

## NEUROINTEGRAL METHODOLOGY IN ADAPTIVE NEUROSCIENCES IS THE ANSWER

Dr. Julio César Ramírez Vargas<sup>1</sup>, Dr. J Satpathy<sup>2</sup>, Isaidys Adriana Abanto Silva<sup>3</sup>

**Abstract:** Brain is the most complex organ in the human body. Brain is responsible for everything we do, from thinking and feeling to moving and breathing. This paper presents a clinical study on mental well – being and how neurointegral methodology-based adaptive neurosciences can be a catalyst in how neurointegral intervention program can be optimally exploited towards achieving mental health. This new ‘Innovative Wave’, combines virtual reality therapies, relaxation techniques, cognitive stimulation, and other neuroscience-based strategies. Study depicts and opines that that with firm determination, personalized neuroscience-based therapies, and solid family support, it is possible to achieve positive and lasting changes in mental health. This paper is a testament to the transformative potential of adapted neurosciences in improving mental health and highlights the importance of the collaboration between science and compassion in finding effective solutions. Paper envisions a future decades ahead, recognizing the need for advancements in science and technology that would propel humanity forward.

**Keywords:** Neurointegral Methodology, Adaptive Neurosciences, Mental Health, Neurofeedback and PTSD.

**Introduction:** Physical wealth is fine but mental health needs to be fine; at all costs and at all times. The world of VUCA, BANI, RUPT and TUNA will definitely impose pressures on mental health. It is the degree of resilience that would define the mental health quotient of an(y) individual. Whatever be the case; anxiety, depression, OCD, bipolar disorder or another debilitating condition, etc. a mental health endoscopic view is the order of the day. Neurointegral methodology in adaptive neurosciences pertaining to mental health, neurofeedback and PTSD, is a necessity today. Furthermore having a

mental illness doesn’t mean you can't accomplish a state of emotional or mental well-being. “You are not alone. You are seen. I am with you. You are not alone” ... said Shonda Rhimes. The new ‘Innovative Wave’ has commenced and the call is to adopt it in its entirety.

**Aim:** Why do human beings suffer? Aim of this paper is to advocate for the catalytic role of neurointegral methodology in adaptive neurosciences pertaining to mental health geometry. A real – life case study has been adopted to make an in depth analysis and draw inferences.

**The Case:** *‘The challenge for the next century is going to be what we don't do rather than what we do. And in the history of our species so far, progress has been a function of what we do. Progress has never been a function of what we say no to. And now the strange reality is that we actually need to learn when and how to say no, collectively’*  
..... Mustafa Suleyman

This is the case of a Subject (name concealed for obvious reasons and hereafter called as Subject), aged @ 37 years (DOB: 28 Oct 1987), resident of Pitalito, Huila, Colombia, and a College student by Profession. As regards social background, the Subject has problems of

\*Corresponding author

<sup>1</sup>Director General, Neurointegral Scientific Institute, Bogotá, Colombia.

<sup>2</sup>Director Research, Neurointegral Scientific Institute, Bogotá, Colombia.

<sup>3</sup>Neuropsychologist, Neurointegral Scientific Institute, Bogotá, Colombia

E-mail: jyotisatpathy@gmail.com,

Published on Web 01/01/2024, www.ijsonline.org

being emotional and being angry. There are no symptoms or case history of problems in relationship, problems of death of family member / friend, problems in job loss, problems in financial problems, problems of housing / school, legal problems, problems in arrests, problems in divorce, problems in parenting, problems in victim of physical abuse, problems in forced to have sex, problems in victim of sexual abuse, being afraid of partner and being a member of family. The Subject is a University educated person. Subject has a brother and father as part of his family environment and support. However, there is a psychical observation of difficulty in speech (suspected case of Dysarthria assumed to be a result of brain changes occurring in some conditions affecting the nervous system), movements of the right leg and both hands. Subject has received psychological or psychiatric treatment.

This Subject has communication difficulties and PTSD symptoms. Subject presented difficulty in effective communication and symptoms caused by post-traumatic stress (PTSD). Some suspected areas are; Agitation, Nervousness and anxiety, Problems with concentration or thinking, Problems with memory, Headaches, Depression and crying spells, Suicidal thoughts or attempts, Mood swings, Obsessive-compulsive tendencies, Panic episodes, Paranoia, Shakiness, Substance abuse, Flashbacks, Hyper vigilance, Nightmares, and Sleep disturbances. Subject was the victim of a traffic accident at the age of 13, which caused skull fractures, very serious traumatic brain injuries, and large-scale injuries to his body. Subject was in a coma for 11 months and, upon awakening, was a quadriplegic for approximately four years. This case presented different triggering consequences. In addition to gait problems, the Subject's language ability was affected. Different rehabilitation sessions were carried out in a constant and disciplined manner and at no time was a history of diseases that could alter cognitive and motor development reported. He also had no history of difficulties in learning at school. Subject has a delay in the mobility of the upper extremities, which makes it difficult for him to perform daily living tasks such as dressing, eating or washing himself. Subject has a mobility deficit in one of his lower extremities, which makes it difficult for him to walk independently. In addition, Subject has a speech deficit, which makes it difficult for him to communicate effectively.

There have been no complaints or presentation of Nervous system: Headaches, Seizures, Dizziness, Paralysis, Mental Disorders, Cardiovascular: Hypertension, Heart Attacks, Angina, Murmurs, Arrhythmias, Coronary Heart Disease, Hemo-Lymphatic System: Anemia, Blood Disorders or Coagulation Problems. Digestive system: Ulcer, Gastritis, Cirrhosis, Diverticula, Colitis, Hemorrhoids, Respiratory: Asthma, Emphysema, Laryngeal or Bronchi Affection, Urinary: Kidney Failure, Stones, Bloody Urine, Frequent Infections, Diseased Prostate, Sense Organs: Cataracts, Terygium, Nearsightedness, Otitis, Deviated Septum, Sinusitis, Tonsillitis, Endocrine - Metabolic: Diabetes, Thyroid Diseases, Alterations In Blood Fats or Uric Acids, Osteo-Articular: Spine Diseases, Knee Pain, Deformities, Immunological: Lupus, Rheumatoid Arthritis, Infectious: Hepatitis, Tuberculosis, AIDS or HIV (+), Sexually Transmitted Diseases, Cancer, Tumors, Radiotherapy or Chemotherapy, Surgeries, Traumas, (Accidents), Gynecological: Tumors or Masses in the Ovaries, Uterus, Abnormal Menstruation, Mammary glands: Pains, Masses, Secretions, Pathological or Abnormal Vaginal Cytology, Allergic Reactions, and Skin Infections.

**Provisional Orientation:** The experience of trauma (constant tiredness, exhaustion, confusion, sadness, anxiety, agitation, numbness, dissociation, confusion, physical arousal, and blunted affect) has long-lasting effects on brain development and results in a variety of clinical manifestations (valuable observable symptoms) related to the nervous system's ability to cope with it (Roxana Sasu). 'It's important to learn about the impact of trauma and what a diagnosis of PTSD means. Not everyone who has had an experience of trauma will meet criteria for PTSD. In some instances, there can be a delayed reaction to trauma which might lead to a PTSD diagnosis some time after the trauma has occurred' (Bisma Anwar). Post-traumatic stress disorder (PTSD) is a mental health condition that can develop in response to PTSD causes such as extreme trauma. To understand the differences between PTSD and trauma, know that PTSD is marked by repeated flashbacks, nightmares, and a range of other symptoms in response to experiencing a trauma. A PTSD diagnosis may follow a traumatic event, but not all traumatic events result in PTSD. When considering research options for PTSD, including EEG, QEEG (Quantitative EEG), and fNIRS (functional Near-Infrared Spectroscopy), it's important to weigh their respective advantages and limitations. Dealing with

PTSD can be challenging, especially if you're trying to do it without therapy or knowledge of self-help resources that can help. PTSD is often manifested in the back of the head (parietal lobe): 'the back regions of the brain inhibit the front regions, while in people with damage to the back regions, the front regions become too active, which may lead to mental illness and tissue shrinkage' (Taylor). PTSD develops in a different way from person to person for the reason that everyone's nervous structure and acceptance for tension is a little dissimilar. For PTSD, cognitive therapy frequently is used all along with exposure psychoanalysis along with psychotherapy, medications, or a combination of psychotherapy and medications. Subject's communication difficulties are a result of the traumatic brain injuries he suffered in the accident. PTSD symptoms are also a consequence of trauma. It is recommended to continue rehabilitation to improve the Subject's communication skills and quality of life.

**Session No. 1:** In the first provisional observation session, a complete interview was conducted about the different aspects and background of his pathology. Subject was guided about sequence of sessions and exercises that Subject should perform on an inter-daily basis, as well as habits that Subject should practice to reinforce the movement of extremities and improve their mobility. A sequence of activities was established to be carried out on an inter-daily basis to improve the sessions. This sequence included a virtual and in-person package. Objective of the session was to evaluate anxiety levels, interview and case analysis.

Subject stated that he has been treated by various professionals, but that his symptoms have not improved significantly. Subject also stated that he has gone through anxiety since he cannot communicate fluently and tends to be stressful, which causes moments of despair and frustration. Under persistent stress, the body continuously produces high amounts of cortisol, the main glucocorticoid that is released from the adrenals HPA axis (hypothalamus hypophyses adrenal axis) is an integral part of the body's stress response. While short-term stress and the activation of the HPA axis can actually have benefits by preparing the body for challenges (such as a "fight or run" reaction), chronic or long-term stress can have damaging consequences. Upon receipt of these information, clinical interview and neuro and biofeedback sampling (Electromyogram; EMG) to measure muscle tension, Electro Dermal activity (EDA)

to measure changes in perspiration rate, Finger pulse measurements to measure blood pressure and heartbeat and Electroencephalogram (EEG) to measure the electrical activity of brain was resorted to.

**Provisional Interventions:** Neuro - and biofeedback sampling revealed high levels of anxiety, measured by increased activity in the medial prefrontal cortex. Low levels of attention and concentration were also observed, measured by decreased activity in the superior parietal cortex. Muscle tension was evidenced by increased activity in the neck and shoulder muscles. These results suggest that the Subject is experiencing a high state of anxiety, which could be affecting his ability to pay attention and concentrate. Muscle tension could also be contributing to these symptoms.

Diagnosis	Signs and Symptoms	Consequences
Neurological & cognitive effects related to traumatic brain injury & post-traumatic stress disorder (PTSD)	<ul style="list-style-type: none"> <li>Limited mobility in left upper &amp; left lower extremities</li> <li>Intelligible language</li> <li>Weakness</li> </ul>	<ul style="list-style-type: none"> <li>Difficulty carrying out activities of dailyliving</li> <li>Limitations at work or school</li> <li>Communication problems</li> <li>Difficult to focus.</li> </ul>

Head trauma can cause a variety of neurological and cognitive effects, which can include problems with mobility, language, memory, and concentration. Post-traumatic stress disorder (PTSD) can also cause a variety of symptoms, which can include anxiety, flashbacks, and difficulty sleeping. In this case, the Subject has limited mobility in the left upper and lower extremities, suggesting damage to the central nervous system. Subject has intelligible speech and weakness, suggesting that damage is not severe enough to cause significant disability. Mobility, language and concentration problems can have a significant impact on a Subject's life. They can make activities of daily living, such as dressing, eating, and bathing, difficult. They can also limit the Subject's ability to work or study. In this case, generalized anxiety is a consequence of head trauma and PTSD. Anxiety can cause a variety of symptoms, which can include nervousness, restlessness, difficulty concentrating, and difficulty sleeping.

**Session No. 2:** Emotions saturate personal, community, and practiced spheres of people's lives. "Emotions are

*conscious mental reactions (such as anger or fear) subjectively experienced as strong feelings usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body*". In the second provisional observation session, aim was to manage emotions via. in - person sessions. Use of virtual reality, as a therapeutic tool to explore emotions in a new and safe way, was adapted to Subject's physical mobility disability. Some activities adopted and experimented were; Subject preparation with virtual reality headset and headset, introduction to a serene and peaceful environment, exposure to challenging emotional situations, such as arguments with friends or job interviews, guidance in the recognition and management of emotions in these situations, presentation of situations that allowed him to express positive emotions, such as time with family and friends and time for reflection and dialogue.

**Provisional Interventions:** The session was an important step in Subject's journey toward emotional management and well-being. It gave him a unique way to explore and understand his emotions. Adapting the session to his needs was essential so that he could participate fully. The training was a valuable resource for Subject, helping him identify his emotions and develop strategies to manage them.

**Session No. 3:** Many studies have shown that relaxing one's muscles markedly reduces anxiety. Over time, people learn to be anxious and tense; in the same way, people can teach themselves how to relax. In the third provisional observation session, aim was to reinforce diaphragmatic breathing and muscle relaxation techniques via. in - person sessions. During this session, exercises focused on diaphragmatic breathing and muscle relaxation was carried out, with the purpose of helping Subject manage stress and encourage relaxation. The session was carefully tailored to address the specific needs of his physical mobility disability. Some activities adopted and experimented were; Subject was placed in a comfortable position and given support to maintain proper posture, benefits of diaphragmatic breathing and muscle relaxation techniques for his physical and emotional well-being were reiterated, clear instructions were offered on how to perform deep breathing, focusing on expanding the abdomen rather than the chest, and Subject was guided to identify muscle groups in your body that he could consciously tense and then relax.

**Provisional Interventions:** When the diaphragm is functioning effectively in its role as the primary muscle of inspiration, ventilation is efficient and the oxygen consumption of the muscles of ventilation is low during relaxed (tidal) breathing. The session was an important step toward Subject's emotional and physical well-being. He was provided with valuable tools to manage stress and promote relaxation. Adapting the session to Subject's needs was essential for him to fully participate. The booster session was an opportunity for Subject to practice and consolidate the diaphragmatic breathing and muscle relaxation techniques he had learned in Session 2. The session was carefully adapted to address his physical mobility disability, allowing Subject to participate fully. Diaphragmatic breathing and muscle relaxation exercises can be valuable tools to help people manage stress and promote relaxation. Subject was grateful for the techniques he learned and expressed his desire to continue working on them to improve his overall well-being.

**Session No. 4:** In the fourth provisional observation session, aim was to train Subject in self-control (ability to not show your feelings or not do the things that your feelings make you want to do) techniques. Self-control techniques were performed to help Subject control his emotions and reactions in challenging situations. The session was carefully adapted to address Subject's physical mobility and speech disabilities. Some activities adopted and experimented were; Deep breathing exercises were performed, appropriate for comfort in the chair, Exploration of challenging situations that Subject had previously faced, practicing applying the self-control techniques learned in those circumstances and Identification of signs of stress and anxiety, with the development of strategies to manage them constructively.

**Provisional Interventions:** The session represented a significant advance towards emotional control (regulating thoughts, feelings, and behaviors to achieve specific goals or avoid undesirable outcomes) and well-being, providing valuable tools for emotional self-control. Meticulous adaptation to individual needs was essential to ensure full participation. The training offered the opportunity to learn and practice self-control techniques effectively. The session was carefully adjusted to address speech and physical mobility impairment, allowing for full participation. Self-management techniques can play an essential role in



helping people manage their emotions and responses in challenging situations. Gratitude was expressed for the techniques learned and a desire to continue working on them to improve overall well-being. Especially, progressive visualization exercises can be a valuable tool to help control emotions and responses. The use of a videoconferencing platform facilitated a meaningful and personalized interaction, allowing concerns to be expressed and questions asked about self-control techniques.

**Session No. 5:** In the fifth provisional observation session, aim was to monitor reactions to virtual scenarios and high tension (egg on nervous system regulation) via. in - person sessions. High-tension virtual scenarios (realistic scenario-based training scenario) were used to help Subject develop his emotional self-control skills. The session was carefully adapted to address speech and physical mobility disabilities. Some activities adopted and experimented were; Subject was presented with a series of virtual scenarios designed to elicit emotional responses and high-tension situations, Subject was encouraged to share his thoughts and emotions, including his visual communication and worked with Subject to develop strategies to more effectively deal with these high-tension virtual situations.

**Provisional Interventions:** This session represented a significant milestone in Subject's progress toward emotional self-control and effective management (reference towards experience of distress, dissociation, addiction, or desensitization) of stressful situations. In this safe and controlled environment, he was able to practice his self-control skills effectively. Accurately tailoring the session to individual needs was essential to ensure their full participation. This facilitated his ability to share his thoughts and emotions in response to high-tension virtual scenarios. In summary, this session not only strengthened self-management skills but also highlighted the importance of a personalized and tailored approach to addressing individual needs in the process of emotional and personal development. High-tension virtual scenarios offered an opportunity to experience various emotional situations in a safe and controlled manner. This allowed him to learn to identify signs of stress and anxiety, as well as develop constructive strategies to manage them. The use of a virtual reality platform enriched the experience, allowing him to immerse himself in the scenarios in a more immersive and realistic way. This contributed to his learning and

helped him apply his experiences to real-world situations. Subject expressed gratitude for the opportunity to participate in the session and expressed confidence that the skills acquired would greatly assist him in dealing with emotional challenges in the future.

**Session No. 6:** In the sixth provisional observation session, aim was to monitor reactions to cognitive work and relaxation (lead to changes in cognition and behaviour) via. in - person sessions. Cognitive and relaxation exercises were performed to help Subject maintain his emotional and cognitive well-being. The session was carefully adapted to address speech and physical mobility disabilities. Some activities adopted and experimented were; Subject participated in cognitive stimulation exercises focused on logical thinking, memory and problem solving and relaxation exercises were also carried out, including deep breathing techniques and meditation.

**Provisional Interventions:** This session represented a significant milestone in Subject's journey toward a better quality of life. It provided Subject with valuable tools (cognitive-behavior therapy) to keep mind active and find moments of calm, despite the physical challenges he faces. Accurately tailoring the session to Subject's needs was critical to ensuring his full participation. The cognitive work and relaxation exercises offered Subject the opportunity to practice and consolidate the skills acquired in previous sessions. Careful adaptation to address his physical mobility disability allowed for his full participation. Cognitive exercises helped keep Subject's mind active and prevented cognitive decline (reduce physical and emotional disability). On the other hand, relaxation techniques helped him reduce stress and anxiety (coping skills seem to be effective), improving his concentration and his ability to enjoy life. Subject expressed her gratitude for the opportunity to participate in the session and expressed confidence that the skills gained (skills cognitive restructuring and relaxation) improved his overall well-being in the future. In particular, brain gymnastics exercises can be useful for people with disabilities, as they can improve cognitive function and stimulate communication (driving mechanisms of change) between neurons. Likewise, desensitization exercises in the neck, head and acupressure can be beneficial in reducing pain and muscle tension in people with disabilities, contributing to

the release of muscle tension and improving blood circulation.

**Session No. 7:** In the seventh provisional observation session, aim was to monitor reactions to cognitive exercises (boost and maintain brain function) performed to help Subject improve his memory, attention, concentration, and problem solving. The session was carefully adapted to address Subject's physical mobility and speech disabilities. Some activities adopted and experimented were; Subject participated in exercises involving memory, attention and problem solving. Subject used visual and tactile tools to stimulate his memory and cognition. Subject answered questions that challenged his logical thinking and creativity.

**Provisional Interventions:** This session represented a significant advance in Subject's cognitive development. It provided Subject with valuable tools to keep mind active and engaged in learning. Accurately tailoring the session to Subject's needs was critical to his effective participation. The session focused on consolidating memory and enhancing his cognition, allowed Subject to practice and reinforces the skills acquired in previous sessions. Careful adaptation to address Subject physical mobility disability ensured his full participation. The cognitive exercises contributed significantly to the improvement of their memory, attention, concentration and problem-solving skills. This allowed Subject to think more clearly and effectively, generating a feeling of achievement and motivation. Subject expressed his gratitude for the opportunity to participate in the session and expressed confidence that the skills acquired would greatly assist Subject in improving overall well-being in the future. Particularly, exercises focused on memory, attention and problem solving proved to be beneficial for Subject's cognitive progress. These activities contributed to the development of mental skills essential for learning, critical thinking and problem solving. Additionally, exercises that made use of visual and tactile tools proved to be a valuable addition, stimulating his mind in diverse and enriching beneficial ways, especially for people with disabilities.

**Session No. 8:**

*By "guts" I mean, grace under pressure.  
..... Ernest Hemingway*

In the eighth provisional observation session, aim was to undertake behavioral evaluation and control under pressure ('choking under pressure'). During this session, simulations were conducted for the purpose of evaluating

Subject's behavior and handling of situations under pressure (fear of negative evaluation). Some activities adopted and experimented were; Subject participated in simulations of stressful situations (self-consciousness, trait anxiety, and coping styles). His reactions and behavior under pressure were observed. Visual and gestural indicators were used to assess his level of stress (say; decrements to outcome accuracy and kinematics of motor skills) and the strategies he used to deal with pressure.

**Provisional Interventions:** Why do people choke and what can we do about it? This session marked a significant step forward in Subject's path toward emotional management and effective handling of stressful situations. Subject was able to apply the self-control and relaxation techniques he had learned in previous sessions to manage his stress in real time. Accurately tailoring the session to Subject's needs was critical to ensuring his effective participation. The behavior assessment and driving under pressure session offered Subject the opportunity to practice and reinforce skills acquired in previous sessions. Detailed attention to his physical mobility disability ensured his full participation. The simulations provided Subject a space to experience stressful situations in a safe and controlled manner, allowing him to learn to identify his stress signals and develop strategies to manage them constructively. Observing Subject's behavior allowed for an objective assessment of his progress, identifying areas for improvement and providing valuable feedback. In summary, the session was a success and Subject demonstrated significant progress in his ability to handle stressful situations effectively.

**Session No. 9:** In the ninth provisional observation session, aim was to conduct training with virtual reality in mindfulness (stakes are extremely high). A virtual reality experience was employed to improve Subject's mindfulness and awareness. Some activities adopted and experimented were; Subject was immersed in a virtual reality environment designed to encourage mindfulness and awareness. Subject was instructed to focus on his breathing and the sensation of his body in the chair. Subject had the opportunity to explore the virtual environment, interact with virtual elements, and practice mindfulness in various contexts within the experience

**Provisional Interventions:** The session represented a unique and enriching experience. It gave Subject the chance to strengthen his capacity for mindfulness and

awareness in the present, despite his physical challenges. Accurately tailoring the session to Subject's needs was essential to ensure his effective participation. The virtual reality mindfulness training session allowed Subject to practice and consolidates the skills acquired in previous sessions. Careful accommodation to his physical mobility disability ensured his full participation. The virtual reality experience offered Subject an innovative way to experience mindfulness, which contributed to the development of his ability to focus on the present and increase his awareness of his surroundings. Overall, the session was successful, with Subject showing notable progress in his mindfulness and awareness abilities (references to neuro-stimulation and psychopharmacology). In addition to the previously mentioned Provisional Interventions, it is relevant to highlight that the virtual reality session also provided Subject with the opportunity to explore his environment in a safe and controlled manner, which contributed to the development of his confidence and autonomy.

**Session No. 10:** “Contemplative practice is the activity of paying attention in particular way. Integrating contemplative practice into one’s life is like exercise for the mind and heart. That may sound vague, and that’s because the potential objects of attention are as broad as our world, as deep as our minds and hearts, and, in some religious traditions, greater than either”

... Rev. Dr. Monica Sanford. In the tenth provisional observation session, aim was to focus on contemplative work (nurture a decisive, first-person focal point, from time to time with undeviating practice, while at other times focused on multifaceted thoughts or situations). A virtual environment was used to encourage inner peace and reflection (“realistic, deep-seated, and transformative, developing capacity for deep attention and quiet the brain in the middle of the exploit and disruption”) in Subject. Some activities adopted and experimented were; Subject was immersed in a tranquil virtual environment, with panoramic views of nature and soft music. He was given instructions to focus on your breathing and observe your surroundings. Subject was able to explore the virtual environment at his own pace.

**Provisional Interventions:** Dialogue about interactions of contemplative practices with spirituality and religion is non contested. The session represented a unique and enriching experience for Subject, who, despite the physical challenges he faced, found a space conducive to inner peace and reflection. Accurately tailoring the

session to Subject's needs was essential to ensure his effective participation. This contemplative work exercise in a virtual environment offered him the opportunity to practice and consolidate the skills he had acquired in previous sessions, in an environment that suited his physical limitations. The virtual reality experience gave him an innovative perspective on contemplation, which contributed significantly to the development of his ability to focus on the present and increase his awareness of his surroundings. Overall, the session was a success, as Subject demonstrated notable progress in his contemplation skills. In addition to the previously mentioned Provisional Interventions, it is relevant to highlight that the virtual reality session also provided Subject with the opportunity to explore his environment in a safe and controlled manner, which contributed to the development of his confidence and autonomy. Based on the description of the session, it is evident that Subject experienced a positive impact, showing interest in exploring the virtual environment and highlighting how this experience helped him find inner peace and encourage reflection. Subject emphasized perceived improvements in his sensations and ability to control impulses, reflecting encouraging progress in his personal development journey.

**Session No. 11:** In the eleventh provisional observation session, aim was to focus and observe cognitive stimulation. Cognitive and brain gym exercises were used to help Subject improve his attention, concentration, hand-leg coordination, and overall cognition. Some activities adopted and experimented were; Subject was immersed in a serene virtual environment, offering panoramic views of nature and soft music to promote a state of relaxation and mindfulness. Subject was given precise instructions to focus on his breathing and to carefully observe his virtual environment. Subject had the opportunity to explore this environment at his own pace, allowing for a personalized experience.

**Provisional Interventions:** The session represented a unique and enriching experience for Subject, who, despite the physical challenges he faced, found a space conducive to inner peace and reflection. The contemplative work exercise in a virtual environment offered Subject the opportunity to practice and consolidate the skills he had acquired in previous sessions, in an environment that accommodated his physical limitations. The virtual reality experience provided Subject with an innovative perspective on



contemplation, which contributed significantly to the development of his ability to focus on the present and increase his awareness of his surroundings. Overall, the session was a success, as Subject demonstrated notable progress in his contemplation skills. In addition to the previously mentioned Provisional Interventions, it is relevant to highlight that the virtual reality session also provided Subject with the opportunity to explore his environment in a safe and controlled manner, which contributed to the development of his confidence and autonomy. Based on the description of the session, it is evident that Subject experienced a positive impact, showing interest in exploring the virtual environment and highlighting how this experience helped him find inner peace and encourage reflection. He also emphasized perceived improvements in his sensations and ability to control impulses, reflecting encouraging progress in his personal development journey.

**Session No. 12:** In the twelfth provisional observation session, aim was to analyze perspectives of mindfulness and self-control exercises. Deep breathing exercises, progressive visualization, and virtual reality were used to help Subject improve his mindfulness and self-control. Some activities adopted and experimented were; Subject participated in deep, mindful breathing exercises. Subject performed guided progressive visualization. At the end of the session, Subject experienced a virtual reality session designed to promote calm and relaxation.

**Provisional Interventions:** The session was a unique and enriching experience for Subject. It provided him with valuable tools to find calm and well-being in the face of any challenge. Adapting the session to Subject's needs was essential for him to fully participate. The session of mindfulness, self-monitoring exercises and progressive visualization was an opportunity for Subject to practice and consolidate the skills he had learned in previous sessions. The session was carefully adapted to address his physical mobility disability, allowing Subject to participate fully. Deep breathing, progressive visualization, and virtual reality exercises helped Subject improve his mindfulness and self-control. This allowed him to learn to manage stress and find moments of calm. Subject was grateful for the opportunity to take part in the session and expressed confidence that the skills he had learned would help him improve his overall wellbeing in the future. In addition to the Provisional Interventions made, the session provided Subject with an opportunity to relax and enjoy a positive experience.

Subject was excited to try virtual reality and found the experience very relaxing. This is a good indicator that Subject is open to new experiences and willing to try new things.

**Session No.13:** In the thirteenth provisional observation session, aim was to evaluate cognitive behavioral work. Combinations of cognitive and behavioral techniques were used to help Subject identify and challenge his negative thoughts, and develop new, more adaptive behaviors. Some activities adopted and experimented were; Subject and the therapist worked together to identify recurring negative thinking patterns. Subject gained skills in recognizing how these thought patterns influence his emotions and actions. Subject was instructed in cognitive strategies to challenge and change his negative thinking patterns. Subject identified behaviors he wanted to change or improve. Subject set specific, achievable goals related to those behaviors and created a detailed action plan to achieve goals.

**Provisional Interventions:** This session provided Subject with the opportunity to consolidate and practice previously acquired skills. Subject was equipped with valuable tools to address his negative thoughts and behaviors, positively impacting his overall well-being. The cognitive-behavioral work session allowed Subject to deepen his understanding of the principles of this therapy. In addition, his physical mobility disability was carefully accommodated, ensuring his full participation in all activities. The cognitive and behavioral techniques taught to Subject in this session gave him the tools to identify and challenge his negative thinking patterns. In addition, they allowed Subject to develop more adaptive behaviors, which improved his ability to deal with stress and negative emotions. Subject expressed gratitude for the opportunity to participate in the session and expressed confidence that the skills acquired would serve Subject well in improving overall well-being in the future. In addition to the aforementioned provisional interventions, it is important to note that Subject was also able to reflect on his progress. In this session, Subject was able to identify the changes he had experienced since the beginning of therapy and felt motivated to continue working toward goals. In summary, the session was a success and Subject demonstrated significant progress in his ability to address negative thoughts and behaviors, which contributed to his emotional and mental well-being.



**Session No.14:** In the fourteenth provisional observation session, aim was to desensitize and reprocess the mental state. Adapted neuro-integral therapy was used to help Subject process a past traumatic experience. Some activities adopted and experimented were; Subject was exposed to the traumatic memory while focusing on visual and tactile stimuli provided during therapy. Subject shared his emotions and sensations as he worked on processing the traumatic experience. Multiple cycles of exposure and bilateral stimulation were conducted to allow Subject to process and reorganize thoughts and emotions related to the traumatic experience.

**Provisional Interventions:** This session provided Subject with the opportunity to therapeutically address a past traumatic experience. Adapting the session to Subject's needs was essential for his full participation. The adapted EMDR exposure session represented a significant step forward in Subject's recovery process. The session was meticulously adjusted to ensure Subject could fully participate despite his physical mobility disability. EMDR therapy facilitated the processing of Subject's past traumatic experience, allowing him to release the emotional burden that this experience had generated. Subject expressed gratitude for the opportunity to participate in the session and expressed confidence that EMDR therapy would contribute to his continued recovery process. In addition to previous Provisional Interventions, it is important to note that the session also provided Subject with a sense of support and understanding throughout the therapeutic process. The constant presence of a therapist gave him security and confidence. In summary, the session was successful, and Subject demonstrated notable progress in his ability to process past traumatic experiences, which contributed significantly to his emotional and mental well-being.

**Session No.15:** In the fifteenth provisional observation session, aim was to induce cognitive training. Cognitive training with apps was used to help Subject improve his cognitive skills, such as memory, attention, and problem solving. The session was carefully adapted to address his physical mobility disability. Some activities adopted and experimented were; Subject participated in memory games, puzzles, and eye-tracking exercises, all tailored to his specific abilities and needs. The complexity of the exercises was gradually increased to progressively challenge and stimulate their cognitive abilities. Subject had the ability to track his own progress and set goals to improve his cognitive skills.

**Provisional Interventions:** This session provided Subject with the opportunity to practice and consolidate skills previously acquired in previous sessions. Adapting the session to Subject's individual needs was essential to his full participation and success in app-based cognitive training. Cognitive training with apps allowed Subject to significantly improve his cognitive skills, including memory, attention, and problem solving. This progress gave him greater mental clarity and a sense of accomplishment. Subject expressed gratitude for the opportunity to participate in this session and expressed confidence that app-based cognitive training would continue to benefit him in the future. In addition to the previous Provisional Interventions, it is relevant to highlight that Subject experienced the session as a positive and stimulating experience. His enthusiasm for using technology in his rehabilitation process was evident, and he found the app-based cognitive training session both challenging and rewarding.

**Session No. 16:** In the sixteenth provisional observation session, aim was to conduct progress evaluation and observe reinforcement. A reinforcement session was held to evaluate Subject's progress and reinforce the skills he has learned. Some activities adopted and experimented were; the results obtained by Subject in his first session were compared with the results of this reinforcement session to evaluate his development throughout the treatment. Biofeedback was implemented to evaluate changes in the galvanic response of the skin and its resistance. Specific exercises and activities were carried out to reinforce Subject's cognitive and emotional skills.

**Provisional Interventions:** During this session, significant progress was evident in Subject's ability to regulate his emotions and emotional responses. Subject demonstrated a high level of interest in continuing his training and applying neuroscience concepts in his senior thesis, showing his commitment to his personal and academic growth. This booster session provided Subject the opportunity to reflect on his progress throughout treatment and reinforce acquired skills. Comparison of the results revealed evident improvements in Subject's emotion regulation, which was reflected in the changes observed in his galvanic response and skin resistance. Subject expressed satisfaction with the results of the session and demonstrated his desire to continue his training and application of knowledge in neuroscience in the academic field. This is a good indicator that Subject

is committed to his recovery and is motivated to continue improving.

**Session No. 17:** “While diverse contemplative techniques are employed across plethora of traditions around the world, contemplative research over the years has not reflected this variety. Despite exponential growth in contemplative research in recent decades, it has largely been dominated within relatively narrow and inadequately-defined construct of contemplative practice (CP) under the umbrella term “mindfulness.” The aim was to provide an avenue for understanding CP from a more diverse and inclusive perspective. This could be done by studying common systems of practice (like mindfulness) in novel settings, studying a wider variety of contemplative traditions and practices, and finally, drawing on psychological/phenomenological/neurobiological similarities and differences between the varieties of practices and experiences to arrive at theoretical abstractions that provide novel insight into contemplation, and more generally, human mind and consciousness”. Sucharit Katyal (2023). Tobin Hart states, “Inviting the contemplative simply includes the natural human capacity for knowing through silence, looking inward, pondering deeply, beholding, and witnessing the contents of our consciousness.... These approaches cultivate an inner technology of knowing....” This cultivation is the aim of contemplative pedagogy, teaching that includes methods “designed to quiet and shift the habitual chatter of the mind to cultivate a capacity for deepened awareness, concentration and insight.”

In the seventeenth provisional observation session, aim was to design training of contemplative techniques. Chi Kung was used to help Subject improve overall well-being, through gentle movements, conscious breathing and concentration. Some activities adopted and experimented were; Subject participated in deep, mindful breathing exercises. Subject performed gentle, fluid Chi Kung movements designed to promote energy circulation and improve flexibility. Throughout the session, Subject focused on the movements and breathing, allowing him to enter a state of deep relaxation.

**Provisional Interventions:** Contemplative practice could shed new light on how people can find meaning in their life despite challenges and identify sustainable solutions for individual, but global challenges. The session was an opportunity for Subject to experience the

benefits of Chi Kung, despite his physical mobility challenges. Subject left the session with a feeling of serenity and renewed energy. The Chi Kung training session was an opportunity for Subject to experience the benefits of this ancient practice. The session was carefully adapted to address his physical mobility disability, allowing Subject to participate fully. Chi Kung helped Subject improve his overall well-being, through gentle movements, conscious breathing and concentration. This allowed him to feel more relaxed and balanced, giving him a sense of overall well-being. Subject was grateful for the opportunity to participate in the session and expressed confidence that Chi Kung would help him improve his overall well-being in the future. In addition to the provisional interventions made, the session provided Subject with opportunity to learn about new cultural practice. Subject showed interest in learning more about Chi Kung and how it has been used for centuries in Chinese culture. This is a good indicator that Subject is curious and open to new experiences.

**Session No. 18:** In the seventeenth provisional observation session, aim was to schedule the next steps of the process. A review meeting was held with Subject's family to discuss the progress he had made up to that point and the treatment ahead. Some activities adopted were; Subject's progress was reviewed from sessions 13-18. Treatment goals were discussed. Subject's family members were involved in treatment planning.

**Provisional Interventions:** Review indicates that Subject has shown significant progress in his recovery. Subject's family is very involved in the treatment and supports the Subject. The next steps programming session was an opportunity to evaluate Subject's progress and plan treatment next. Subject's progress review showed that he had made significant progress in his ability to control anxiety, his speech pronunciation, his attention and his relaxation. The treatment goals discussion below focused on continuing to work on these areas to help Subject reach his full potential. The involvement of Subject's family members in treatment planning was important to ensure that the treatment was effective and sustainable. Overall, the session was a success and Subject is on track to continue his recovery. In addition to the Provisional Interventions you have made, I would like to add that the session also provided Subject's family an opportunity to learn more about Subject's recovery process. Subject's family members were grateful for the opportunity to participate in the

session and expressed confidence that Subject's treatment will be successful. This is a good indicator that Subject's family is committed to Subject's recovery and is willing to support him throughout the process.

**Treatment Finales:** Neurofeedback has been used as a cognitive training tool to improve brain functions for clinical or recreational purposes. It is based on providing participants with feedback about their brain activity and training them to control it, initiating directional changes (Wikipedia).

Subject has responded positively to the techniques used in his treatment and is anticipated to continue to improve with additional treatment. Treatment results reflect significant progress in Subject's mental health and overall well-being. These significant advances have allowed Subject to not only resume his university studies, but also become a professor at the same university and an active collaborator at the institute where he received treatment. Subject has shared his experience and testimony about the beneficial effects of therapy with other Subjects and maintains a regular practice of contemplative and cognitive exercises. Specifically, Subject has seen notable improvements in the following areas:

**Anxiety Control:** Over a period of six months, Subject has achieved effective control over his anxiety attacks, allowing him to lead a fuller and more productive life, without the constant fear of anxiety attacks.

**Speech Pronunciation:** In just three months, Subject has significantly improved his speech pronunciation and fluency, allowing him to communicate more effectively in both his work environment and his personal life.

**Attention and concentration:** Over a period of two months, Subject has improved his ability to pay attention and concentrate, which has resulted in more efficient and productive completion of tasks.

**Relaxation:** In just one month, Subject has gained skills to relax and reduce her stress level, giving him the opportunity to enjoy life more fully.

#### **Success Factors:**

At this point, Subject has demonstrated incredible progress on his journey to recovery and wellness. His dedication, active participation and the support of his family have been key factors for his success. As we conclude this stage of treatment, it is important to remember that recovery is an ongoing process and there are always opportunities to grow and improve. The

success of Subject's treatment is attributed to a number of determining factors, including:

**Applying Assorted Techniques:** Subject benefited from combination of techniques, such as virtual reality, neurofeedback, biofeedback, brain gymnastics, and progressive visualization, allowing him to address his PTSD symptoms from multiple perspectives.

**Active Subject Participation:** Subject's willingness and active participation in his treatment were essential to his progress. His commitment and dedication to learning and applying the techniques were key to his recovery.

**Family Engagement:** Subject's family's active involvement in his treatment provided a strong support system, which contributed significantly to his motivation and success in the recovery process.

#### **Future Recommendations:**

*'We are on the cusp of a new era where humans and machines will collaborate more closely than ever before. The question is, are we ready to seize this opportunity and turn it into an engine for inclusive growth? As technology advances, it will become increasingly affordable and accessible, thereby improving not only productivity but also the quality of life for people across the globe'.*

.....Mustafa Zuleyman

1. **Maintain Regular Practice:** Continue practicing the techniques and skills you have learned during treatment. Consistency in applying these techniques in your daily life will help you maintain and strengthen your mental well-being.
2. **Self-Awareness:** Continue to explore and understand your own emotional triggers and thought patterns. The more you know yourself, the more effectively you will be able to handle challenges that may arise.
3. **Set Sustainable Goals:** Define realistic and sustainable goals for your future. As you move forward, it is important that you set goals that are achievable and allow you to maintain balance in your life.
4. **Maintain Social Support:** Continue to maintain a strong support network. Family, friends, and loved ones can play a vital role in your ongoing well-being.
5. **Self-Care:** Don't underestimate the importance of self-care. Take time regularly to rest, relax, and take care of yourself physically and emotionally.
6. **Learn From Relapses:** If you experience relapses or difficult times in the future, remember that they are opportunities to learn and grow. Don't beat yourself up

for backing down occasionally; instead, look for constructive ways to address these challenges.

7. **Open Communication:** Maintain open and honest communication with your healthcare team, friends and family. Whenever you need additional support or face challenges, don't hesitate to reach out for help.

8. **Positive Contribution:** Continue to share your experience and knowledge with others. Your success story can inspire and support people facing similar challenges.

9. **Celebrate Accomplishments:** Don't forget to celebrate your achievements, no matter how small they may seem. Recognize your progress and allow yourself to enjoy your successes.

10. **Remember; Growth Is Continuous:** Recovery and personal growth are continuous processes. Throughout life, one can continue to learn, develop and achieve new goals.

**Conclusions:** Neurofeedback is a kind of biofeedback, which teaches self-control of brain functions to subjects by measuring brain waves and providing a feedback signal. Neurofeedback usually provides the audio and or video feedback. Positive or negative feedback is produced for desirable or undesirable brain activities, respectively (Hengameh Marzbani; 2016). Neurofeedback therapy, in particular, is used to help teach self-control of brain functions by indicating to patients how their brains react to certain triggers. Over time, patients learn to recognize when their brain is in a certain state. Then, they can learn to recreate the desired state, such as relaxation, or avoid undesired states, such as agitation, in their daily lives (Lauren Silva).

SCP-Neurofeedback, or Slow Cortical Potential Neurofeedback, differs significantly from traditional neurofeedback approaches. Its distinctiveness lies not just in its methodology, but also in the underlying philosophy that parallels certain aspects of meditation practices. Neurofeedback is a form of biofeedback therapy in which individuals learn to modulate their brain wave activity through real-time feedback. It is often used as a noninvasive method to treat a variety of conditions and problems, including stress and anxiety-related disorders. By training the brain to produce or

avoid certain patterns of brain wave activity, neurofeedback can help modulate the body's stress response and increase resilience to stressful situations. It provides an active way for those affected to control and optimise their brain function, which can ultimately lead to better stress management and improved overall wellbeing (Thomas Feiner).

- **Deep Level Brainwave Regulation:** While traditional neurofeedback often focuses on faster frequencies like alpha, beta, and theta, SCP-Neurofeedback zeroes in on slow cortical potentials (SCPs). These are slow, direct current shifts in the EEG that represent deep regulatory processes in the brain, which requires a more nuanced understanding and control (Thomas Feiner).

- **Learning Patience:** The subtlety of SCP-Neurofeedback demands a heightened level of patience, much like meditation. The participant learns to wait, observe, and then act, fostering a more deep-rooted understanding of their own neural processes (Thomas Feiner).

- **Active Engagement:** Engaging in SCP-Neurofeedback isn't a passive process. It's comparable to mastering a new skill. Much like meditation requires active participation and awareness, SCP-Neurofeedback asks the participant to be thoroughly engaged, forging a strong bond between intention and outcome (Thomas Feiner).

- **Enhanced Focus:** One of the primary outcomes of SCP-Neurofeedback training is enhanced focus and concentration. This is reminiscent of mindfulness meditation, where the practitioner learns to focus on the present moment, and open focus meditation, which promotes a broad, flexible attention (Thomas Feiner).

- **Mastery over Brainwave Control:** SCP-Neurofeedback is like an advanced meditation technique for the brain. Just as long-term meditators can achieve heightened states of awareness and control, regular practitioners of SCP- Neurofeedback can learn



to exert control over specific brainwave patterns. This mastery can lead to improved cognitive function, emotional regulation, and overall brain health (Thomas Feiner).

Parallel with Meditation: SCP-Neurofeedback, in essence, becomes a meditative practice on its own. The deep self-awareness, attention regulation, and focus required for both are strikingly similar. Hence, it can be a complementary tool for those who practice meditation or a gateway for those unfamiliar with mindfulness techniques (Thomas Feiner).

#### References:

- Abramowitz JS, Schwartz SA, Moore KM, *et al.* Obsessive-compulsive symptoms in pregnancy and the puerperium: a review of the literature. *Journal of Anxiety Disorders*. 2003; 17:461–478.
- Abramowitz JS. Treatment of obsessive-compulsive disorder in patients who have comorbid major depression. *Journal of Clinical Psychology*. 2004; 60:1133–1141.
- Adler R, Vasiliadis A, Bickell N. The relationship between continuity and patient satisfaction: a systematic review. *Family Practice*. 2010; 27:171–178.
- Adli M, Bauer M, Rush AJ. Algorithms and collaborative-care systems for depression: are they effective and why? A systematic review. *Biological Psychiatry*. 2006; 59:1029–1038.
- Adolphs, R., and Tranel, D. (2000). Emotion recognition and the human amygdala. In Aggleton, J. P. (ed.), *The Amygdala: A Functional Analysis*. Oxford: Oxford University Press.
- Adolphs, R., Tranel, D., Damasio, H., and Damasio, A. (1994). Impaired recognition of emotion in facial expressions following bilateral damage to the human amygdala. *Nature*, 372, 669–72.
- Aertgeerts B, Buntinx F, Kester A. The value of the CAGE in screening for alcohol abuse and alcohol dependence in general clinical populations: a diagnostic meta-analysis. *Journal Clinical Epidemiology*. 2004; 57:30–39.
- Agarwal G, Crooks VA. The nature of informational continuity of care in general practice. *British Journal of General Practice*. 2008; 58:e17–e24.
- AGREE Collaboration. Development and validation of an international appraisal instrument for assessing the quality of clinical practice guidelines: the AGREE project. *Quality and Safety in Health Care*. 2003; 12:18–23.
- Akesson KM, Saveman BI, Nilsson G. Health care consumers' experiences of information communication technology: a summary of literature. *International Journal of Medical Informatics*. 2007; 76:633–645.
- Akiskal HS. A developmental perspective on recurrent mood disorders: a review of studies in man. *Psychopharmacology Bulletin*. 1986; 22:579–586.
- Allgulander C, Jørgensen T, Wade A, *et al.* Health-related quality of life (HRQoL) among patients with generalised anxiety disorder: evaluation conducted alongside an escitalopram prevention trial. *Current Medical Research and Opinion*. 2007; 23:2543–2549.
- Almond S, Healey A. Mental health and absence from work. *Work, Employment and Society*. 2003; 17:731–742.
- Altman D, Bland M. Statistics notes: diagnostic tests 1: sensitivity and specificity. *British Medical Journal*. 1994; 308:1552.
- Altman D, Bland M. Statistics notes: diagnostic tests 2: predictive values. *British Medical Journal*. 1994; 309:102.
- Anderson C, Blenkinsopp A, Armstrong M. Feedback from community pharmacy users on the contribution of community pharmacy to improving the public's health: a systematic review of the peer reviewed and non-peer reviewed literature 1990–2002. *Health Expectations*. 2001; 7:191–202.
- Anderson LM, Scrimshaw SC, Fullilove MT, *et al.* Culturally competent healthcare systems: a systematic review. *American Journal of Preventative Medicine*. 2003; 24:68–79.
- Anderson, J. A. (2003). McCulloch-Pitts neurons. In Nadel, L. (ed.), *Encyclopedia of Cognitive Science*. New York: Nature Publishing Group.
- Anderson, J. R., Bothell, D., Byrne, M. D., Douglass, S., Lebiere, C., and Qin, Y. (2004). An integrated theory of the mind. *Psychological Review*, 4, 1036–160.

- Andlin-Sobocki P, Jönsson B, Wittchen HU, *et al.* Cost of disorders of the brain in Europe. *European Journal of Neurology*. 2005;12:1–27.
- Andrews G, Jenkins R, editors. *Management of Mental Disorders*. 1st edn. Sydney: WHO Collaborating Centre for Mental Health and Substance Misuse; 1999.
- Andrews G, Sanderson K, Corry J, *et al.* Utilising survey data to inform public policy: comparison of the cost- effectiveness of treatment of ten mental disorders. *The British Journal of Psychiatry*. 2004; 184:526–533.
- Andrews G, Slade T, Peters L. Classification in psychiatry: ICD–10 versus DSM-IV. *British Journal of Psychiatry*. 1999; 174:3–5.
- Andrews G, Slade T. Interpreting scores on the Kessler psychological distress scale (K10). *Australian and New Zealand Journal of Public Health*. 2001; 25:494–497.
- Angst J, Gamma A, Endrass J. Risk factors for the bipolar and depression spectra. *Acta Psychiatrica Scandinavica*. 2003;108:15–19.
- Antony MM, Roth D, Swinson RP, *et al.* Illness intrusiveness in individuals with panic disorder, obsessive- compulsive disorder, or social phobia. *Journal of Nervous and Mental Disease*. 1998;186:311–315.
- APA. *Diagnostic and Statistical Manual of Mental Disorders*. 4th edn. Washington DC: APA; 2000.
- Apperly, I. A., Samson, D., and Humphreys, G. W. (2005). Domain-specificity and theory of mind: Evaluating neuropsychological evidence. *Trends in Cognitive Science*, 9, 572–7.
- Apperly, I. A., Samson, D., Chiavarino, C., and Humphreys, G. W. (2004). Frontal and temporoparietal lobe contributions to theory of mind: Neuropsychological evidence from a false-belief task with reduced language and executive demands. *Journal of Cognitive Neuroscience*, 16, 1773–84.
- Apter A, Horesh N, Gothelf D, *et al.* Depression and suicidal behavior in adolescent inpatients with obsessive compulsive disorder. *Journal of Affective Disorders*. 2003;75:181–189.
- Arbib, M. A. (1987). *Brains, Machines, and Mathematics*. New York: Springer.
- Arbib, M. A. (2003). *The Handbook of Brain Theory and Neural Networks*. Cambridge, MA; London: MIT Press.
- Arkin, R. C. (1998). *Behavior-Based Robotics*. Cambridge, MA: MIT Press.
- Arnau R, Meagher MW, Norris MP, *et al.* Psychometric evaluation of the Beck Depression Inventory-II with primary care medical patients. *Health Psychology*. 2001; 20:112–119.
- Azarmina P, Wallace P. Remote interpretation in medical encounters: a systematic review. *Journal of Telemedicineand Telecare*. 2005;11:140–145.
- Badamgarav E, Weingarten SR, Henning JM, *et al.* Effectiveness of disease management programs in depression: a systematic review. *American Journal of Psychiatry*. 2003; 160:2080–2090.
- Baddeley, A. D. (2003). Working memory: Looking back and looking forward. *Nature Reviews Neuroscience*, 4,829–39.
- Baddeley, A. D., and Hitch, G. J. L. (1974). Working memory. In Bower, G. A. (ed.), *The Psychology of Learning and Motivation: Advances and Research*. New York: Academic Press.
- Baddeley, A. (2007). *Working Memory, Thought, and Action*. New York: Oxford University Press.
- Baillargeon, R. (1986). Representing the existence and the location of hidden objects: Object permanence in 6- and 8-month-old infants. *Cognition*, 23, 21–41.
- Baillargeon, R. (1987). Object permanence in 3- and 4-month-old infants. *Developmental Psychology*, 23, 655–64.
- Bajaj P, Borreani E, Ghosh P, *et al.* Screening for suicidal thoughts in primary care: the views of patients and general practitioners. *Mental Health in Family Medicine*. 2008;5:229–235.
- Balas EA, Jaffrey F, Kuperman GJ, *et al.* Electronic communication with patients: evaluation of distance medicine technology. *Journal of the American Medical Association*. 1997;278:152–159.
- Baldwin DS, Anderson IM, Nutt DJ, *et al.* Evidence-based guidelines for the pharmacological treatment of anxiety disorders: recommendations from the British

- Association for Psychopharmacology. *Journal of Psychopharmacology*. 2005;19:567–596.
- Bandettini, P. A., and Ungerleider, L. G. (2001). From neuron to BOLD: New connections. *Nature Neuroscience*, 4, 864–6.
  - Barbui C, Tansella M. Identification and management of depression in primary care settings: a meta-review of evidence. *Epidemiologia e Psichiatria Sociale*. 2006;15:276–283.
  - Barlow DH. Cognitive-behavioral therapy, imipramine, or their combination for panic disorder: a randomized controlled trial. *Journal of the American Medical Association*. 2000;283:2529–2536.
  - Baron-Cohen, S. (1995). *Mindblindness: An Essay on Autism and Theory of Mind*. Cambridge MA: MIT Press.
  - Baron-Cohen, S. (2005). The empathizing system: A revision of the 1994 model of the mindreading system. In Ellis, B. and Bjorklund, D. (eds.), *Origins of the Social Mind*. New York: Guilford.
  - Baron-Cohen, S., Leslie, A. M., and Frith, U. (1985). Does the autistic child have a “theory of mind” *Cognition*, 21,37–46.
  - Baron-Cohen, S., Tager-Flusberg, H., and Cohen, D. J. (eds.) (2000). *Understanding Other Minds: Perspectives from Developmental Cognitive Neuroscience*. New York: Oxford University Press.
  - Bassett, L. (1997). *From Panic to Power: Proven Techniques to Calm Your Anxieties, Conquer Your Fears, and Put You in Control of Your Life*. New York: HarperCollins.
  - Bassett, D. S., and Bullmore, E. (2006). Small-world brain networks. *Neuroscientist*, 12, 512–23.
  - Bavister, S. and Vickers, A. (2004). *Teach Yourself NLP*. London: Hodder Headline.
  - Beach MC, Gary TL, Price EG, *et al.* Improving health care quality for racial/ethnic minorities: a systematic review of the best evidence regarding provider and organization interventions. *BMC Public Health*. 2006; 6:104.
  - Bebbington PE, Dean C, Der G, *et al.* Gender, parity and the prevalence of minor affective disorder. *The British Journal of Psychiatry*. 1991; 158:40–45.
  - Bechtel, W. (1999). Unity of science. In Wilson, R. A. and Keil, F. (eds.), *The MIT Encyclopedia Of CognitiveScience*. Cambridge, MA: MIT Press.
  - Bechtel, W., and Abrahamsen, A. A. (2002). *Connectionism and the Mind: Parallel Processing, Dynamics and Evolution in Networks*. Cambridge, MA: Blackwell.
  - Bechtel, W., Mandik, P., Mundale, J., and Stufflebeam, R. S. (eds.) (2001). *Philosophy and the Neurosciences: A Reader*. Malden, MA: Blackwell.
  - Beck AT. *BDI-II: Beck Depression Inventory Manual*. 2nd edn. Boston, MA: Harcourt Brace; 1996.
  - Bee PE, Bower P, Lovell K, *et al.* Psychotherapy mediated by remote communication technologies: a meta-analyticreview. *BMC Psychiatry*. 2008;8:60.
  - Beney J, Bero LA, Bond C. Expanding the roles of outpatient pharmacists: effects on health services utilisation, costs, and patient outcomes. *Cochrane Database of Systematic Reviews*. 2000 ;(3):CD000336.
  - Berlin JA., on behalf of University of Pennsylvania Meta-analysis Blinding Study Group. Does blinding of readers affect the results of meta-analysis? *Lancet*. 1997; 350:185–186.
  - Bermúdez, J. L. (2005). *Philosophy of Psychology: A Contemporary Introduction*. New York: Routledge.
  - Bermúdez, J. L. (ed.) (2006). *Philosophy of Psychology: Contemporary Readings*. London: Routledge.
  - Bernal G, Domenech Rodriguez MM. Advances in Latino family research: cultural adaptations of evidence-based interventions. *Family Process*. 2009;48:169–178.
  - Bernal G. Intervention development and cultural adaptation research with diverse families. *FamilyProcess*. 2006;45:143–151.
  - Bhui K, Stansfeld S, Hull S, *et al.* Ethnic variations in pathways to and use of specialist mental health services in the UK. *British Journal of Psychiatry*. 2003;182:105–116.
  - Biederman J, Petty C, Faraone SV, *et al.* Moderating effects of major depression on patterns of comorbidity in patients with panic disorder.

- Psychiatry Research. 2004; 126:143–149.
- Blake DD, Weathers FW, Nagy LM, *et al.* The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*. 1995; 8:75–90.
  - Blashki G, Judd F, Piterman L. *General Practice Psychiatry*. NSW, Australia: McGraw-Hill; 2007.
  - Block, N. (1995). The mind as the software of the brain. In Osherson, D., Gleitman, L., Kosslyn, S. M., Smith, E., and Sternberg, R. J. (eds.), *An Invitation to Cognitive Science*. Cambridge, MA: MIT Press.
  - Block, N. (ed.) (1981). *Imagery*. Cambridge, MA: MIT Press.
  - Bloom, P., and German, T. P. (2000). Two reasons to abandon the false belief task as a test of theory of mind. *Cognition*, 77, B25–B31.
  - Bobes J, Gonzalez MP, Bascaran MT, *et al.* Quality of life and disability in patients with obsessive-compulsive disorder. *European Psychiatry*. 2001;16:239–245.
  - Boden, M. A. (1990a). Escaping from the Chinese room. In *The Philosophy of Artificial Intelligence*. Oxford: Oxford University Press.
  - Boden, M. A. (2006). *Mind as Machine: A History of Cognitive Science*. Oxford; New York: Oxford University Press.
  - Boden, M. A. (ed). (1990b). *The Philosophy of Artificial Intelligence*. Oxford; New York: Oxford University Press.
  - Borg, J. (2010). *Mind Power: Change Your Thinking, Change Your Life*. Harlow: Prentice Hall Life.
  - Bostwick JM, Pankratz VS. Affective disorders and suicide risk: a reexamination. *American Journal of Psychiatry*. 2000;157:1925–1932.
  - Boucher, J. (1996). What could possibly cause autism? In Carruthers, P. and Smith, P. K. (eds.), *Theories of Theory of Mind*. Cambridge: Cambridge University Press.
  - Bouman A, van Rossum E, Nelemans P, *et al.* Effects of intensive home visiting programs for older people with poor health status: a systematic review. *BMC Health Services Research*. 2008;8:74.
  - Bower P, Gilbody S, Richards D, *et al.* Collaborative care for depression in primary care: making sense of a complex intervention: systematic review and meta-regression. *British Journal of Psychiatry*. 2006;189:484–493.
  - Bower P, Gilbody S. Stepped care in psychological therapies: access, effectiveness and efficiency: narrative literature review. *British Journal of Psychiatry*. 2005;186:11–17.
  - Bower P, Sibbald B. Systematic review of the effect of on-site mental health professionals on the clinical behaviour of general practitioners. *British Medical Journal*. 2000;320:614–617.
  - Brachman, R. J., and Levesque, H. J. (eds.) (1985). *Readings in Knowledge Representation*. Los Altos, CA: M. Kaufmann.
  - Breier A, Charney DS, Heninger GR. Agoraphobia with panic attacks: development, diagnostic stability, and course of illness. *Archives of General Psychiatry*. 1986;43:1029–1036.
  - Bremner, G. J. (1994). *Infancy*. Oxford: Wiley-Blackwell.
  - Breslau N, Davis GC, Andreski P, *et al.* Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*. 1991;48:216–222.
  - Bressler, S. L., Tang, W., Sylvester, C. M., Shulman, G. L., and Corbetta, M. (2008). Top-down control of human visual cortex by frontal and parietal cortex in anticipatory visual spatial attention. *Journal of Neuroscience*, 28, 10056–61.
  - Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*. 2000;68:748–766.
  - Bridges KW, Goldberg DP. Somatic presentations of depressive illness in primary care. In: Freeling P, Downey LJ, Malkin JC, editors. *The Presentation of Depression: Current Approaches*. London: Royal College of General Practitioners; 1987. pp. 9–11.
  - British Medical Association & NHS Employers. *Quality and Outcomes Framework Guidance for GMS Contract 2009/10: Delivering Investment in General Practice*. London: NHS Employers & General



- Practitioners Committee; 2008. Available at: [http://www.bma.org.uk/images/QoF%20Guidance%20-%20April%202008\\_tcm41-182872.pdf](http://www.bma.org.uk/images/QoF%20Guidance%20-%20April%202008_tcm41-182872.pdf).
- British Medical Association & NHS Employers. Revisions to the GMS Contract 2006/07: Delivering Investment in General Practice. London: NHS Employers & General Practitioners Committee; 2006. Available at: [http://www.bma.org.uk/employmentandcontracts/independent\\_contractors/general\\_medical\\_services\\_contract/NewDEs0706.jsp](http://www.bma.org.uk/employmentandcontracts/independent_contractors/general_medical_services_contract/NewDEs0706.jsp).
  - British Medical Association & the Royal Pharmaceutical Society of Great Britain. British National Formulary (BNF 59). London: British Medical Association and the Royal Pharmaceutical Society of Great Britain; 2010.
  - Broadbent, D. E. (1954). The role of auditory localization in attention and memory span. *Journal of Experimental Psychology*, 47, 191–6.
  - Broadbent, D. E. (1958). *Perception and Communication*. London: Pergamon Press.
  - Brook, A. (2007). *The Prehistory of Cognitive Science*. Basingstoke; New York: Palgrave Macmillan.
  - Brooks, R. (1991). Intelligence without representation. *Artificial Intelligence*, 47, 139–59.
  - Brooks, R. (1999). *Cambrian Intelligence: The Early History of the New AI*. Cambridge, MA: MIT Press.
  - Brooks, R. Reprinted in J. Haugeland (ed.) (1997), *Mind Design II: Philosophy, Psychology, Artificial Intelligence*. Cambridge, MA: MIT Press.
  - Brown C, Schulberg HC, Madonia MJ, *et al.* Treatment outcomes for primary care patients with major depression and lifetime anxiety disorders. *American Journal of Psychiatry*. 1996;153:1293–1300.
  - Brown G, Harris T. *The Social Origins of Depression: a Study of Psychiatric Disorder in Women*. London: Tavistock Publications; 1978.
  - Brown TA, O'Leary TA, Barlow DH. Generalised anxiety disorder. In: Barlow DH, editor. *Clinical Handbook of Psychological Disorders: a Step-by-Step Treatment Manual*. 3rd edn. New York: Guilford Press; 2001. pp. 154–208.
  - Bruce ML, Hoff RA. Social and physical health risk factors for first-onset major depressive disorder in a community sample. *Social Psychiatry and Psychiatric Epidemiology*. 1994;29:165–171.
  - Bunn F, Byrne G, Kendall S. The effects of telephone consultation and triage on healthcare use and patient satisfaction: a systematic review. *British Journal of General Practice*. 2005;55:956–961.
  - Bushnell J, McLeod D, Dowell A, *et al.* Do patients want to disclose psychological problems to GPs? *Family Practice*. 2005;22:631–637.
  - Butler R, Hatcher S, Price J, *et al.* Depression in adults: psychological treatments and care pathways. *BMJ Clinical Evidence*. 2007;8:1016.
  - Byrne GJ, Pachana NA. Development and validation of a short form of the Geriatric Anxiety Inventory: the GAI- SF. *International Psychogeriatrics*. 2011; 23:125–131.
  - Callaghan P, Eales S, Coates T, *et al.* A review of research on the structure, process and outcome of liaison mental health services. *Journal of Psychiatric and Mental Health Nursing*. 2003;10:155–165.
  - Campbell S, Roland MO, Buetow SA. Defining quality of care. *Social Science and Medicine*. 2000;51:1611–1625.
  - Campbell-Sills L, Norman SB, Craske MG, *et al.* Validation of a brief measure of anxiety-related severity and impairment: the Overall Anxiety Severity and Impairment Scale (OASIS). *Journal of Affective Disorders*. 2009;112:92–101.
  - Carruthers, P. (2006). *The Architecture of the Mind*. Cambridge: Cambridge University Press.
  - Carruthers, P. (2008a). On Fodor-fixation, flexibility, and human uniqueness: A reply to Cowie, Machery, and Wilson. *Mind and Language*, 23, 293–303.
  - Carruthers, P. (2008b). *Precis of The Architecture of the Mind: Massive Modularity and the Flexibility of Thought*. *Mind and Language*, 23, 257–62.
  - Carruthers, P., and Smith, P. K. (eds.) (1996). *Theories of Theory of Mind*. Cambridge: Cambridge University Press.
  - Cassano P, Fava M. Depression and public health: an overview. *Journal of Psychosomatic Research*. 2002;53:849–857.
  - Centre for Reviews and Dissemination. NHS

- Economic Evaluation Database Handbook. York: University of York; 2007. Available at <http://www.york.ac.uk/inst/crd/pdf/nhseed-handb07.pdf>.
- Chaix B, Merlo J, Chauvin P. Comparison of a spatial approach with the multilevel approach for investigating place effects on health: the example of healthcare utilisation in France. *Journal of Epidemiology and Community Health*. 2005;59:517–526.
  - Chang-Quan H, Bi-Rong D, Zhen-Chan L, *et al.* Collaborative care interventions for depression in the elderly: a systematic review of randomised controlled trials. *Journal of Investigative Medicine*. 2009;57:446–455.
  - Chapman JL, Zechel A, Carter YH, *et al.* Systematic review of recent innovations in service provision to improve access to primary care. *British Journal of General Practice*. 2004;54:374–381.
  - Chelazzi, L., and Corbetta, M. (2000). Cortical mechanisms of visuospatial attention in the primate brain. In Gazzaniga, M. S. (ed.), *The New Cognitive Neurosciences* (2nd edn.). Cambridge, MA: MIT Press.
  - Chomsky, N. (1957). *Syntactic Structures*. Gravenhage: Mouton.
  - Chomsky, N. (1959). A review of B. F. Skinner's *Verbal Behavior*. *Language*, 35, 26–58.
  - Chopra, D. and Tanzi, R. E. (2013). *Super Brain: Unleashing the Explosive Power of Your Mind*. Rider Books, Random House.
  - Christensen H, Griffiths K, Gulliver A, *et al.* Models in the delivery of depression care: a systematic review of randomised and controlled intervention trials. *BMC Family Practice*. 2008;9:25.
  - Christensen KS, Fink P, Toft T, *et al.* A brief case-finding questionnaire for common mental disorders: the CMDQ. *Family Practice*. 2005;22:448–457.
  - Christiansen, M. H., and Chater, N. (2001). *Connectionist Psycholinguistics*. Westport, CT: Ablex.
  - Churchland, P. M. (1990a). On the nature of theories: A neurocomputational perspective. In *A Neurocomputational Perspective: The Nature of Mind and the Structure of Science*. Cambridge, MA: MIT Press.
  - Churchland, P. M. (1990b). Cognitive activity in artificial neural networks. In Block, N. and Osherson, D. (eds.), *Invitation to Cognitive Science*. Cambridge, MA: MIT Press. Reprinted in Cummins, R. and Cummins, D. D. (2000), *Minds, Brains, and Computers: The Foundations of Cognitive Science: An Anthology*. Malden, MA: Blackwell.
  - Churchland, P. M. (2007). *Neurophilosophy at Work*. Cambridge: Cambridge University Press.
  - Churchland, P. S. (1986). *Neurophilosophy: Toward a Unified Science of the Mind/Brain*. Cambridge, MA: MIT Press.
  - Churchland, P. S., and Sejnowski, T. J. (1992). *The Computational Brain*. Cambridge, MA: MIT Press.
  - Clancey, W. J. (1997). *Situated Cognition: On Human Knowledge and Computer Representations*. Cambridge: Cambridge University Press.
  - Clark DA. *Cognitive-Behavioral Therapy for OCD*. New York: Guilford Press; 2004.
  - Clark DM, Layard R, Smithies R, *et al.* Improving Access to Psychological Therapy: initial evaluation of two UK demonstration sites. *Behaviour Research and Therapy*. 2009;47:910–920.
  - Clark, A. (1989). *Microcognition: Philosophy, Cognitive Science, and Parallel Distributed Processing*. Cambridge, MA: MIT Press.
  - Clark, A. (1993). *Associative Engines: Connectionism, Concepts, and Representational Change*. Cambridge, MA: MIT Press.
  - Clark, A. (1997). *Being There: Putting Brain, Body, and World Together Again*. Cambridge, MA: MIT Press.
  - Clark, A. (1998). Time and mind. *Journal of Philosophy*, 95, 354–76.
  - Clark, A. (2001). *Mindware: An Introduction to the Philosophy of Cognitive Science*. New York: Oxford University Press.
  - Cochrane Collaboration. *Review Manager (RevMan) Version 5.0*. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration; 2008. Computer

programme

- Cochrane LJ, Olson CA, Murray S, *et al.* Gaps between knowing and doing: understanding and assessing the barriers to optimal health care. *Journal of Continuing Education in the Health Professions*. 2007;27:94–102.
- Collacott RA. People with Down syndrome and mental health needs. In: Barnes N, editor. *Psychiatric and Behavioural Disorders in Developmental Disabilities and Mental Retardation*. Cambridge: Cambridge University Press; 1999.
- Cooper S, Smiley E, Morrison J, *et al.* Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *The British Journal of Psychiatry*. 2007;190:27–35.
- Cooper SA. Epidemiology of psychiatric disorders in elderly compared with younger adults with learning disabilities. *British Journal of Health Psychology*. 1997;170:375–380.
- Cooper, L. A., and Shepard, R. N. (1973). The time required to prepare for a rotated stimulus. *Memory and Cognition*, 1, 246–50.
- Copeland, J. G. (1993). *Artificial Intelligence: A Philosophical Introduction*. Oxford; Cambridge, MA: Blackwell.
- Corkin, S. (2002). What's new with the amnesic patient H.M.? *Nature Reviews Neuroscience*, 3, 153–60.
- Cosmides, L. (1989). The logic of social exchange: Has natural selection shaped how humans reason? Studies with the Wason selection task. *Cognition*, 31, 187–276.
- Cosmides, L., and Tooby, J. (1992). Cognitive adaptations for social exchange. In J. Berkow, L. Cosmides, and J. Tooby (eds.), *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York: Oxford University Press.
- Cosmides, L., and Tooby, J. (1994). Origins of domain-specificity: The evolution of functional organization. In Hirschfeld, L. A. and Gelman, S. F. (eds.), *Mapping the Mind: Domain Specificity in Cognition and Culture*. Cambridge: Cambridge University Press. Reprinted in Bermúdez, J. L. (ed.) (2006), *Philosophy of Psychology: Contemporary Readings*. London: Routledge.
- Cogle JR, Keough ME, Riccardi CJ, *et al.* Anxiety disorders and suicidality in the National Comorbidity Survey- replication. *Journal of Psychiatric Research*. 2009;43:825–829.
- Cowie, F. (2008). Us, them and it: Modules, genes, environments and evolution. *Mind and Language*, 23, 284–92.
- Crane, T. (2003). *The Mechanical Mind: A Philosophical Introduction to Minds, Machines, and Mental Representation*. London; New York: Routledge.
- Craven MA, Bland R. Better practices in collaborative mental health care: an analysis of the evidence base. *The Canadian Journal of Psychiatry*. 2006;51(Suppl. 1):7S–72S.
- Craver, C. (2007). *Explaining the Brain: Mechanisms and the Mosaic Unity of Neuroscience*. New York: Oxford University Press.
- Creamer M, Burgess P, McFarlane AC. Post-traumatic stress disorder: findings from the Australian National Survey of Mental Health and Well-being. *Psychological Medicine*. 2001;31:1237–1247.
- CSIP Choice and Access Team. *Improving Access to Psychological Therapies: Positive Practice Guide*. London: Department of Health; 2007.
- Cuijpers P. Psychological outreach programmes for the depressed elderly: a meta-analysis of effects and dropout. *International Journal of Geriatric Psychiatry*. 1998;13:41–48.
- Cummins, R. (2000). “How does it work?” versus “What are the laws?” In Keil, F. C. and Wilson, R. A. (eds.), *Explanation and Cognition*. Cambridge, MA: MIT Press.
- Cummins, R., and Cummins, D. D. (2000). *Minds, Brains, and Computers: The Foundations of Cognitive Science: An Anthology*. Malden, MA: Blackwell.
- Curtis L. *Unit Costs of Health and Social Care*. Canterbury: PSSRU, University of Kent; 2009.
- Cutland, N. J. (1980). *Computability: An Introduction to Recursive Function Theory*. Cambridge: Cambridge University Press.
- Das AK, Olfson M, McCurtis HL, *et al.* Depression

- in African Americans: breaking barriers to detection and treatment. *Applied Evidence*. 2006;55:30–39.
- Das-Munshi J, Goldberg D, Bebbington PE, *et al.* Public health significance of mixed anxiety and depression: beyond current classification. *British Journal of Psychiatry*. 2008;192:171–177.
  - Davidson JR, Zhang W, Connor KM, *et al.* A psychopharmacological treatment algorithm for generalised anxiety disorder (GAD). *Journal of Psychopharmacology*. 2010;24:3–26.
  - Davidson JRT, Book SW, Colket JT, *et al.* Assessment of a new self-rating scale for post-traumatic stress disorder. *Psychological Medicine*. 1997;27:153–160.
  - Davies, M., and Stone, T. (eds.) (1995a). *Folk Psychology*. Oxford: Blackwell.
  - Davies, M., and Stone, T. (eds.) (1995b). *Mental Simulation*. Oxford: Blackwell.
  - Davis, M. (2000). *The Universal Computer: The Road from Leibniz to Turing*. New York: Norton.
  - Davis, M. (2001). *Engines of Logic: Mathematicians and the Origin of the Computer*. New York: Norton.
  - Davis, S. (1993). *Connectionism: Theory and Practice*. New York: Oxford University Press.
  - Dawkins, R. (1979). Twelve misunderstandings of kin selection. *Zeitschrift für Tierpsychologie*, 51, 184–200.
  - Dawson, M. R. W. (1998). *Understanding Cognitive Science*. Oxford: Blackwell.
  - Dawson, M. R. W. (2004). *Minds and Machines: Connectionism and Psychological Modeling*. Oxford: Blackwell.
  - Dawson, M. R. W. (2005). *Connectionism: A Hands-On Approach*. Oxford: Blackwell.
  - Dennett, D. (1984). Cognitive wheels: The frame problem in artificial intelligence. In Hookway, C. (ed.), *Minds, Machines, and Evolution*. Cambridge: Cambridge University Press.
  - Dennis C, Chung-Lee L. Postpartum depression help-seeking barriers and maternal treatment preferences: a qualitative systematic review. *Birth*. 2006;33:323–331.
  - Dennis RE, Boddington SJ, Funnell NJ. Self-report measures of anxiety: are they suitable for older adults? *Aging & Mental Health*. 2007;11:668–677.
  - Department of Health. *Delivering Race Equality in Mental Health Care: A Review*. London: Department of Health; 2009. Available at: [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4139351](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4139351).
  - Department of Health. *Models of Care for Alcohol Misusers*. London: Department of Health; 2006. Available at: [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4136806](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4136806).
  - Department of Health. *National Service Framework for Mental Health: Modern Standards and Service Models*. London: Department of Health; 1999. Available at: [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4009598](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4009598).
  - Department of Health. *National Service Framework for Older People*. London: Department of Health; 2001. Available at: [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4003066](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4003066).
  - Dispenza, J. (2014). *You are the Placebo: Making Your Mind Matter*. London: Hay House.
  - Dixon-Woods M, Kirk D, Agarwal S, *et al.* *Vulnerable Groups and Access to Health Care: a Critical Interpretive Review*. London: National Co-ordinating Centre for NHS Service Delivery and Organisation; 2005. 10 August 2011. Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D (NCCSDO) Available at: [http://www.sdo.nihr.ac.uk/files/project/SDO\\_ES\\_08-1210-025\\_V01.pdf](http://www.sdo.nihr.ac.uk/files/project/SDO_ES_08-1210-025_V01.pdf).
  - Dodd S, Berk M. Predictors of antidepressant response: a selective review. *International Journal of Psychiatry in Clinical Practice*. 2004;8:91–100.
  - Dowrick C, Gask L, Edwards S, *et al.* Researching the mental health needs of hard-to-reach groups: managing multiple sources of evidence. *BMC Health Services Research*. 2009;9:226.



- Dowrick C, Gask L, Edwards S. Programme to increase equity of access to high quality mental health services in primary care. *Journal of Affective Disorders*. 2010;122:18–19.
- Dowrick C, Leydon GM, McBride A, *et al.* Patients' and doctors' views on depression severity questionnaires incentivised in UK quality and outcomes framework: qualitative study. *British Medical Journal*. 2009;338:663.
- Dowrick C. Case or continuum? Analysing general practitioners' ability to detect depression. *Primary Care Psychiatry*. 1995;1:255–257.
- Dreyfus, H. L. (1977). *Artificial Intelligence and Natural Man*. New York: Basic Books.
- Duhigg, C. (2012). *The Power of Habit*. London: William Heinemann.
- DuPont RL, Rice DP, Miller LS, *et al.* Economic costs of anxiety disorders. *Anxiety*. 1998;2:167–172.
- DuPont RL, Rice DP, Shiraki S, *et al.* Economic costs of obsessive-compulsive disorder. *Medical Interface*. 1995;8:102–109.
- Dwamena B. MIDAS: Stata Module for Meta-Analytical Integration of Diagnostic Test Accuracy Studies. Boston, MA: Boston College Department of Economics; 2009. Statistical Software Components S456880.
- Dy SM, Garg P, Nyberg D, *et al.* Critical pathway effectiveness: assessing the impact of patient, hospital care, and pathway characteristics using qualitative comparative analysis. *Health Services Research*. 2005;40:499–516.
- Eack SM, Greeno CG, Lee B. Limitations of the Patient Health Questionnaire in identifying anxiety and depression in community mental health: many cases are undetected. *Research on Social Work Practice*. 2006;16:625–631.
- Eagleman, D. (2015). *The Brain*. Edinburgh: Canongate.
- Eccles M, Freemantle N, Mason J. North of England evidence based guideline development project: methods of developing guidelines for efficient drug use in primary care. *British Medical Journal*. 1998;316:1232–1235.
- Edlund MJ, Swann AC. The economic and social costs of panic disorder. *Hospital & Community Psychiatry*. 1987;38:1277–1288.
- Ehlers A, Gene-Cos N, Perrin M. Low recognition of post-traumatic stress disorder in primary care. *London Journal of Primary Care*. 2009;2:36–42.
- Eliasmith, C. (1996). The third contender: A critical examination of the dynamicist theory of cognition. *Philosophical Psychology*, 9, 441–63.
- Elliott, M. H. (1928). The effect of change or reward on the maze performance of rats. *University of California Publications in Psychology*, 4, 19–30.
- Elman, J. L., Bates, E. A., Johnson, M. H., and Karmiloff-Smith, A. (1996). *Rethinking Innateness: A Connectionist Perspective on Development*. Cambridge, MA: MIT Press.
- Emmerson B, Frost A, Fawcett L, *et al.* Do clinical pathways really improve clinical performance in mental health settings? *Australasian Psychiatry*. 2006;14:395–398.
- Essen, D. C., and Gallant, J. L. (1994). Neural mechanisms of form and motion processing in the primate visual system. *Neuron*, 13, 1–10. Reprinted (2001) in Bechtel, W., Mandik, P., Mundale, J., and R. S. Stufflebeam (eds.), *Philosophy and the Neurosciences: A Reader*. Malden, MA: Blackwell.
- European Agency for Safety and Health at Work. *Research on Work-Related Stress*. Luxembourg: Office for Official Publication of the European Communities; 2000. Available at <http://osha.europa.eu/en/publications/reports/203/view>.
- Evans, J. S. B. T., and Over, D. (2004). *If*. Oxford: Oxford University Press.
- Evans-Lacko SE, Jarrett M, McCrone P, *et al.* Clinical pathways in psychiatry. *The British Journal of Psychiatry*. 2008;193:4–5.
- Fava M, Kendler K. Major depressive disorder. *Neuron*. 2000;28:335–341.
- Fechner-Bates S, Coyne JC, Schwenk TL. The relationship of self-reported distress to depressive disorders and other psychopathology. *Journal of*

- Consulting and Clinical Psychology. 1994;62:550–559.
- Fekadu A, Wooderson SC, Markouloulo K, *et al.* What happens to patients with treatment resistant depression? A systematic review of medium to long term outcome studies. *Journal of Affective Disorders*. 2009;116:4–11.
  - Felleman, D. J., and Essen, D. C. (1991). Distributed hierarchical processing in the primate cerebral cortex. *CerebralCortex*, 1, 1–47.
  - Fiellin DA, Reid MC, O'Connor PG. Screening for alcohol problems in primary care: a systematic review. *Archives of Internal Medicine*. 2000;160:1977–1989.
  - Fineberg NA, O'Doherty C, Rajagopal S. How common is obsessive-compulsive disorder in a dermatology outpatient clinic? *The Journal of Clinical Psychology*. 2003;64:152–155.
  - Fineberg NA, Roberts A. Obsessive compulsive disorder: a twenty-first century perspective. In: Fineberg NA, Marazziti D, Stein D, editors. *Obsessive Compulsive Disorder: a Practical Guide*. London: Martin Dunitz; 2001. pp. 1– 13.
  - First MB, Spitzer RL, Gibbon M, *et al.* *Structured Clinical Interview for DSM-IV Axis I Disorders: Clinician Version (SCID-CV)*. Washington DC: American Psychiatric Press; 1997.
  - Fischer JE, Bachmann LM, Jaeschke R. A readers' guide to the interpretation of diagnostic test properties: clinical example of sepsis. *Intensive Care Medicine*. 2003;29:1043–1051.
  - Fisher TL, Burnet DL, Huang ES, *et al.* Cultural leverage: interventions using culture to narrow racial disparities in health care. *Medical Care Research Review*. 2007;64:243–282.
  - Flanagan, O. J. (1991). *The Science of the Mind*. Cambridge, MA: MIT Press.
  - Flores G. The impact of medical interpreter services on the quality of health care: a systematic review. *Medical CareResearch Review*. 2005;62:255–299.
  - Foa EB, Cashman L, Jaycox L, *et al.* The validation of a self-report measure of posttraumatic stress disorder: the Posttraumatic Diagnostic Scale. *Psychological Assessment*. 1997;9:445–451.
  - Foa EB, Keane TM, Friedman MJ. *Effective Treatments for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies*. New York: The Guilford Press; 2008.
  - Foa EB, Kozak MJ, Goodman WK, *et al.* DSM-IV field trial: obsessive compulsive disorder. *American Journal of Psychiatry*. 1995;152:90–96.
  - Foa EB, Kozak MJ. Psychological treatment for obsessive-compulsive disorder. In: Mavissakalian MR, Freeman RF, editors. *Long-Term Treatments of Anxiety Disorders*. Washington DC: American Psychiatric Press; 1996. pp. 285– 308.
  - Foa EB, Riggs DS, Dancu CV, *et al.* Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *Journal of Traumatic Stress*. 1993;6:459–473.
  - Fodor, J. (1975). *The Language of Thought*. Cambridge, MA: Harvard University Press.
  - Fodor, J. (1983). *The Modularity of Mind*. Cambridge, MA: MIT Press.
  - Fodor, J. (1985). *Precis of The Modularity of Mind*. *Behavioral and Brain Sciences*, 1, 1–5.
  - Fodor, J. (1987). *Psychosemantics*. Cambridge, MA: MIT Press.
  - Fodor, J. (2000). *The Mind Doesn't Work That Way: The Scope and Limits of Computational Psychology*. Cambridge, MA: MIT Press.
  - Fodor, J., and Pylyshyn, Z. (1988). Connectionism and cognitive architecture: A critical analysis. *Cognition*, 28, 3–71.
  - Foy R, Hempel S, Rubenstein L, *et al.* Meta-analysis: effect of interactive communication between collaborating primary care physicians and specialists. *Annals of Internal Medicine*. 2010;152:247–258.
  - Francis JL, Weisberg RB, Dyck IR, *et al.* Characteristics and course of panic disorder and panic disorder with agoraphobia in primary care patients. *Primary Care Companion to The Journal of Clinical Psychiatry*. 2007;9:173–179.
  - Franklin, S. (1995). *Artificial Minds*. Cambridge, MA: MIT Press.

- Frederick JT, Steinman LE, Prochaska T, *et al.* Community-based treatment of late life depression: an expert panel- informed literature review. *American Journal of Preventive Medicine*. 2007;33:222–249.
- Freeston M, Rheaume J, Ladouceur R. Correcting faulty appraisals of obsessive thoughts. *Behaviour Research and Therapy*. 1996;34:446.
- Friedenberg, J., and Silverman, G. (2006). *Cognitive Science : An Introduction to the Study of Mind*. ThousandOaks, CA: Sage.
- Frost R, Steketee G. Issues in the treatment of compulsive hoarding. *Cognitive and Behavioral Practice*. 1999;6:397–407.
- Funt, B. V. (1980). Problem-solving with diagrammatic representations. *Artificial Intelligence*, 13, 201–30. Reprinted in Brachman, R. J. and Levesque, H. J. (eds.) (1985), *Readings in Knowledge Representation*. Los Altos, CA: M. Kaufmann.
- Gallistel, C. R. (1990). *The Organization of Learning*. Cambridge, MA: MIT Press.
- Gardner, H. (1985). *The Mind's New Science : A History of the Cognitive Revolution*. New York: Basic Books.
- Gask L, Dowrick C, Dixon C, *et al.* A pragmatic cluster randomised controlled trial of an educational intervention for GPs in the assessment and management of depression. *Psychological Medicine*. 2004;34:63–72.
- Gask L, Lever-Green G, Hays R. Dissemination and implementation of suicide prevention training in one Scottish region. *BMC Health Services*. 2008;8:246.
- Gazzaniga, M. S. (ed.) (1995). *The New Cognitive Neurosciences (1st edn.)*. Cambridge, MA: MIT Press.
- Gazzaniga, M. S. (ed.) (2000). *The New Cognitive Neurosciences (2nd edn.)*. Cambridge, MA: MIT Press.
- Gazzaniga, M. S. (ed.) (2004). *The New Cognitive Neurosciences (3rd edn.)*. Cambridge, MA: MIT Press.
- Gazzaniga, M. S., Ivry, R. B., and Mangun, G. R. (2008). *Cognitive Neuroscience: The Biology of the Mind*. New York: Norton.
- Gelder, T. (1995). What might cognition be, if not computation? *The Journal of Philosophy*, 92, 345–81.
- Gelder, T. (1998). The dynamical hypothesis in cognitive science. *Behavioral and Brain Sciences*, 21, 615–28.
- Gensichen J, Beyer M, Muth C, *et al.* Case management to improve major depression in primary health care: a systematic review. *Psychological Medicine*. 2005;36:7–14.
- Gerber PD, Barrett JE, Barrett JA, *et al.* The relationship of presenting physical complaints to depressive symptoms in primary care patients. *Journal of General Internal Medicine*. 1992;7:170–173.
- Gilbody S, Bower P, Fletcher J, *et al.* Collaborative care for depression: a cumulative meta-analysis and review of longer term outcomes. *Archives of Internal Medicine*. 2006;166:2314–2321.
- Gilbody S, Richards D, Brealey S, *et al.* Screening for depression in medical settings with the Patient Health Questionnaire (PHQ): a diagnostic meta-analysis. *Journal of General Internal Medicine*. 2007;22:1596–1602.
- Gilbody S, Whitty P, Grimshaw J, *et al.* Educational and organizational interventions to improve the management of depression in primary care: a systematic review. *Journal of the American Medical Association*. 2003;289:3145–3152.
- Gilbody SM, House AO, Sheldon TA. Psychiatrists in the UK do not use outcomes measures: national survey. *British Journal of Psychiatry*. 2002;180:101–103.
- Giles DE, Jarrett RB, Biggs MM, *et al.* Clinical predictors of recurrence in depression. *American Journal of Psychiatry*. 1989;146:764–767.
- Gill SC, Butterworth P, Rodgers B, *et al.* Validity of the mental health component scale of the 12-item Short-Form Health Survey (MCS-12) as measure of common mental disorders in the general population. *Psychiatry Research*. 2007;152:63–71.
- Gleitman, H., Fridlund, A. J., and Reisberg, D. (2004). *Psychology*. New York: Norton.
- Glover G, Webb M, Evison F. *Improving Access to Psychological Therapies: a Review of the Progress Made by Sites in the First Roll-out Year*. Stockton-on-Tees: North East Public Health Observatory; 2010.

- Goldberg D, Privett M, Ustun B, *et al.* The effects of detection and treatment on the outcome of major depression in primary care: a naturalistic study in 15 cities. *The British Journal of General Practice*. 1998;48:1840–1844.
- Goldberg DP, Bridges K. Somatic presentations of psychiatric illness in primary care settings. *Journal of Psychosomatic Research*. 1988;32:137–144.
- Goldberg DP, Huxley PJ. *Common Mental Disorders: a Bio-Social Model*. London: Tavistock/Routledge; 1992.
- Goldberg DP, Jenkins L, Millar T, *et al.* The ability of trainee general practitioners to identify psychological distress among their patients. *Psychological Medicine*. 1993;23:185–193.
- Goldberg DP, Steele JJ, Smith C, *et al.* Training family doctors to recognise psychiatric illness with increased accuracy. *Lancet*. 1980;2:521–523.
- Goldberg DP, Steele JJ, Smith C. Teaching psychiatric interview techniques to family doctors epidemiological research as basis for the organization of extramural psychiatry. *Acta Psychiatrica Scandinavica*; proceedings of the ‘Second European Symposium on Social Psychiatry’; Psychiatric Hospital in Aarhus. 26–28 September, 1979; 1980. pp. 41–47.
- Goldman, A. (2006). *Simulating Minds*. New York: Oxford University Press.
- Goleman, D. (2004). *Destructive Emotions and How We Can Overcome Them*. London: Bloomsbury.
- Goodwin G. Neurobiological aetiology of mood disorders. In: Gelder MG, Lopez-Ibor JJ, Andreasen N, editors. *New Oxford Textbook of Psychiatry*. Oxford: Oxford University Press; 2000. pp. 711–719.
- Gopnik, A., and Meltzoff, A. N. (1997). *Words, Thoughts, and Theories*. Cambridge, MA: MIT Press.
- Gordon, R. (1986). Folk psychology as simulation. *Mind and Language*, 1, 158–71.
- Gorman, R. P., and Sejnowski, T. J. (1988). Analysis of hidden units in a layered network trained to identify sonartargets. *Neural Networks*, 1, 75–89.
- Gothelf D, Aharonovsky O, Horesh N, *et al.* Life events and personality factors in children and adolescents with obsessive-compulsive disorder and other anxiety disorders. *Comprehensive Psychiatry*. 2004;45:192–198.
- Grainger, J., and Jacobs, A. M. (1998). *Localist Connectionist Approaches to Human Cognition*. Mahwah, NJ:Lawrence Erlbaum.
- Greenberg PE, Sisitsky T, Kessler RC, *et al.* The economic burden of anxiety disorders in the 1990s. *Journal of Clinical Psychiatry*. 1999;60:427–435.
- Griffiths KM, Christensen H. Depression in primary health care: from evidence to policy. *Medical Journal of Australia*. 2008;188:81–83.
- Griggs, R. A., and Cox, J. R. (1982). The elusive thematic materials effect in the Wason selection task. *British Journal of Psychology*, 73, 407–20.
- Grilli R, Ramsay C, Minozzi S. Mass media interventions: effects on health service utilisation. *Cochrane Database of Systematic Reviews*. 2002;(1):CD000389.
- Griner D, Smith T. Culturally adapted mental health intervention: a meta-analytic review. *Psychotherapy*. 2006;43:531–548.
- Gruen RL, Weeramanthri TS, Knight SS, *et al.* Specialist outreach clinics in primary care and rural hospital settings. *Cochrane Database of Systematic Reviews*. 2003;(1):CD003798.
- Gulliford M, Figueroa-Munoz J, Morgan M, *et al.* What does ‘access to health care’ mean? *Journal of Health Services Research & Policy*. 2007;7:186–188.
- Gunn J, Diggins J, Hegarty K, *et al.* A systematic review of complex system interventions designed to increase recovery from depression in primary care. *BMC Health Services Research*. 2006;6:88.
- Hadley, R. F. (2000). Cognition and the computational power of connectionist networks. *Connection Science*, 12, 95–110.
- Hakkaart-van Roijen L, van Straten A, Al M, *et al.* Cost-utility of brief psychological treatment for depression and anxiety. *British Journal of Psychiatry*. 2006;188:323–329.
- Hall A, A'Hern R, Fallowfield L. Are we using appropriate self-report questionnaires for detecting anxiety and depression in women with early breast



- cancer? *European Journal of Cancer*. 1999;35:79–85.
- Hallowell, E. M. and Ratey, J. M. (2005). *Delivered from Distraction: Getting the Most out of Life with Attention Defecit Disorder*. New York: Ballantine Books.
  - Hansard. House of Commons: Written Answers from Mary Eagle, 27 May 2004, col. 1790W. London: Stationery Office; 2004.
  - Hanson, R. (2013). *Hardwiring Happiness: The New Brain Science of Contentment, Calm and Confidence*. New York: Crown Publishing Group.
  - Hardeveld F, Spijker J, De Graaf R, *et al.* Prevalence and predictors of recurrence of major depressive disorder in the adult population. *Acta Psychiatrica Scandinavica*. 2010;122:184–191.
  - Harkness EF, Bower PJ. On-site mental health workers delivering psychological therapy and psychosocial interventions to patients in primary care: effects on the professional practice of primary care providers. *Cochrane Database of Systematic Reviews*. 2009;(1):CD000532.
  - Harnad, S. (1990). The symbol-grounding problem. *Physica D*, 42, 335–46.
  - Harris T. Introduction to the work of George Brown. In: Harris T, editor. *Where Inner and Outer Worlds Meet: Psychosocial Research in the Tradition of George W. Brown*. London & New York: Routledge; 2000. pp. 1–52.
  - Haugeland, J. (1985). *Artificial Intelligence: The Very Idea*. Cambridge, MA: MIT Press.
  - Haugeland, J. (1997). *Mind Design II : Philosophy, Psychology, Artificial Intelligence*. Cambridge, MA: MIT Press.
  - Haworth JE, Moniz-Cook E, Clark AL, *et al.* An evaluation of two self-report screening measures for mood in an out-patient chronic heart failure population. *International Journal of Geriatric Psychiatry*. 2007;22:1147–1153.
  - Heal, J. (1986) Replication and functionalism. In Butterfield, J. (ed.), *Language, Mind and Logic*. Cambridge: Cambridge University Press.
  - Hebb, D. O. (1949). *The Organization of Behavior: A Neuropsychological Theory*. New York: Wiley.
  - Heeger, D. J., and Ress, D. (2002). What does fMRI tell us about neuronal activity? *Nature Reviews Neuroscience*, 3, 142–51.
  - Heideman J, van Rijswijk E, van Lin N, *et al.* Interventions to improve management of anxiety disorders in general practice. *British Journal of General Practice*. 2005;55:867–873.
  - Heil, J. (2004). *Philosophy of Mind: A Guide and Anthology*. New York: Oxford University Press.
  - Heim C, Nemeroff CB. The role of childhood trauma in the neurobiology of mood and anxiety disorders: preclinical and clinical studies. *Biological Psychiatry*. 2001;49:1023–1039.
  - Henkel V, Mergl R, Kohnen R, *et al.* Identifying depression in primary care: a comparison of different methods in a prospective cohort study. *British Medical Journal*. 2003;326:200–201.
  - Henson, R. (2006). Forward inference using functional neuroimaging: Dissociations versus associations. *Trends in Cognitive Sciences*, 10, 64–9.
  - Hettema JM, Neale MC, Kendler KS. A review and meta-analysis of the genetic epidemiology of anxiety disorders. *American Journal of Psychiatry*. 2001;158:1568–1578.
  - Hettema JM, Prescott CA, Kendler KS. Genetic and environmental sources of covariation between generalized anxiety disorder and neuroticism. *American Journal of Psychiatry*. 2004;161:1581–1587.
  - Hettema JM, Prescott CA, Myers JM, *et al.* The structure of genetic and environmental risk factors for anxiety disorders in men and women. *Archives of General Psychiatry*. 2005;62:182–189.
  - Hewitt CE, Gilbody SM, Brealey S, *et al.* Methods to identify postnatal depression in primary care: an integrated evidence synthesis and value of information analysis. *Health Technology Assessment*. 2009;13:36.
  - Hinton, G. E., McClelland, J. L., and Rumelhart, D. E. (1986). Distributed representations. In Rumelhart, D. E. and McClelland, J. L. and the PDP Research Group, (eds.), *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 1: Foundations. Cambridge, MA: MIT Press.

- Hirschfeld, L. A., and Gelman, S. F. (eds.) (1994). Mapping the Mind: Domain Specificity in Cognition and Culture. Cambridge: Cambridge University Press.
- Hopfinger, J. B., Luck, S. J., and Hillyard, S. A. (2004). Selective attention: Electrophysiological and neuromagnetic studies. In Gazzaniga, M. (ed.), *The Cognitive Neurosciences* (3rd edn.). Cambridge, MA: MIT Press.
- Horowitz MJ, Wilner N, Alvarez W. Impact of Event Scale: a measure of subjective stress. *Psychosomatic Medicine*. 1979;41:209–218.
- Houghton, G. (2005). *Connectionist Models in Cognitive Psychology*. Oxford: Oxford University Press.
- Huffman JC, Pollack MH. Predicting panic disorder among patients with chest pain: an analysis of the literature. *Psychosomatics*. 2003;44:222–236.
- Humphreys, G. W., Duncan, J., and Treisman, A. (eds.) (1999). *Attention, Space, and Action: Studies in Cognitive Neuroscience*. Oxford; New York: Oxford University Press.
- Humphris GM, Morrison T, Lindsay SJ. The Modified Dental Anxiety Scale: validation and United Kingdom norms. *Community Dental Health*. 1995;12:143–150.
- Hutchins, E. (1995). *Cognition in the Wild*. Cambridge, MA: MIT Press.
- Iacoboni, M., and Dapretto, M. (2006). The mirror neuron system and the consequences of its dysfunction. *Nature Reviews Neuroscience*, 7, 942–51.
- IAPT. *The IAPT Data Handbook: Guidance on Recording and Monitoring Outcomes to Support Local Evidence-Based Practice*. Version 1.0. 2010. See <http://www.iapt.nhs.uk>.
- Jackson, P. (1998). *Introduction to Expert Systems*. Harlow, UK: Addison-Wesley.
- Jacob, P., and Jeannerod, M. (2003). *Ways of Seeing: The Scope and Limits of Visual Cognition*. New York: Oxford University Press.
- Jadad AR, Moore RA, Carroll D. Assessing the quality of reports of randomised clinical trials: is blinding necessary? *Controlled Clinical Trials*. 1996;17:1–12.
- Jeffers, S. J. (1987). *Feel the Fear and Do It Anyway*. San Diego: Harcourt Brace Jovanovich.
- Jeffries D. Ever been HAD? *British Journal of General Practice*. 2006;56:885–886.
- Jimison H, Gorman P, Woods S, *et al.* Barriers and drivers of health information technology use for the elderly, chronically ill, and underserved. *Evidence Report/Technology Assessment*. 2008;175:1–1422.
- Jirsa, V. K., and McIntosh, A. R. (eds.) (2007). *The Handbook of Brain Connectivity*. Berlin: Springer.
- Johnson, K. (2004). Gold's theorem and cognitive science. *Philosophy of Science*, 71, 571–92.
- Johnson-Laird, P. N. (1988). *Computer and the Mind : An Introduction to Cognitive Science*. Cambridge, MA: Harvard University Press.
- Jones, J., and Roth, D. (2003). *Robot Programming: A Practical Guide to Behavior-Based Robotics*. New York: McGraw-Hill.
- Jung HP, Baerveldt C, Olesen F, *et al.* Patient characteristics as predictors of primary health care preferences: a systematic literature analysis. *Health Expectations*. 2003;6:160–181.
- Kairy D, Lehoux P, Vincent CF, *et al.* A systematic review of clinical outcomes, clinical process, healthcare utilization and costs associated with telerehabilitation. *Disability & Rehabilitation*. 2009;31:1–21.
- Kalat, J. W. (2001). *Introduction to Psychology*. Belmont, CA; London: Wadsworth.
- Kandel, E. R., Schwarz, J. H., and Jessell, T. M. (2000). *Principles of Neural Science*. New York: McGraw-Hill Medical.
- Katona C. Managing depression and anxiety in the elderly patient. *European Neuropsychopharmacology*. 2000;10:427–432.
- Kelly, W. M., Macrae, C. N., Wyland, C. L., Caglar, S., Inati, S., and Heatherton, T. F. (2002). Finding the self? An event-related fMRI study. *Journal of Cognitive Neuroscience*, 14, 785–94.
- Kendler KS, Gardner CO, Neale MC, *et al.* Genetic risk factors for major depression in men and women: similar or different heritabilities and same or partly distinct genes? *Psychological Medicine*. 2001;31:605–

- 616.
- Kendler KS. Major depression and generalised anxiety disorder same genes, (partly) different environments – revisited. *British Journal of Psychiatry*. 1996;30:68–75.
  - Kendler L, Prescott C. A population-based twin study of lifetime major depression in men and women. *Archives of General Psychiatry*. 1999;56:39–44.
  - Kendrick T, Dowrick C, McBride A, *et al.* Management of depression in UK general practice in relation to scores on depression severity questionnaires: analysis of medical record data. *British Medical Journal*. 2009;339:b750.
  - Kendrick T, King F, Albertella L, *et al.* GP treatment decisions for depression: an observational study. *British Journal of General Practice*. 2005;55:280–286.
  - Kendrick T, Stevens L, Bryant A, *et al.* Hampshire Depression Project: changes in the process of care and cost consequences. *British Journal of General Practice*. 2001;51:911–913.
  - Kennedy BL, Schwab JJ. Utilization of medical specialists by anxiety disorder patients. *Psychosomatics*. 1997;38:109–112.
  - Kessing LV. Epidemiology of subtypes of depression. *Acta Psychiatrica Scandinavica*. 2007;433:85–89.
  - Kessler D, Bennewith O, Lewis G, *et al.* Detection of depression and anxiety in primary care: follow up study. *British Medical Journal*. 2002;325:1016–1017.
  - Kessler RC, Berglund P, Demler O, *et al.* Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry*. 2005;62:593–602.
  - Kessler RC, Berglund P, Demler O, *et al.* The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *Journal of the American Medical Association*. 2003;289:3095–3105.
  - Kessler RC, Berglund PA, Dewit DJ, *et al.* Distinguishing generalized anxiety disorder from major depression: prevalence and impairment from current pure and comorbid disorders in the US and Ontario. *International Journal of Methods in Psychiatric Research*. 2002;11:99–111.
  - Kessler RC, Chiu WT, Demler O, *et al.* Prevalence, severity and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*. 2005;62:617–627.
  - Kessler RC, Greenberg PE, Mickelson KD, *et al.* The effects of chronic mental health conditions on work loss and work cut back. *Journal of Occupational and Environmental Medicine*. 2001;43:218–225.
  - Kessler RC, Sonnega A, Bromet E, *et al.* Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*. 1995;52:1048–1060.
  - Kessler RC, Stang P, Wittchen HU, *et al.* Lifetime comorbidities between social phobia and mood disorders in the US National Comorbidity Survey. *Psychological Medicine*. 1999;29:555–567.
  - Khan A, Leventhala RM, Khan S, *et al.* Suicide risk in patients with anxiety disorders: a meta-analysis of the FDA database. *Journal of Affective Disorders*. 2002;68:183–190.
  - Khanna S, Rajendra PN, Channabasavanna SM. Life events and onset of obsessive compulsive disorder. *International Journal of Social Psychiatry*. 1988;34:305–309.
  - King M, Walker C, Levy G, *et al.* Development and validation of an international risk prediction algorithm for episodes of major depression in general practice attendees: the PredictD study. *Archives of General Psychiatry*. 2008;65:1368–1376.
  - Kinnersley P, Edwards A, Hood K, *et al.* Interventions before consultations to help patients address their information needs by encouraging question asking: systematic review. *British Medical Journal*. 2008;337:485–494.
  - Kisely S, Gater R, Goldberg DP. Results from the Manchester Centre. In: Üstün TB, Sartorius N, editors. *Mental Illness in General Health Care: an International Study*. Chichester: Wiley; 1995. pp. 175–191.
  - Knapp M, Ilson S. Economic aspects of depression and

- its treatment. *Current Opinion in Psychiatry*. 2002;15:69–75.
- Knapp M. Hidden costs of mental illness. *British Journal of Psychiatry*. 2003;183:477–478.
  - Knaup C, Koesters M, Schoefer D, *et al.* Effect of feedback of treatment outcome in specialist mental healthcare: a meta-analysis. *The British Journal of Psychiatry*. 2009;195:15–22.
  - Kobak KA, Schaettle SC, Greist JH, *et al.* Computer-administered rating scales for social anxiety in a clinical drug trial. *Depression and Anxiety*. 1998;7:97–145.
  - Kobak KA, Taylor LH, Dotts SL, *et al.* A computer-administered telephone interview to identify mental disorders. *Journal of the American Medical Association*. 1997;278:905–910.
  - Koran LM, Ringold AL, Elliott MA. Olanzapine augmentation for treatment-resistant obsessive-compulsive disorder. *Journal of Clinical Psychiatry*. 2000;61:514–517.
  - Kosslyn, S. M. (1973). Scanning visual images: Some structural implications. *Perception and Psychophysics*, 14, 341–70.
  - Kosslyn, S. M., Thompson, W. L., and Ganis, G. (2006). *The Case for Mental Imagery*. Oxford: Oxford University Press.
  - Krasucki C, Ryan P, Ertan T, *et al.* The FEAR: A rapid screening instrument for generalized anxiety in elderly primary care attenders. *International Journal of Geriatric Psychiatry*. 1999;14:60–68.
  - Krefetz DG, Steer RA, Jermyn RT, *et al.* Screening HIV-infected patients with chronic pain for anxiety and mood disorders with the Beck Anxiety and Depression Inventory-Fast Screens for medical settings. *Journal of Clinical Psychology in Medical Settings*. 2004;11:283–289.
  - Krochmalik A, Jones MK, Menzies RG. Danger ideation reduction therapy (DIRT) for treatment-resistant compulsive washing. *Behaviour Research and Therapy*. 2001;39:897–912.
  - Kroenke K, Jackson JL, Chamberlin J. Depressive and anxiety disorders in patients presenting with physical complaints: clinical predictors and outcome. *The American Journal of Medicine*. 1997;103:339–347.
  - Kroenke K, Spitzer RL, Williams JB, *et al.* Anxiety disorders in primary care: prevalence, impairment, comorbidity and detection. *Annals of Internal Medicine*. 2007;146:317–325.
  - Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*. 2001;16:606–613.
  - Kupfer DJ. Long-term treatment of depression. *Journal of Clinical Psychiatry*. 1991;52:28–34.
  - Lambert MJ, Gregersen AT, Burlingame GM. The Outcome Questionnaire-45. In: Murish ME, editor. *Use of Psychological Testing for Treatment Planning and Outcome Assessment*. 3rd edn. Vol. 3. New Jersey: Erlbaum; 2004.pp. 191–234.
  - Lambert MJ, Whipple JL, Hawkins EJ. Is it time for clinicians to routinely track patient outcome? A meta-analysis. *Clinical Psychology: Science and Practice*. 2003;10:288–301.
  - Lang A, Norman S, Means-Christensen A, *et al.* Abbreviated Brief Symptom Inventory for use as an anxiety and depression screening instrument in primary care. *Depression and Anxiety*. 2009;26:537–543.
  - LaSalle VH, Cromer KR, Nelson KN, *et al.* Diagnostic interview assessed neuropsychiatric disorder comorbidity in 334 individuals with obsessive compulsive disorder. *Depression and Anxiety*. 2004;19:163–173.
  - Lashley, K. S. (1951). The problem of serial order in behavior. In Jeffress, A. L. (ed.), *Cerebral Mechanisms in Behavior: The Hixon Symposium*. New York: Wiley.
  - Layard R. *The Depression Report: a New Deal for Depression and Anxiety Disorders*. London: Centre for Economic Performance; 2006. Available at: <http://cep.lse.ac.uk/pubs/download/special/depressionrport.pdf>.
  - Lebiere, C. (2003). ACT. In Nadel, L. (ed.), *Encyclopedia of Cognitive Science*. New York: Nature Publishing Group.
  - Lecrubier Y, Sheehan D, Weiller E, *et al.* The MINI



- International Neuropsychiatric Interview (M.I.N.I.): a short diagnostic structured interview: reliability and validity according to the CIDI. *European Psychiatry*. 1997;12:224–231.
- Leon AC, Portera L, Weissman MM. The social costs of anxiety disorders. *British Journal of Psychiatry*. 1995;166:19–22.
  - Leslie, A. M. (1987). Pretense and representation: The origins of “theory of mind.” *Psychological Review*, 94, 412–26.
  - Leslie, A. M., and Polizzi, P. (1998). Inhibitory processing in the false belief task: Two conjectures. *Developmental Science*, 1, 247–53.
  - Leslie, A. M., Friedman, O., and German, T. P. (2004). Core mechanisms in “theory of mind.” *Trends in Cognitive Sciences*, 8, 529–33.
  - Leslie, A.M., German, T. P., and Polizzi, P. (2005). Belief–desire reasoning as a process of selection. *Cognitive Psychology*, 50, 45–85.
  - Lewinsohn PM, Solomon A, Seeley JR, *et al.* Clinical implications of ‘subthreshold’ depressive symptoms. *Journal of Abnormal Psychology*. 2000;109:345–351.
  - Liebowitz MR, Gorman JM, Fyer AJ, *et al.* Social phobia: review of a neglected anxiety disorder. *Archives of General Psychiatry*. 1985;42:729–736.
  - Lindsay J, Jagger C, Hibbett M, *et al.* Knowledge, uptake and availability of health and social services among Asian Gujarati and white elderly persons. *Ethnicity and Health*. 1997;2:59–69.
  - Lochner C, Stein DJ. Heterogeneity of obsessive-compulsive disorder: a literature review. *Harvard Review of Psychiatry*. 2003;11:113–132.
  - Logothetis, N. K. (2001). The underpinnings of the BOLD functional magnetic resonance imaging signal. *Journal of Neuroscience*, 23, 3963–71.
  - Logothetis, N. K. (2008). What we can do and what we cannot do with fMRI. *Nature*, 453, 869–78.
  - Logothetis, N. K., Pauls, J., Augath, M., Trinath, T., and Oeltermann, A. (2001). Neurophysiological investigation of the fMRI signal. *Nature*, 412, 150–7.
  - Love AW, Kissane DW, Bloch S, *et al.* Diagnostic efficiency of the Hospital Anxiety and Depression Scale in women with early stage breast cancer. *Australian and New Zealand Journal of Psychiatry*. 2002;36:246–250.
  - Lovett, M. C., and Anderson, J. R. (2005). Thinking as a production system. In Holyoak, K. J. and Morrison, R. G. (eds.), *The Cambridge Handbook of Thinking and Reasoning*. Cambridge: Cambridge University Press.
  - Lowe B, Spitzer RL, Grafe K, *et al.* Comparative validity of three screening questionnaires for DSM-IV depressive disorders and physicians' diagnoses. *Journal of Affective Disorders*. 2004;78:131–140.
  - Luck, S. J. (2005). *An Introduction to the Event-Related Potential Technique*. Cambridge, MA: MIT Press.
  - Luck, S. J., and Ford, M. A. (1998). On the role of selective attention in visual perception. *Proceedings of the National Academy of Sciences, USA*, 95, 825–30.
  - Luria, A. R. (1970). The functional organization of the brain. *Scientific American*, 222, 66–72.
  - Macdonald, C., and Macdonald, G. (1995). *Connectionism*. Oxford, UK; Cambridge, MA: Blackwell.
  - Machery, E. (2008). Massive modularity and the flexibility of human cognition. *Mind and Language*, 23, 263–72.
  - Malhi GS, Parker GB, Greenwood J. Structural and functional models of depression: from sub-types to substrates. *Acta Psychiatrica Scandinavica*. 2005;111:94–105.
  - Mann JJ, Apter A, Bertolote J, *et al.* Suicide prevention strategies: a systematic review. *Journal of the American Medical Association*. 2005;294:2064–2074.
  - Mann T. *Clinical Guidelines: Using Clinical Guidelines to Improve Patient Care within the NHS*. London: Department of Health; 1996.
  - Marciniak M, Lage MJ, Landbloom RP, *et al.* Medical and productivity costs of anxiety disorders: case control study. *Depression and Anxiety*. 2004;19:112–120.
  - Marciniak MD, Lage MJ, Dunayevich E, *et al.* The cost of treating anxiety: the medical and demographic correlates that impact total medical costs. *Depression and Anxiety*. 2005;21:178–184.

- Marcus, G. (2003). *The Algebraic Mind: Integrating Connectionism and Cognitive Science*. Cambridge, MA: MIT Press.
- Marcus, G., Ullman, M., Pinker, S., Hollander, M., Rosen, T. J., and Xu, F. (1992). *Overregularization in Language Acquisition*. Chicago: University of Chicago Press.
- Mareschal, D., and Johnson, S. P. (2002). Learning to perceive object unity: A connectionist account. *Developmental Science*, 5, 151–85.
- Mareschal, D., Plunkett, K., and Harris, P. (1995). Developing object permanence: A connectionist model. In Moore, J. D. and Lehman, J. F. (eds.), *Proceedings of the Seventeenth Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Lawrence Erlbaum.
- Marks I. Behaviour therapy for obsessive-compulsive disorder: a decade of progress. *Canadian Journal of Psychiatry*. 1997;42:1021–1027.
- Marks J, Goldberg DP, Hillier VF. Determinants of the ability of general practitioners to detect psychiatric illness. *Psychological Medicine*. 1979;9:337–353.
- Marr, D. (1982). *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. San Francisco: W. H. Freeman.
- Marr, D., and Hildreth, E. (1980). Theory of edge detection. *Proceedings of the Royal Society of London*, 204, 187–217.
- Marshall M, Crowther R, Almaraz-Serrano AM, *et al.* Systematic reviews of the effectiveness of day care for people with severe mental disorders: (1) acute day hospital versus admission; (2) vocational rehabilitation; (3) day hospital versus outpatient care. *Health Technology Assessment*. 2001;5:1–75.
- Matarić, M. (1997). Behavior-based control: Examples from navigation, learning, and group behavior. *Journal of Experimental and Theoretical Artificial Intelligence*, 9, 323–36.
- Matarić, M. (1998). Behavior-based robotics as a tool for synthesis of artificial behavior and analysis of natural behavior. *Trends in Cognitive Science*, 2, 82–7.
- Matarić, M. (2007). *The Robotics Primer*. Cambridge, MA: MIT Press.
- McClelland, J. L., Rumelhart, D. E., and Group, the PDP Research (1986). *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 2: Psychological and Biological Models. Cambridge, MA: MIT Press.
- McClelland, J. L., and Jenkins, E. (1991). Nature, nurture, and connectionism: Implications for connectionist models of development. In Lehn, K. (ed.), *Architectures for Intelligence: The 22nd (1988) Carnegie Symposium on Cognition*. Hillsdale, NJ: Lawrence Erlbaum.
- McClelland, J. L., and Patterson, K. (2002). Rules or connections in past-tense inflections: What does the evidence rule out? *Trends in Cognitive Sciences*, 6, 465–72.
- McCrone P, Dhanasiri S, Patel A, *et al.* *Paying the Price: the Cost of Mental Health Care in England to 2026*. London: King's Fund; 2008. Available at: [http://www.kingsfund.org.uk/publications/paying\\_the\\_price.html](http://www.kingsfund.org.uk/publications/paying_the_price.html).
- McCulloch, W. S., and Pitts, W. H. (1943). A logical calculus of the ideas immanent in nervous activity. *Bulletin of Mathematical Biophysics*, 5, 115–33.
- McLeod, P., Plunkett, K., and Rolls, E. T. (1998). *Introduction to the Connectionist Modelling of Cognitive Processes*. Oxford; New York: Oxford University Press.
- McManus S, Meltzer H, Brugha T, *et al.* *Adult Psychiatric Morbidity in England, 2007: Results of a Household Survey*. Leicester: Department of Health Sciences, University of Leicester; 2009.
- McMillan D, Gilbody S, Beresford E, *et al.* Can we predict suicide and non-fatal self-harm with the Beck Hopelessness Scale? A meta-analysis. *Psychological Medicine*. 2007;37:769–778.
- McNally RJ. *Remembering Trauma*. Cambridge, MA: Harvard University Press; 2003.
- Means-Christensen AJ, Sherbourne CD, Roy-Byrne PP, *et al.* Using five questions to screen for five

- common mental disorders in primary care: diagnostic accuracy of the Anxiety and Depression Detector. *General Hospital Psychiatry*. 2006;28:108–118.
- Medsker, L. R., and Schulte, T. W. (2003). Expert systems. In Nadel, L. (ed.), *Encyclopedia of Cognitive Science* (vol. 2). New York: Nature Publishing Group.
  - Meghani SH, Brooks JM, Gipson-Jones T, *et al.* Patient-provider race-concordance: does it matter in improving minority patients' health outcomes? *Ethnicity & Health*. 2009;14:107–130.
  - Meltzer H, Bebbington P, Brugha T, *et al.* The reluctance to seek treatment for neurotic disorders. *Journal of Mental Health*. 2000;9:319–327.
  - Michalski, R. S., and Chilausky, R. L. (1980). Learning by being told and learning from examples: An experimental comparison of the two methods for knowledge acquisition in the context of developing an expert system for soybean disease diagnosis. *International Journal of Policy Analysis and Information Systems*, 4, 125–61.
  - Microsoft. Microsoft Word and Excel. Redmond, Washington: Microsoft; 2007. computer software
  - Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81–97.
  - Miller, G. A. (2003). The cognitive revolution: A historical perspective. *Trends in Cognitive Science*, 7, 141–4.
  - Milner, A. D., and Goodale, M. A. (2006). *The Visual Brain in Action* (2nd edn.). Oxford: Oxford University Press.
  - Milner, B. (1966). Amnesia following operation on the temporal lobes. In Whitty, C. W. M. and Zangwill, O. L. (eds.), *Amnesia*. London: Butterworth.
  - Minsky, M., and Papert, S. (1969). *Perceptrons*. Cambridge, MA: MIT Press.
  - Mishkin, M. L., Ungerleider, G., and Macko, K. A. (1983/2001). Object vision and spatial vision: Two cortical pathways. *Trends in NeuroSciences*, 6, 414–17. Reprinted in W. Bechtel, P. Mandik, Mundale, J., and Stufflebeam, R. (eds.) (2001), *Philosophy and the Neurosciences: A Reader*. Oxford: Blackwell.
  - Mitchell A, Vaze A, Sanjay Rao S. Clinical diagnosis of depression in primary care: a meta- analysis. *Lancet*. 2009;374:609–619.
  - Mitchell AJ, Subramaniam H. Prognosis of depression in old age compared to middle age: a systematic review of comparative studies. *American Journal of Psychiatry*. 2005;162:1588–1601.
  - Mitchell, J. P., Banaji, M. R., and Macrae, C. N. (2005). The link between social cognition and self-referential thought in the medial prefrontal cortex. *Journal of Cognitive Neuroscience*, 17, 1306–15.
  - Mitchell, T. M. (1997). *Machine Learning*. Boston, MA: McGraw-Hill.
  - Moffat J, Sass B, McKenzie K, *et al.* Improving pathways into mental health care for black and ethnic minority groups: a systematic review of the grey literature. *International Review of Psychiatry*. 2009;21:439–449.
  - Montgomery SA, Kasper S, Stein DJ, *et al.* Citalopram 20 mg, 40 mg and 60 mg are all effective and well tolerated compared with placebo in obsessive compulsive disorder. *International Clinical Psychopharmacology*. 2001;16:75–86.
  - Moscicki EK. Epidemiology of completed and attempted suicide: toward a framework for prevention. *Clinical Neuroscience Research*. 2001;1:310–323.
  - Moussavi S, Chatterji S, Verdes E, *et al.* Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *Lancet*. 2007;370:851–858.
  - Mukamel, R., Gelbard, H., Arieli, A., Hasson, U., Fried, I., and Malach, R. (2005). Coupling between neuronal firing, field potentials, and fMRI in human auditory cortex. *Science*, 309, 951–4.
  - Munakata, Y. (2001). Graded representations in behavioral dissociations. *Trends in Cognitive Science*, 5, 309–15.
  - Munakata, Y., and McClelland, J. L. (2003). Connectionist models of development. *Developmental Science*, 6, 413–29.
  - Munakata, Y., McClelland, J. L., Johnson, M. H., and

- Siegler, R. S. (1997). Rethinking infant knowledge: Toward an adaptive process account of successes and failures in object permanence tasks. *Psychological Review*, 104, 686–713.
- Murray C, Lopez AD. Alternative projections of mortality and disability by cause 1990–2020: Global Burden of Disease Study. *Lancet*. 1997;349:1498–1504.
  - Murray CJL, Lopez AD, Jamison DT. The global burden of disease in 1990: summary results, sensitivity analysis and future directions. *Bulletin of the World Health Organization*. 1994;72:495–509.
  - Narrow WE, Rae DS, Robins LN, *et al.* Revised prevalence estimates of mental disorders in the United States: using a clinical significance criterion to reconcile 2 surveys' estimates. *Archives of General Psychiatry*. 2002;59:115–123.
  - National Patient Safety Agency. Preventing Suicide: a Toolkit for Mental Health Services. London: NHS NPSA; 2009.
  - NCCMH. Alcohol-use Disorders: Diagnosis, Assessment and Management of Harmful Drinking and Alcohol Dependence. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2011. Full guideline
  - NCCMH. Antenatal and Postnatal Mental Health: Clinical Management and Service Guidance. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2007. Full guideline
  - NCCMH. Depression in Adults with a Chronic Physical Health Problem: Treatment and Management. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2010. Full guideline
  - NCCMH. Depression: Management of Depression in Primary and Secondary Care. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2004. Full guideline
  - NCCMH. Depression: the Treatment and Management of Depression in Adults. Updated edn. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2010. Full guideline
  - NCCMH. Drug Misuse: Opioid Detoxification. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2008. Full guideline
  - NCCMH. Drug Misuse: Psychosocial Interventions. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2008. Full guideline
  - NCCMH. Generalised Anxiety Disorder in Adults: Management in Primary, Secondary and Community Care. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2011. Full guideline
  - NCCMH. Obsessive-compulsive Disorder: Core Interventions in the Treatment of Obsessive-compulsive Disorder and Body Dysmorphic Disorder. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2006. Full guideline
  - NCCMH. Post-traumatic Stress Disorder (PTSD): the Management of PTSD in Adults and Children in Primary and Secondary Care. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2005. Full guideline
  - NCCMH. Self-harm: Longer-term Management. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; (forthcoming)
  - NCCMH. Self-harm: the Short-term Physical and Psychological Management and Secondary Prevention of Self-harm in Primary and Secondary Care. Leicester & London: The British Psychological Society & the Royal College of Psychiatrists; 2004. Full guideline
  - Nelson JC, Delucchi K, Schneider LS. Anxiety does not predict response to antidepressant treatment in late life depression: results of a meta-analysis. *International Journal of Geriatric Psychiatry*. 2009;24:539–544.
  - Nestadt G, Addington A, Samuels J, *et al.* The identification of OCD: related subgroups based on comorbidity. *Biological Psychiatry*. 2003;53:914–920.
  - Neumeyer-Gromen A, Dipl-Soz TL, Stark K, *et al.* Disease management programs for depression: a



- systematic review and meta-analysis of randomized controlled trials. *Medical Care*. 2004;42:1211–1221.
- New Zealand Guidelines Group. Identification of Common Mental Disorders and Management of Depression in Primary Care: an Evidence-Based Best Practice Guideline. Wellington: New Zealand Guidelines Group; 2008.
  - Newman MG, Zuellig AR, Kachin KE, *et al.* Preliminary reliability and validity of the Generalized Anxiety Disorder Questionnaire-IV: a revised self-report diagnostic measure of generalized anxiety disorder. *Behaviour Therapy*. 2002;33:215–233.
  - Newmeyer, F. J. (1986). *Linguistic Theory in America*. London: Academic Press.
  - Newth S, Rachman S. The concealment of obsessions. *Behaviour Research and Therapy*. 2001;39:457–464.
  - NHS Information Centre. Quality and Outcomes Framework Database. 2008. website. Available at: [www.ic.nhs.uk/qof](http://www.ic.nhs.uk/qof).
  - NICE. Alcohol-use Disorders: Diagnosis, Assessment and Management of Harmful Drinking and Alcohol Dependence. 2011. NICE Clinical Guideline 115. Available at: [www.nice.org.uk/CG115](http://www.nice.org.uk/CG115). NICE guideline
  - NICE. Antenatal and Postnatal Mental Health: Clinical Management and Service Guidance. 2007. NICE Clinical Guideline 45. Available at: [www.nice.org.uk/CG45](http://www.nice.org.uk/CG45) NICE guideline
  - NICE. Anxiety: Management of Anxiety (Panic Disorder, With Or Without Agoraphobia, and Generalised Anxiety Disorder) in Adults in Primary, Secondary and Community Care. 2004. NICE Clinical Guideline 22. Available at: [www.nice.org.uk/CG22](http://www.nice.org.uk/CG22) NICE guideline
  - NICE. Bipolar Disorder: the Management of Bipolar Disorder in Adults, Children and Adolescents, in Primary and Secondary Care. 2006. NICE Clinical Guideline 38. Available at: [www.nice.org.uk/CG38](http://www.nice.org.uk/CG38) NICE guideline
  - NICE. Depression in Adults with a Chronic Physical Health Problem: Treatment and Management. 2009. NICE Clinical Guideline 91. Available at: [www.nice.org.uk/CG91](http://www.nice.org.uk/CG91) NICE guideline
  - NICE. Depression: Management of Depression in Primary and Secondary Care. 2004. NICE Clinical Guideline 23. Available at: [www.nice.org.uk/CG23](http://www.nice.org.uk/CG23) NICE guideline
  - NICE. Depression: the Treatment and Management of Depression in Adults. 2009. NICE Clinical Guideline 90. Available at: [www.nice.org.uk/CG90](http://www.nice.org.uk/CG90) NICE guideline
  - NICE. Drug Misuse: Opioid Detoxification. 2007. NICE Clinical Guideline 52. Available at: [www.nice.org.uk/CG52](http://www.nice.org.uk/CG52) NICE guideline
  - NICE. Drug Misuse: Psychosocial Interventions. 2007. NICE Clinical Guideline 51. Available at: [www.nice.org.uk/CG51](http://www.nice.org.uk/CG51) NICE guideline
  - NICE. Generalised Anxiety Disorder and Panic Disorder (With or Without Agoraphobia) in Adults: Management in Primary, Secondary and Community Care. 2011. NICE Clinical Guideline 113. Available at: [www.nice.org.uk/CG113](http://www.nice.org.uk/CG113) NICE guideline
  - NICE. Medicines Adherence: Involving Patients in Decisions about Prescribed Medicines and Supporting Adherence. 2009. NICE Clinical Guideline 76. Available at: [www.nice.org.uk/CG76](http://www.nice.org.uk/CG76).
  - NICE. Obsessive-compulsive Disorder: Core Interventions in the Treatment of Obsessive-compulsive Disorder and Body Dysmorphic Disorder. 2005. NICE Clinical Guideline 31. Available at: [www.nice.org.uk/CG31](http://www.nice.org.uk/CG31) NICE guideline
  - NICE. Post-traumatic Stress Disorder (PTSD): the Management of PTSD in Adults and Children in Primary and Secondary Care. 2005. NICE Clinical Guideline 26. Available at: [www.nice.org.uk/CG26](http://www.nice.org.uk/CG26) NICE guideline
  - NICE. Self-harm: Longer-term Management. 2011. NICE Clinical Guideline 133. Available at: [www.nice.org.uk/CG133](http://www.nice.org.uk/CG133). NICE guideline
  - NICE. Self-harm: the Short-term Physical and Psychological Management and Secondary Prevention of Self-harm in Primary and Secondary Care. 2004. NICE Clinical Guideline 16. Available at: [www.nice.org.uk/CG16](http://www.nice.org.uk/CG16) NICE guideline

- NICE. The Guidelines Manual. London: NICE; 2009.
- Nichols, S., Stich, S., Leslie, A., and Klein, D. (1996). Varieties of off-line simulation. In Carruthers, P. and Smith, P. K. (eds.), *Theories of Theory of Mind*. Cambridge: Cambridge University Press.
- Nicholson A, Kuper H, Hemingway H. Depression as an aetiologic and prognostic factor in coronary heart disease: a meta-analysis of 6362 events among 146,538 participants in 54 observational studies. *European Heart Journal*. 2006;27:2763–2774.
- Nilsson, N. J. (1984). Shakey the robot. SRI International, Technical Note 323.
- Noyes J, Clarkson C, Crowe RR, *et al.* A family study of generalized anxiety disorder. *American Journal of Psychiatry*. 1987;144:1019–1024.
- Nuechterlein KH, Dawson ME. A heuristic vulnerability/stress model of schizophrenic episodes. *Schizophrenia Bulletin*. 1984;10:300–312.
- Oakley Browne MA, Wells JE, Scott KM, *et al.* Lifetime prevalence and projected lifetime risk of DSM-IV disorders in Te Rau Hinengaro: the New Zealand Mental Health Survey. *Australian and New Zealand Journal of Psychiatry*. 2006;40:865–874.
- Oaksford, M., and Chater, N. (1994). A rational analysis of the selection task as optimal data selection. *Psychological Review*, 101, 608–31.
- O'Dwyer LA, Baum F, Kavanagh A, *et al.* Do area-based interventions to reduce health inequalities work? A systematic review of evidence. *Critical Public Health*. 2007;17:317–335.
- O'Grady, W., Archibald, J., Aronoff, M., and Rees-Miller, J. (2005). *Contemporary Linguistics: An Introduction* (5th edn.). Boston: Bedford/St. Martin's.
- Olfson M, Gameroff MJ. Generalized anxiety disorder, somatic pain and health care costs. *General Hospital Psychiatry*. 2007;29:310–316.
- Orban, G. A., Essen, D., and Vanduffel, W. (2004). Comparative mapping of higher visual areas in monkeys and humans. *Trends in Cognitive Science*, 8, 315–24.
- O'Reilly, R. C., and Munakata, Y. (2000). *Computational Explorations in Computational Neuroscience: Understanding the Mind by Simulating the Brain*. Cambridge, MA: MIT Press.
- Ostler K, Thompson C, Kinmonth ALK, *et al.* The influence of socioeconomic deprivation on the prevalence and outcome of depression in primary care: the Hampshire Depression Project. *British Journal of Psychiatry*. 2001;178:12–17.
- Ouimette P, Cronkite R, Prins A, *et al.* Posttraumatic stress disorder, anger and hostility, and physical health status. *The Journal of Nervous and Mental Disease*. 2004;192:566.
- Ozer EJ, Best SR, Lipsey TL, *et al.* Predictors of post-traumatic stress disorder and symptoms in adults: a meta-analysis. *Psychological Bulletin*. 2003;129:52–73.
- Page, M. (2000). Connectionist modeling in psychology: A localist manifesto. *Behavioral and Brain Sciences*, 23, 443–67.
- Panella M, Demarchi ML, Carnevale L, *et al.* The management of schizophrenia through clinical pathways. *Value Health*. 2006;9:318.
- Parkerson GRJ, Broadhead WE. Screening for anxiety and depression in primary care with the Duke Anxiety-Depression Scale. *Family Medicine*. 1997;29:177–181.
- Patel V, Araya R, de Lima M, *et al.* Women, poverty and common mental disorders in four restructuring societies. *Social Science & Medicine*. 1999;49:1461–1471.
- Patel V, Kirkwood BR, Pednekar S, *et al.* Gender disadvantage and reproductive health risk factors for common mental disorders in women. *Archives of General Psychiatry*. 2006;63:404–413.
- Patten SB. Are the Brown and Harris 'vulnerability factors' risk factors for depression? *Journal of Psychiatry and Neuroscience*. 1991;16:267–271.
- Paulden M, Palmer S, Hewitt C, *et al.* Screening for postnatal depression in primary care: cost effectiveness analysis. *British Medical Journal*. 2010;339:b5203.
- Perner, J. (1991). *Understanding the Representational Mind* (new edn. 1993). Cambridge, MA: MIT Press.

- Perner, J., and Leekam, S. (2008). The curious incident of the photo that was accused of being false: Issues of domain specificity in development, autism, and brain imaging. *Quarterly Journal of Experimental Psychology*, 61, 76–89.
- Petersen T, Andreotti CF, Chelminski I, *et al.* Do comorbid anxiety disorders impact treatment planning for outpatients with major depressive disorder? *Psychiatry Research*. 2009;169:7–11.
- Petersen, S. E., and Fiez, J. A. (2001). The processing of single words studied with positron emission tomography. In Bechtel, W., P. Mandik, J. Mundale, and R. S. Stufflebeam (eds.), *Philosophy and the Neurosciences: A Reader*. Malden, MA: Blackwell.
- Petersen, S. E., Fox, P. T., Posner, M. I., and Mintun, M. (1988). Positron emission tomographic studies of the cortical anatomy of single-word processing. *Nature*, 331, 585–9.
- Pfeifer, R., Iida, F., and Gómez, G. (2006). Morphological computation for adaptive behavior and cognition. *International Congress Series*, 1291, 22–9.
- Phillips, M. L., Young, A. W., Senior, C., *et al.* (1997). A specific neural substrate for perceiving facial expressions of disgust. *Nature*, 389, 495–8.
- Piaget, J. (1954). *The Construction of Reality in the Child*. New York: Basic Books.
- Piccinelli M, Wilkinson G. Gender differences in depression: critical review. *British Journal of Psychiatry*. 2000;177:486–492.
- Piccinini, G. (2004). The first computational theory of mind and brain: A close look at McCulloch and Pitt's "Logical calculus of the ideas immanent in nervous activity." *Synthese*, 141, 175–215.
- Pies R. Should psychiatrists use atypical antipsychotics to treat nonpsychotic anxiety. *Psychiatry*. 2009;6:29–37.
- Pignone M, DeWalt DA, Sheridan S, *et al.* Interventions to improve health outcomes for patients with low literacy: a systematic review. *Journal of General Internal Medicine*. 2005;20:185–192.
- Pignone MP, Gaynes BN, Rushton JL, *et al.* Screening for depression in adults: a summary of the evidence for the US Preventive Services Task Force. *Annals of Internal Medicine*. 2002;136:765–776.
- Pilling S, Mavranzouli I. Economic model misrepresents NICE guidance. *British Medical Journal*. 2010 February 20; 2010. Letter
- Pinker, S. (1997). *How the Mind Works*. New York: Norton.
- Pinker, S. (2005). So how does the mind work? *Mind and Language*, 20, 1–24.
- Pinker, S., and Prince, A. (1988a). On language and connectionism: Analysis of a parallel distributed processing model of language acquisition. *Cognition*, 28, 73–193.
- Pinker, S., and Prince, A. (1988b). Rules and connections in human language. In Morris, R. (ed.), *Parallel Distributed Processing*. Oxford: Oxford University Press.
- Pinker, S., and Ullman, M. T. (2002). The past and future of the past tense. *Trends in Cognitive Sciences*, 6, 456–63.
- Plaut, D. C., Banich, M. T., and Mack, M. (2003). Connectionist modeling of language: Examples and implications. In Banich, M. T. and Mack, M. (eds.), *Mind, Brain, and Language: Multidisciplinary Perspectives*. Mahwah, NJ: Lawrence Erlbaum.
- Ploeg J, Feightner J, Hutchison B, *et al.* Effectiveness of preventive primary care outreach interventions aimed at older people: meta-analysis of randomized controlled trials. *Canadian Family Physician*. 2005;51:1244–1245.
- Plotnik, R. (2005). *Introduction to Psychology*. Belmont, CA: Wadsworth Thomson Learning.
- Plunkett, K., and Elman, J. L. (1997). *Exercises in Rethinking Innateness: A Handbook for Connectionist Simulations*. Cambridge, MA: MIT Press.
- Plunkett, K., and Marchman, V. (1993). From rote learning to system building: Acquiring verb morphology in children and connectionist nets. *Cognition*, 48, 21–69.
- Poldrack, R. A. (2006). Can cognitive processes be inferred from neuroimaging data? *Trends in Cognitive Sciences*, 10, 59–63.

- Pollard, P., and Evans, J. St. B. T. (1987). Content and context effects in reasoning. *American Journal of Psychology*, 100, 41–60.
- Pompili M, Serfini G, Del Casale A, *et al.* Improving assessment in mood disorders: the struggle against relapse, reoccurrence and suicide risk. *Expert Review of Neurotherapeutics*. 2009;9:985–1004.
- Poole NA, Morgan JF. Validity and reliability of the Hospital Anxiety and Depression Scale in a hypertrophic cardiomyopathy clinic: the HADS in a cardiomyopathy population. *General Hospital Psychiatry*. 2006;28:5–58.
- Popay J, Roberts H, Sowden A, *et al.* Guidance on the Conduct of Narrative Synthesis in Systematic Reviews: a Product from the ESRC Methods Programme (Version I). Lancaster: Institute of Health Research; 2006. 2006.
- Port, R. F., and Gelder, T. (1995). *Mind as Motion: Explorations in the Dynamics of Cognition*. Cambridge, MA:MIT Press.
- Posner, M. I. (1989). *Foundations of Cognitive Science*. Cambridge, MA: MIT Press.
- Posner, M. I. (ed.) (2004). *The Cognitive Neuroscience of Attention*. New York: Guilford.
- Posner, M. I., and Raichle, M. E. (1994). *Images of Mind*. New York: Scientific American Library.
- Powell J. Systematic review of outreach clinics in primary care in the UK. *Journal of Health Services Research and Policy*. 2002;7:177–178.
- Priest RG, Vize C, Roberts A, *et al.* Lay people's attitudes to treatment of depression: results of opinion poll for Defeat Depression Campaign just before its launch. *British Medical Journal*. 1996;313:858–859.
- Prince, A., and Pinker, S. (1988). Rules and connections in human language. *Trends in Neurosciences*, 11, 195–202.
- Prins MA, Verhaak PFM, Bensing JM, *et al.* Health beliefs and perceived need for mental health care of anxiety and depression: the patients' perspective explored. *Clinical Psychology Review*. 2008;28:1038–1058.
- Pylyshyn, Z. (1980). *Computation and cognition: Issues in the foundations of cognitive science*. Behavioral and Brain Sciences, 3, 111–69.
- Pylyshyn, Z. (1984). *Computation and Cognition: Toward a Foundation for Cognitive Science*. Cambridge, MA:MIT Press.
- Pylyshyn, Z. (ed.) (1987). *The Robot's Dilemma: The Frame Problem in Artificial Intelligence*. Norwood, NJ:Ablex.
- Rachman S. A cognitive theory of compulsive checking. *Behaviour Research and Therapy*. 2002;40:625–639.
- Rachman S. A cognitive theory of obsessions: elaborations. *Behaviour Research and Therapy*. 1998;36:385–401.
- Rachman S. Fear of contamination. *Behaviour Research and Therapy*. 2004;42:1227–1255.
- Raichle, M. E., and Mintun, M. A. (2006). Brain work and brain imaging. *Annual Review of Neuroscience*, 29,449–76.
- Ramachandani P, Stein A. The impact of parental psychiatric disorder on children. *British Medical Journal*. 2003;327:242–243.
- Ramnani, N., Behrens, T. E. J., Penny, W., and Matthews, P. M. (2004). New approaches for exploring functional and anatomical connectivity in the human brain. *Biological Psychiatry*, 56, 613–19.
- Ramsey, W., Stich, S. P., and Rumelhart, D. E. (1991). *Philosophy and Connectionist Theory*. Hillsdale, NJ:Lawrence Erlbaum.
- Rankin, L. (2015). *The Fear Cure: Cultivating Courage as Medicine for the Body, Mind and Soul*. London: HayHouse.
- Rees, G., Friston, K., and Koch, C. (2000). A direct quantitative relationship between the functional properties of human and macaque V5. *Nature Neuroscience*, 3, 716–23.
- Ricard, M. (2003). *Happiness: A Guide to Developing Life's Most Important Skill*. New York: Little Brown.
- Richards M, Maughan B, Hardy R, *et al.* Long-term affective disorder in people with mild intellectual disability. *British Journal of Psychiatry*. 2001;179:523–527.
- Ritter, F. E. (2003). Soar. In Nadel, L. (ed.),



- Encyclopedia of Cognitive Science. New York: Nature Publishing Group.
- Rizzolatti, G., and Sinigaglia, C. (2008). *Mirrors in the Brain: How Our Minds Share Actions and Emotions*. Trans. F. Anderson. Oxford: Oxford University Press.
  - Rizzolatti, G., Fogassi, L., and Gallese, V. (2001). Neurophysiological mechanisms underlying the understanding and imitation of action. *Nature Reviews Neuroscience*, 2, 661–70.
  - Rizzolatti, G., Fogassi, L., and Gallese, V. (2006). *Mirrors of the mind*. *Scientific American*, 295, 54–61.
  - Robbins, R., and Aydede, M. (eds.) (2008). *The Cambridge Handbook of Situated Cognition*. Cambridge: Cambridge University Press.
  - Rodriguez M, Valentine JM, Son JB, *et al.* Intimate partner violence and barriers to mental health care for ethnically diverse populations of women. *Trauma Violence Abuse*. 2009;10:358–374.
  - Roediger, H. L., Dudai, Y., and Fitzpatrick, S. M. (2007). *Science of Memory: Concepts*. Oxford; New York: Oxford University Press.
  - Rogers A, Hassell K, Nicolaas G. *Demanding Patients? Analysing the Use of Primary Care*. Milton Keynes: Open University Press; 1999.
  - Rogers, R. (1971). *Mathematical Logic and Formalized Theories*. Amsterdam: North-Holland.
  - Rogers, T. T., and McClelland, J. L. (2004). *Semantic Cognition: A Parallel Distributed Processing Approach*. Cambridge, MA: MIT Press.
  - Rohde, D., and Plaut, D. C. (1999). Language acquisition in the absence of explicit negative evidence: How important is starting small? *Cognition*, 72, 67–109.
  - Rollins, M. (1989). *Mental Imagery: The Limits of Cognitive Science*. Cambridge, MA: MIT Press.
  - Rolls, E. T., and Milward, T. (2000). A model of invariant object recognition in the visual system: Learning rules, activation functions, lateral inhibition, and information-based performance measures. *Neural Computation*, 12, 2547–72.
  - Rosenblatt, F. (1958). The perceptron: A probabilistic model for information storage and organization in the brain. *Psychological Review*, 65, 386–408.
  - Rosenfeld R, Dar R, Anderson D, *et al.* A computer-administered version of the Yale-Brown Obsessive Compulsive Scale. *Psychological Assessment*. 1992;4:329–332.
  - Roth A, Fonagy P. *What Works For Whom? A Critical Review of Psychotherapy Research*. New York: Guilford Publications; 2004.
  - Rowe SK, Rapaport MH. Classification and treatment of sub-threshold depression. *Current Opinion in Psychiatry*. 2006;19:9–13.
  - Rowe, J. B., and Frackowiak, R. S. J. (2003). Neuroimaging. In Nadel, L. (ed.), *Encyclopedia of Cognitive Science*. New York: Nature Publishing Group.
  - Rumelhart, D. E. (1989). The architecture of mind: A connectionist approach. In Posner, M. I. (ed.), *Foundations of Cognitive Science*. Cambridge, MA: MIT Press. Reprinted in Haugeland, J. (ed.) (1997), *Mind Design II: Philosophy, Psychology, Artificial Intelligence*. Cambridge, MA: MIT Press.
  - Rumelhart, D. E., and McClelland, J. L. (1986). On learning the past tenses of English verbs. In McClelland, J. L., Rumelhart, D. E., and The PDP Research Group (eds.), *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 2: Psychological and Biological Models. Cambridge, MA: MIT Press.
  - Rumelhart, D. E., McClelland, J. L., and The PDP Research Group (1986). *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 1: Foundations. Cambridge, MA: MIT Press. For vol. 2, see McClelland *et al.* (1986).
  - Rush JA, Trivedia MT, Carmodya TJ, *et al.* One-year clinical outcomes of depressed public sector outpatients: a benchmark for subsequent studies. *Biological Psychiatry*. 2004;56:46–53.
  - Russell, S. J., and Norvig, P. (2003). *Artificial Intelligence: A Modern Approach* (2nd edn.). Upper Saddle River: Prentice Hall.
  - Russell, S. J., and Norvig, P. (2009). *Artificial Intelligence: A Modern Approach* (3rd edn.). New Delhi: Prentice-Hall of India.

- Salkovskis PM, Shafran R, Rachman S, *et al.* Multiple pathways to inflated responsibility beliefs in obsessional problems: possible origins and implications for therapy and research. *Behaviour Research and Therapy*. 1999;37:1055–1072.
- Salokangas RKR, Poutanen O. Risk factors for depression in primary care: findings of the TADEP project. *Journal of Affective Disorders*. 1998;48:171–180.
- Samson, D., Apperly, I. A., Chiavarino, C., and Humphreys, G. W. (2004). Left temporoparietal junction is necessary for representing someone else's belief. *Nature Neuroscience*, 7, 499–500.
- Samson, D., Apperly, I. A., Kathirgamanathan, U., and Humphreys, G. W. (2005). Seeing it my way: A case of a selective deficit in inhibiting self-perspective. *Brain: A Journal of Neurology*, 128, 1102–11.
- Sareen J, Jacobi F, Cox BJ, *et al.* Disability and poor quality of life associated with comorbid anxiety disorders and physical conditions. *Archives of Internal Medicine*. 2006;166:2109–2116.
- Sartorius N. Eines der letzten Hindernisse einer verbesserten psychiatrischen Versorgung: das Stigma psychischer Erkrankung. One of the last obstacles to better mental health care: the stigma of mental illness. *Neuropsychiatrie*. 2002;16:5–10. (Ger).
- Sartorius N. The economic and social burden of depression. *Journal of Clinical Psychiatry*. 2001;62:8–11.
- Saxe, R., and Kanwisher, N. (2005). People thinking about thinking people: The role of the temporoparietal junction in “Theory of Mind.” In Cacioppo, J. T. and Berntson, G. G. (eds.), *Social Neuroscience: Key Readings*. New York: Psychology Press.
- Saxe, R., Carey, S., and Kanwisher, N. (2004). Understanding other minds: Linking developmental psychology and functional neuroimaging. *Annual Review of Psychology*, 55, 87–124.
- Scheppers E, van Dongen E, Dekker J, *et al.* Potential barriers to the use of health services among ethnic minorities: a review. *Family Practice*. 2006;23:325–348.
- Schmitz N, Kruse J, Heckrath C, *et al.* Diagnosing mental disorders in primary care: the General Health Questionnaire (GHQ) and the Symptom Check List (SCL-90-R) as screening instruments. *Social Psychiatry and Psychiatric Epidemiology*. 1999;34:360–366.
- Schnurr PP, Green BL, editors. *Trauma and Health: Physical Consequences of Exposure to Extreme Stress*. Washington, DC: American Psychological Association; 2003.
- Schünemann HJ, Best D, Vist G, *et al.* Letters, numbers, symbols and words: how to communicate grades of evidence and recommendations. *Canadian Medical Association Journal*. 2003;169:677–680.
- Scogin F, Hanson A, Welsh D. Self-administered treatment in stepped-care models of depression treatment. *Journal of Clinical Psychology*. 2003;59:341–349.
- Searle, J. (1980). Minds, brains, and programs. *Behavioral and Brain Sciences*, 3, 417–57.
- Searle, J. (2004). *Mind: A Brief Introduction*. New York: Oxford University Press.
- Seldon, A. (2015). *Beyond Happiness: How to find lasting meaning and joy in all that you have*. London: YellowKite.
- Seligman, M. (2011). *Flourish: A New Understanding of Happiness and Well-Being*. London: Nicholas BrealeyPub.
- Shadmehr, R., and Krakauer, J. W. (2008). A computational neuroanatomy for motor control. *Experimental Brain Research*, 185, 359–81.
- Shah R, McNiece R, Majeed A. General practice consultation rates for psychiatric disorders in patients aged 65 and over: prospective cohort study. *International Journal of Geriatric Psychiatry*. 2001;16:57–63.
- Shallice, T., and Warrington, E. K. (1970). Independent functioning of memory stores: A neuropsychological study. *Quarterly Journal of Experimental Psychology*, 22, 261–73.
- Shanahan, M. P. (2003). The frame problem. In Nadel, L. (ed.), *Encyclopedia of Cognitive Science*.

- New York:Nature Publishing Group.
- Shannon, C. E. (1948). A mathematical theory of communication. *Bell System Technical Journal*, 27, 379–423 and 623–56.
  - Shepard, R. N., and Metzler, J. (1971). Mental rotation of three-dimensional objects. *Science*, 171, 701–3.
  - Shepherd, G. (1994). *Neurobiology* (3rd edn.). New York: Oxford University Press.
  - Sherbourne CD, Wells KB, Judd LL. Functioning and well-being of patients with panic disorder. *American Journal of Psychiatry*. 1996;153:213–218.
  - Shimokawa K, Lambert MJ, Smart DW. Enhancing treatment outcome of patients at risk of treatment failure: meta-analytic and mega-analytic review of a psychotherapy quality assurance system. *Journal of Consulting and Clinical Psychology*. 2010;78:298–311.
  - Siegel, D. (2011). *Mindsight: Transform Your Brain with the New Science of Kindness*. Oxford: Oneworld Publications.
  - Siegelmann, H., and Sontag, E. (1991). Turing computability with neural nets. *Applied Mathematics Letters*, 4, 77–80.
  - Simon G, Ormel J, VonKorff M, *et al.* Health care costs associated with depressive and anxiety disorders in primary care. *American Journal of Psychiatry*. 1995;152:352–357.
  - Simon GE, Goldberg DP, von Korff M, *et al.* Understanding crossnational differences in depression prevalence. *Psychological Medicine*. 2002;32:585–594.
  - Simpson SM, Krishnan LL, Kunik ME, *et al.* Racial disparities in diagnosis and treatment of depression: a literature review. *Psychiatric Quarterly*. 2007;78:3–14.
  - Singleton N, Bumpstead R, O'Brien M, *et al.* *Psychiatric Morbidity Among Adults Living in Private Households*. London: The Stationery Office; 2001.
  - Skoog G, Skoog I. A 40-year follow-up of patients with obsessive compulsive disorder. *Archives of General Psychiatry*. 1999;56:121–127.
  - Skultety KM, Zeiss A. The treatment of depression in older adults in the primary care setting: an evidence-based review. *Health Psychology*. 2006;25:665–674.
  - Slattery MJ, Dubbert BK, Allan AJ, *et al.* Prevalence of obsessive compulsive-disorder in patients with systemic lupus erythematosus. *Journal of Clinical Psychiatry*. 2004;65:301–306.
  - Sloman, A. (1999). Cognitive architecture. In Wilson, R. A. and Keil, F. C. (eds.), *The MIT Encyclopedia of Cognitive Science*. Cambridge, MA: MIT Press.
  - Smiley E. Epidemiology of mental health problems in adults with learning disabilities: an update. *Advances in Psychiatric Treatment*. 2005;11:214–222.
  - Smith AB, Wright EP, Rush R, *et al.* Rasch analysis of the dimensional structure of the Hospital Anxiety and Depression Scale. *Psycho-Oncology*. 2006;15:817–827.
  - Smith, L., and Thelen, E. (2003). Development as a dynamical system. *Trends in Cognitive Science*, 7, 343–8.
  - Smolders M, Laurant M, Roberge P, *et al.* Knowledge transfer and improvement of primary and ambulatory care for patients with anxiety. *Canadian Journal of Psychiatry*. 2008;53:277–293.
  - Solomon SD, Davidson JRT. Trauma: prevalence, impairment, service use and cost. *Journal of Clinical Psychiatry*. 1997;58:5–11.
  - Sou tre E, Lozet H, Cimarosti I, *et al.* Cost of anxiety disorders: impact of comorbidity. *Journal of Psychosomatic Research*. 1994;38:151–160.
  - Spelke, E. S. (1988). The origins of physical knowledge. In Weiskrantz, L. (ed.), *Thought without Language*. Oxford: Oxford University Press.
  - Spelke, E. S., and Kinzler, K. D. (2007). Core knowledge. *Developmental Science*, 10, 89–96.
  - Spelke, E. S., and Walle, G. (1993). Perceiving and reasoning about objects: Insights from infants. In Eilan, N., McCarthy, R., and Brewer, B. (eds.), *Spatial Representation*. Oxford: Blackwell.
  - Spelke, E. S., Gutheil, G., Walle, G., Kosslyn, S. M., and Osherson, D. N. (1995). The development of object perception. In Kosslyn, S. M. and Osherson, D. N. (eds.), *An Invitation to Cognitive Science*, vol. 2: *Visual Cognition* (2nd edn.). Cambridge, MA: MIT

- Press.
- Sperber, D., Cara, F., and Girotto, V. (1995). Relevance theory explains the selection task. *Cognition*, 57, 31.
  - Spitzer RL, Kroenke K, Williams JB, *et al.* Validation and utility of a self-report version of the PRIME-MD: the PHQ primary care study. *Journal of the American Medical Association*. 1999;282:1737–1744.
  - Spitzer RL, Kroenke K, Williams JBW, *et al.* A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*. 2006;166:1092–1097.
  - Spivey, M. (2007). *The Continuity of Mind*. New York: Oxford University Press.
  - Stansfeld SA, Fuhrer R, Shipley MJ, *et al.* Work characteristics predict psychiatric disorder: prospective results from the Whitehall II study. *Occupational and Environmental Medicine*. 1999;56:302–307.
  - Stark D, Kiely M, Smith A, *et al.* Anxiety disorders in cancer patients: their nature, associations, and relation to quality of life. *Journal of Clinical Oncology*. 2002;14:3137–3148.
  - StataCorp. *Stata Statistical Software: Release 10*. College Station, TX: StataCorp LP; 2007.
  - Stein, J. F., and Stoodley, C. S. (2006). *Neuroscience: An Introduction*. Oxford: Oxford University Press.
  - Steketee G, Frost R, Bogart K. The Yale-Brown Obsessive Compulsive Scale: interview versus self-report. *Behaviour Research and Therapy*. 1996;34:675–684.
  - Sterelny, K. (1990). *The Representational Theory of Mind*. Oxford: Blackwell.
  - Taylor S, Thordarson DS, Sachting I. Obsessive-compulsive disorder. In: Anthony MM, Barlow DH, editors. *Handbook of Assessment and Treatment Planning for Psychological Disorders*. New York: Guilford Press; 2002. pp. 182–214.
  - Taylor S. Assessment of obsessions and compulsions: reliability, validity, and sensitivity to treatment effects. *Clinical Psychology Reviews*. 1995;15:261–296.
  - Thelen, E., and Smith, L. (eds.) (1993). *A Dynamical Systems Approach to the Development of Cognition and Action*. Cambridge, MA: MIT Press.
  - Thelen, E., Schöner, G., Scheier, C., and Smith, L. B. (2001). The dynamics of embodiment: A field theory of infant perseverative reaching. *Behavioral and Brain Sciences*, 24, 1–86.
  - Thomas CM, Morris S. Cost of depression among adults in England in 2000. *British Journal of Psychiatry*. 2003;183:514–519.
  - Thompson C, Kinmonth AL, Steven L, *et al.* Effects of a clinical-practice guideline and practice-based education on detection and outcome of depression in primary care: Hampshire Depression Project randomized controlled trial. *Lancet*. 2000;355:50–57.
  - Thompson C, Ostler K, Peveler RC, *et al.* Dimensional perspective on the recognition of depressive symptoms in primary care. *British Journal of Psychiatry*. 2001;179:317–323.
  - Tiemens BG, Ormel J, Jenner JA, *et al.* Training primary-care physicians to recognize, diagnose and manage depression: does it improve patient outcomes? *Psychological Medicine*. 1999;29:833–845.
  - Titov N, Andrews G, Robinson E, *et al.* Clinician-assisted internet-based treatment is effective for generalized anxiety disorder: randomized controlled trial. *Australian and New Zealand Journal of Psychiatry*. 2009;43:905–912.
  - Tolman, E. C. (1948). Cognitive maps in rats and men. *Psychological Review*, 55, 189–208.
  - Tolman, E. C., and Honzik, C. H. (1930). “Insight” in rats. *University of California Publications in Psychology*, 4, 215–32.
  - Tolman, E. C., Ritchie, B. F., and Kalish, D. (1946). Studies in spatial learning, II: Place learning versus response learning. *Journal of Experimental Psychology*, 36, 221–9.
  - Trappenberg, T. P. (2002). *Fundamentals of Computational Neuroscience*. Oxford: Oxford University Press.
  - Tulving, E. (1972). Episodic and semantic memory. In Tulving, E. and Donaldson, W. (eds.), *Organization of Memory*. New York: Academic Press.
  - Turing, A. M. (1936–7). On computable numbers: With an application to the Entscheidungsproblem [Decision Problem]. *Proceedings of the London*



- Mathematical Society, 42, 3–4.
- Turing, A. M. (1950). Computing machinery and intelligence. *Mind*, 59, 433–60.
  - Tye, M. (1991). *The Imagery Debate*. Cambridge, MA: MIT Press.
  - Tylee A, Walters P. Underrecognition of anxiety and mood disorders in primary care: why does the problem exist and what can be done? *Journal of Clinical Psychiatry*. 2007;68:27–30.
  - Tyrer P, Baldwin D. Generalised anxiety disorder. *The Lancet*. 2006;368:2156–2166.
  - Tyrer P, Seivewright H, Johnson T. The Nottingham study of neurotic disorder: predictors of 12-year outcome of dysthymia, panic disorder and generalized anxiety disorder. *Psychological Medicine*. 2004;34:1385–1394.
  - Umilta, M. A., Kohler, E., Gallese, V., *et al.* (2001). I know what you are doing: A neurophysiological study. *Neuron*, 31, 155–65.
  - Ungerleider, L. G., and Mishkin, M. (1982). Two cortical visual systems. In Ingle, D. J., Mansfield, R. J. W., and Goodale, M. A. (eds.), *Analysis of Visual Behavior*. Cambridge, MA: MIT Press.
  - Üstün TB, Sartorius N, editors. *Mental Illness in General Health Care: an International Study*. Chichester: Wiley;1995.
  - Vaina, L. M. (ed.) (1991). *From the Retina to the Neocortex*. Boston, MA: Springer.
  - Van Citters AD, Bartels SJ. A systematic review of the effect of community-based mental health outreach services for older adults. *Psychiatric Services*. 2004;55:1237–1249.
  - van Oppen P, Arntz A. Cognitive therapy for obsessive-compulsive disorder. *Behaviour Research and Therapy*. 1994;32:79–87.
  - Van Voorhees BW, Walters AE, Prochaska M, *et al.* Reducing health disparities in depressive disorders outcomes between non-Hispanic whites and ethnic minorities: a call for pragmatic strategies over the life course. *Medical Care Research and Review*. 2007;64:157–194.
  - Vanhaecht K, Bollmann M, Bower K, *et al.* Prevalence and use of clinical pathways in 23 countries: an international survey by the European Pathway Association. *Journal of Integrated Care Pathways*. 2007;10:28–34.
  - Vanherck P, Vanhaecht K, Sermeus W. Effects of clinical pathways: do they work? *Journal of Integrated Pathways*. 2004;8:95.
  - Von Korff M, Shapiro S, Burke JD, *et al.* Anxiety and depression in a primary care clinic: comparison of Diagnostic Interview Schedule, General Health Questionnaire, and practitioner assessments. *Archives of General Psychiatry*. 1987;44:152–156.
  - Wang, S.-H., and Baillargeon, R. (2008). Detecting impossible changes in infancy: A three-system account. *Trends in Cognitive Sciences*, 12, 17–23.
  - Waraich P, Goldner EM, Somers JM, *et al.* Prevalence and incidence studies of mood disorders: a systematic review of the literature. *Canadian Journal of Psychiatry*. 2004;49:124–138.
  - Warrilow AE, Beech B. Self-help CBT for depression: opportunities for primary care mental health nurses? *Journal of Psychiatric and Mental Health Nursing*. 2009;16:792–803.
  - Watson, J. B. (1913). Psychology as the behaviorist sees it. *Psychological Review*, 20, 158–77.
  - Weathers FW, Ford J. Psychometric properties of the PTSD Checklist (PCL–C, PCL–S, PCL–M, PCL–PR) In: Stamm BH, editor. *Measurement of Stress, Trauma and Adaptation*. Lutherville, MD: Sidran Press; 1996.
  - Webb SA, Diefenbach G, Wagener P, *et al.* Comparison of self-report measures for identifying late-life generalized anxiety in primary care. *Journal of Geriatric Psychiatry and Neurology*. 2008;21:223–231.
  - Weich S, Lewis G. Material standard of living, social class, and the prevalence of the common mental disorders in Great Britain. *Journal of Epidemiology & Community Health*. 1998;52:8–14.
  - Weich S, Lewis G. Poverty, unemployment and common mental disorders: population based study. *British Medical Journal*. 1998;317:115–119.
  - Weiskopf, D. A. (2004). The place of time in cognition. *British Journal for the Philosophy of Science*, 55, 87–105.

- Weiss DS, Marmar CR. The Impact of Event Scale – Revised. In: Wilson JP, Keane T, editors. *Assessing Psychological Trauma and PTSD*. New York: Guilford Press; 1997. pp. 399–411.
- Weissman MM, Broadhead WM, Olfson M, *et al.* A diagnostic aid for detecting (DSM-IV) mental disorders in primary care. *General Hospital Psychiatry*. 1998;20:1–11.
- Weissman MM, Merikangas KR. The epidemiology of anxiety and panic disorders: an update. *Journal of Clinical Psychiatry*. 1986;47:11–17.
- Welkowitz LA, Struening EL, Pittman J, *et al.* Obsessive-compulsive disorder and comorbid anxiety problems in a national anxiety screening sample. *Journal of Anxiety Disorders*. 2000;14:471–482.
- Wells A. *Emotional Disorders and Metacognition: Innovative Cognitive Therapy*. New York: John Wiley & Sons; 2000.
- Westen K, Morrison A. A multidimensional meta-analysis of treatments for depression, panic, and generalized anxiety disorder: an empirical examination of the status of empirically supported treatments. *Journal of Consulting and Clinical Psychology*. 2001;69:875–899.
- Wetherell JL, Kim DS, Lindamer LA, *et al.* Anxiety disorders in a public mental health system: clinical characteristics and service use patterns. *Journal of Affective Disorders*. 2007;104:179–183.
- Whelan-Goodinson R, Ponsford J, Schonberger M. Validity of the Hospital Anxiety and Depression Scale to assess depression and anxiety following traumatic brain injury as compared with the Structured Clinical Interview for DSM-IV. *Journal of Affective Disorders*. 2009;114:94–102.
- Whitaker S, Read S. The prevalence of psychiatric disorders among people with intellectual disabilities: an analysis of the literature. *Journal of Applied Research in Intellectual Disabilities*. 2006;19:330–345.
- Whittle C, Hewison A. Integrated care pathways: pathways to change in health care? *Journal of Health Organization and Management*. 2007;21:297–306.
- WHO. *The ICD–10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines*. Geneva, Switzerland: WHO; 1992.
- WHO. *The World Health Report 2002: Reducing Risks, Promoting Healthy Life*. Geneva, Switzerland: WHO; 2002.
- Whooley MA, Avins AL, Miranda J, *et al.* Case-finding instruments for depression: two questions are as good as many. *Journal of General Internal Medicine*. 1997;12:439–445.
- Wicker, B., Keyser, C., Plailly, J., Royet, J. P., Gallese, V., and Rizzolatti, G. (2003). Both of us disgusted in my insula: The common neural basis of seeing and feeling disgust. *Neuron*, 40, 655–64.
- Wilkinson MJB, Barczak P. Psychiatric screening in general practice: comparison of the general health questionnaire and the hospital anxiety depression scale. *The Journal of Royal College of General Practitioners*. 1988;38:311–313.
- Williams JW, Noel PH, Cordes JA, *et al.* Is this patient clinically depressed? *Journal of the American Medical Association*. 2002;287:1160–1170.
- Williamson RJ, Neale BM, Sterne A, *et al.* The value of four mental health self-report scales in predicting interview-based mood and anxiety disorder diagnoses in sibling pairs. *Twin Research and Human Genetics*. 2005;8:101–107.
- Wilson A, Tobin M, Ponzio V, *et al.* Developing a clinical pathway in depression: sharing our experience. *Australasian Psychiatry*. 1997;7:17–9.
- Wilson, R. A. (2008). The drink you have when you're not having a drink. *Mind and Language*, 23, 273–83.
- Wimmer, H., and Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition*, 13, 103–28.
- Winograd, T. (1972). *Understanding Natural Language*. New York: Academic Press.
- Winograd, T. (1973). A procedural model of language understanding. In Schank, R. C. and Colby, A. M. (eds.), *Computer Models of Thought and Language*. San Francisco: W. H. Freeman.
- Wittchen HU, Carter R, Pfister H, *et al.* Disabilities and quality of life in pure and comorbid generalized

- anxiety disorder and major depression in a national survey. *International Clinical Psychopharmacology*. 2000;15:319–328.
- Wittchen HU, Jacobi F. Size and burden of mental disorders in Europe—a critical review and appraisal of 27 studies. *European Neuropsychopharmacology*. 2005;15:357–376.
  - Wittchen HU, Kessler RC, Beesdo K, *et al.* Generalised anxiety and depression in primary care: prevalence, recognition, and management. *Journal of Clinical Psychiatry*. 2002;63:24–34.
  - Woodward, A., and Needham, A. (2009). *Learning and the Infant Mind*. Oxford; New York: Oxford University Press.
  - World Bank. *World Development Report: Investing in Health Research Development*. Geneva, Switzerland: World Bank; 1993.
  - Yonkers KA, Warshaw MG, Massion AO, *et al.* Phenomenology and course of generalised anxiety disorder. *The British Journal of Psychiatry*. 1996;168:308–313.
  - Zatzick DF, Marmar CR, Weiss DS, *et al.* Posttraumatic stress disorder and functioning and quality of life outcomes in a nationally representative sample of male Vietnam veterans. *American Journal of Psychiatry*. 1997;154:1690–1695.
  - Zeki, S. M. (1978). Functional specialization in the visual cortex of the rhesus monkey. *Nature*, 274, 423–8.
  - Zhu B, Zhao Z, Ye W, *et al.* The cost of comorbid depression and pain for individuals diagnosed with generalized anxiety disorder. *Journal of Nervous & Mental Disease*. 2009;197:136–139.
  - Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Rating Scale. *Acta Psychiatrica Scandinavica*. 1983;67:361–370.
  - Zimmerman M, McDermut W, Mattia JJ. Frequency of anxiety disorders in psychiatric outpatients with major depressive disorder. *American Journal of Psychiatry*. 2000;157:1337–1340.
  - Zohar J, Judge R. Paroxetine versus clomipramine in the treatment of obsessive-compulsive disorder. OCD Paroxetine Study Investigators. *British Journal of Psychiatry*. 1996;169:468–474.