

This excerpt from

Gateway to Memory.

Mark A. Gluck and Catherine E. Myers.

© 2000 The MIT Press.

is provided in screen-viewable form for personal use only by members of MIT CogNet.

Unauthorized use or dissemination of this information is expressly forbidden.

If you have any questions about this material, please contact  
[cognetadmin@cognet.mit.edu](mailto:cognetadmin@cognet.mit.edu).

# Notes

## CHAPTER 2

1. Julius Arantius, 1587, cited in W. Seifert, 1983, p. 625.
2. Scoville & Milner, 1957.
3. Milner, Corkin, & Teuber, 1968, p. 217.
4. Zola-Morgan, Squire, & Amaral, 1986.
5. See Zola-Morgan & Squire, 1993, for a full discussion of different conditions leading to anterograde amnesia.
6. See, e.g., Parkin et al., 1988, for a description of psychogenic amnesia.
7. See Kapur, 1993, for a review of such cases.
8. This study is reviewed in Squire & Zola-Morgan, 1988.
9. Milner, 1962.
10. Gabrieli et al., 1993.
11. See, e.g., Cohen, 1984; Haist, Musen, & Squire, 1991.
12. Mishkin & Delacour, 1975.
13. Mishkin, 1978; Zola-Morgan & Squire, 1986.
14. Freed, Corkin, & Cohen, 1987; Squire, Zola-Morgan, & Chen, 1988.
15. Zola-Morgan & Squire, 1993.
16. See, e.g., Mumby, Pinel, & Wood, 1990; Wible, Eichenbaum, & Otto, 1990; Winocur, 1990; Rothblat & Kromer, 1991; Otto & Eichenbaum, 1992.
17. Otto & Eichenbaum, 1992.
18. See, e.g., O'Keefe, 1979.
19. Wilson & McNaughton, 1993.
20. O'Keefe, 1979; Nadel & Willner, 1980.
21. Morris et al., 1982.
22. Morris et al., 1982.

23. Morris et al., 1982.
24. Wiener, Paul, & Eichenbaum, 1988.
25. See Gormezano, Kehoe, & Marshall, 1983, for review.
26. See, e.g., Schmajuk, Lam, & Christiansen, 1994.
27. See, e.g., Solomon et al., 1989.
28. Clark & Zola, 1998.
29. Kandel, 1976.
30. Schmaltz & Theios, 1972; Solomon & Moore, 1975; Solomon, 1977; Akase, Alkon, & Disterhoft, 1989.
31. Schmaltz & Theios, 1972.
32. Weiskrantz & Warrington, 1979; Daum, Channon, & Canavan, 1989; Woodruff-Pak, 1993; Gabrieli et al., 1995.
33. Berger et al., 1983.
34. Moyer, Deyo, & Disterhoft, 1990.
35. Moyer, Deyo, & Disterhoft, 1990.
36. Solomon et al., 1986; Moyer, Deyo, & Disterhoft, 1990. Note that other studies have shown no impairment in trace conditioning in hippocampal-lesioned animals (e.g., Port, Romano, & Patterson, 1986; James, Hardiman, & Yeo, 1987). The exact reason for these discrepancies is not yet clear but may reflect subtle differences in lesion extent between the studies or other paradigmatic differences such as the use of an airpuff US versus a shock US.
37. Thompson, 1972.
38. Port & Patterson, 1984.
39. See, e.g., Hirsh, 1974; Rudy & Sutherland, 1989; Eichenbaum, 1997.
40. Thompson et al., 1980, p. 262.

### CHAPTER 3

1. Miller, Barnet, & Grahame, 1995.
2. See Maran & Baudry, 1995, for a review.
3. McCulloch & Pitts, 1943.
4. See, e.g., Deller, Proakis, & Hansen, 1993; Owens, 1993; Pitton, Wang, & Juang, 1996.
5. Widrow & Hoff, 1960.
6. McCulloch & Pitts, 1943; Rosenblatt, 1958; Widrow & Hoff, 1960; Rumelhart, Hinton, & Williams, 1986; Gluck & Bower, 1988a; Widrow & Winter, 1988; Minsky & Papert, 1998.

7. Stephen Grossberg and colleagues have been among the forefront in studying the plasticity-stability trade-off; see, e.g., Grossberg, 1980; Carpenter & Grossberg, 1991; Grossberg & Merrill, 1996.
8. See Widrow & Winter, 1988, for review.
9. Widrow, Winter, & Baxter (1988): recognizing rotated patterns; Widrow & Winter (1988): time-series prediction; Widrow, Gupta, & Maitra (1973): playing blackjack; Nguyen & Widrow (1989): truck backer-upper.
10. Widrow & Winter, 1988.
11. Rescorla & Wagner, 1972.
12. Pavlov, 1927.
13. Kamin, 1968.
14. Marchant & Moore, 1973; Solomon, 1977.
15. Solomon, 1977. Similar results obtain whether phase 3 consists of testing responses to the light CS alone (extinction testing) or of training a new response to the light CS.
16. Kamin, 1969.
17. Trabasso & Bower, 1964.
18. See, e.g., Rudy, 1974; Martin & Levey, 1991.
19. Rescorla & Wagner, 1972.
20. Sutton & Barto, 1981.
21. See, e.g., Walkenbach & Haddad, 1980; Miller, Barnet, & Grahame, 1995.
22. Frey & Sears, 1978; Gluck & Bower, 1988b; Siegel & Allan, 1996.
23. See, e.g., Bliss & Lømo, 1973; Barrionuevo & Brown, 1983; Levy & Steward, 1983; Lynch, 1986.
24. Hebb, 1949, p. 62.
25. W. James, 1890, p. 226.
26. Thompson, 1986.
27. Sears & Steinmetz, 1991.
28. Marr, 1969; Albus, 1971; Yeo, Hardiman, & Glickstein, 1985.
29. Gluck, Myers, & Thompson, 1994.
30. See Thompson, 1986.
31. Gluck, Myers, & Thompson, 1994.
32. Kim, Krupa, & Thompson, 1998.
33. Gluck, Myers, & Thompson, 1994.
34. See, e.g., Bolles & Fanselow, 1980; Fanselow, 1998.

35. See, e.g., Vriesen & Moscovitch, 1990; Schultz, Dayan, & Montague, 1997.
36. See, e.g., Lubow, 1973, 1997.
37. Latent inhibition is disrupted by hippocampal-region damage; see, e.g., Solomon & Moore, 1975; Kaye & Pearce, 1987; Shohamy, Allen, & Gluck, 1999. Sensory preconditioning is disrupted by hippocampal-region damage: Port & Patterson, 1984.

#### CHAPTER 4

1. Guttman & Kalish, 1956.
2. Shepard, 1987.
3. Shepard, 1987.
4. See, e.g., Ballard, Hinton, & Sejnowski, 1983; Georgopoulos et al., 1983.
5. One early, influential mathematical description of distributed representations was developed in the late 1950s by W. K. Estes and colleagues and was termed stimulus sampling theory (Atkinson & Estes, 1963; Neimark & Estes, 1967).
6. See, e.g., Hebb, 1949; Lashley, 1950.
7. For example, distributed representations in the visual system: Ballard, Hinton, & Sejnowski, 1983; in sensory and motor cortex: Georgopoulos et al., 1983, 1986.
8. Rescorla, 1976.
9. Rescorla, 1976.
10. Kehoe, 1988.
11. Gluck & Bower, 1988a, 1988b; Gluck, Bower, & Hee, 1989.
12. See, e.g., Gluck & Bower, 1988a, 1988b; Gluck, Bower, & Hee, 1989.
13. Gluck & Bower, 1988b; Gluck, Bower, & Hee, 1989.
14. See Nosofsky, 1984, 1988.
15. See, e.g., Nosofsky, 1984, 1988.
16. The backpropagation algorithm was discovered independently by Werbos (1974); Parker (1985); Le Cun (1986); and Rumelhart, Hinton, & Williams (1986). The last version is the most commonly cited version.
17. Minsky & Papert, 1969.
18. See, e.g., Rumelhart, Hinton, & Williams, 1986.
19. Funahashi, 1989; Hornik, Stinchcombe, & White, 1989.
20. Detecting forged signatures: Mighell, Wilkinson, & Goodman, 1989; pronouncing typewritten text: Sejnowski & Rosenberg, 1986; detecting faults in mechanical equipment: Robinson, Bodruzzaman, & Malkani, 1994; Japkowicz, Myers, & Gluck, 1995; interpreting sonar returns: Gorman & Sejnowski, 1988; diagnosing diseases: Falk et al., 1998.

21. See, e.g., Barto & Jordan, 1987; Durbin & Rumelhart, 1989; Hinton, 1989; Hanson, 1990; Mazzoni, Andersen, & Jordan, 1991.
22. See Crick & Asanuma, 1986, and Crick, 1989, for a review of such biological implausibilities associated with the backpropagation algorithm.
23. Parker, 1985; Stork, 1989; Schmajuk & DiCarlo, 1990.
24. Fitzsimonds, Song, & Poo, 1997.

## CHAPTER 5

1. Hull, 1952.
2. Rescorla & Wagner, 1972.
3. See, e.g., Tolman, 1932.
4. Tolman & Honzick, 1930.
5. Hebb, 1949, p. 62.
6. Bliss & Lomo, 1973; Kelso, Ganong, & Brown, 1986.
7. See, e.g., Roman, Staubli, & Lynch, 1987; Gabriel et al., 1991; LeDoux, 1993.
8. Levy, Brassel, & Moore, 1983.
9. Anderson, 1977; Hinton, 1989.
10. See, e.g., Anderson, 1977.
11. See Tank & Hopfield, 1987, for a review.
12. Treves & Rolls, 1994.
13. Bliss & Lomo, 1973.
14. Marr, 1971.
15. See Willshaw & Buckingham, 1990, for a review.
16. See, e.g., McNaughton & Morris, 1987; McNaughton & Nadel, 1990; O'Reilly & McClelland, 1994; Hasselmo, Schnell, & Barkai, 1995; Recce & Harris, 1996; Rolls, 1996; Treves, Skaggs, & Barnes, 1996; Treves & Rolls, 1992.
17. Treves & Rolls, 1994.
18. Rolls, 1989.
19. Marr, 1971.
20. See, e.g., Lynch & Granger, 1992; Alvarez & Squire, 1994; Levy, 1994; McClelland, McNaughton, & O'Reilly, 1994; Treves & Rolls, 1994; Murre, 1996.
21. See, e.g., Wickelgren, 1979; Mishkin, 1982; Teyler & DiScenna, 1986; Buzsáki, 1996.
22. Ackley, Hinton, & Sejnowski, 1985; Elman & Zipser, 1987; Baldi & Hornik, 1989.
23. Hinton, 1989; Harnad, Hanson, & Lubin, 1994.

24. Japkowicz, 1999.

## CHAPTER 6

1. Gluck & Myers, 1993.
2. Solso, 1991, pp. 287–290.
3. Gluck & Myers, 1993.
4. Levy, 1989, 1990.
5. Humans: Weiskrantz & Warrington, 1979; Daum, Channon, & Canavan, 1989; Woodruff-Pak, 1993; Gabrieli et al., 1995; rabbits: Schmaltz & Theios, 1972; Solomon & Moore, 1975; rats: Christiansen & Schmajuk, 1992; Schmajuk, Lam, & Christiansen, 1994.
6. See, e.g., Berger & Orr, 1983.
7. Odor discrimination in rats: Otto et al., 1991; object discrimination in monkeys: Zola-Morgan & Squire, 1986; Ridley et al., 1995; texture discrimination in rats: Whishaw & Tomie, 1991; frequency discrimination in rats: Marston, Everitt, & Robbins, 1993. In other paradigms, researchers have sometimes found that discrimination is indeed disrupted by hippocampal damage. For example, in one study in which rats were trained that one CS+ predicted a shock US while another CS– did not, normal but not hippocampal-lesioned rats learned to respond more to the CS+ than to the CS– (Micco & Schwartz, 1997).
8. See, e.g., Berger & Orr, 1983; Buchanan & Powell, 1980.
9. Gluck & Myers, 1993.
10. Fimbrial lesion abolishes sensory preconditioning in rabbit eyeblink conditioning: Port & Patterson, 1984; Port, Beggs, & Patterson, 1987.
11. Myers & Gluck, 1994.
12. See, e.g., Mackintosh, 1973.
13. Allen et al., 1998.
14. Model of instrumental conditioning: Myers & Gluck, 1996; model of category learning: Gluck, Oliver, & Myers, 1996.
15. See Bouton, 1991, and Bouton & Swartzentruber, 1991, for a review of why extinction represents more than simple unlearning of a CS-US association.
16. See, e.g., Bouton & Swartzentruber, 1991.
17. Berger & Orr, 1983.
18. Bouton & Swartzentruber, 1991.
19. Solomon, Van der Schaaf, Thompson, & Weisz, 1986; Moyer, Deyo, & Disterhoft, 1990.
20. Zackheim, Myers, & Gluck, 1998.
21. Moyer, Deyo, & Disterhoft, 1990; James, Hardiman, & Yeo, 1987.
22. Moyer, Deyo, & Disterhoft, 1990.

23. See, e.g., Levy, 1996; Wallenstein & Hasselmo, 1997.
24. Berger et al., 1983.
25. Miller & Steinmetz, 1997.
26. Berger & Thompson, 1978.
27. Cahusec et al., 1993.
28. Cahusec et al., 1993.
29. Deadwyler, West, & Lynch, 1979.
30. Bostock, Muller, & Kubie, 1991.
31. See, e.g., Schmajuk & Moore, 1988; Schmajuk & DiCarlo, 1991, 1992; Schmajuk, Gray, & Lam, 1996.
32. Schmajuk & DiCarlo, 1992.
33. Thompson, 1986.
34. The interested reader is referred to Schmajuk & DiCarlo, 1992, for a detailed mathematical explanation of the S-D model. See also Schmajuk & Moore, 1985.
35. Schmajuk & DiCarlo, 1992.
36. Schmajuk & DiCarlo, 1992; Schmajuk & Buhusi, 1997.
37. Buhusi & Schmajuk, 1996; Schmajuk, Gray, & Lam, 1996.
38. Schmajuk & Blair, 1993; Schmajuk, 1994.
39. Thompson, 1986.
40. Solomon, 1977.
41. Schmajuk & DiCarlo, 1992.
42. Following hippocampal damage, blocking may be impaired (Solomon, 1977; Rickert et al., 1978) or spared (Rickert et al., 1981; Garrud et al., 1984; Baxter, Holland, & Gallagher, 1997).
43. See Rudy & Sutherland, 1995, for a review.
44. See, e.g., Gallagher & Holland, 1992; Eichenbaum & Bunsey, 1995; Bussey et al., 1998; Han, Gallagher, & Holland, 1998.
45. See, e.g., Wickelgren, 1979; Sutherland & Rudy, 1989.
46. See, e.g., Rudy & Sutherland, 1989.
47. See, e.g., Whishaw & Tomie, 1991; Gallagher & Holland, 1992; Jarrard 1993.
48. Gallagher & Holland, 1992; Eichenbaum & Bunsey, 1995; Bussey et al., 1998; Han, Gallagher, & Holland, 1998.
49. Wiedemann, Georgilas, & Kehoe, 1999.
50. James Kehoe, personal communication.



51. Hirsh, 1974; Nadel & Willner, 1980; Winocur, Rawlins, & Gray, 1987; Penick & Solomon, 1991.
52. Haist, Musen, & Squire, 1991; Weiskrantz & Warrington, 1979.
53. Reducing attention to stimuli that are not significant: Grastyan et al., 1959; not correlated with reinforcement: Douglas & Pribam, 1966; Douglas, 1972; Kimble, 1968; or irrelevant with respect to predicting reinforcement: Moore, 1979; Solomon, 1979.
54. See, e.g., Mackintosh, 1975; Pearce and Hall, 1980.
55. See, e.g., Olton, 1983.
56. See, e.g., Olton, 1983; Rawlins, 1985; Buzsáki, 1989.
57. See, e.g., West et al., 1982; McNaughton & Barnes, 1990.
58. See, e.g., Wallenstein, Eichenbaum, & Hasselmo, 1998.
59. Eichenbaum, Otto, & Cohen, 1994.
60. Bunsey & Eichenbaum, 1993.
61. Gluck & Myers, 1995.
62. Wallenstein, Eichenbaum, & Hasselmo, 1998.
63. O'Keefe & Nadel, 1978; Nadel & Willner, 1980; Nadel, 1992.
64. See, e.g., Burgess & O'Keefe, 1996; Muller & Stead, 1996; Recce & Harris, 1996; Sharp, Blair, & Brown, 1996; Touretzky & Redish, 1996; Redish & Touretzky, 1997; Samsonovich & McNaughton, 1997; Redish, 1999.
65. See, e.g., Nadel, 1991.
66. O'Keefe, 1990.
67. See, e.g., Eichenbaum, Stewart, & Morris, 1990; Taube, 1991; Gluck & Myers, 1993.
68. Kubie & Ranck, 1983.
69. See, e.g., Eichenbaum et al., 1988; Eichenbaum, Mathews, & Cohen, 1989.
70. Eichenbaum & Buckingham, 1990; Eichenbaum, Cohen, et al., 1992.
71. Eichenbaum, Mathews, & Cohen, 1989.
72. See, e.g., Daum, Channon, & Gray, 1992; Gabrieli et al., 1995.
73. Mirror tracing: Gabrieli et al., 1993; cognitive skill learning: Knowlton, Ramus, & Squire, 1992.
74. Knowlton, Squire & Gluck, 1994; Reed et al., 1999.
75. Schacter, 1985.
76. See, e.g., Daum, Channon, & Canavan, 1989; Daum et al., 1991; Myers, Hopkins et al., 2000.
77. Myers, Oliver et al., 2000.
78. Myers, Oliver et al., 2000.
79. Myers, McGlinchey-Berroth et al., 2000.

## CHAPTER 7

1. See, e.g., Pavlov, 1927; Hull, 1943; Konorski, 1967.
2. Hirsh, 1974.
3. O'Keefe & Nadel, 1978.
4. Good & Honey, 1991.
5. Nadel & Willner, 1980; Balsam & Tomie, 1985.
6. See, e.g., Good & Honey, 1991; Penick & Solomon, 1991; Kim & Fanselow, 1992; cf. Bouton & Swartzentruber, 1986.
7. Penick & Solomon, 1991.
8. Hsaio & Isaacson, 1971.
9. Hsaio & Isaacson, 1971.
10. Hirsh, 1974.
11. Rescorla & Wagner, 1972.
12. Good & Honey, 1991.
13. Good & Honey, 1991.
14. See, e.g., Mackintosh, 1975; Moore & Stickney, 1980.
15. See, e.g., Schmajuk, Thieme, & Blair, 1993; Brown & Sharp, 1995; Recce & Harris, 1996.
16. See, e.g., Burgess, O'Keefe, & Recce, 1993; Schmajuk et al., 1993.
17. Granger et al., 1996; Levy, 1996; Wallenstein & Hasselmo, 1997.
18. Myers & Gluck, 1994.
19. Honey & Good, 1993.
20. Myers & Gluck, 1994.
21. See, e.g., Antelman & Brown, 1972; Honey, Willis, & Hall, 1990; Good & Honey, 1991; Penick & Solomon, 1991; Kim & Fanselow, 1992; cf. Bouton & Swartzentruber, 1986.
22. Myers & Gluck, 1994.
23. Myers & Gluck, 1994.
24. See, e.g., Antelman & Brown, 1972; Penick & Solomon, 1991.
25. Lubow & Gewirtz (1995) give a full review of latent inhibition and attention.
26. Myers & Gluck, 1994.
27. Ackil et al., 1969; Solomon & Moore, 1975; McFarland, Kostas, & Drew, 1978; Kaye & Pearce, 1987; Han, Gallagher, & Holland, 1995.
28. Myers & Gluck, 1994.

## 382 Notes

29. Lubow, Rifkin, & Alek, 1976; Channell & Hall, 1983; Hall & Minor, 1984; Hall & Channell, 1985; Hall & Honey, 1989; Bouton & Brooks, 1993; Honey & Good, 1993; Zalstein-Orda & Lubow, 1994; Otto, Cousens, & Rajewski, 1997; Rosas & Bouton, 1997.
30. Myers & Gluck, 1994.
31. Context-alone trials can reduce latent inhibition: McIntosh & Tarpy, 1977; Westbrook, Bond, & Feyer, 1981; Kraemer & Roberts, 1984; Rosas & Bouton, 1997; see also Killcross et al., 1998a, 1998b. A conflicting study, finding no effect of context-alone trials: Hall & Minor, 1984.
32. Zalstein-Orda & Lubow, 1994.
33. Reiss & Wagner, 1972.
34. See Weiner & Feldon, 1997, for a full discussion of the role of nucleus accumbens in the attentional component of latent inhibition.
35. See Weiner, 1990, for discussion.
36. See, e.g., Holland, 1992.
37. In this case, although occasion setters B and C do not enter into direct associations with the US, there are circumstances in which they may become associated with A; see Holland, 1997.
38. Han, Gallagher, & Holland, 1998.
39. Jarrard & Davidson, 1991.
40. See, e.g., Hirsh, 1974.
41. Myers & Gluck, 1994; see also Eichenbaum, Stewart, & Morris, 1990; Taube, 1991.
42. See, e.g., Bouton & King, 1983; Bouton, 1984.
43. See, e.g., Bouton & King, 1983.
44. Bouton, 1991.
45. e.g., Bouton & Nelson, 1998.
46. See, e.g., Schmaltz & Theios, 1972; Wilson, Brooks, & Bouton, 1995.
47. See, e.g., Bouton & Peck, 1989; Bouton & Brooks, 1993.
48. Winocur & Olds, 1978; Hall & Honey, 1990.
49. Good & Honey, 1991; Bouton, 1993.
50. Winocur & Gilbert, 1984.
51. See, e.g., Winocur et al., 1987.
52. See, e.g., Winocur et al., 1987; Selden et al., 1991.
53. Myers & Gluck, 1994.
54. See, e.g., Bouton & King, 1983.
55. Hall & Honey, 1990.
56. Bouton & King, 1983.
57. Penick & Solomon, 1991.

58. See, e.g., Eichenbaum et al., 1988; Eichenbaum, Cohen et al., 1992.
59. Schacter, 1985.
60. Schacter, Harbluk, & McLachlan, 1984.
61. See also Schnider et al., 1996.
62. See, e.g., Oscar-Behrman & Zola-Morgan, 1980; Myers, Hopkins, et al., 2000. See also Daum et al., 1991.
63. Brooks & Baddeley, 1976.
64. Terrace, 1963, 1966.
65. Terrace, 1963.
66. See, e.g., Terrace, 1974.
67. Wilson et al., 1994.
68. Wilson et al., 1994.
69. Wilson et al., 1994.

## CHAPTER 8

1. Gluck & Myers, 1993.
2. Guigon et al., 1994.
3. Wiesel, 1982.
4. See, e.g., Rasmusson, 1982; Merzenich et al., 1983; Wall & Cusick, 1984.
5. S. Clark et al., 1986; Wang et al., 1995.
6. Jenkins et al., 1990.
7. Jenkins et al., 1990.
8. Nudo et al., 1996.
9. See, e.g., Sutton et al., 1994; Goodall et al., 1997.
10. Researchers studying competitive networks include Marr, 1970; von der Malsburg, 1973; Fukushima, 1975; Grossberg, 1976; Kohonen, 1984; Rumelhart & Zipser, 1985; and Sutton et al., 1994.
11. Kohonen, 1988; Kohonen & Hari, 1999.
12. See, e.g., Rosenblatt, 1958; Marr, 1970; von der Malsburg, 1973; Fukushima, 1975; Grossberg, 1976; Kohonen, 1984; Rumelhart & Zipser, 1985.
13. Kohonen and colleagues have compiled a database of references to over 3000 applications of self-organizing feature maps that can be accessed via the Internet (<http://www.icsi.berkeley.edu/~jagota/NCS/vol1.html>). Another site listing extensive references to computational models of cortical maps is at <http://www.cnl.salk.edu/~wiskott/Bibliographies/CorticalMaps.html>. Accessed June 21, 2000.

14. See, e.g., Kohonen, 1988; Kohonen & Hari, 1999.
15. See, e.g., Suzuki, 1996.
16. See, e.g., Anton, Lynch & Granger, 1991; Barkai et al., 1994.
17. Ambros-Ingerson, Granger, & Lynch, 1990; Granger et al., 1990.
18. Myers, Gluck, & Granger, 1995.
19. Eichenbaum et al., 1988.
20. Eichenbaum et al., 1988.
21. Staubli, Le, & Lynch, 1995.
22. Eichenbaum et al., 1988.
23. Eichenbaum, Otto, & Cohen, 1992.
24. Santibanez & Pinto Hamuy, 1957.
25. For example, simultaneous visual discrimination is sometimes impaired: Mishkin & Pribam, 1954; Pinto Hamuy et al., 1957; Zola-Morgan & Squire, 1985; Zola-Morgan, Squire, & Amaral, 1989a; sometimes spared: Ridley et al., 1995.
26. See, e.g., Staubli et al., 1987.
27. Gluck & Myers, 1996.
28. Swanson, 1979.
29. Otto et al., 1991.
30. Jarrard et al., 1984; Zola-Morgan, Squire, & Amaral, 1989b.
31. See, e.g., Hasselmo & Schnell, 1994; Myers et al., 1996.
32. Eichenbaum et al., 1988.
33. Myers & Gluck, 1996.
34. Eichenbaum, Mathews, & Cohen, 1989, p. 1214.
35. Eichenbaum, Mathews, & Cohen, 1989.
36. Myers & Gluck, 1996.
37. Myers & Gluck, 1996.
38. See, e.g., Szentagothai, 1975; Lytton & Sejnowski, 1991; Steriade, McCormick, & Sejnowski, 1993; Guigon et al., 1994; Buonomano & Merzenich, 1995.
39. Bakin & Weinberger, 1990; Weinberger, 1993.
40. Weinberger, 1997.
41. Weinberger, Javid, & Lapan, 1993.
42. Bakin & Weinberger, 1990; Gao & Sugo, 1998; Kilgard & Merzenich, 1998.
43. See, e.g., Gao & Sugo, 1998.
44. Weinberger, 1997.

45. Bakin & Weinberger, 1996; Kilgard & Merzenich, 1998.
46. Baskerville, Schweitzer, & Herron, 1997; Sachdev et al., 1998.
47. Tallal, Miller, & Fitch, 1993.
48. Tallal et al., 1996.
49. Ambros-Ingerson, Granger, & Lynch, 1990.

## CHAPTER 9

1. See, e.g., Mountcastle, 1979.
2. Amaral & Witter, 1989.
3. Zola-Morgan, Squire, & Ramus, 1994.
4. Jarrard, 1989; Jarrard & Davidson, 1991.
5. Price, 1973; van Hoesen & Pandya, 1975; Gluck & Granger, 1993; Woodhams et al., 1993.
6. Myers, Gluck, & Granger, 1995; see also Granger et al., 1996.
7. Myers, Gluck, & Granger, 1995.
8. Broad hippocampal-region damage may abolish latent inhibition (e.g., Ackil et al., 1969; Solomon & Moore, 1975; McFarland, Kostas, & Drew, 1978; Kaye & Pearce, 1987; Schmajuk, Lam, & Christiansen, 1994), but lesion limited to hippocampus (and sparing entorhinal cortex) may spare or even enhance latent inhibition (Jarrard, 1989; Clark, Feldon, & Rawlins, 1992; Honey & Good, 1993; Reilly, Harley, & Revusky, 1993; Purves, Bonardi, & Hall, 1995).
9. Yee, Feldon, & Rawlins, 1995; Shohamy, Allen, & Gluck, 1999.
10. Myers et al., 1995.
11. Mackintosh, 1973.
12. See also Bonardi & Hall, 1996.
13. Allen, Chelius, & Gluck, 1998.
14. Thompson, 1972.
15. Myers, Gluck, & Granger, 1995.
16. Lawrence, 1952; Mackintosh & Little, 1970; Marsh, 1969; Singer, Zental, & Riley, 1969; Haberlandt, 1971.
17. Gluck & Myers, 1993.
18. Gluck & Myers, 1993.
19. Myers, Gluck, & Granger, 1995.
20. See, e.g., Penick & Solomon, 1991.
21. Myers, Gluck, & Granger, 1995.
22. Honey & Good, 1993.

23. Myers, Gluck, & Granger, 1995.
24. Honey & Good, 1993.
25. Gluck & Myers, 1993.
26. See, e.g., Honey & Hall, 1989, 1991; Bonardi et al., 1993.
27. See especially Rolls, 1989, 1996, and Levy, 1985, 1990.
28. Rolls, 1989; Levy, 1990; McNaughton & Nadel, 1990.
29. Segal & Olds, 1973.
30. Segal & Olds, 1973.
31. Deadwyler, West, & Lynch, 1979.
32. Segal & Olds, 1973; Deadwyler, West, & Lynch, 1979.
33. Schmajuk & DiCarlo, 1992.
34. Schmajuk & Blair, 1993; Schmajuk, 1994; Buhusi & Schmajuk, 1996.
35. Buhusi & Schmajuk, 1996.
36. See Jarrard & Davidson, 1991, and Davidson, McKernan, & Jarrard, 1993, for a more complete comparison of different lesion techniques.
37. Buhusi, Gray, & Schmajuk, 1998.
38. Rolls, 1989, 1996.
39. See Rolls, 1996.
40. Rolls, 1989.
41. Young et al., 1997.
42. Eichenbaum, Otto, & Cohen, 1994.
43. Bunsey & Eichenbaum, 1993; Eichenbaum & Bunsey, 1995.
44. Bunsey & Eichenbaum, 1993.
45. See Eichenbaum & Bunsey, 1995.
46. Bunsey & Eichenbaum, 1993; Eichenbaum & Bunsey, 1995.
47. Gluck, Myers, & Goebel, 1994; Eichenbaum & Bunsey, 1995; Gluck & Myers, 1995.
48. Flicker, Ferris, & Reisberg, 1991; Masur et al., 1994.
49. de Leon et al., 1997.
50. Convit et al., 1993, 1995; de Leon et al., 1993a; Killiany et al., 1993.
51. de Leon et al., 1989.
52. Golomb et al., 1993.
53. Myers, Kluger, et al., 1998, in prep.
54. Myers, Kluger, et al., in prep.
55. Jones, 1993; Woodhams et al., 1993; Gómez-Isla et al., 1996.

## CHAPTER 10

1. See Hasselmo, 1995, for a review.
2. See Hasselmo, 1995, for a review.
3. Vanderwolf, Leung, & Stewart, 1985; Lee et al., 1994.
4. Berry & Thompson, 1979; Feasey-Truger, Li, & Bruggencate, 1992; Everitt & Robbins, 1997.
5. See, e.g., Downs et al., 1972; Blozovski, Cudennec, & Garrigou, 1977.
6. See Spencer & Lal, 1983, for a review of scopolamine and its medical effects.
7. See Kopelman & Corn, 1988.
8. Solomon et al., 1983; Jarrard et al., 1984; Gluck & Myers, 1993.
9. See, e.g., Schmaltz & Theios, 1972.
10. Solomon et al., 1983, 1993; Bahro et al., 1995; Kaneko & Thompson, 1997.
11. Berry & Thompson, 1979.
12. Hasselmo & Bower, 1993; Hasselmo & Schnell, 1994; Hasselmo, Schnell, & Barkai, 1995.
13. Hasselmo, Schnell, & Barkai, 1995.
14. Hasselmo & Schnell, 1994.
15. See Hasselmo, 1995, for a review.
16. Meyer, 1996.
17. Harvey, Gormezano, & Cool-Hauser, 1983.
18. Ghoneim & Mewaldt, 1977; Peterson, 1977.
19. Hasselmo, Wyble, & Wallenstein, 1996.
20. Myers et al., 1996.
21. See also Lopes da Silva et al., 1985.
22. Solomon et al., 1983.
23. Myers et al., 1996; Myers, Ermita, et al., 1998.
24. Ogura & Aigner, 1993.
25. Kronforst-Collins et al., 1997.
26. See, e.g., Bartus, 1979; Dumery, Derer, & Blozovski, 1988; Miyamoto et al., 1989; Markowska, Olton, & Givens, 1995; see also Ennaceur & Meliani, 1992.
27. See, e.g., Jacobs, 1988.
28. Myers et al., 1996.
29. Chatterjee et al., 1993; see also Miyamoto et al., 1989.
30. Bartus, 1979; Kronforst-Collins et al., 1997.
31. Davis et al., 1978; Smith, Coogan, & Hart, 1986; Wetherell, 1992.



32. Myers, Ermita, et al., 1998.
33. Moore, Goodell, & Solomon, 1976.
34. Baxter, Holland, & Gallagher, 1997; see also Weiss, Freedman, & McGregor, 1974.
35. Harvey, Gormezano, & Cool-Hauser, 1983.
36. Myers, Ermita, et al., 1998.
37. Solomon et al., 1983.
38. Myers, Ermita, et al., 1998.
39. Solomon & Gottfried, 1981; Powell, Hernandez, & Buchanan, 1985.
40. Powell, Hernandez, & Buchanan, 1985.
41. Solomon & Gottfried, 1981.
42. Krnjevic & Ropert, 1982.
43. See also Woodruff-Pak et al., 1994a, 1994b.
44. Alonso & Kohler, 1982.
45. Lamour, Dutar, & Jobert, 1984.
46. Hasselmo & Schnell, 1994; Hasselmo, Schnell & Barkai, 1995.
47. The interested reader is referred to Hasselmo & Schnell, 1994, and Hasselmo, Schnell, & Barkai, 1995, for further details of the CA1 model.
48. Similar suggestions have been made by Gray, 1985, and Levy, 1989.
49. Wilson & Rolls, 1990.
50. Myers et al., 1996; Myers, Ermita, et al., 1998.
51. Rokers, Myers, & Gluck, 2000/in press.
52. Rokers, Myers, & Gluck, 2000/in press.
53. Jacobs, 1988; Gluck, Glauthier, & Sutton, 1992.
54. Montague, Dayan, & Sejnowski, 1996; Schultz, Dayan, & Montague, 1997; see also Pennartz, 1996.
55. Hasselmo et al., 1997.
56. Freund & Antal, 1988; Brazhnik et al., 1993.
57. Buzsáki, 1989; Buzsáki, Chen, & Gage, 1990.
58. See, e.g., Hasselmo, Wyble, & Wallenstein, 1996; Wallenstein & Hasselmo, 1997.
59. See Hasselmo, 1995, for a review.
60. Weinberger, 1997.
61. Bakin & Weinberger, 1996; Juliano, 1998; Kilgard & Merzenich, 1998.
62. Baskerville, Schweitzer, & Herron, 1997; Juliano, 1998; Sachdev et al., 1998.

63. See, e.g., Morris et al., 1992; Chatterjee et al., 1993.
64. Alexander & Freedman, 1984; Irle et al., 1992; DeLuca & Diamond, 1995.
65. Myers, DeLuca, et al., in preparation.
66. Weiskrantz & Warrington, 1979; Woodruff-Pak, 1993; Gabrieli et al., 1995.
67. Whitehouse et al., 1982; Kesner, 1988.
68. de Leon et al., 1993b.
69. Sunderland et al., 1985; Christensen et al., 1992.
70. Beatty, Butters, & Janowsky, 1986; Flicker, Serby, & Ferris, 1992; Flicker, Ferris, & Serby, 1992.
71. Tacrine: Knapp et al., 1994; Manning, 1994; Wagstaff & McTavish, 1994; physostigmine: Davis & Mohs, 1982; Thal et al., 1983; Sevush, Guterman, & Villalon, 1991; donepezil: Rogers, Friedhoff, & the Donepezil Study Group, 1996; Warren, Hier, & Pavel, 1998.
72. Bartus et al., 1985.

## CHAPTER 11

1. See Zola-Morgan & Squire, 1993, for a review of how DNMS—once thought to depend on the hippocampus—is now known to depend more on nearby medial temporal structures.
2. Sperling et al., 1996.
3. Engel, 1993.
4. Oliver, 1988.
5. Miller, Munoz, & Finmore, 1993; Hermann et al., 1997.
6. See, e.g., Salafia et al., 1977; Solomon et al., 1983; Jarrard et al., 1984.
7. Estes, 1982.
8. Gluck & Bower, 1988a.
9. Estes, 1982.

This excerpt from

Gateway to Memory.  
Mark A. Gluck and Catherine E. Myers.  
© 2000 The MIT Press.

is provided in screen-viewable form for personal use only by members of MIT CogNet.

Unauthorized use or dissemination of this information is expressly forbidden.

If you have any questions about this material, please contact  
[cognetadmin@cognet.mit.edu](mailto:cognetadmin@cognet.mit.edu).