
How to party hard for LESS this festive season


Strictly shock as finalist announces: 'I've got a baby in my belly'


Good Morning Britain in chaos as presenter is REPLACED live on air


Coronation Street character DIES off-screen as body is found?


EastEnders' Adam Woodyatt 'STORMS OFF' This Morning for shock reason

BODY SHOCK: Meet the 'amputee wannabes' who CHOP OFF their own limbs to feel NORMAL

MEET the people at war with their own bodies - who VOLUNTARILY cut off their own limbs.

By **Siba Jackson** / Published 10th December 2015

LIFE CHANGING: BIID sufferer Jason (left and bottom right) voluntarily sawed off his hand

Forget about extreme plastic surgery, tattoos and piercings - this takes body modification to the next level.

Sufferers have told how their 'extra' limbs feel ALIEN.

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When less is more – Implicit preference for incomplete bodies in xenomelia

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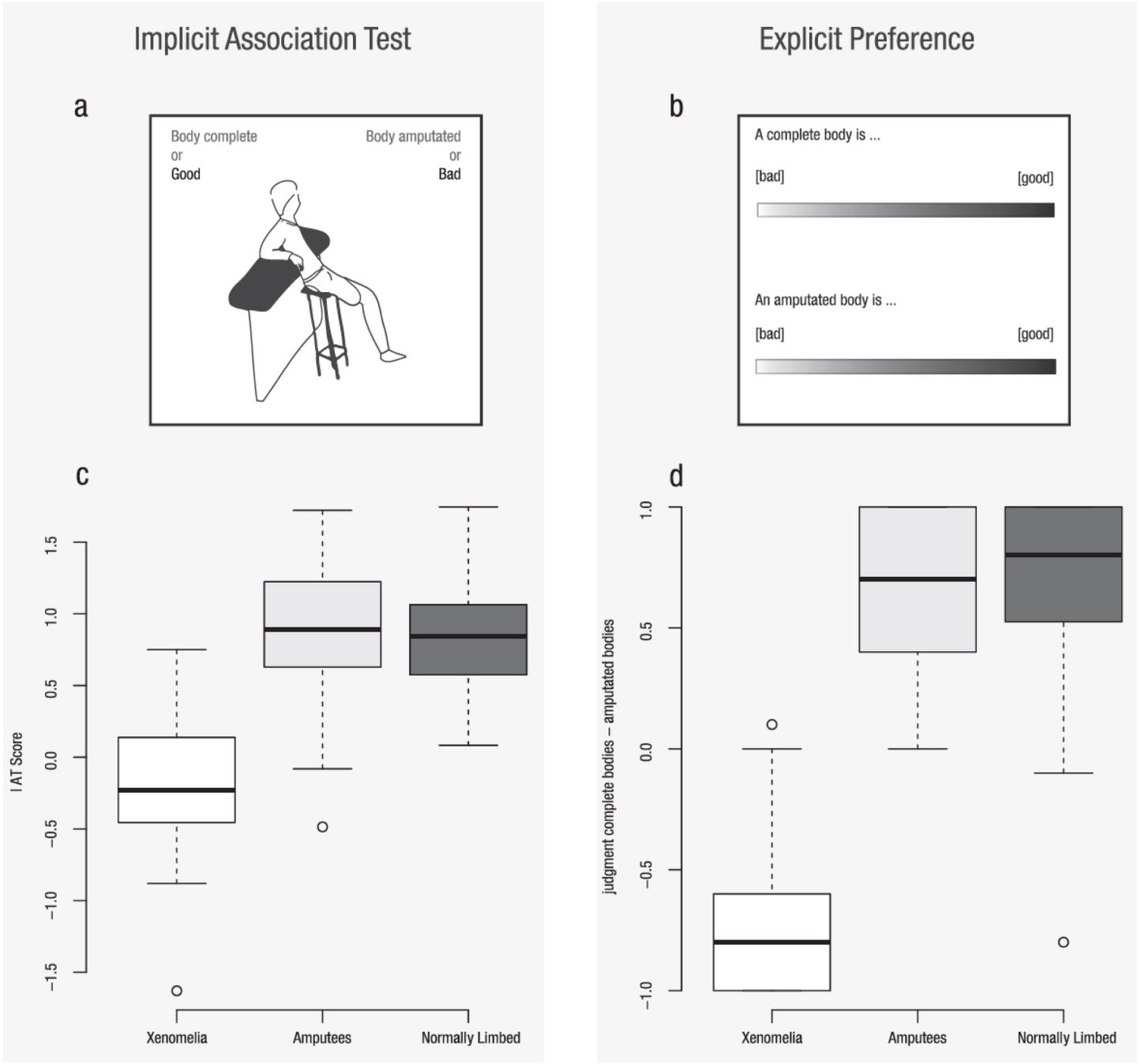

Implicit Association Test
a
Body complete
or
Good
Body amputated
or
Bad
c
I AT Score
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
Xenomelia
Amputees
Normally Limbed
Explicit Preference
b
A complete body is ...
[bad]
[good]
An amputated body is ...
[bad]
[good]
d
judgment complete bodies – amputated bodies
1.0
0.5
0.0
−0.5
−1.0
Xenomelia
Amputees
Normally Limbed

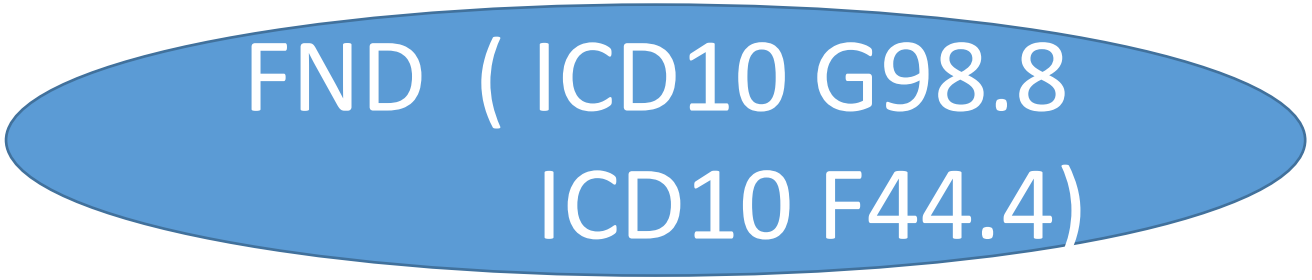

EXCLUSIVE
THE Drs

Functional Movement Disorders

- Make FND diagnosis based on the clinical presentation and positive neurological exam.
- Reduce the risk of the patient with structural neurologic disease receiving the diagnosis of a functional disorder simply because they have psychiatric comorbidity or symptom onset coincides with recent stress

FND a none man land

- Structure- Organic- Neurology
- Brain



- Inorganic-psychiatry/Psychology

Hysteria

Ancient Greece: wandering womb

Wandering womb is the cause of all female disorders

Thomas Willis (1622 to 1675),

Performed autopsies on women who had been hysteric and demonstrated no uterine pathology.

Proposed Mind and Body Concept

Proposed that the brain and spinal cord were the sites of the disease, and theorized that excess “animal spirits” released from the brain traveled via the nerves to the abdomen, where they entered the blood, causing symptoms of hysteria.

He also noted hysteria in men, but postulated that it was more common in women because they were weaker in the mind

Charcot theory on “hysteria”

“Hysteria” was the result of a “weak” neurological system which was hereditary.

It could be set off by a traumatic event like an accident, but was then progressive and irreversible.

He hypnotized his patients in order to induce and study their symptoms.

Hysteria was not unique to female. It could occur in such models of masculinity as railway engineers or soldiers.

Le Log- Charco's Trauma Hysteria pt

- A florist's delivery man in Paris. One evening, in October 1885, he was wheeling his barrow home through busy streets when it was hit from the side by a carriage which was being driven at great speed. Le Log, who had been holding the handles of his barrow tightly, was spun through the air and landed on the ground. He was picked up completely unconscious. He was then taken to the nearby Beaujon hospital where he remained unconscious for five or six days. Six months later he was transferred to La Salpêtrière. By this time the lower extremities of his body were almost completely paralyzed, there was a twitching or tremor in the corner of his mouth, he had a permanent headache and there were 'blank spaces in the tablet of his memory'. In particular he could not remember the accident itself.
- Because there had never been any signs of external injury, Charcot decided that Le Log—— was a victim of traumatic hysteria and that his symptoms had arisen as a result of the psychological trauma he had suffered.
- Richard web: Freud, Charcot and hysteria: lost in the labyrinth

Charcot’s contribution to Hysteria

- Hysteria as a condition which could be caused by trauma, paved the way for understanding neurological symptoms arising from industrial-accident or war-related traumas.

- Many pts were wrongly labeled as Hysteria because of limitation of diagnostic technology.

Bertha Pappernheim
2/27/1859-5/28/1936

Sigmund Freud on Anna O. Case

- Dr. Breuer's patient was a girl of twenty-one, of high intellectual gifts. Her illness lasted for over two years, and in the course of it she developed a series of physical and psychological disturbances which decidedly deserved to be taken seriously. She suffered from a rigid paralysis, accompanied by loss of sensation, of both extremities on the right side of her body; and the same trouble from time to time affected her on her left side. Her eye movements were disturbed and her power of vision was subject to numerous restrictions. She had difficulty of the posture of her head, she had a severe nervous cough. She had an aversion to taking nourishment, and on one occasion she was for several weeks unable to drink in spite of a tormenting thirst. Her powers of speech were reduced, even to the point of her being unable to speak or understand her native language. Finally, she was subject to conditions of 'absence',(1) of confusion, of delirium, and of alteration of her whole personality, to which we shall have presently to turn our attention.

Frued and Breuers’ HysteriaTheory

- Hysterical symptoms derive from undischarged "memories" connected to "psychical traumas." These memories originated when the nervous system was in a special physiological condition or "hypnoid state"; they then remained cut off from consciousness. Hysterical symptoms resulted from the "intrusion of this second state into the somatic innervation," a mind-to-body process Freud and Breuer called "conversion.“
- Freud and Breuer collaboration ended later because their different approach to hysteria
- Freud became the father of psychoanalysis

On the Natural History of Hysteria in Women

(A Follow-up Study Twenty Years After Hospitalization)

DEWEY K. ZIEGLER, M.D., and NORMAN PAUL, M.D.
Boston, Massachusetts

The proper classification of psychiatric disease is, and has been for some time, a hotly debated subject. The many assays at the task are in reality attempts to define or give meaning to psychiatric terminology and they indicate the major linguistic difficulties with which modern psychiatry is struggling. are the predictable possibilities for a group of patients so diagnosed.

The diagnosis "hysteria" was selected for several reasons:

a) The course of patients with psychotic diagnosis has already received much more attention than that of patients with neuroses, at least as

FND interface of neurology and psychiatry

- Separation of psychiatry from Neurology

- Brain
  - Structure- Organic- Neurology
  - FND
  - Inorganic-psychiatry/Psychology

Functional neurological symptom disorder (hysteria, conversion)

- Neurologists are uncomfortable with psychological side
- Psychologist are concerned with the overwhelmed neurological symptoms and tests performed by neurologists
- It is not a topic we learned or were taught formally during our training
- FND pts were biased by medical community
  - Disparity in the care of pts

Functional Neurological Symptom Disorders

- Symptoms arise from abnormal central nerves system function in the absence structural function
  - Not tumor, stroke, infection or other known structural neurological condition
- It is involuntary
- It is a software problem, not a hard ware issues
- Pts are not feigning symptoms
- Will we see more pts with functional symptoms with social media?

DSM-5 criteria for the diagnosis of conversion disorder (functional neurological symptom disorder)

- A. The patient has ≥1 symptoms of altered voluntary motor or sensory function.
- B. Clinical findings provide evidence of incompatibility between the symptom and recognized neurological or medical conditions.
- C. The symptom or deficit is not better explained by another medical or mental disorder.
- D. The symptom or deficit causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or warrants medical evaluation

Specify type of symptom or deficit as:

- With weakness or paralysis
- With abnormal movement (e.g., tremor, dystonic movement, myoclonus, gait disorder)
- With swallowing symptoms
- With speech symptoms (e.g., dysphonia, slurred speech)
- With attacks or seizures
- With anesthesia or memory loss
- With special sensory symptom (e.g., visual, olfactory, or hearing disturbance)
- With mixed symptoms.

DSMV

- Emphasized the importance of the neurological examination,
- Recognition that relevant psychological factors may not be demonstrable at the time of diagnosis.
- Neurologist plays an important role to make the diagnosis.

- Conversion Disorder is more specific for those patients who can clearly define a psychological connection, which they are “converting” to their physical symptom. The majority of our Functional members do not relate to the “conversion theory”.

Psychogenic Movement disorders

- Accounts for 1-5 % of neurological diagnoses
- Greater frequency in specialized movement disorder clinics
- Difficult diagnosis to give and most often poorly received

Psychogenic Movement disorders

- 10-15% of patients with psychogenic movement disorders have underlying organic problem
- 10-30% of patients with pseudoseizures have documented epilepsy

Rules of thumb

- If in doubt, assume it’s real
- If all other doctors think it’s fake then still a good chance it’s real
- If at first sight you think it’s fake it might still be real
- If after careful consideration you conclude its fake, consider a small part may be real

Predominant types of PMD

- Tremor 32%
- Dystonia 25%
- Myoclonus 25%
- Gait disorder 10%
- Parkinsonism 6%
- Women 76%

Co-existing psychiatric diagnosis frequent

University of Toronto review of 64 patients from 2000-2002

- Anxiety in 30-40%
- Major depression in 20%
- Adjustment disorder in 10%
- Dysthymia in 67%
- Personality disorder in 40%

Primary psychiatric diagnosis

- Conversion disorder 45%
- Somatization disorder 12.5%
- Factitious disorder 8%
- Malingering 4%

- **No specific psychiatric diagnosis in up to 50%**

Patient Profile

- Young female (mean age 36)
- Average or above average intelligence
- Mean duration of symptoms 5 years
- Unable to work, on disability
- Health care worker

Historical clues

- Abrupt onset
- Static course
- Inconsistent spontaneous remissions
- Obvious psychiatric disturbances
- Multiple somatizations
- Secondary gain
- Pending litigation
- Health care professional

Clinical clues

- Inconsistent characteristics of movements
  - Variable amplitude
  - Frequency
  - Body distribution
  - Severity
- Entrainment of the psychogenic tremor to the rate of the requested rapid successive movement or speech pattern
- Worse with attention and improving with distraction
- Ability to trigger or relieve attack

Clinical clues

- Presence of additional types of movements that are not consistent with the basic abnormal movement pattern
  - Rhythmic shaking
  - Bizarre gait
  - Deliberate slowness when carrying out request
  - Bursts of verbal gibberish
  - Excessive startle
- “La belle indifference”

Therapeutic clues

- Unresponsiveness to appropriated medications
- Response to placebo
- Remission in psychotherapy

Psychogenic tremor

- Entrainment with contralateral limb
- Variable frequency, amplitude and direction
- Increase with attention
- Decreases with distraction
- Poor response to medication

Psychogenic dystonia

- Abrupt fixed posture
- Adult-onset in leg
- Paroxysmal attacks
- Inconsistent disability
- Response to placebo
- Early contractures
- No reported improvement with sleep

Paroxysmal dyskinesias

- Vocalizations
- Chest pounding
- Running
- Fluctuation
- Tonic-clonic movements
- Violent tremor
- Arching of trunk or legs
- Oscillatory movement of trunk and limbs

Psychogenic parkinsonism

- Tremor without dampening
- Lack of rigidity or voluntary resistence
- No fatiguing of fine finger movements with repetitive movements
- Bizarre response to retropulsion
- Change in slowness of movement when distracted

Psychogenic gait disorder

- Ataxic gait blending into trembling
- Tremblers blending into dystonic and truncal myoclonus
- Exaggerated swaying without falling
- “walking on ice”
- Uneconomic postures
- Sudden buckling without falling

Psychogenic hemifacial spasm

- Changes in side or pattern during exam
- Onset in lower half of face
- Absence during sleep
- Synchronous contractions bilaterally

Psychogenic myoclonus

- Incongruous movements
- Changing amplitude, frequency and anatomical distribution
- Lack of consistency
- Reduction of myoclonus with distraction

Most common

- Shaking, tremor or atypical tremor
- Dystonia
- Bizarre gait
  - Excessive slowness, posturing and hesitation
  - Pseudoataxia or careful walking

Psychogenic Movement Disorders in children

- Much rarer than in adult population
- Uncommon under age 10
- More common in females
- Most common is tremor > dystonia> gait disorders
- Dystonia is usually fixed

Psychogenic Movement Disorders in children

- 80% conversion disorder
- 10-20% somatization
- 5% factitious
- Rare malingering

Pathogenesis and pathophysiology

- Not known
- Neurobiological substrate?
  - Dorsolateral prefrontal cortex

Dorsolateral prefrontal cortex (DLPFC)

- Involved in executive function
- Generating motor planning
- Regulating actions according to environmental stimuli
- DLPFC dysfunction seen in neurodegenerative disorders like Huntington’s, Alzheimer’s and Parkinson’s
- DLPFC dysfunction seen in psychiatric disorders like depression, schizophrenia

Discrete neurophysiological correlates in prefrontal cortex during hysterical and feigned disorder of movement

Spence et al Lancet 2000 vol 355 p.1243

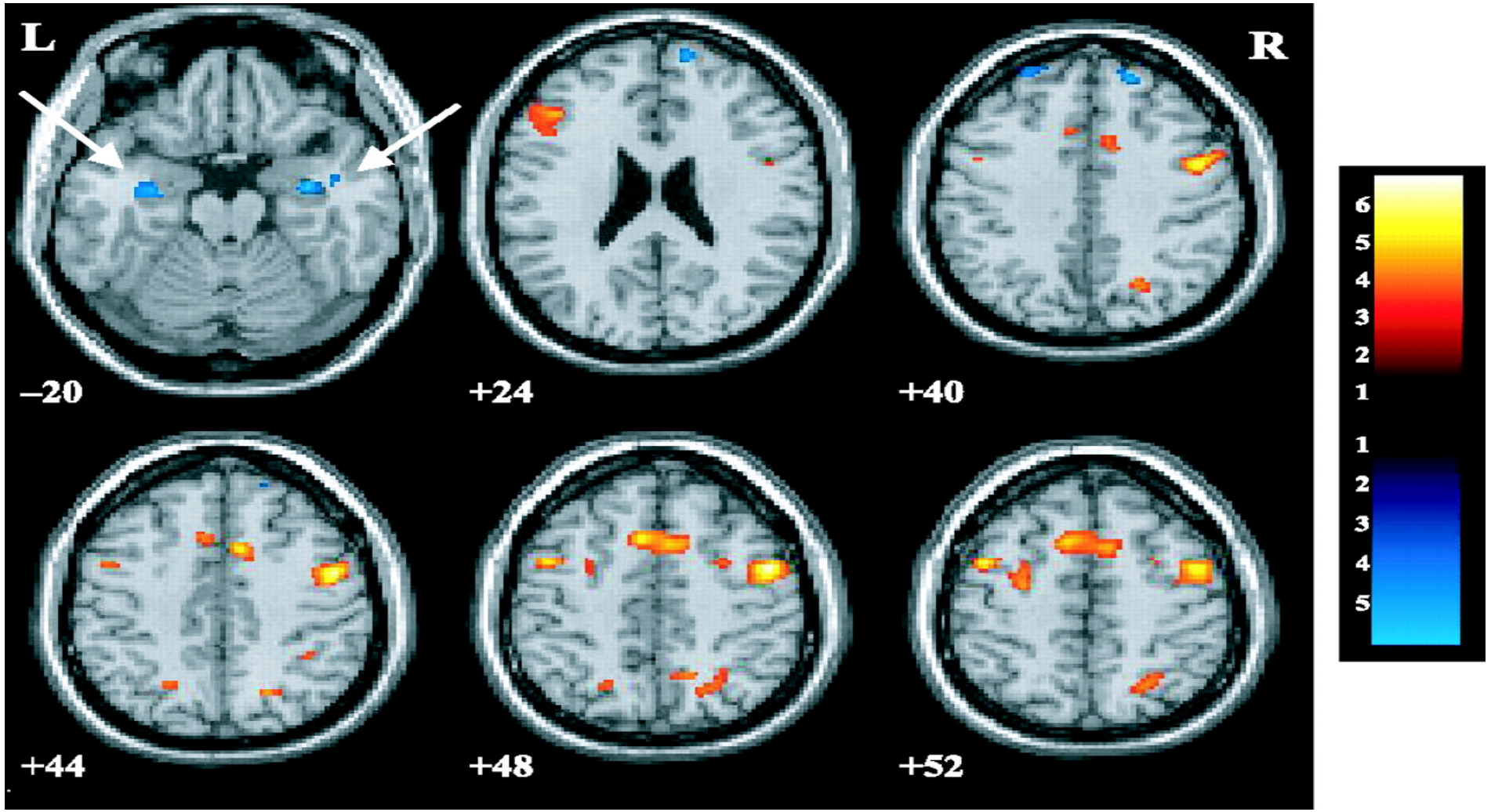
Pet study comparing patients with hysterical weakness to controls feigning weakness

- 3 patients with psychogenic motor symptoms
- 4 feigners imitating psychogenic symptoms
- 6 controls normal movements

Results: hypoactivation of Left Dorsolateral prefrontal cortex (DLPFC) in hysteria

- DLPFC normally activated in “choice” movements

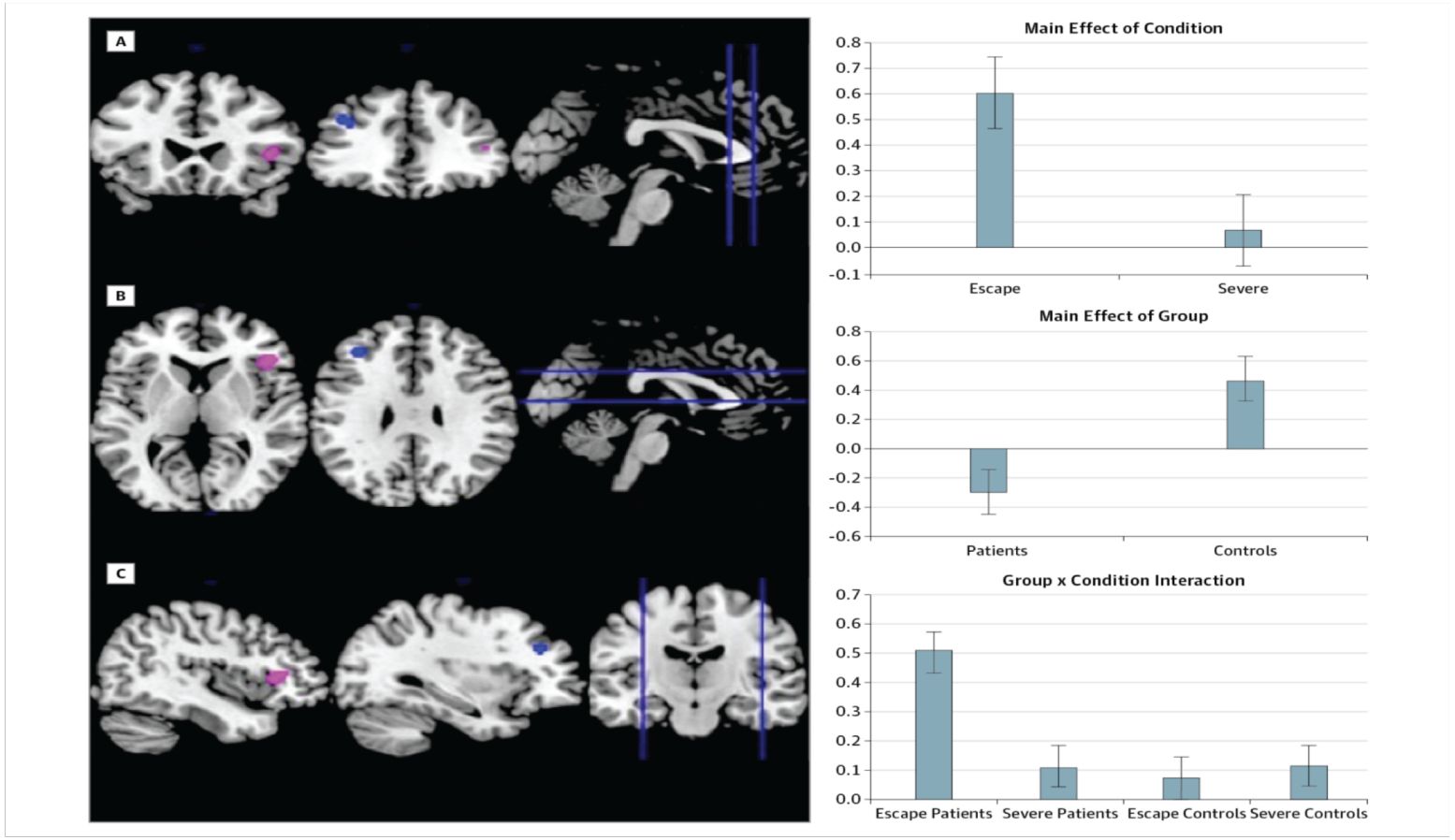
Fig. 2. Activation for Suppression trials compared with Respond trials during the think/no-think phase (n = 24).



Michael C. Anderson et al. Science 2004;303:232-235

From: **Neural Correlates of Recall of Life Events in Conversion Disorder**

JAMA Psychiatry. 2014;71(1):52-60. doi:10.1001/jamapsychiatry.2013.2842



A: DLPFC, B:rFIC
CDLPFC

From: **Neural Correlates of Recall of Life Events in Conversion Disorder**
Case controlled study. 12 conversion disorder, 13 health control

JAMA Psychiatry. 2014;71(1):52-60. doi:10.1001/jamapsychiatry.2013.2842

Table 2. Whole-Brain Analysis of Activation During Recall: Group × Condition Interaction [a]

Variable	Cluster Size, No. of Voxels	*t* Statistic	*z* Score	MNI Coordinates		
				x	y	z
Escape > severe condition						
Right supplementary motor area (BA 6)	1636	4.2	3.6	12	8	68
Right postcentral gyrus (BA 1)	...	3.9	3.4	30	42	72
Right postcentral gyrus (BA 4/3b)	...	3.5	3.1	28	34	54
Right superior temporal gyrus	674	4.2	3.5	52	44	20
Right angular gyrus (TPJ)	...	3.6	3.2	40	58	24
Right supramarginal gyrus (TPJ)	...	3.6	3.1	42	54	30
Escape < severe condition						
Left lingual gyrus	1369	4.8	3.9	26	46	−4
Left parahippocampal gyrus	...	4.7	3.9	22	44	0
Left hippocampus	...	2.9	2.7	28	42	2

Abbreviations: BA, Brodmann area; ellipsis, not applicable; MNI, Montreal Neurological Institute; TPJ, temporoparietal junction.

[a] Anatomical regions of peak activation in patients > controls showing significant clusters ($P < .05$, familywise error corrected).

The JAMA Network

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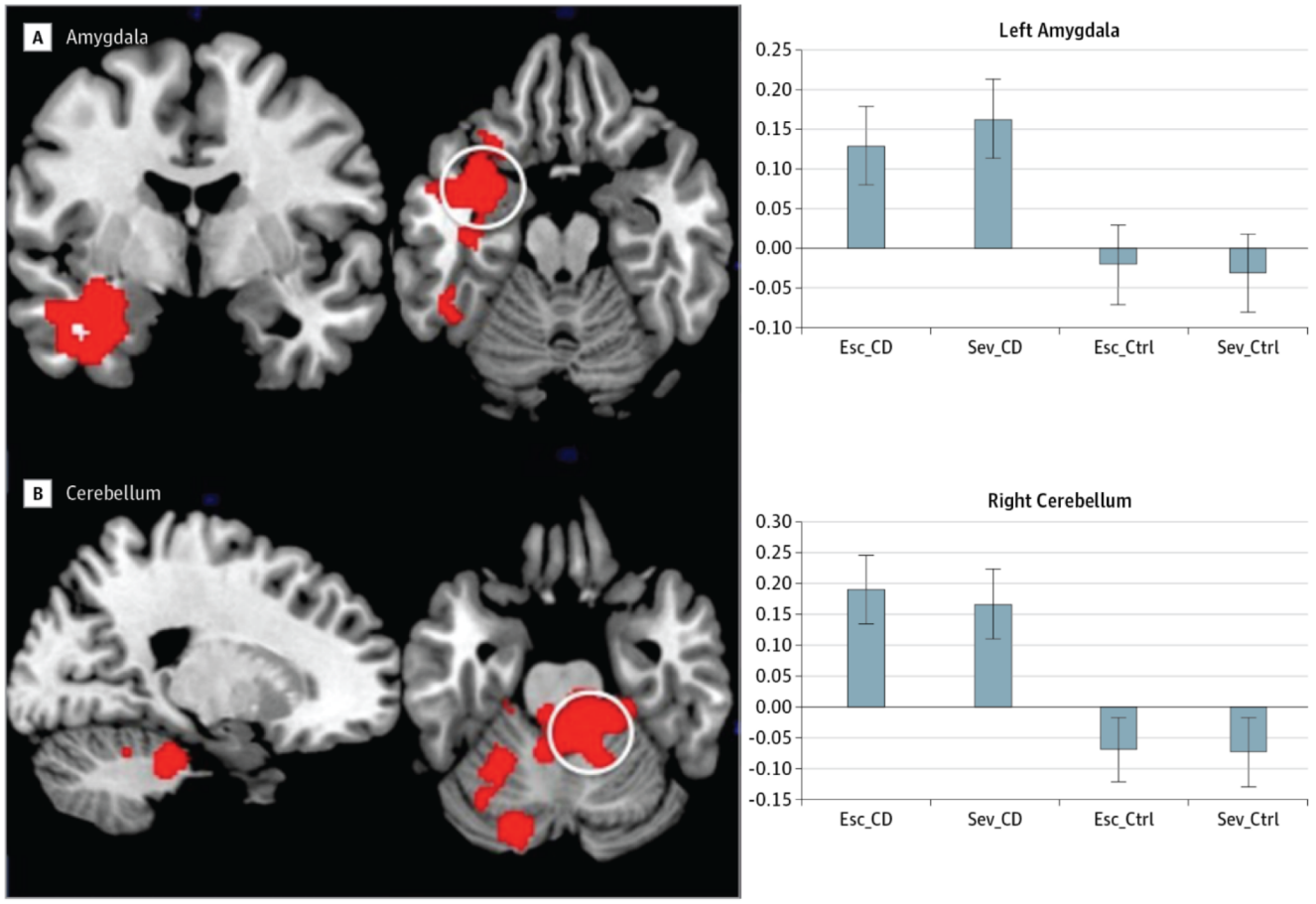

The JAMA Network

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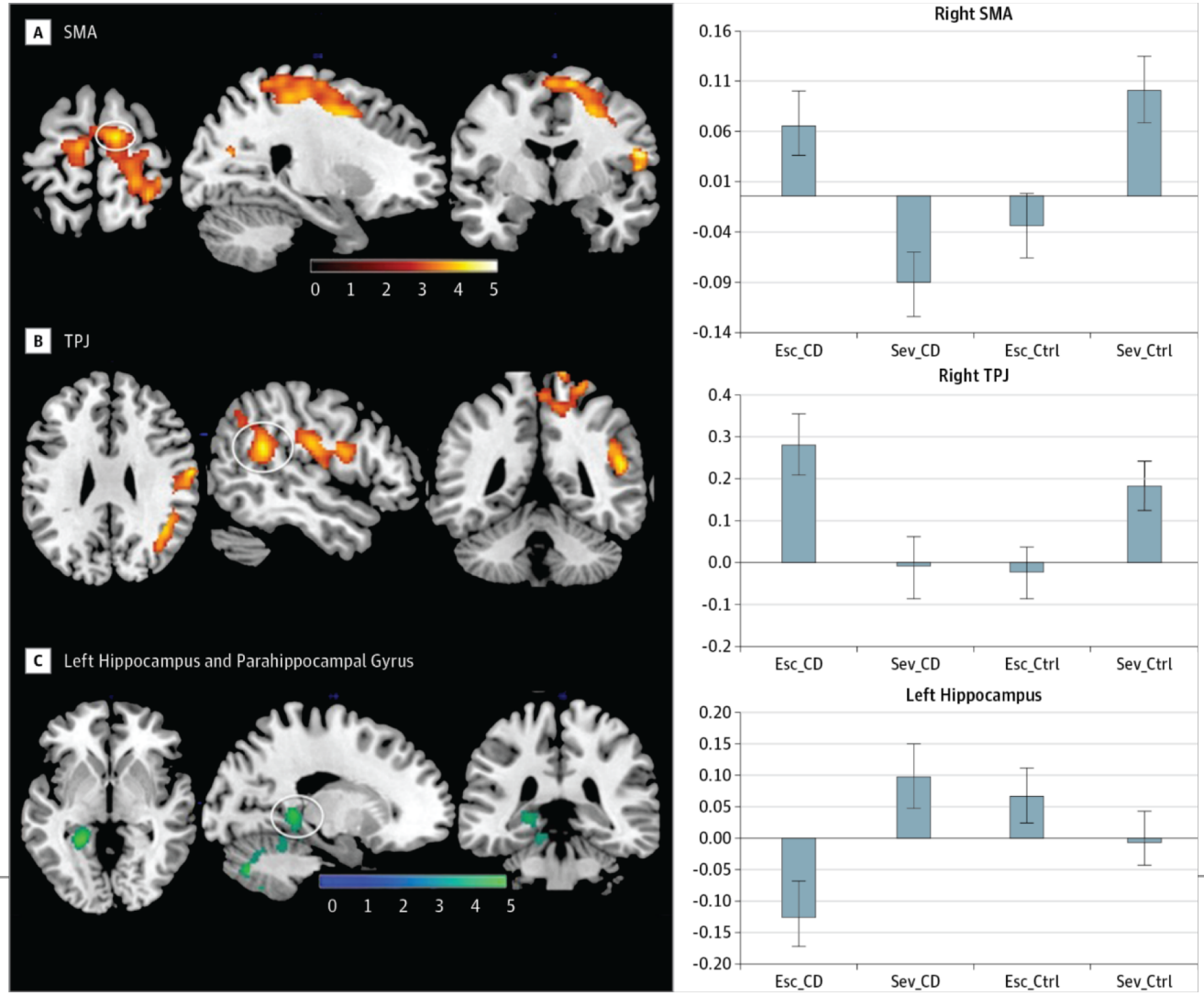

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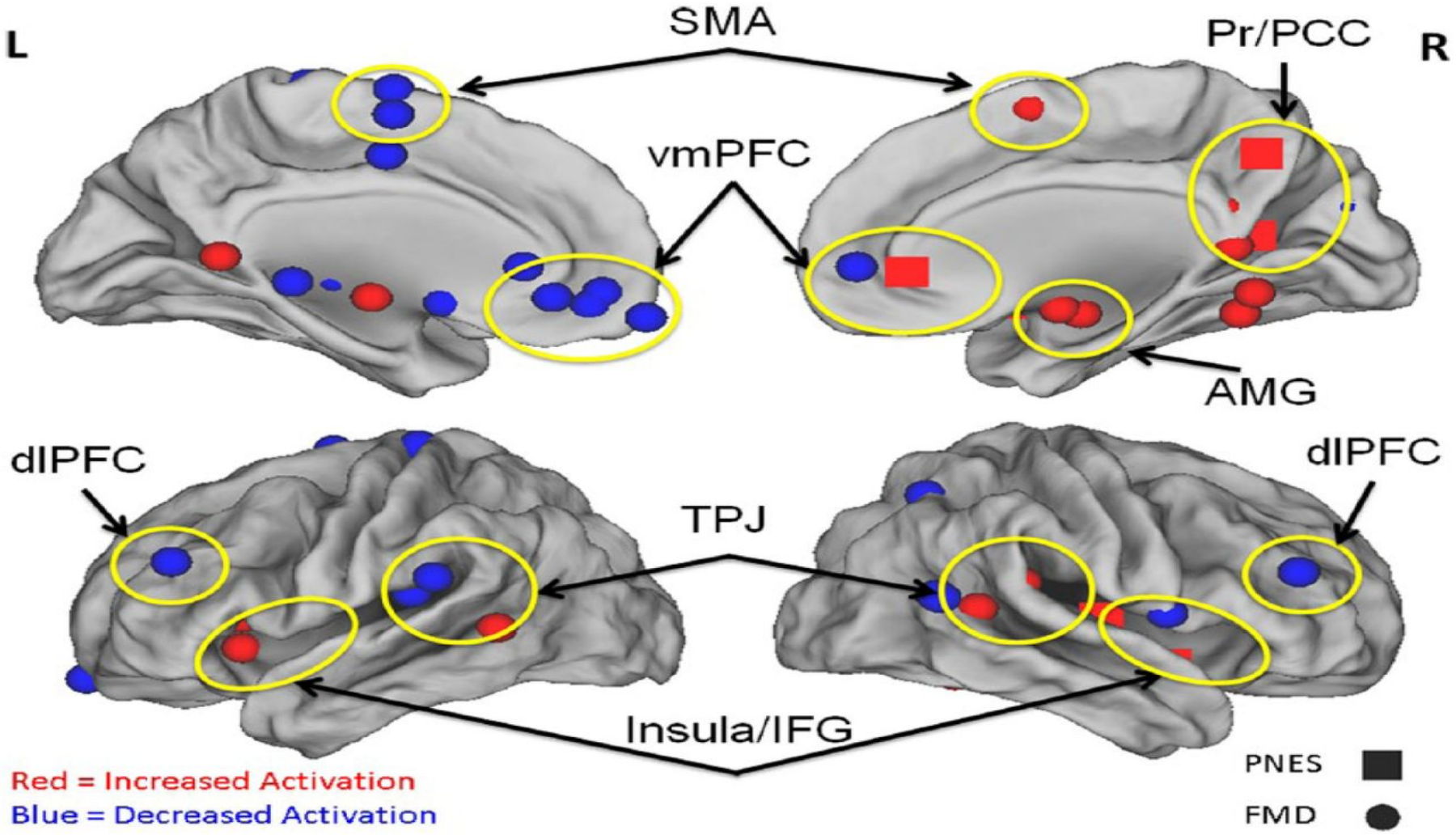
Neural Correlates of Recall of Life Events in Conversion Disorder

- Relative to controls, patients showed significantly increased left dorsolateral prefrontal cortex and decreased left hippocampus activity during the escape vs severe condition, accompanied by increased right supplementary motor area and temporoparietal junction activity. Relative to controls, patients failed to activate the right inferior frontal cortex during both conditions, and connectivity between amygdala and motor areas (supplementary motor area and cerebellum) was enhanced.



David L. Perez et al. Clin EEG Neurosci 2014;46:4-15

Diagnostic approach

- Exclude possible organic causes
- Techniques of entrainment and distraction
- Consultation in psychiatry

Investigations

- Absence of relevant signs or findings of organic disease on examination
- MRI
- EMG for tremor analyses, EEG with back averaging
- Blood tests for appropriate mimickers
  - Wilson’s
  - Neuroacanthocytosis
  - Genetic studies

Treatment

- Inform patient of diagnosis
- Psychological counseling and support
- Psychiatric medications as appropriate

Single-blind trial of psychotherapy for treatment of psychogenic movement disorders Parkinsonism and Related Disorders 2006 p. 177

- 10 patients with psychogenic movement disorder
- Duration of illness 1-78 months
- 12 weeks of 1h/week individual outpatient Psychodynamic Psychotherapy sessions
- Antidepressant or anxiolytic medications as necessary
- Patients were videotaped and rated according to Psychogenic movement disorder rating scale

Results

- 9/10 completed the study
- 7/10 improvement in total PMDRS score 75%
- 7/10 improvement in depression and anxiety scores 75%
- 2/10 worsening

Conclusion:

- Psychotherapy can be successful

Limitation:

- No long-term follow-up

Prognosis

- Outcome is variable
- Persisting symptoms in 65-95%
- Negative prognostic factors
  - Longstanding symptoms
  - Insidious onset
  - Primary psychiatric diagnosis of hypochondriasis, factitious disorder or malingering

Conclusion

- There may be a neurobiological substrate for “hysterical” phenomenon
- Paget 1873 description of hysteria

Patient says “I cannot”

It looks like “I will not”

But it is “I cannot will”