

Construing Reality

Psychology 471G
Emory University
Fall Semester, 1999
Lawrence W. Barsalou

Tuesdays, 9:00 - 11:50 AM
Psychology Building, Room 302

This seminar surveys the myriad ways in which knowledge construes perception and action. Rather than simply recording information about the world like a video or audio recorder, the brain interprets and represents this information constructively, bringing relevant knowledge to bear. Because knowledge becomes fused with perception, subjective experience is not just a passive recording of the world but an active construal.

The seminar first covers basic findings from experimental psychology that demonstrate construal in perception, memory, language, emotion and motivation, self identity, and social interaction. The seminar then turns to the cognitive and neural mechanisms that produce these phenomena. Finally, the seminar explores extensions to politics, education, consumer behavior, psychopathology, trauma, therapy, coping, gender, art, UFOs, and religion.

Educational approach. The underlying assumption of this seminar's design is that frequent and active processing of course material promotes optimal learning. Thus, this seminar does *not* simply present information to seminar participants, expect them to absorb it, and later have them reproduce it on an occasional exam. Instead, students are expected to perform small assignments on a regular basis, with each assignment requiring students to go beyond the assigned material in some way. Rather than simply being responsible for knowing material, students must discover, analyze, integrate, elaborate, and discuss material. Much research in cognitive psychology indicates that active collaborative learning promotes deep, long-lasting, and versatile understanding of a domain.

Readings. The assigned readings for the seminar include the articles listed in this syllabus, as well as additional readings that students will identify as parts of their individual projects. In each session, several readings will be assigned, and all seminar participants are expected to have read and thought about each one carefully.

All readings are on reserve at Woodruff Library in both electronic and physical form. Using your computer or an Emory computer, you can view a pdf version of any paper on line for free at Euclid's reserve site. You can also save the electronic version of a paper on your computer, you can print a copy on your printer for free, or you can print a copy on a Library printer for a fee. You must be logged onto an Emory account—not another internet provider—to access to reserve materials.

Physical copies of the papers are also available at the reserve desk. If you copy a physical copy, please be sure to return the original with the blue O on the front page. If you return the copy you made, later copies that other students make will become increasingly illegible. Out of consideration for your fellow classmates, please return the originals. You are encouraged, however, to use the electronic copies given that they are free and always available.

Reading templates. Prior to each seminar meeting, every student is required to fill out a reading template for each assigned reading. The purpose of these templates is to promote active processing, focusing attention on relevant aspects of the readings, and pointing out directions for analysis, integration, and elaboration.

Students should copy the blank template shown later in this syllabus. Then, for each reading, they should write a few sentences for each subtopic on a copy of the template (perhaps more if further commentary seems relevant). The templates will be turned in at the start of each seminar meeting so that the instructor can check off their completion. They will then be returned to students so that they can use them as notes in the discussion. After the meeting, students should add the templates to their course journal.

For some articles, especially those that review many experiments, it is not necessary to describe every experiment for subtopics (b) through (e). Instead, a summary description of all experiments may suffice, or perhaps summary descriptions of a few different types of experiments.

Presentations of readings. One seminar participant will lead a discussion on each assigned paper for approximately 30 minutes during the respective meeting. All students will be required to make these presentations equally often. The presenter should not fill the 30 minute period with a detailed review of the paper. Instead, the presenter should assume that everyone has read the paper, and that his or her job is, first, to refresh everyone's memory of it, perhaps briefly reviewing subtopics (b) through (e) on the reading template (i.e., the construed entities/events, varying psychological state, the construal effects that result, the methodologies used to demonstrate these effects). The presenter should then focus most of the discussion on those subtopics on the reading template that are more likely to stimulate discussion, perhaps (f) through (k) (i.e., including mechanisms, functional significance, drawbacks, further issues to explore, controversies, informativeness, significance). Presenters can present their own views on these subtopics, and then probe other seminar participants for their views.

Personal course journals. The main requirement of the seminar is to develop a personal journal. The journal serves two purposes: (1) It is designed to promote highly active learning of course material. (2) It encourages and chronicles each student's individual activity in the course over the semester.

The specific contents of this journal are listed on the table of contents page included later in this syllabus. As can be seen from that page, each student's journal will contain in-class exercises, reading templates, construal effects from everyday life, preparatory materials for a topic of individual interest, a presentation on this topic, and a short paper on this topic. The journals are due on the last day of class. On the two occasions you turn your journal in, please be sure to keep a back up copy.

Individual projects. Each student will be required to identify, within constraints, a topic that he or she will develop individually on the general course theme. This project will first involve identifying a minimum of five relevant articles, reading them, and filling out templates for them. Each student will then make a brief presentation to the seminar on their topic (30-45 minutes). All seminar participants will be assigned one article to read before the presentation, which should also cover the other articles in the project. Each student should also write a short paper on their topic (5-10 pages). The articles for a project should not be a random collection of readings. Instead, they should make an interesting point or set of points about a specific theme.

Journal personality assignments. On two occasions, student will be asked to perform library research. These exercises have two purposes. The first is to develop students' ability to search library resources. The second is to familiarize students with the nature and 'personality' of scientific journals. Students are encouraged to use WWW resources, given that highly-developed resources exist that can greatly facilitate these assignments.

Grading. Students may take the seminar for a grade or P/F. However, all students—including students taking the seminar P/F—are required to perform all assignments. The seminar satisfies the writing requirement. Each student's grade will depend on the following three factors:

- completion on time (10%) and quality (10%) of reading templates (20% total)
- completion on time (10%) and quality (10%) of take-home assignments (20%)
- presentation of assigned readings (20%)
- presentation of individual project (20%)
- paper (20%)

Topics and Readings

Week	Date	Topic / Readings / Assignments
1	8/31	Introduction
2	9/7	<p>Construal effects: Perception</p> <p>Ramachandran, V.S. (1992). Filling in gaps in perception: Part 1. <i>Current Directions in Psychological Science</i>, 1, 199-205.</p> <p>Ramachandran, V.S. (1993). Filling in gaps in perception: Part II: Scotomas and phantom limbs. <i>Current Directions in Psychological Science</i>, 2, 56-65.</p> <p>Shepard, R.N. (1990). <i>Mind sights</i> (158-214, plus drawings A2, D3, D4, D9, G7, H3). New York: W.H. Freeman and Co.</p> <p>Bregman, A. S. (1990). <i>Auditory scene analysis: The perceptual organization of sound</i> (Ch. 1, 1-45). Cambridge, MA: MIT Press.</p>
3	9/14	<p>Construal effects: Memory</p> <p>Carmichael, L., Hogan, H.P., & Walter, A.A. (1932). An experimental study of language on the reproduction of visually perceived form. <i>Journal of Experimental Psychology</i>, 15, 73-86.</p> <p>Schooler, J.W., & Engstler-Schooler, T.Y. (1990). Verbal overshadowing of verbal memories: Some things are better left unsaid. <i>Cognitive Psychology</i>, 17, 36-71.</p> <p>Martin, M., & Jones, G.V. (1998). Generalizing everyday memory: Signs and handedness. <i>Memory & Cognition</i>, 26, 193-200.</p> <p>Ross, M. (1989). Relation of implicit theories to the construction of personal histories. <i>Psychological Review</i>, 96, 341-357.</p>
4	9/21	<p>Construal effects: Language</p> <p>Warren, R.M. (1970). Restoration of missing speech sounds. <i>Science</i>, 167, 392-393.</p> <p>McGurk, H., & MacDonald, J. (1976). Hearing lips and seeing voices. <i>Nature</i>, 264, 756-748.</p> <p>Vokey, J.R., & Read, J.D. (1985). Subliminal messages: Between the devil and the media. <i>American Psychologist</i>, 11, 1231-1239.</p> <p>Bransford, J.D., & Johnson, M.K. (1973). Considerations of some problems of comprehension. In W.G. Chase (Ed.), <i>Visual information processing</i> (pp. 383-438). New York: Academic Press.</p>
5	9/28	<p>Construal effects: Emotion and motivation</p> <p>Bouhuys, A.L., Bloem, G.M., Groothuis, T.G.G. (1995). Induction of depressed and elated mood by music influences the perception of facial emotional expressions in healthy subjects. <i>Journal of Affective Disorders</i>, 33, 215-226.</p> <p>Gelder, B.E., Böcker, K.B.E, Tuomainen, J., Hensen, M., Vroomen, J. (1999). The combined perception of emotion from voice and face: Early interaction revealed by human electric brain responses. <i>Neuroscience Letters</i>, 260, 133-136.</p> <p>Proffitt, D.R., Bhalla, M., Gossweiler, R., & Midgett, J. (1995). Perceiving geographical slant. <i>Psychonomic Bulletin & Review</i>, 2, 409-428.</p> <p>Bem, D.J. (1996). Exotic becomes erotic: A developmental theory of sexual orientation. <i>Psychological Review</i>, 103, 320-335.</p>

- 6 10/5 Construal effects: Social interaction**
 Andersen, S.M., Glassman, N.S., Chen, S., & Cole, S.W. (1995). Transference in social perception: The role of chronic accessibility in significant-other representation. *Journal of Personality and Social Psychology*, *69*, 41-57.
 Uleman, J.S., Newman, L.S., & Moskowitz, G.B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inference. *Advances in Experimental Social Psychology*, *28*, 211-279.
 Griffin, D.W., & Ross, L. (1991). Subjective construal, social inference, and human misunderstanding. *Advances in Experimental Social Psychology*, *24*, 319-359.
- 7 10/12 Fall Break, no class**
- 8 10/19 Construal effects: Self-Concepts**
 Williamson, D.A., Davis, C.J., Goreczny, A.J., Blouin, D.D. (1989). Body-image disturbances in bulimia nervosa: Influences of actual body size. *Journal of Abnormal Psychology*, *98*, 97-99.
 Hinkley, K., & Andersen, S.M. (1996). The working self-concept in transference: Significant-other activation and self change. *Journal of Personality and Social Psychology*, *71*, 1279-1295.
 Markus, H., Smith, J., & Moreland, R.L. (1985). Role of the self-concept in the social perception of others. *Journal of Personality and Social Psychology*, *49*, 1494-1512.
 Markus, H., R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224-253.
- 9 10/26 Mechanisms underlying construal effects: Implicit Memory**
 Jacoby, L.L., Allan, L.G., Collins, J.C., Larwill, L.K. (1988). Memory influences subjective experience: Noise judgments. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *14*, 240-247.
 Jacoby, L.L., Kelley, C.M., Brown, J., & Jasechko, J. (1989). Becoming famous overnight: Limits on the ability to avoid unconscious influences of the past. *Journal of Personality and Social Psychology*, *56*, 326-338.
 Greenwald, A.G. & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, *102*, 4-27.
 Roediger, H. L. III & McDermott, K. B. (1993). Implicit memory in normal human subjects. In F. Boller & J. Grafman (Eds.), *Handbook of Neuropsychology* (Vol. 8, 63-131). Elsevier Science Publishers B.V.
- 10 11/2 Mechanisms underlying construal effects: Imagery**
 Finke, R.A. (1989). *Principles of mental imagery* (29-60). Cambridge, MA: MIT Press.
 Farah, M. (1995). The neural bases of mental imagery. In M.S. Gazzaniga (Ed), *The cognitive neurosciences* (963-975). Cambridge, MA: MIT Press.
 Jeannerod, M. (1995). Mental imagery in the motor context. *Neuropsychologia*, *33*, 1419-1432.
 Deschaumes-Molinario, C., Dittmar, A., & Vernet-Maury, E. (1992). Autonomic nervous system response patterns correlate with mental imagery. *Physiology & Behavior*, *51*, 1021-1027.

- 11 11/9 Mechanisms underlying construal effects: Perceptual symbols**
 Barsalou, L.W. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences*, 22, 577-609. [pp. 610-660 optional]
 Barsalou, L.W., Solomon, K.O., & Wu, L.L. (1999). Perceptual simulation in conceptual tasks. In M.K. Hiraga, C. Sinha, & S. Wilcox (Eds.), *Cultural, typological, and psychological perspectives in cognitive linguistics: The proceedings of the 4th conference of the International Cognitive Linguistics Association, Vol. 3*. Amsterdam: John Benjamins.
- 12 11/16 Presentation of individual projects**
 One reading to be assigned at a later date for each project.
- 13 11/23 Presentation of individual projects**
 One reading to be assigned at a later date for each project.
- 14 11/30 Presentation of individual projects**
 One reading to be assigned at a later date for each project.
- 15 12/7 Presentation of individual projects**
 One reading to be assigned at a later date for each project.

Assignments

Week	Date	Assignments
1	8/31	In-class exercise and discussion
2	9/7	Receive assignment on the personalities of technical journals
3	9/14	Discuss assignment on journal personalities Receive assignment to select a presentation / paper topic
4	9/21	Resolve presentation / paper topics Receive assignment on journal personalities for presentation / paper topic
5	9/28	
6	10/5	Discuss assignment on journal personalities for presentation / paper topic Receive assignment to select articles for presentation / paper topic
7	10/12	Fall Break, no class
8	10/19	In-class exercise and discussion Turn in article list / paper topic Turn in complete copies of articles for presentation / paper topic Turn in personal journals for mid-course feedback
9	10/26	Receive feedback on articles selected for presentation / paper topic Receive assignment to modify selected articles if necessary
10	11/2	If articles had to be modified, turn in the new set Begin preparing presentation and paper
11	11/9	
12	11/16	In-class presentations and discussions
13	11/23	In-class presentations and discussions
14	11/30	In-class presentations and discussions
15	12/7	In-class presentations and discussions In-class exercise and discussion Turn in personal journal including paper

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Table of Contents Personal Course Journal

Please order the contents of your personal journal in the following order:

1. this page
2. in-class exercise (Week 1)
3. journal personality exercise (Week 3)
4. presentation / paper topic sheet (Week 4)
5. journal personality exercise for presentation / paper topic (Week 5)
6. article list for presentation / paper topic (Week 8)
7. in-class exercise (Week 8)
8. a completed template for each reading (Weeks 2 through 7)
9. a completed template for each reading (Weeks 8 through 15)
10. sheet listing construal effects from your every day life
11. paper (Week 15)
12. in-class exercise (Week 15)

Article Template

Name: _____

(a) Full reference

(b) Physical entity / event being construed

(c) Psychological state that varies to produce different construals

(d) Effects of (c) on the perception of (b)

(e) Basic method

(f) Mechanisms that produce the different psychological states in (c)

(g) Functional significance of the effects in (d)

(h) Drawbacks to the effects in (d)

(i) Further issues to explore, and useful methods for doing so

(j) Controversies (methodological weaknesses, alternative explanations, conflicting studies)

(k) Informativeness and significance

Name:

Construal Effects from Everyday Life

Briefly describe events from your daily life in which you or someone else exhibited an interesting construal effect. Use additional copies of this page as they become necessary.

Date:

Description:

Date:

Description:

Date:

Description:

Date:

Description:

- (f) Can you think of things whose construals of registered information are at least partially inaccurate? If so, list them below. For each one that you listed, write an R next to it if its inaccuracies are randomly related to registered information, or write an S next to it if its inaccuracies are systematically related to registered information.
- (g) Are inaccuracies introduced in construal bad or good? Explain.
- (h) List occupations that vary in the extent to which they are expected to register versus construe information. At one extreme, list occupations that are expected only to register information without construing it. At the other extreme, list occupations that typically construe registered information considerably, perhaps too much. In between, list occupations that are expected to provide moderate construals of registered information.

- (d) Imagine that a recording artifact and a construing organism is each presented with a snake whose fangs are exposed. Would the perceptual responses of a recording artifact differ from the perceptual responses of a construing organism? If so, how?
- (e) Can you think of any other type of information whose perception would differ for recording artifacts and construing organisms? For each one, describe the information and then the difference in perception.

Name:

Journal Personality Exercise Week 3

- (1) Log onto Emory's Euclid system, look up the call number of each journal listed on the next page, and enter it.
- (2) Go over to the library and browse through recent issues of the journal over the past 5 years or so.
- (3) Based on your observations, rate each journal on the following six scales:

Experimental: How experimentally-oriented is the journal? How much do articles focus on reporting data from experiments?

Theoretical: How theoretically-oriented is the journal? How much do articles focus on introducing theories, comparing theories, and fitting theories to data in the literature?

Review: How oriented towards reviewing the literature is the journal? How much do articles focus on identifying robust empirical results across different experimental papers?

Interdisciplinary: How interdisciplinary is the journal? How much do articles attempt to integrate theories, methods, and results from different disciplines?

Breadth: How diverse are the articles in this journal? To what extent do articles come from different disciplines and areas, and to what extent do they address different issues?

Prestige: How prestigious does this journal seem? To what extent do the best and most important articles in the field appear to be published here?

For each scale, the numbers have the following interpretations:

1	2	3	4	5	6	7
Low			Medium			High

Note that a given journal could be high on more than one dimension, and may be high on many.

- (4) Finally, in the area labeled "Other comments," note any other observations that you noted about the journal

Name:

<u>Journal</u>	<u>Experimental</u>	<u>Theoretical</u>	<u>Review</u>	<u>Interdisciplinary</u>	<u>Breadth</u>	<u>Prestige</u>
Behavioral and Brain Sciences	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Psychological Review	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Psychological Bulletin	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Cognitive Science	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Cognitive Psychology	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Jour of Memory and Language	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
JEP: General*	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
JEP: LMC**	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Memory & Cognition	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
American Jour. of Psychology	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		
Psychological Science	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Other observations:				Call #		

* "JEP: General" stands for Journal of Experimental Psychology

** "JEP:LMC" stands for Journal of Experimental Psychology: Learning, Memory, and Cognition

Name:

**Presentation / Paper Topic
Week 4**

For Week 4, rank the topics below from 1 to 7, where 1 is your most preferred topic, and 7 is your least preferred topic.

- ___ **Consumer Behavior** (e.g., advertising, differences in brand preferences)
- ___ **Politics** (e.g., the Middle East, abortion, taxes)
- ___ **Art** (e.g., artistic appreciation, artistic interpretation)
- ___ **Religion** (e.g., supernatural beings and events, meditation)
- ___ **Gender** (e.g., gender differences in construal, sexual orientation)
- ___ **Clinical Psychology** (e.g., trauma, phobias, anxiety, coping)
- ___ **UFOs** (e.g., discriminability, hallucination)
- ___ **Other** (describe briefly):

Name:

Journal Personality Exercise for Presentation / Paper Topic Week 5

- (1) Log onto Emory's Euclid system, and search for journals that are relevant to your presentation / paper topic.
- (2) In the process of looking through the journals in (1), you may also discover other relevant journals by looking in the reference sections of their articles for other journals that are cited frequently.
- (3) Go over to the library and browse through recent issues of each journal from (1) and (2) over the past 5 years or so.
- (4) On the next page, write the name of each journal in the blank for one row. If you need more pages, copy the next page before beginning. Based on your observations, rate each journal on the following six scales:

Experimental: How experimentally-oriented is the journal? How much do articles focus on reporting data from experiments?

Theoretical: How theoretically-oriented is the journal? How much do articles focus on introducing theories, comparing theories, and fitting theories to data in the literature?

Review: How oriented towards reviewing the literature is the journal? How much do articles focus on identifying robust empirical results across different experimental papers?

Interdisciplinary: How interdisciplinary is the journal? How much do articles attempt to integrate theories, methods, and results from different disciplines?

Breadth: How diverse are the articles in this journal? To what extent do articles come from different disciplines and areas, and to what extent do they address different issues?

Prestige: How prestigious does this journal seem? To what extent do the best and most important articles in the field appear to be published here?

For each scale, the numbers have the following interpretations:

1	2	3	4	5	6	7
Low			Medium			High

Note that a given journal could be high on more than one dimension, and may be high on many.

- (5) Finally, in the area labeled "Other comments," note any other observations that you noted about the journal

Name:

**Article List for Presentation / Paper Topic
Week 8**

- (1) After browsing the journals relevant to your presentation / paper topic, identify a specific set of articles that address a common theme. Together, the articles should tell an interesting, coherent, and compelling story. They should make an interesting point or set of points about the theme you have chosen. Select a minimum of five substantive articles.

- (2) In the space below, briefly describe your theme, and the point(s) that your articles will make about it:

Name:

Article List (continued)

- (3) List the references for your articles, closely following the format found in the journals that you are using. Also include these references in your paper, along with any others that you cite there.

Name:

In-Class Exercise Week 8

The next two pages list all of the readings that we have discussed thus far in the seminar. Please take a moment to look them over. As you do, try to remember as many of the different types of construal effects as you can. Once you have done so, then:

- (a) List below as many types of mechanisms as you can that could be responsible for these effects. These mechanisms could include anything within an organism that produce construals, as well as mechanisms external to organisms.

(b) Try to organize the mechanisms that you listed into clusters. What general types of mechanisms can you come up with?

(c) In your opinion, is there one specific type of mechanism that underlies all of these construal effects? Or is there a diverse set? Please comment on this.

Name:

**In-Class Exercise
Week 15**

Select a recording artifact. Any one will do.

- (a) How would you have to change its mechanisms to transform it into a construer? Describe these changes in as much detail as you can.

(b) How feasible do you think that it would be to accomplish your proposal in (a)? Explain.

(c) What would be the most difficult factors to overcome in order to accomplish your proposal?