjf, The Sleeping Brain (seminar)

University of Arizona

2001-2004 Human Memory (lecture)

Guest Lectures (most recent)

Stress and Stress Hormones, Dr. Michelle Wirth, University of Notre Dame (Stress and memory) Fall, 2011 Fall, 2009-10 Biological Psychology, Dr. Michelle Wirth, University of Notre Dame (Sleep and memory) Cognitive Neuroscience, Dr. Sue Corkin, MIT (The effect of sleep and stress on human memory) Fall, 2008 Spring, 2008 Topics in Cognitive Neuroscience, Dr. Jessica Andrews, Harvard University (Sleep and memory)

Laboratory Instructor (Mount Holyoke College)

1998-1999 Statistics

1997-1998 **Experimental Methods**

Teaching Assistantships

2001-2005

Human Perception (University of Arizona) 2003 Psychology of Gender (University of Arizona) 2002

MENTORING EXPERIENCE

2011-	Graduate Student Advisor, Enma Pardillo-Delgado, University of Notre Dame
2011-	Graduate Student Advisor, Tony Cunningham, University of Notre Dame
2011-	Honors Thesis Advisor, Bridget Quinn, Chris Stare, Brooke Reid, Univ Notre Dame
2010-	Graduate Student Advisor, Alexis Chambers, University of Notre Dame
2010-	Honors Thesis Advisor, Stephen Mattingly, University of Notre Dame
2008-2009	Undergraduate honors thesis advisor, Erin Miles, Harvard University: "The Role of Sleep in
	Reality Monitoring and Emotional False Memory Formation"
2008-2009	Undergraduate honors thesis project co-advisor, Alison Wagoner, Boston College: "Rapid Eye
	Movement Sleep and Emotional Memory Consolidation"
2008	Undergraduate summer research fellowship advisor, <u>Sara Teicholtz</u> , Wellesley College: "Relaxed
	Wakefulness vs. Sleep: Effects on Memory Consolidation"
2008	Undergraduate summer research fellowship advisor, Harvard University: Kyle Gibler, "The
	Polysomnological Correlates Memory for Semantically Related and Unrelated Word lists
	Following Sleep". Kyle was awarded both Harvard's PRISE and Herschel Smith Fellowships for
	this proposal.
2007-2008	Undergraduate honors thesis project advisor, Harvard University: <u>Li-Wen Huang</u> , "The Effect of
	a Brief Daytime Nap on the Consolidation of Declarative Memories". This thesis won the Harvard
	Hoopes Prize, which is a University-wide thesis award for excellence in research. The student
	receives \$2,500 and the supervisor receives \$700
2006-2007	Master's thesis project advisor, Harvard Medical School: Mahssa Karimi, "A Night of Sleep
	Involving Slow-Wave Sleep is Necessary for Declarative Memory Consolidation"
2006-2007	Undergraduate research supervisor, Harvard University

Undergraduate research advisor, University of Arizona

2003-2005	High School research project advisor
1994-1995	Peer Advisor, Writing Center, University of San Diego
1994-1993	Peer Counselor, University of San Diego

UNIVERSITY LEADERSHIP ROLES

University of Notre Dame

2011-	Member, Notre Dame working group on Human Nature (with Agustin Fuentes, funded by the
	John Templeton Foundation grant "The Human Nature(s) Project). 2011
2011	Speaker, "Sleep for Students", Psychology Club
2010	Panel Member, Navigating the Academic Job Market
2010	Departmental Hiring Committee (Position in Behavioral Oncology, Department of Psychology
2010	Co-Founder, Conversations in Brain, Mind and Behavior (sponsored by Provost Burish)
2010	College Council, University of Notre Dame
2010	Judge, Siemens Math Science and Technology Regional Competition, University of Notre Dame
2009-	Co-Supervisor, Student Neuroscience Club (Student Brain, Mind and Behavior)
2009	Departmental Colloquium Committee (Dept of Psychology)

University of Arizona

2003	Graduate student representative for the Cognitive Psychology hiring committee
2002	Departmental representative to Graduate Student Council
2003	Co-organizer, prospective student weekend
2003	Co-organizer, weekly memory meeting

OTHER DEPARTMENTAL SERVICE

Prelims committee member: University of Notre Dame

(Cognitive Program, University of Notre Dame) Andrea Tamplin (Cognitive Program, University of Notre Dame) Anne Thompson (Clinical Program, University of Notre Dame)

Dissertation committee member: University of Notre Dame and other

Marcia Braun (Developmental Program, University of Notre Dame)
Matthew Tucker (doctoral dissertation, City College, NYC)
Erin Wamsley (doctoral dissertation, City College, NYC)
Windy McNerny (doctoral dissertation, University of Notre Dame)
Goali Auzeen Saedi (doctoral dissertation, University of Notre Dame)
Alissa Russel (doctoral dissertation, University of Notre Dame)

PROFESSIONAL SERVICE

2010-present	Editorial Board Member, Frontiers in Sleep and Chronobiology
2009-present	Educational Programs Committee Member, Sleep Research Society
2009-present	Medical Advisory Roard Humana

2009-present Medical Advisory Board, *Humana*

Ad Hoc Reviewer: Behavioural Brain Research • Behavioral Neuroscience • Biological Psychiatry • Cerebral Cortex • Cognitive, Affective and Behavioral Neuroscience (CABN) • Cognition • Cognition and Emotion • Consciousness and Cognition • Current Biology • Emotion • Experimental Brain Research • Future Neurology • Journal of Clinical Psychiatry • Journal of Cognitive Neuroscience • Journal of Neuroscience • Journal of Physiology • Learning and Memory • Nature Neuroscience • Neurobiology of Learning and Memory • Neurobiology of Aging • Neuron • Neuroscience • Neuroscience and Biobehavioral Reviews • PLoSONE • Physiology and Behavior • Psychological Science • Psychoneuroendocrinology • SLEEP • Sleep Medicine •

Social, Cognitive and Affective Neuroscience • Stress • Trends in Neuroscience • Wiley Interdisciplinary Reviews: Cognitive Science

Grant Reviewer (Ad Hoc):

2008	South African Research Council, The relationship between cortisol and dreaming in patients
	taking corticosteroid medications
2010	Netherlands Organization for Scientific Research, Making Memories, Replay or Decay
2010	National Science Foundation (Cognitive Neuroscience)
2010	National Science Foundation (Perception, Action and Cognition)

PROFESSIONAL MEMBERSHIPS

Association for Psychological Science (APS) • Cognitive Neuroscience Society • International Neuropsychological Society • Psychonomic Society • Society for Neuroscience • Society for Sleep Research

SYMPOSIUM ORGANIZER and CHAIR

Sleep-Based Consolidation of Hippocampal Memory. Hippocampal Research Conference, Verona, Italy (May 2011)

Sleep and Cognition: Findings across Domains. Association for Psychological Science, Washington D.C (May, 2007).

INVITED TALKS

Sleep and the Transformation of Memories for Emotionally Negative Events. Winter Conference on Memory. Lübeck, Germany (December, 2011).

The Senior Executive Brain: What can Neuroscience Teach us about Leading Well? Neuroleadership Summit. San Francisco, CA (November, 2011).

Sleep on it! There's More to it than just the Old Adage. Mendoza College of Business Executive Integral Leadership Program. Notre Dame, IN (September, 2011).

Sleep, Dreams, Memory: Lingering Questions. Symposium I: Young Innovators in Psychology. Cape Cod, MA. (June, 2011).

Sleep on it! There's More to it than just the Old Adage. Mendoza College of Business Staff Development Day. Notre Dame, IN (June, 2011).

Sleep, Stress and Positive Affect: What Business Leaders Need to Know about the Brain. Center for Creative Leadership, Greensborough, NC (May, 2011)

Sleep Restructures the Emotional Memory Trace: Behavioral and Neural Evidence. Laird Cermak Award Address, International Neuropsychological Society (INS), Boston, MA (January, 2011).

Sleep, Memory Transformation, and Creativity. Cognitive/Cognitive Neuroscience Brown Bag, Purdue University (Dec 2010)

The Neural Challenges of the Senior Leader. Neuroleadership Summit. Boston, MA (November, 2010)

Creativity and the Law. University of Notre Dame Law School, Notre Dame, IN (November, 2010).

Where Business Meets Neuroscience. Humana, INC. Louisville, KY (October, 2010)

Emotional Memory, Stress and Sleep. Massachusetts Institute of Technology (MIT) conference on Learning and Memory in the Modern Age (January, 2010)

Sleep's Role in Memory Consolidation. Departmental Colloquium, Stony Brook University (May, 2009)

Sleep and Memory Transformation. Cognitive Brown Bag, UMASS Amherst (April, 2009)

Sleep Selectively Enhances Emotional Components of Scenes. International Congress on Psychology, Berlin, Germany (July, 2008)

Emotional Memory, Sleep and Dreaming. Association for the Study of Dreams, Montreal, Canada (July, 2008)

Stress Damages the Mind, Body and Brain, Humana, Inc., Louisville, KY (April, 2008)

Sleep-based Memory Consolidation, Worcester State College, Worcester, MA (March, 2008)

Sleep on it! There's more to it that just the old adage, Humana Inc., Louisville, KY (January, 2008); Knowledge Leadership Forum, Cambridge, MA (January, 2008); Ketchum, Inc., New York City (March, 2008); Intelligence Leadership Forum, Amelia Island, Florida (Feburary, 2008)

Sleep, Cognitive Flexibility, and Qualitative Changes in Memory. International Neuropsychological Society, Mati, Greece (June, 2007)

Stressing Memory. Boston College (March, 2007)

Stress, Cortisol, the Catecholamines, and Human Memory Function. Harvard Medical School Neurophysiology Seminar (September, 2005)

To Sleep Perchance to Dream: Memory, Cortisol and the Nature of Dreams. MDRS, Chicago, IL (Oct, 2004)

Stress and Binding in Various Forms of Episodic Memory. University of Arizona Brain, Behavior and Computation Seminar. (November, 2003)

PROFESSIONAL TALKS

Sleep-based Emotional Memory Formation: Sleep Stage Correlates. Society for Neuroscience, Washington D.C. (November, 2011).

Sleep Transforms the Emotional Memory Trace: Behavioral and Neural Evidence. International Congress on Memory (ICOM). York, England (August, 2011).

Emotional Memory Formation and Sleep. Hippocampal Research Conference, Verona, Italy (May, 2011).

Sleep's Role in the Consolidation of Emotional Episodic Memories: Evidence from EEG and fMRI. Annual meeting of the Cognitive Neuroscience Society, San Francisco, California (April, 2011).

Sleep Triggers Lasting Changes in the Emotional Memory Trace: Evidence from fMRI, APSS/Sleep Research Society, San Antonio, TX (June 2010).

Sleep Promotes Long-Lasting Changes in Emotional Memories, APSS/Sleep Research Society, Seattle, Washington (June 2009).

Slow-wave Sleep Correlates Negatively with a Declarative Memory Task, Sleep Research Society, Baltimore, Maryland (June, 2008).

The Impact of Sleep on Emotional Memory Trade-offs. Sleep Research Society, Minneapolis, MN. (June, 2007).

Sleep On It to Get the Gist: Memory Associations across the Night. Annual meeting of the Association for Psychological Science. Washington D.C. (2007)

Sleep increases Veridical and False Recall of Semantically Related Words. Annual meeting of the Psychonomic Society, Houston, TX (2006).

Sleep on it to get the Gist. Annual meeting of the Society for Neuroscience, Atlanta, Georgia (2006).

The Impact of Stress on Perceptual and Memorial binding: Illusory Conjunctions and False Memories. University of Arizona Memory Group (2004).

The Impact of Stress on False Recognition in the Deese Roediger McDermott (DRM) Paradigm. University of Arizona Memory Group (2002).

Memory, Distractor Tasks and the Resource Demands of Different Cognitive Tasks. Annual meeting of the Western Psychological Association. Seattle, WA (1997)

CONFERENCE ABSTRACTS (Past 5 Years)

^oTahir, A.M., Radvansky, G., *McNearny, W.M., Chaudhary, B.A., & **Payne**, **J.D.** (2010, June). Regeneration of overnight picture and sentence memory consolidation abilities in CPAP patients.

Wamsley, E., Tucker, M., **Payne, J.D**. & Stickgold (2010, April). Dreaming of a learning task is associated with enhanced sleep-dependent memory consolidation. Presented at the annual meeting of the Cognitive Neuroscience Society, Montreal, Canada.

*Tammanien, J., Gaskell, G., Wamsley, E., Stickgold, R., & **Payne, J.D** (2009, November). Sleep spindle activity correlates with integration of newly learned words in the mental lexicon. Presented at the 4th Computational Cognitive Neuroscience Conference, Boston, MA.

Wamsley, E., Tucker, M.A., **Payne, J.D**., Stickgold, R. (2009, May). A brief nap is beneficial for human route learning: the role of initial skill level and EEG spectral power. Poster presented at the annual meeting of the Sleep Research Society, Seattle, WA.

Payne, J.D. Schacter, D.L., & Stickgold, R. (2008, May). Sleep stage correlations in a semantic memory task. Poster presented at the annual meeting of American Psychological Association, Chicago, IL.

Payne, J.D., Jackson, E.D., Hoscheidt, S.M., Ryan, L., Jacobs, W.J., & Nadel, L. (2008, May). Stress administered at encoding differentially effects memory for emotional and neutral experience. Poster presented at the annual meeting of American Psychological Association, Chicago, IL.

Payne, J.D., Stickgold, R., & Kensinger, E.K. (2008, June). Sleep's influence on emotional episodic memory. Cognitive Neuroscience of Visual Knowledge: Where Vision meets Memory, Medford, MA.

^{*}Chamberlin, J., **Payne, J.D.,** Schacter, D.L., & Stickgold, R. (2008, May). Sleep effects on memory for Bartlett's "War of the Ghosts" story. Poster presented at the annual meeting of American Psychological Association, Chicago, IL.

- **Payne, J.D.,** Stickgold, R., Swanberg, K., & Kensinger, E.K. (2007, July). *Emotional memory and sleep*. European Psychonomic Society. Edinburgh, Scotland.
- **Payne, J.D.**, Ellenbogen, J.M., Walker, M.P., Schacter, D.L., & Stickgold, R. (2007, May). *Sleep, memory consolidation, and semantic relationships in a verbal declarative memory task*. Poster presented at the annual Cognitive Neuroscience Science meeting. New York City, NY.
- *Warning, J., **Payne, J.D.** & Kensinger, E.K. (2007, May). *Increased anxiety and poor executive control increase emotion-induced memory trade-offs*. CNS. New York City, NY.
- *Hoscheidt, S.M., **Payne, J.D.,** Ryan, L., & Nadel, L. (2007, May). Brain regions involved in the retrieval of spatial vs. nonspatial information in episodic memory: An fMRI study. CNS, New York City, NY.
- **Payne, J.D.**, Propper, R., Walker, M.P., & Stickgold, R. (2006, April). *Sleep increases false recall of semantically related words*. HMS Department of Psychiatry Research Day. Boston, MA.
- **Payne, J.D.**, Propper, R., Walker, M.P., Schacter, D.L. & Stickgold. R. (2006, May/June). *Sleep on it to get the gist*. Poster presented at the annual APS meeting (New York, NY) and the annual meeting of the Sleep Research Society (Salt Lake City, Utah).
- **Payne, J.D.**, Ellenbogen, J.M., Walker, M.P., Schacter, D.L. & Stickgold, R. (2006, June). *Sleep-based consolidation of semantically related and unrelated word-pairs*. Poster presented at the annual meeting of the Sleep Research Society (Salt Lake City, Utah).
- *Hoscheidt, S, M., **Payne, J.D**., Patterson, D., Nadel, L., & Ryan, L. (2005, November). *Retrieval of spatial information in Semantic and Episodic Memory: an fMRI study*. Poster presented at the annual meeting of the Society for Neuroscience. Washington D.C.
- *Hoscheidt, S. M., **Payne, J.D.**, Patterson, D., Nadel, L. & Ryan, L. (2005, June). *Varying spatial information in semantic and episodic memory: an fMRI study*. Poster presented at the annual meeting of the Organization of Human Brain Mapping. Toronto, Canada.

MEDIA COVERAGE

Night owls more likely to suffer from nightmares, survey suggests (September, 2011)

Scientific American

http://www.scientificamerican.com/article.cfm?id=night-owls-more-likely-to-suffer-from-nightmares-survey-suggests

Nightmares more common in those who stay up late: Bad dreams may be linked to cortisol (September, 2011)

New York Daily News

http://www.nydailynews.com/lifestyle/health/2011/09/06/2011-09-

06_nightmares_more_common_in_those_who_stay_up_late_study_bad_dreams_may_be_linked_.html

What Neuroscience Can Teach Leaders (August, 2011)

Bloomberg Businessweek

http://www.businessweek.com/management/what-neuroscience-can-teach-leaders-08122011 page 2.html

Sleep Cherry-Picks Memories, Boosts Cleverness (December, 2010)

National Geographic

http://news.nationalgeographic.com/news/2010/12/101201-sleep-memories-health-brain-science/

Sleep Makes Your Memories Stronger, and Helps with Creativity (November, 2010)

Science Daily

http://www.sciencedaily.com/releases/2010/11/101113165441.htm

Sleep and do better (February, 2010)

Businessweek and MSN

http://www.businessweek.com/lifestyle/content/healthday/634169.html

http://health.msn.com/health-topics/sleep-disorders/articlepage.aspx?cp-documentid=100253724

How memory works (January, 2010)

Martha Stewart Living Magazine

http://www.wholeliving.com/article/memory

Memories! Is Sleep Key To What We Remember (and Forget)? Harvard Team Says "Yes"

The Daily Galaxy

 $http://www.dailygalaxy.com/my_weblog/2009/06/speak-memory-sleep-key-to-what-we-remember-and-what-we-forget.html$

Sleep may be important in regulating emotional responses (June, 2009)

Science Daily

http://www.sciencedaily.com/releases/2009/06/090611071359.htm

The power of power naps (March, 2008)

Scientific American

http://www.scientificamerican.com/blog/60-second-science/post.cfm?id=the-power-of-power-naps

Researchers find that sleep selectively preserves emotional memories (Aug, 2008)

Harvard Science

http://www.harvardscience.harvard.edu/medicine-health/articles/researchers-find-sleep-selectively-preserves-emotional-memories

Sleep helps preserve emotional memories (Aug. 2008)

Reuters

Can not sleeping erase your memories? (Aug, 2008)

Discover Magazine

http://blogs.discovermagazine.com/discoblog/2008/08/21/can-not-sleeping-erase-your-memories/

Sleep selectively preserves emotional memories (Aug, 2008)

Science Daily

http://www.sciencedaily.com/releases/2008/08/080814091411.htm

Creative dreams (Oct, 2006).

Nature

http://blogs.nature.com/news/blog/2006/10/sfn_creative_dreams.html

How we learn and remember. Don't lose sleep over it! (Jan, 2007)

Society for Neuroscience News Release.

http://www.sfn.org/index.cfm?pagename=news 101706c

How good sleep enhances memory functions, learning, and creativity. (Jan, 2007)

iHealthBulletin News.

http://www.ihealthbulletin.com/blog/2007/01/15/how-good-sleep-enhances-memory-functions-learning-and-creativity/

Sleep on this: Rest may aid memory (June, 2006).

Desert News.

http://findarticles.com/p/articles/mi_qn4188/is_20060624/ai_n16505602

Phantom memories: Stress wrecks your head, and sometimes, the truth (Jan, 2002).

Popular Science.

http://www.popsci.com/popsci/medicine/a0b8c4522fa84010vgnvcm1000004eecbccdrcrd.html

False memories (Nov, 2000).

The New Scientist.

http://www.newscientist.com/article.ns?id=dn140

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