Review of the International Literature

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Bob, P. (2007). Hypnotic abreaction releases chaotic patterns of electrodermal activity during dissociation. International Journal of Clinical and Experimental Hypnosis, 55(4), 435-456. The author presents a very interesting study of the psychophysiological characteristics associated with the phenomena of dissociation. The study is very unique in that it attempts to utilize the methods and models of non-linear dynamics in its empirical analysis of the psychophysiology of dissociation. A number of authors have previously speculated that non-linear methods may in fact prove helpful in identifying phenomena of the unconscious that operate during empirical investigations of hypnosis and other complex mental phenomena. The author of this paper hoped that non-linear analysis might reveal in greater detail the critical events which accompany the experience and psychophysiological correlates of recalling a traumatic memory that had been previously dissociated. The author employed a measure of electrodermal activity (EDA) with bilateral sensor placement to examine the psychophysiological correlates of 2 patients recalling traumatic memories that had been previously dissociated. The patients began the procedure with a neutral hypnotic state induction which was compared to another hypnotic condition involving hypnotic revivification of a previously dissociated traumatic memory. The author found that there appeared to be a significantly higher amount of chaotic non-linear EDA during the hypnotically facilitated recall of the traumatic memory compared to the neutral hypnotic relaxation condition. The author suggests that his findings may indicate that a type of “neural chaos” (non-linear brain activity) may actually be important in the development of dissociative phenomena. Address for reprints: Petr Bob, Center for Neuropsychiatric Research of Traumatic Stress & Department of Psychiatry, First Faculty of Medicine, Charles University, Prague, Czech Republic. Email address: physres@biomed.cas.cz.

Brooks, J.L., Goodfellow, L., Bodde, N.M., Aldenkamp, A. & Baker, G. A. (2007). Nondrug treatments for psychogenic nonepileptic seizures: What’s the evidence? Epilepsy and Behavior, 55(4), 426-432. The authors of this article wished to provide a review of the existing clinical research literature into psychological and other non-pharmacological methods of reducing the symptoms and suffering caused by psychogenic nonepileptic pseudoseizures. Many readers may well be aware of the pioneering work of Elmer Green and his colleagues using biofeedback and
hypnotic methods with these patients many years ago at the Menninger Clinic. The authors utilized the standards of the Cochrane Review system in selecting among the over 600 studies they identified for inclusion in their review. Only three of the 600 plus studies were deemed worthy of inclusion using the Cochrane criteria. Two of these studies utilized hypnosis as their main intervention to teach patients how to reduce the frequency and duration of the patients’ seizures. The third study utilized a paradoxical type of intervention that might be argued to have had some hypnotic elements to it by practitioners of the Ericksonian hypnosis traditions. All 3 studies reported being able to use a psychological based intervention to reduce the seizure frequency of patients with psychogenic nonepileptic pseudoseizures. However, the authors also reviewed the methodological shortcomings of these 3 studies and also discussed the general lack of the type of evidence one might expect them to have found given that most experienced clinicians and researchers of biofeedback and hypnosis have probably previously heard of this potential application of mind/body medicine before. The authors, therfore, call for more research into this area to be enacted given the potential benefits that wide usage of non-pharmacological methods to control pseudoseizures might bring to the quality and functioning levels of many patients lives.

Address for reprints: J. L. Brooks, Department of Neuropsychology, Walton Centre for Neurology and Neurosurgery, Lower Lane, Fazakerley, Liverpool L9 7LJ, UK.

Bryant, R. J. & Fearns, S. (2007). Taking the feeling out of emotional memories: A study of hypnotic emotional numbing: A brief communication. *International Journal of Clinical and Experimental Hypnosis, 55*(4), 426-432. This is another interesting study of the lead author’s investigations into the phenomena of hypnotically-induced emotional numbing. In previous studies the author and his colleagues have used hypnotically induced emotional numbing to demonstrate how hypnotic suggestions can shape a hypnotic subjects’ phenomenological experience of emotional content though directing them to diminish their emotional responsiveness to various types of emotionally provocative stimuli. In this study, 29 highly hypnotizable subjects were given hypnotic suggestions to diminish their emotional responsiveness to create hypnotically induced emotional numbing (or control instructions), and then were asked to recall autobiographical memories. The subjects were asked to recall either distressing memories or neutral memories to examine how the hypnotically induced emotional numbing affected memory recall. The subjects’ phenomenological experience of their emotions was collected to examine how the emotional numbing affected their experience of the memory retrieval process. The subjects psychophysiological correlates of memory recall was also collected using electromyographical (EMG: muscle tension) sensors placed at the corrugator muscle sites. Finally, the subject’s verbal descriptions of their emotional experiences during the memories was also recorded to assess their emotional experiences at the time when the original events were happening. The authors found that hypnotically induced emotional numbing did reduce the amount of emotional content that the subjects reported when recalling their distressing memories. They also found that hypnotically induced emotional numbing reduced the EMG and psychophysiological correlates of discussing a distressing memory. Interestingly, the authors found that hypnotically induced emotional numbing did not reduce the subjects verbal descriptions of their emotional states at the original time of the memory that they recalled. The authors used this finding to suggest that hypnotically induced emotional numbing may be able to differentially affect the affective and semantic aspects of a person’s emotional response. This of course is somewhat illustrative of a common clinical situation in using age regression techniques when a person
is directed to witness and report on a traumatic event without becoming distressed. The study seems highly relevant and useful reading for therapists using age regression techniques in general and is highly recommended reading due to its attempt to look at the phenomenological, psychophysiological, and semantic aspects of hypnotically induced emotional numbing. Address for reprints: Richard A. Bryant, Ph.D., School of Psychology, University of New South Wales, NSW 2052, Sydney, Australia. Email address: r.bryant@unsw.edu.au.

Council, J. R., Bromley, K. A., Zabelina, D. L., & Waters, C. G. (2007). Hypnotic enhancement of creative drawing. *International Journal of Clinical and Experimental Hypnosis, 55*(4), 467-485. The authors of this study present a very exciting empirical investigation of the potential uses of hypnosis to enhance creativity and artistic expression. The lead author has previously investigated the uses of hypnosis in similar interventions to enhance dramatic acting skills and other creativity and artistic-related performance skills. The participants in this study were randomly selected to draw under either a condition utilizing hypnosis to enhance creativity or a task motivational group that did not utilize formal hypnotic procedures. Both groups were asked to produce a baseline drawing before the hypnotic or task motivational instructions. The hypnotic instruction group was given a hypnotic induction and suggestions intended to enhance their creativity. The participants drawings were blindly rated by expert judges of drawing using a rating scale that examined factors like creativity in the participants drawings. Measures of hypnotic ability, absorption, and phenomenological experience were also employed to assess the importance of each measure in predicting the success of the creativity enhancement procedures. The authors found that the participants drawings in the hypnosis instruction group were rated as being significantly more creative than their baseline drawings. The authors also reported that the results were not related to hypnotic ability or absorption levels of the participants. This study is very interesting as it documents an excellent use of hypnosis in positive psychological interventions to help enhance creativity. Interventions such as the one documented in this study could probably be safely and profitably taught to artists, musicians, actors, acting coaches, and other persons who wish to realize and develop their creative artistic expression. Address for reprints: James R. council, Ph.D., North Dakota State University, Psychology Department, 108 Minard Hall, Fargo, ND 58105. Email address: James.Council@ndsu.nodak.edu.

DiClementi, J. D., Deffenbaugh, J., Jackson, D. (2007). Hypnotizability, absorption and negative cognitions as predictors of dental anxiety: Two pilot studies. *Journal of the American Dental Association, 138*(9), 1242-1250. This article presents the results of two pilot studies designed to examine some issues important in dental applications of hypnosis. However, the two studies also have wider implications for how we understand the role that personality plays in enacting hypnotic phenomena. The two pilot studies were designed to assess the relative strengths of hypnotic ability, absorption (as defined by a participant’s ability to maintain a focused attention task), and negative cognitions in predicting dental anxiety (measured with a dental anxiety questionnaire). In the first pilot study, the investigators measured the participants hypnotic ability and dental anxiety. The participants also watched a video presentation of a patient experiencing a dental procedure either under hypnosis or not. The participants in the second study also completed the measures of hypnotic ability and dental anxiety in addition to also watching the video of a dental procedure. The participants in the second study were also given some additional information about the
dental procedure they were going to see on the video. The participants were either told that the video would show a routine dental cleaning procedure or a major dental surgical procedure. The authors reported that their evidence demonstrated that hypnotic ability, absorption, and negative cognitions were in fact predictors of dental anxiety. The authors also discussed the clinical relevance of these findings for dental practice including the utility of measuring hypnotic ability to predict dental anxiety as well as to assess for responsiveness to hypnotic treatment for dental anxiety. These pilot studies used some interesting methods to measure absorption which I found stimulating. Their use of a performance related task to measure absorption (rather than a personality-based test) seems especially creative to me given the controversy over context effects in the relationship between hypnotic ability and absorption. Perhaps further work in this area could establish a less context sensitive manner of assessing absorption potential? Address for reprints: Dr. J. D. DiClementi, Department of Psychology, Indiana University-Purdue University Fort Wayne, 2101 E. Coliseum, Fort Wayne, IN 46805. Email address: diclemej@ipfw.edu.

Hauri, P.J., Silber, M.H., & Boeve, B.F. (2007). The treatment of parasomnias with hypnosis: A 5-year follow-up study. *Journal of Clinical Sleep Medicine, 3*(4), 369-373. The authors of this clinical study of hypnosis intended to replicate and extend their previous initial findings on using hypnosis to reduce the symptoms of various parasomnias. Sleep walking, nightmares, night time eating syndrome, and similar unusual sleep issues are all examples of parasomnias where most experienced clinicians using hypnosis have probably heard of a colleague using hypnosis to reduce or abolish the parasomnic activity. The lead author employed a very brief psychotherapy strategy employing hypnosis to target and reduce the parasomnic activity as the main goal of the hypnotic intervention. Many of the 36 subjects received only 1 or 2 sessions of hypnosis prior to being released for further follow-up over 5 years to assess for the long-term efficacy of the interventions. The lead author was able to hypnotize over 75% of the participants. All the participants were given a tape-recorded version of their intervention to practice using self-hypnosis following the intervention. The patients were directed to practice the self-hypnosis tape daily at home for at least 2 weeks. At 1 month follow-up, about 40% of the participants were reported to have shown a complete remission of parasomnic symptoms or significant improvement in their severity and frequency. About 40% of the participants also reported being symptom free or significantly improved at 8 months and 5 years follow-up as well. The authors provide a critique of their own methods and the shortcomings of their experimental design in terms of their being able to state whether hypnosis was actually the critical factor that helped these patients rather than another method that they may have employed. However, the results surely could be used to encourage future clinical researchers of hypnosis to try to utilize brief hypnotic methods in assisting patients with parasomnias. Address for reprints: Dr. Peter Hauri, Sleep Disorders Center, Mayo Clinic College of Medicine, Rochester, MN 55905, USA. Email address: hauri.peter@mayo.edu.

Hudacek, K.D. (2007). A review of the effects of hypnosis on the immune system in breast cancer patients: A brief communication. *International Journal of Clinical and Experimental Hypnosis, 55*(4), 411-425. The author presents two studies of patients using hypnosis to enhance the effectiveness of their immune system to combat cancer and to improve their quality of life. In one study, the participants learned hypnosis via guided imagery condition and in the other study home visits were employed in training patients to use autogenics. The
patients’ mood was assessed and also the patients’ immunological profile was determined to examine for the possible psychological and mind/body benefits of both interventions. Both patient groups demonstrated improvements in mood and natural killer cell activity at follow-up. The author makes some recommendations for future studies of the possible efficacy of hypnosis in affecting immune system activity and improving longevity in cancer patients. Address for reprints: Kristin D. Hudacek, Ph.D., University of Pennsylvania School of Medicine, 295 John Morgan Building, 3620 Hamilton Walk, Philadelphia, Pennsylvania, 19104-6055.

Kavoussi, B. & Ross, B. (2007). The neuroimmune basis of anti-inflammatory acupuncture. *Integrative Cancer Care, 6*(3), 251-257. The authors provide an interesting review of the evidence regarding how acupuncture may positively affect a person’s health. The authors propose that acupuncture may affect the immune system via mechanisms that involve psychoneuroimmunology. Their model holds that acupuncture may inhibit inflammatory actions of the immune system through actions of the endocrine, central, and autonomic nervous systems that the field of psychoneuroimmunology has identified as being important in modulating the activity of the immune system. The authors thus ascribe a similar mechanism of action for reducing inflammation with acupuncture as their proposed mechanism of action for other methods which are primarily psychologically based. They specifically mention that they think hypnosis, biofeedback, meditation, prayer, and guided imagery all potentially share this common mechanism in their efficacy for reducing inflammation. The authors review the physiological details of their model in some detail and in particular highlight the possible actions of the vagus nerve which we also know has some action in hypnosis given the findings of Steve Porges and others who have examined the relationship between cardiac vagal tone and hypnotic ability. Their model is critical of traditional acupuncture practice which tends to hold that specific needle site placement and specific types of needle stimulation are critical factors in acupuncture’s success independent of biomedical conditioning, expectancy, or mother mind/body placebo factors. They base their assertions that the traditional model of acupuncture does not hold upon the relative lack of evidence showing the efficacy of acupuncture above placebo factors in well designed and controlled studies. It is important to note, however, that the authors are not in any way critical of the concept of utilizing traditional acupuncture with patients. On the contrary, their model seems aimed at providing a scientifically based theory of acupuncture’s action that could help make its acceptance in general medicine more prevalent. They do in fact call for an integration of acupuncture into the treatment of chronic diseases like autoimmune disorders where they also offer some guidelines and predictions to assess for its mind/body efficacy. Hopefully, the authors model will be well received by the acupuncture community as indeed the authors model could easily be accepted by any medical professional with a basic working knowledge of psychoneuroimmunology. The fact that they propose a psychoneuroimmunological explanation for acupuncture does not in any way detract from the ability of acupuncture to assist patients. Address for reprints: B. Kavoussi, Southern California University of Health Sciences, College of Acupuncture and Oriental Medicine, Whittier, CA. Email address: kavoussi@ucla.edu.
Keefer, L., & Keashavarzian, A. (2007). Feasibility and acceptability of gut-directed hypnosis on inflammatory bowel disease: A brief communication. *International Journal of Clinical and Experimental Hypnosis, 55*(4), 457-466. The authors present an initial study of the possible utility of hypnosis to aid patients with inflammatory bowel syndrome. The authors discuss the previous literature of hypnosis in assisting patients with stress relief, beneficial mood alteration, and symptom relief from irritable bowel syndrome as all providing some reasons to be hopeful that hypnosis could benefit patients with inflammatory bowel diseases. The authors utilized hypnosis with 8 patients with inactive inflammatory bowel diseases to assess for the feasibility and acceptability of hypnosis as a treatment method for these patients. The 8 patients all reported improvements in the quality of their life and no adverse effects were noted among them due to hypnosis. The authors suggest that their findings appear to be sufficient to argue for more research into how hypnosis may benefit patients with inflammatory bowel diseases. This seems like an important initial study given the significant suffering these patients undergo and the general difficulty general medicine has in treating them. Address for reprints: Division of Digestive Diseases and Nutrition, Rush University Medical Center, Chicago, IL. Email address: laurie.keefer@nmff.org.

Larkin, D.M. (2007). Ericksonian hypnosis in chronic care support groups: A Rogerian exploration of power and self-defined health-promoting goals. *Nursing Science Quarterly, 20* (4), 357-369. The author discusses the uses of the Ericksonian hypnosis with patients who have chronic medical diseases. The author undertook a study of 49 participants with chronic physical illnesses who were assigned to either a traditional psychotherapy group or to a Ericksonian hypnosis group. Both groups demonstrated improvements in quality of life measures. The author relates the findings to theories of power and self-actualization. Address for reprints: Dorothy Larkin, Ph.D, M.A., R.N., C.S. The College of New Rochelle, 29 Castle Place, New Rochelle, New York, 10805.

McKeown, J. M. (2007). Restoring literary wholeness to the fragmented account of Antoine Despine’s magnetic cure of Estelle L’Hardy’s dissociative disorder. *International Journal of Clinical and Experimental Hypnosis, 55*(4), 486-496. This paper is a review and critique of a very early scholarly work on dissociative disorders by Antoine Despine. Despine utilized animal magnetism to treat patients with dissociative disorders in a fashion that strikes one as similar to current hypnotic methods. The author argues that a number of problems arise from reading Despine’s writings due to the authors difficult writing style as well as deficits in translations that were made of the original writings. I found this article very useful in advancing my historical knowledge into the period of transition between animal magnetism into the tradition of hypnosis began by the Abbe’de Faria, James Braid, and others. The author does an excellent job of documenting her claims as to the literary confusion surrounding Antoine Despine’s writings. The same situation is of course also true of other early French pioneers of hypnotism and animal magnetism. The Abbe’ Faria is another such early historical figure who investigated dissociative phenomena. His writings are also said to be difficult to understand due to his difficult writing style since he was from Goa (an island of the coast of India) who came to live and practice his form of hypnosis (which he termed lucid sleep) in France. Address for reprints: Joanne McKeown, Moravian College, Foreign Language Department, 1200 Main Street, Bethlehem, Pennsylvania, 18018. E-mail address: mejmd01@moravian.edu.
Molton I.R., Graham C., Stoelb B.L., & Jensen, M.P. (2007). Current psychological approaches to the management of chronic pain. *Current Opinion in Anesthesiology, 20*(5), 485-489. This article provides a very good and brief overview to the latest and most important empirical findings which are supportive of utilizing hypnotic analgesia to help chronic pain patients. The authors discuss many studies which demonstrate the effectiveness of training in self-hypnosis for helping the average patient gain temporary relief from chronic pain using hypnotic analgesia and related aspects of cognitive behavioral therapy. They also discuss how a substantial minority of patients appear to be able to significantly reduce their baseline experiences of pain using hypnosis. The article also discusses a number of other interesting topics like using hypnosis with juveniles. This article might be a very good review article to give an interested health professional who regularly works with chronic pain patients and who may not yet have training in using hypnosis and hypnotic analgesia.

Address for reprints: Ivan R. Molton, Department of Rehabilitation Medicine, Box 356490, University of Washington School of Medicine, Seattle, WA 98195-6490. E-mail Address: imolton@u.washington.edu.

Montgomery, G.H., Bovbjerg, D.H., Schnur, J.B., David, D., Goldfarb, A., Weltz, C.R., Schnecter, C., Graff-Zivin, J., Tatrow, K., Price, D.D., & Silverstein, J.H. (2007). A randomized clinical trial of a brief hypnosis intervention to control side effects in breast surgery patients. *Journal of the National Cancer Institute, 99*(17), 1304-1312. This is another very important article from the lead author and his colleagues on the uses of hypnosis with breast cancer and breast surgery patients. In this study, the authors utilized a very brief intervention with patients prior to their experience of breast surgery to reduce their intra-operative pain, anxiety, and other post-surgical difficulties. The authors also wished to test how utilizing hypnosis in this brief fashion might reduce intra-operative anesthesia and medication utilization. The authors also wished to test whether the addition of hypnosis to the medical protocol that was employed may have reduced the overall costs of the breast surgical procedure they were scheduled for. The authors randomly selected 200 women who were undergoing excisional breast biopsy or lumpectomy to receive either a live, 15-minute hypnotic intervention or 15 minutes of a condition of non-directive empathic listening which served as an attention control for the experiment. The patients medication and anesthesia usage was monitored during and following the procedure as they were waiting in the recovery room. The patients’ pain and other difficulties were assessed using a visual analog scale. The costs of each patient’s operation were determined through a chart review following the procedure. The patients in the hypnosis group did report significantly less pain, nausea, fatigue, discomfort, and emotional difficulties compared to the empathic listening group. The patients in the hypnosis group also used less anesthesia and medication than the patients in the empathic listening group for some but not all of the pharmacological interventions that were tracked. The authors reported that the average cost per procedure per patient was around $8,500. The patients in the hypnosis group required significantly less time in the surgery suite and thus over $750 was saved per patient as a result of the utilization of hypnosis in their surgical procedure.

This study is another very important study to make your medical colleagues aware of given that the authors not only demonstrated that hypnosis is clinically effective, but also demonstrated that hypnosis was cost effective and saved the healthcare system a significant amount of money. I recently read that it is estimated that as many as 1,000,000 excisional breast biopsies are performed every year in the United States. The healthcare cost savings...
could therefore be estimated as being as much as 750,000,000 just from integrating 15 minutes of hypnosis prior to just this one type of surgery by itself. One can only imagine how many billions of dollars could potentially be saved if hypnosis were integrated prior to every surgical operation where it was deemed potentially useful and appropriate. I have occasionally encountered a benign interest from other medical professionals in utilizing the services of a psychologist in assisting medical patients that is tempered by concerns that adding hypnosis to a standardized medical procedure will lengthen and increases the costs of patient care. This study provides an excellent empirically grounded model of how to provide brief hypnotic interventions that not only provides the patient with the highest quality of concern for their quality of life as well as actually saving money compared to an empathic control condition that sadly could also be considered an improvement upon standard medical practice. In several other studies, the empathic listening group received some benefits similar to those seen in hypnosis. So it is possible that the hypnosis group’s results may be even more dramatic if they were compared to a third standard of care group, which presumably also the empathic listening group would show some superiority over in terms of some of the outcome variables. Address for reprints: Guy H. Montgomery, Ph.D., Department of Oncological Sciences, Mount Sinai School of Medicine, Box 1130, 1 Gustave L. Levy Place, New York, NY 10029-6574. Email address: guy.montgomery@mssm.edu.

Perfect, T.J., Wagstaff, G.F., Moore, D. Andrews, B. Cleveland, V., Newcombe, S., Brisbane, K.A., & Brown, L. (2007). How can we help witnesses to remember more? It’s an eyes open and shut case. Law and Human Behavior, 55(4), 486-496. This is an interesting article which reports on the data of 5 experiments designed to ascertain whether directing someone to close their eyes could increase their success in memory retrieval. The subjects in the first experiment were directed to watch a video and later to answer questions based upon their recall of the material. The subjects were either directed to close their eyes before answering the questions or given no instructions at all. The participants who closed their eyes did demonstrate some increased accuracy on a cued recall test as well as no increase in incorrect responses. The authors also report on similar findings in the other experiments which examined how varying the experimental conditions might change the results by varying the test format (cued recall vs. free recall), information modality (auditory vs. visual), and study material (live vs. video). All 5 experiments produced a similar pattern of results that suggested that directed eye closure produced an increase in memory retrieval without an increase in inaccurate memory retrieval. This study appears to be an interesting new look at the whole issue of memory and hypnosis since almost all hypnotic inductions to remember a previous event begin with directions to close one’s eyes. The authors suggest that this may in and of itself increase the patients memory retrieval processes.

The most interesting and perhaps somewhat surprising finding of this study (besides the eye closure issue) involves the authors’ evidence that eye closure in and of itself did not result in any increase in inaccurate retrieval even in the free recall condition. A number of studies such as a classic study by Laurence & Perry (1983) have documented that hypnotic interrogations of memory can result in memory distortions such as a type of imaginative-confabulation. One might have expected an increase in memory inaccuracies in the experiments and especially the free recall condition given the authors suggestion that their eye closure recall has some relationship to hypnotic memory retrieval. It is a fascinating issue and hopefully we will see some further development of this experimental paradigm addressing the very valid sociocognitive critiques that previously were brought up about the necessity
of hypnotic inductions in establishing hypnotic behaviors for other hypnotic phenomena. Further work in this area may well shed some new light on the issue of memory of hypnosis especially if the authors can continue demonstrating increases in memory retrieval using eye closure procedures without a concurrent increase in inaccurate memory retrieval.

Reference

Sartorius, A & Schmahl, C. (2007). Bispectral index monitoring during dissociative pseudo-seizure. World Journal of Biological Psychiatry, 1-3. The authors present a psychophysiological case study of a patient with symptoms of conversion disorder and dissociation. The authors discuss how patients with borderline personality disorder, conversion disorder, and various forms of dissociative disorders all share some degree of commonality in their experiences of transient dissociative symptoms. The authors investigated one patient's electroencephalographic correlates while he was experiencing a transient dissociative episode of complete anesthesia, paralysis, and amnesia which lasted around 1 hour. During that time the authors were able to collect EEG data and determine the patient's bispectral index (an EEG based measure). The authors compared the patient’s value of bispectral index to levels typically seen during hypnosis. The authors concluded that this evidence may suggest that mechanisms of dissociation and hypnosis may indeed share a common neural architecture as indeed many theorists of hypnosis have postulated for over 100 years. Address for reprints: A. Sartorius, Department of Psychiatry and Psychotherapy, Central Institute of Mental Health, Mannheim, Germany.

Spiegel, H. (2007). The neural trance: A new look at hypnosis. International Journal of Clinical and Experimental Hypnosis, 55(4), 486-496. The author presents some interesting new theoretical perspectives on hypnosis which are based on a wide variety of sources in the empirical literature, history, and previous theoretical writings in hypnosis. His theorizing attempts to understand the manner in which the biological aspects (neurophysiology) of hypnosis are related to its bio-psychosocial activation and performance. I found the author’s writings to be very useful in understanding the possible meaning of the Spiegel and Spiegel Eye-Roll sign that is a part of the clinical hypnotic ability test they developed with their colleagues over the years. The author plainly discusses his ideas about the Spiegel eye roll which he has consistently discussed in the past as being a biological marker of hypnotic ability. The author also addresses a number of other topics such as guidelines for the integration of psychopharmacological medications and psychotherapy treatment approaches for patients with different patient presentations. Address for reprints: Herbert Spiegel, M.D., College of Physicians & Surgeons, Columbia University, New York, New York 10128.

Watanabe S, Hattori T, Kanazawa M, Kano M, & Fukudo S. (2007). Role of histaminergic neurons in role of hypnotic modulation of visceral perception. Neurogastroenterology and Motility, 19(10), 831-838. The authors of this study report on some exciting new findings relating to the neural mechanisms underlying a broad array of hypnotic phenomena. Many aspects of hypnosis seem to affect a person's visceral body sensations. One example of how hypnosis alters visceral body sensations can be readily seen in how hypnosis is frequently accompanied with physical sensations associated with relaxation that even many low
hypnotizable subjects experience. A more dramatic example of how hypnosis can affect visceral sensations can be seen in how hypnotic analgesia can be attended with pleasant numbing sensations that appear to abolish or diminish painful sensations as strong as those produced by surgical operations. The authors hypothesized that histaminergic neurons in the human brain might be responsible for enacting the changes in visceral sensations that people experience during hypnotic analgesia. The authors decided to test their theory by administering a histamine antagonist (H1 receptor: d-chlorpheniramine) intravenously in 12 healthy volunteers which would effectively block the histaminergic neurons from working. The authors then recorded the participants’ event related potentials (a time and stimulus locked measure of electroencephalography EEG) to rectal delivered electrical stimuli designed to be painful. The subjects were all asked to use hypnosis to alter their visceral sensations by increasing, decreasing, and leaving neutral their body sensations of the electrical stimuli. This would allow the investigators a chance to see how the histamine antagonist might diminish, leave the same, or augment the subjects visceral sensations. The authors also wisely included a placebo control condition in which the subjects received an inert placebo and had the same experimental procedure was employed to investigate the possible placebo modulation of the visceral sensations during hypnosis. The authors reported that hypnosis did, in fact, diminish the participants experience of the painful stimuli during the hypnotic analgesia condition. These changes were also attended with significant decreases in the amplitude of the somatosensory event related potentials which were recorded from the participants. These were expected findings based upon previous research and so the most interesting finding was that there was a significant diminishment of the effects of hypnotic analgesia during the condition when a histaminergic antagonist was employed. The authors interpreted their findings to suggest that histaminergic neurons are involved with the modulation of visceral body sensations and that hypnotic suggestions are actualized through neural processes which utilize them. Address for reprints: S. Watanabe, Department of Behavioral Medicine, Tohoku University Graduate School of Medicine, 2-1 Seiryo-machi, Aoba-ku, Sendai 980-8575, Japan.