

University of Massachusetts Boston
College of Advancing and Professional Studies
Critical and Creative Thinking

Instructor Information

Kathryn Cantrell, PhD, CCLS

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I'm happy to meet virtually whenever needed, email me to schedule a time

Note: Throughout the semester, I will communicate with you via your UMB email account. Please review the following website for a job aid that will assist you in forwarding your UMB email account to your personal account if you prefer:

<http://howto.wikispaces.umb.edu/Forward+Student+UMB+Email+to+Personal+Account>

Course Information

Course Title: Advanced Cognitive Psychology

Prerequisites: Permission of Instructor

Prerequisite Skills: Interest in cognitive psychology, personal growth, and an ability to reflect on theory and research.

Course Description: This graduate course is designed to introduce you to human cognitive processes. This course gives a survey of the field of cognitive psychology from an information-processing viewpoint. The course considers how people encode, organize, transform, and output information. Emphasis is given to such topics as concept formation, problem-solving, and creative thinking.

Technical Requirements: The course syllabus and the course material are available on Blackboard. Submit assignments only through Blackboard. Your readings will also be located on the Blackboard site.

Course Objectives:

1. To increase the knowledge of students of basic foundations in cognitive psychological research.
2. To become familiar and conversant with some of the main principles of cognitive psychology about how people perceive, remember, pay attention, reason, make decisions, and solve problems
3. Become aware of the role of conscious and unconscious processes in thinking.

4. To apply basic foundations in cognitive psychological research to the development of research.
5. Understand the many changes that occur in knowledge representation, thinking, and problem solving with the development of expertise, the strengths and limits of different problem solving methods, and the factors that promote the development of expertise.
6. To become familiar with the basic foundations in cognitive psychological research across the lifespan and the role of developmental processes in shaping these foundations.

Scientific Knowledge and Methods: Understanding of research, research methodology, techniques of data collection and analysis, biological bases of behavior, cognitive bases of behavior, and development across the lifespan. Respect for scientifically derived knowledge.

Research/Evaluation: Generating research that contributes to the professional knowledge base and/or evaluates the effectiveness of various professional activities.

Creative and Critical Thinking: Understanding of the field of cognitive psychology's conceptualization of creative and critical thinking.

Reflexivity: Respect for the ways in which the field of cognitive science intersects with one's values, biases, experiences, and vocational goals.

Class Structure: Daily class structure will include didactic material presented by the instructor, in-class observation and discussion of related multi-media material, and student-led discussions.

Required Assignments

Discussion Participation (20%)

This is a course rooted in thoughtful discussion and consideration of the material. It is incumbent upon you to be prepared at all times. Class participation is a major part of the course, and will require that you be active and engaged at each meeting, in addition to occasionally leading class discussions. You will be graded as a function of the depth, thoughtfulness, and activity of your participation. In order to do this, you need to be attentive, and to make substantive statements that go beyond merely [dis]agreeing and/or providing an example of your own experience. You need to explain your line of reasoning and show why the example is relevant. At minimum, constructive commentary requires analysis of the sources to defend a contention. Better is insightful performance that leads the listener to new insights and ideas through complex arguments that are rooted in the interplay and analysis of multiple sources. Often this requires a thesis, a discussion of the caveats to the thesis, and a resolution (synthesis) that indicates when the thesis does and does not apply. A good guideline is to make sure you have spoken substantively at least 2-3 times per class.

Weekly Reflections (40%)

Each week you will respond to a prompt provided to you regarding the weekly readings. Some reflection prompts will ask you to be creative. Each week you will construct one reflection and reply to a peer. If you post and reply by our meetings on Thursday, you will receive 5 points of credit for your reflection. You will be expected to complete 10* reflections for the semester. Grade will be out of 50 possible points. *this number may change based on workload for the semester.

Student-led Multimedia (10%)

Students will sign up for a week during the semester. During this week, they will bring to the online discussion a link, digital product, or book that they feel relates to the week’s topics and readings. Students will share their product with the group and engage the class in a brief discussion of the content and its relevance to the week’s topic. Feel free to choose content that you enjoy consuming. For example, a book you’ve read in the past that relates to the topic, a clip of a TV show you find memorable, a Ted Talk that expands on the ideas, etc. Rubric below:

<u>Points Possible</u>	<u>Criteria</u>
2	Did the student bring content to the weekly discussion?
2	Did the content relate to the topic and readings for the week?
2	Did the content expand on class conversations and bring in new ideas?
2	Did the student facilitate the discussion by linking classmates’ contributions and encouraging participation?

Total: __/8

Final Paper (30%)

The final will require you to write a review of the last 5-10 years of research literature (plus any prior seminal articles in the field) on a course-relevant topic of your choice (should include at least 10 articles, over and above anything covered in class). The paper should be about 8-12 pages (13 max) double-spaced, 12-point Times New Roman font, 1” margin. References should adhere to APA formatting. You should include a roadmap for your reader at the beginning of your paper to ensure clarity and organization. Please make an appointment with a reference librarian if you need help finding research articles (<http://umb.libanswers.com/>). The rubric for this assignment is listed on last page of syllabus.

Attendance

Note that attendance is a requirement in the course. According to university policies, absences can only be excused in the event of (a) an emergency or (b) notification is received in advance and the absence is for “legitimate” reasons (e.g., illness). Each unexcused or un-notified class period absence will result in a loss of half a grade. The course cannot be completed with more than 3 absences even in the case of excused absences. In this case, the student may elect to take an incomplete, if applicable. More than 3 unexcused absences will not receive a passing grade.

Assignment/Deliverable	Points	Grade %
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	Possible	
Discussion Participation	N/A	20
Weekly Reflection Prompts	50	40
Student-Led Multimedia	8	10
Final Paper	16	30
Total	74	100

Grading

Grading: Grade type for the course is a whole or partial letter grade. (Please see table below)
 Note: the lowest passing grade for a graduate student is a “C”. Grades lower than a “C” that are submitted by faculty will automatically be recorded as an “F”. Please see the Graduate Bulletin for more detailed information on the University’s grading policy.

Incomplete Policy: Incomplete grades can only be given if a student is in good standing and is prevented from completing the course by documented circumstances that are beyond his/her control. Incompletes are given only in special circumstances when the majority of work has been completed with a passing grade.

UMass Boston Graduate Grading Policy			
Letter Grade	Percentage		Quality Points
A	93-100%		4.0
A-	90-92%		3.7
B+	87-89%		3.3
B	83-86%		3.0
B-	80-82%		2.7
C+	77-79%		2.3
C	73-76%		2.0
F	0-72%		0.0
INC	Given under very restricted terms and only when satisfactory work has been accomplished in majority of coursework. Contract of completion terms is required.		N/A
INC/F	Received for failure to comply with contracted completion terms.		N/A
W	Received if withdrawal occurs before the withdrawal deadline.		N/A
AU	Audit (only permitted on space-available basis)		N/A
NA	Not Attending (student appeared on roster, but never attended class. Student is still responsible for tuition and fee charges unless withdrawal form is submitted before deadline. NA has no effect on cumulative GPA.)		N/A

Accommodations

The University of Massachusetts Boston is committed to providing reasonable academic accommodations for all students with disabilities. This syllabus is available in alternate format

upon request. Students with disabilities who need accommodations in this course must contact the instructor to discuss needed accommodations. Accommodations will be provided after the student has met with the instructor to request accommodations. Students must be registered with the Ross Center for Disability Services, UL 211, 617.287.7430, before requesting accommodations from the instructor. You must present and discuss these recommendations with the professor within a reasonable period, preferably by the end of the Drop/Add period.

Code of Student Conduct

It is the expressed policy of the University that every aspect of academic life--not only formal coursework situations, but all relationships and interactions connected to the educational process--shall be conducted in an absolutely and uncompromisingly honest manner. The University presupposes that any submission of work for academic credit is the student's own and is in compliance with University policies, including its policies on appropriate citation and plagiarism. These policies are spelled out in the Code of Student Conduct. Students are required to adhere to the Code of Student Conduct, including requirements for academic honesty, as delineated in the University of Massachusetts Boston Graduate Catalogue and relevant program student handbook(s) http://www.umb.edu/life_on_campus/policies/code.

You are encouraged to visit and review the UMass website on *Correct Citation and Avoiding Plagiarism*: <http://umb.libguides.com/GradStudiesCitations>

Other Pertinent and Important Information

Coursework Difficulties: Please discuss all coursework matters with me sooner than later.

Withdrawing From This Course: Please refer to the written policies and procedures on formal withdrawal and add/change dates listed in the Graduate Studies Bulletin.

You are advised to retain a copy of this syllabus in your personal files for use when applying for future degrees, certification, licensure, or transfer of credit.

Course Schedule

Week 1 Introduction to Cognitive Science

Date 09/12/19

Week 2 The Intersection of Psychology and Neuroscience, Autonomic Psychophysiology

Date 09/19/19

Readings (choose 4):

- Kanwisher, N. (2010). Functional specificity in the human brain: a window into the functional architecture of the mind. *Proceedings of the National Academy of Sciences*, 107(25), 11163-11170.
- Gazzaniga, M. S. (2010). Neuroscience and the correct level of explanation for understanding mind. *Trends in Cognitive Sciences*, 14(7), 297.
- Miller, G. A., & Keller, J. (2000). Psychology and neuroscience: Making peace. *Current Directions in Psychological Science*, 9(6), 212-215.
- de Waal, F. B. (2009). Darwin's last laugh. *Nature*, 460(7252), 175.
- de Waal, F. B., & Ferrari, P. F. (2010). Towards a bottom-up perspective on animal and human cognition. *Trends in Cognitive Sciences*, 14(5), 201-207.
- Treisman, A. (1986) Features and objects in visual processing. *Scientific American*, 255 (5), 114-125.

Student(s):

Week 3 Learning and Metacognition

Date 09/26/19

Readings:

- Lantolf, J. P. (2000). Introducing sociocultural theory. *Sociocultural Theory and Second Language Learning*, 1, 1-26.
- Piaget, J. (1964). Part I: Cognitive development in children: Piaget development and learning. *Journal of Research in Science Teaching*, 2(3), 176-186.
- Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, 84(1), 1.
- Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7(4), 351-371.

Student(s):

Week 4 Concept Formation and Heuristics

Date 10/03/19

Readings:

- Goldstein, D. G., & Gigerenzer, G. (2002). Models of ecological rationality: the recognition heuristic. *Psychological Review*, 109(1), 75.
- Gigerenzer, G. (1991). From tools to theories: A heuristic of discovery in cognitive psychology. *Psychological Review*, 98(2), 254.
- John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, 31(3-4), 191-206.

Student(s):

Week 5 Problem Solving and Attention

Date 10/10/19

Readings (choose 4):

- Smallwood, J., Obonsawin, M., & Heim, D. (2003). Task unrelated thought: The role of distributed processing. *Consciousness and Cognition*, 12(2), 169-189.
- Gick, M. L., & Holyoak, K. J. (1980). Analogical problem solving. *Cognitive Psychology*, 12(3), 306-355.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.
- Sio, U. N., Monaghan, P., & Ormerod, T. (2013). Sleep on it, but only if it is difficult: effects of sleep on problem solving. *Memory & Cognition*, 41(2), 159-166.
- Treisman, A. M., & Gelade, G. (1980). A feature-integration theory of attention. *Cognitive Psychology*, 12(1), 97-136.
- Carrasco, M., & Barbot, A. (2018). Attention alters appearance. *Current Opinion in Psychology*.
- Wiley, J., & Jarosz, A. F. (2012). Working memory capacity, attentional focus, and problem solving. *Current Directions in Psychological Science*, 21(4), 258-262.

Student(s):

Week 6 Coping and Risk Appraisal

Date 10/17/19

Readings:

- Folkman, S. (1984). Personal control and stress and coping processes: a theoretical analysis. *Journal of Personality and Social Psychology*, 46(4), 839.
- Schachter, S., & Singer, J. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review*. doi:10.1037/h0046234
- MacCann, C., Fogarty, G. J., Zeidner, M., & Roberts, R. D. (2011). Coping mediates the relationship between emotional intelligence (EI) and academic achievement. *Contemporary Educational Psychology*, 36(1), 60-70.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813.

Student(s):

Week 7 Reasoning, Judgment, and Decision Making

Date 10/24/19

Readings (choose 4):

- Gilbert, D. T. (1991). How mental systems believe. *American Psychologist*. doi:10.1037/0003-066X.46.2.107
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*. doi:10.1037/h0034747
- Kahneman, D. (2003) A perspective on judgment and choice: mapping bounded rationality. (2003). *American Psychologist*.
- Bechara, A., & Damasio, A. R. (2005). The somatic marker hypothesis: A neural theory of economic decision. *Games and Economic Behavior*. doi:10.1016/j.geb.2004.06.010
- Loewenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. *Handbook of Affective Science*, 619(642), 3.

Student(s):

We will not meet on Halloween, 10/31/19

Week 8 Memory & Attention

Date 11/07/19

Readings (choose 4):

- Porter, S., & Birt, A. R. (2001). Is traumatic memory special? A comparison of traumatic memory characteristics with memory for other emotional life experiences. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, 15(7), S101-S117.
- Talarico, J. M., & Rubin, D. C. (2003). Confidence, not consistency, characterizes flashbulb memories. *Psychological Science*, 14(5), 455-461.
- Baddeley, A. (2000) The episodic buffer: A new component of working memory? *Trends in Cognitive Sciences*, 4 (11), 417-423.
- Raaijmakers, J. G., & Shiffrin, R. M. (1981). Search of associative memory. *Psychological review*, 88(2), 93.
- Geiselman, E.E., Fisher, R.P, MacKinnon, D.P. & Holland, H.L (1986) Enhancement of eyewitness memory with the cognitive interview. *American Journal of Psychology*, 99, 385-401.
- Hofmann, W., Gschwendner, T., Friese, M., Wiers, R. W., & Schmitt, M. (2008). Working memory capacity and self-regulatory behavior: toward an individual differences perspective on behavior determination by automatic versus controlled processes. *Journal of Personality and Social Psychology*, 95(4), 962.
- Squire, L. R., Knowlton, B., & Musen, G. (1993). The structure and organization of memory. *Annual Review of Psychology*, 44(1), 453-495.

Tulving, E., & Thomson, D. M. (1973). Encoding specificity and retrieval processes in episodic memory. *Psychological Review*, 80(5), 352.

Student(s):

Week 9 Creative Thinking

Date 11/14/19

Readings (choose 4):

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332.

Lee, C. S., & Theriault, D. J. (2013). The cognitive underpinnings of creative thought: A latent variable analysis exploring the roles of intelligence and working memory in three creative thinking processes. *Intelligence*, 41(5), 306-320.

Sagiv, L., Arieli, S., Goldenberg, J., & Goldschmidt, A. (2010). Structure and freedom in creativity: The interplay between externally imposed structure and personal cognitive style. *Journal of Organizational Behavior*, 31(8), 1086-1110

Beaty, R. E., Nusbaum, E. C., & Silvia, P. J. (2014). Does insight problem solving predict real-world creativity?. *Psychology of Aesthetics, Creativity, and the Arts*, 8(3), 287.

Nakamura, J., & Csikszentmihalyi, M. (2014). The concept of flow. In *Flow and the Foundations of Positive Psychology* (pp. 239-263). Springer, Dordrecht.

Student(s):

Week 10 Social Cognitive Development

Date 11/21/19

Readings (choose 4):

Csibra, G., & Gergely, G. (2009). Natural pedagogy. *Trends in Cognitive Sciences*, 13(4), 148-153.

Baillargeon, R., Scott, R. M., & He, Z. (2010). False-belief understanding in infants. *Trends in Cognitive Sciences*, 14(3), 110-118.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287.

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676.

Student(s):

We will not meet on Thanksgiving, 11/28/19

Week 11 Mindfulness

Date 12/05/19

Readings (choose 4):

Ploghaus, A., Becerra, L., Borras, C., & Borsook, D. (2003). Neural circuitry underlying pain modulation: expectation, hypnosis, placebo. *Trends in Cognitive Sciences*, 7(5), 197-200.

Penberthy, J. K., Konig, A., Gioia, C. J., Rodríguez, V. M., Starr, J. A., Meese, W., ... & Natanya, E. (2015). Mindfulness-based relapse prevention: History, mechanisms of action, and effects. *Mindfulness*, 6(2), 151-158.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., ... & Devins, (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11(3), 230-241.

Kabat-Zinn, J. (2011). Some reflections on the origins of MBSR, skillful means, and the trouble with maps. *Contemporary Buddhism*, 12(01), 281-306.

Student(s):

Weekly Reflection Prompts

Your weekly reflections are an opportunity to expand on the topics discussed in the readings and reflect personally on the content. In each reflection, you are expected to share personal reactions and think critically about the content. Reflections are strongest when they synthesize multiple ideas, balance reflection and critical thinking, and demonstrate that you are consuming the readings closely. Show off how much you learned! You will post your reflections on the discussion board and respond to a peer's reflection. Posts must be submitted by the time we meet for our weekly discussion sessions on Thursdays. Each week you are able to choose one of the prompts below to explore. I recommend not choosing the same prompt more than twice.

1. Critique one of the articles for the week using other readings to support your ideas. What are the article's strengths and weaknesses?
2. Post a photo of something that reminds you of one of the concepts/theories described in the readings. Why does the image elicit this for you?
3. Design a research study evaluating one of the concepts described in the readings. How will you effectively measure the variable(s)?
4. Describe an emotional response you had to one of the readings. Why did you feel this way? Use your reaction to other readings as comparisons.
5. Describe a time in your life when you engaged in a cognitive process discussed in the readings. How has this moment helped you learn about these ideas?
6. Being sure to access flow, create a piece of artwork (painting, poem, song, etc.) related to one of the concepts described in the readings. Share the artwork with us. Why did you choose the materials and composition you used?
7. Create a learning plan for a goal you have in your life. Use the readings to justify the interventions you construct. Be sure to break the plan down into small, achievable goals.
8. Create an educational resource for others about a topic described in the readings (pamphlet, power point, one-page handout etc.). Use the readings to justify your choices.
9. Reflect on your emotions/affect. For at least 10 minutes, engage in a cognitive process described in your readings (creativity, mindfulness, problem solving, etc). Now reflect on how your emotions/affect has changed. Using the readings, hypothesize on why this change occurred.
10. What ethical dilemmas come to mind that are related to this week's readings? Describe how you might approach these dilemmas.
11. Find or create a meme related to one of the concepts in the readings. How might the authors of the readings react to the image?
12. Describe how the concepts described in the readings are nurtured by our society? Provide specific examples.
13. Describe a case in pop culture that exemplifies one of the concepts discussed in the readings.

Rubric for Final Paper

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Category	<u>Points Possible</u>			
	4	3	2	1
Organization	Demonstrates clear, easy to follow and logical organization of literature. Clear, concise writing style with no type-o's.	Overall organization clear and logical with consistent transition from one concept to another. Writing style mostly shows clear, concise writing style with no type-o's.	General organization apparent in content or format, writing style generally shows correct use of grammar, spelling, punctuation.	Sometimes lacking clear logic or understandable transitions. Writing style suggests need for more intensive practice or proofreading.
APA Style	Proper APA formatting is used for in-text citations. All references are cited. Title page and reference page are complete and accurate in content and format.	All references are cited but format and punctuation aren't accurate in text citations or reference section.	Some references are cited but not all and format is not accurate.	Many or all citations lacking, incomplete, and inaccurate in content and format.
Application of Resources	Used resources showing a depth of understanding, inquiry, and synthesis. Quotes and general references to research woven seamlessly into text.	Used resources with some depth and synthesis. There are quotes and general references to research and quotes link to data appropriately.	Used an inadequate number of resources or quotes and struggled to synthesize literature with depth or clarity.	Not enough resources used and/or one source is relied upon too heavily. Too many or too long quotes are relied upon instead of weaving them in judiciously with your own writing.
Critical Thinking	Depth of content demonstrates critical consciousness, a respect for inquiry, and thoughtful analysis.	Depth of content demonstrates some critical consciousness, a respect for inquiry, and thoughtful analysis.	Content is inconsistently critical or thoughtful.	Content does not expand from literature quoted and falls flat, relying on others voices instead of student's.

Total: __/16

Bibliography

- Baddeley, A. (2000) The episodic buffer: A new component of working memory? *Trends in Cognitive Sciences*, 4 (11), 417-423.
- Baillargeon, R., Scott, R. M., & He, Z. (2010). False-belief understanding in infants. *Trends in Cognitive Sciences*, 14(3), 110-118.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287.
- Beaty, R. E., Nusbaum, E. C., & Silvia, P. J. (2014). Does insight problem solving predict real-world creativity?. *Psychology of Aesthetics, Creativity, and the Arts*, 8(3), 287.
- Bechara, A., & Damasio, A. R. (2005). The somatic marker hypothesis: A neural theory of economic decision. *Games and Economic Behavior*. doi:10.1016/j.geb.2004.06.010
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., ... & Devins, (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11(3), 230-241.
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676.
- Carrasco, M., & Barbot, A. (2018). Attention alters appearance. *Current Opinion in Psychology*.
- Csibra, G., & Gergely, G. (2009). Natural pedagogy. *Trends in cognitive sciences*, 13(4), 148-153.
- de Waal, F. B. (2009). Darwin's last laugh. *Nature*, 460(7252), 175.
- de Waal, F. B., & Ferrari, P. F. (2010). Towards a bottom-up perspective on animal and human cognition. *Trends in Cognitive Sciences*, 14(5), 201-207.
- Folkman, S. (1984). Personal control and stress and coping processes: a theoretical analysis. *Journal of Personality and Social Psychology*, 46(4), 839.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332.
- Gazzaniga, M. S. (2010). Neuroscience and the correct level of explanation for understanding mind. *Trends in Cognitive Sciences*, 14(7), 297.
- Geiselman, E.E., Fisher, R.P, MacKinnon, D.P. & Holland, H.L (1986) Enhancement of eyewitness memory with the cognitive interview. *American Journal of Psychology*, 99, 385-401.
- Gick, M. L., & Holyoak, K. J. (1980). Analogical problem solving. *Cognitive Psychology*, 12(3), 306-355.
- Gigerenzer, G. (1991). From tools to theories: A heuristic of discovery in cognitive psychology. *Psychological Review*, 98(2), 254.
- Gilbert, D. T. (1991). How mental systems believe. *American Psychologist*. doi:10.1037/0003-066X.46.2.107
- Goldstein, D. G., & Gigerenzer, G. (2002). Models of ecological rationality: the recognition heuristic. *Psychological Review*, 109(1), 75.
- Hofmann, W., Gschwendner, T., Friese, M., Wiers, R. W., & Schmitt, M. (2008). Working memory capacity and self-regulatory behavior: toward an individual differences perspective

- on behavior determination by automatic versus controlled processes. *Journal of Personality and Social Psychology*, 95(4), 962.
- John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, 31(3-4), 191-206.
- Kabat-Zinn, J. (2011). Some reflections on the origins of MBSR, skillful means, and the trouble with maps. *Contemporary Buddhism*, 12(01), 281-306.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*. doi:10.1037/h0034747
- Kahneman, D. (2003) A perspective on judgment and choice: mapping bounded rationality. (2003). *American Psychologist*.
- Kanwisher, N. (2010). Functional specificity in the human brain: a window into the functional architecture of the mind. *Proceedings of the National Academy of Sciences*, 107(25), 11163-11170.
- Lantolf, J. P. (2000). Introducing sociocultural theory. *Sociocultural Theory and Second Language Learning*, 1, 1-26.
- Lee, C. S., & Theriault, D. J. (2013). The cognitive underpinnings of creative thought: A latent variable analysis exploring the roles of intelligence and working memory in three creative thinking processes. *Intelligence*, 41(5), 306-320.
- Loewenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. *Handbook of Affective Science*, 619(642), 3.
- MacCann, C., Fogarty, G. J., Zeidner, M., & Roberts, R. D. (2011). Coping mediates the relationship between emotional intelligence (EI) and academic achievement. *Contemporary Educational Psychology*, 36(1), 60-70.
- Miller, G. A., & Keller, J. (2000). Psychology and neuroscience: Making peace. *Current Directions in Psychological Science*, 9(6), 212-215.
- Nakamura, J., & Csikszentmihalyi, M. (2014). The concept of flow. In *Flow and the Foundations of Positive Psychology* (pp. 239-263). Springer, Dordrecht.
- Penberthy, J. K., Konig, A., Gioia, C. J., Rodríguez, V. M., Starr, J. A., Meese, W., ... & Natanya, E. (2015). Mindfulness-based relapse prevention: History, mechanisms of action, and effects. *Mindfulness*, 6(2), 151-158.
- Piaget, J. (1964). Part I: Cognitive development in children: Piaget development and learning. *Journal of Research in Science Teaching*, 2(3), 176-186.
- Ploghaus, A., Becerra, L., Borras, C., & Borsook, D. (2003). Neural circuitry underlying pain modulation: expectation, hypnosis, placebo. *Trends in Cognitive Sciences*, 7(5), 197-200.
- Porter, S., & Birt, A. R. (2001). Is traumatic memory special? A comparison of traumatic memory characteristics with memory for other emotional life experiences. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, 15(7), S101-S117.
- Raaijmakers, J. G., & Shiffrin, R. M. (1981). Search of associative memory. *Psychological Review*, 88(2), 93.
- Sagiv, L., Arieli, S., Goldenberg, J., & Goldschmidt, A. (2010). Structure and freedom in creativity: The interplay between externally imposed structure and personal cognitive style. *Journal of Organizational Behavior*, 31(8), 1086-1110
- Schachter, S., & Singer, J. (1962). Cognitive, social, and physiological determinants of

- emotional state. *Psychological Review*. doi:10.1037/h0046234
- Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, 84(1), 1.
- Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7(4), 351-371.
- Sio, U. N., Monaghan, P., & Ormerod, T. (2013). Sleep on it, but only if it is difficult: effects of sleep on problem solving. *Memory & Cognition*, 41(2), 159-166.
- Smallwood, J., Obonsawin, M., & Heim, D. (2003). Task unrelated thought: The role of distributed processing. *Consciousness and Cognition*, 12(2), 169-189.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.
- Squire, L. R., Knowlton, B., & Musen, G. (1993). The structure and organization of memory. *Annual Review of Psychology*, 44(1), 453-495.
- Talarico, J. M., & Rubin, D. C. (2003). Confidence, not consistency, characterizes flashbulb memories. *Psychological Science*, 14(5), 455-461.
- Treisman, A. M., & Gelade, G. (1980). A feature-integration theory of attention. *Cognitive Psychology*, 12(1), 97-136.
- Treisman, A. (1986) Features and objects in visual processing. *Scientific American*, 255 (5), 114-125.
- Tulving, E., & Thomson, D. M. (1973). Encoding specificity and retrieval processes in episodic memory. *Psychological Review*, 80(5), 352.
- Wiley, J., & Jarosz, A. F. (2012). Working memory capacity, attentional focus, and problem solving. *Current Directions in Psychological Science*, 21(4), 258-262.