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Conversion (Functional Neurologic) Disorder: Past, Present, and Future

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- My interest in somatoform/conversion disorder stemmed from seeing my first psychogenic nonepileptic seizure (PNES) patient at UCLA
 - I recall asking myself, "What is this patient thinking as he engages in this clearly nonphysiologic seizure?"
 - In the ensuing decades I have struggled with the conceptualization that patients were producing the symptoms "nonconsciously"
 - Practicing as a clinical psychologist and neuropsychologist for over 35 years has allowed me to perceive historical arcs both within the field and in our larger society that suggest that it is now time to reconsider the concept of "conversion disorder"

DSM-IV Terminology

CONSCIOUS FEIGNING:

Malingering

 Deliberate feigning of symptoms for an obvious external incentive

Factitious Disorder

 Deliberate feigning of symptoms but the goal is obscure and idiosyncratic to the individual (e.g., attention and notoriety of being an unusual patient)

NONCONSCIOUS FEIGNING:

Conversion Disorder

 Unexplained motor/sensory symptoms that mimic a neurological or general medical condition

Somatization Disorder

 Unexplained pain, GI, sexual, and pseudo-neurological symptoms
 <age 30

Pain Disorder

 Unexplained pain symptoms thought to be related to psychological factors

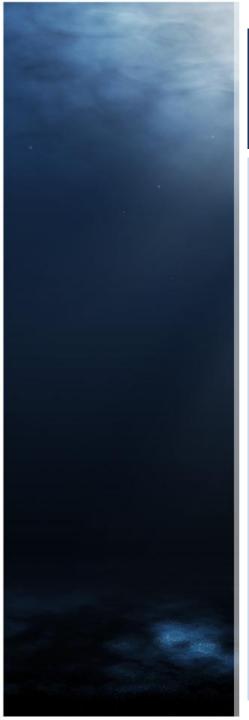
Related Terms

Hypochondriasis

 Chronic fear and/or fixed belief that one has a serious disease despite the absence of confirming medical laboratory findings and due to a misperception of benign bodily symptoms

Body Dysmorphic Disorder

 Preoccupation with imagined or inflated defect in physical appearance



DMS-V Terminology

- Somatic Symptom and Related Disorders
 - Somatic Symptom Disorder
 - Symptom(s) distressing and/or disrupt daily life
 - Excessive thoughts, feelings, and behaviors related to the symptoms
 - Illness Anxiety Disorder
 - Preoccupation with having or acquiring a serious illness
 - Actual symptoms not present or mild in intensity
 - High level of anxiety about health
 - Excessive health-related behaviors
 - Conversion Disorder (Functional Neurologic Symptom Disorder)
 - Symptoms involving voluntary motor or sensory function
 - Incompatibility between symptoms and recognized neurologic or medical conditions

ICD-10 Terminology

Somatoform Disorders

- Somatization Disorder
- Hypochondriacal Disorder
- Somatoform Autonomic Dysfunction
 - Symptoms in organ systems
 thought to be under
 autonomic control, e.g.,
 cardiovascular, GI, respiratory,
 urogenital
- Persistent Somatoform Pain Disorder

Dissociative Disorders

- Dissociative Amnesia
- Dissociative Fugue
- Dissociative Stupor
- Trance and Possession Disorders
- Dissociative Motor Disorders
- Dissociative Convulsions
- Dissociative Anesthesia and Sensory Loss

- Neuropsychologists are now mandated to verify whether test takers are performing to true ability (Sweet et al., 2021)
 - Through use of performance validity tests (PVTs)
- Given that somatoform (somatic symptom) disorder patients magnify dysfunction, and can even create nonphysiologic symptoms, are they credible on cognitive testing (per PVTs)?
 - What does the research show us?

Psychogenic Nonepileptic Seizures

- Binder et al. (1994)
 - 37% failed PDRT, 33% failed finger agnosia
 (47% disability seeking)
- Drane et al. (2006) *
 - >50% failed WMT
- Williamson et al. (2012)
 - 35% failed WMT (not related to compensation-seeking status but was related to abuse history)
- Tyson et al. (2018) *
 - 12.5% failed TOMM and scored lower on CVLT-II FC
- Hill et al. (2003) *
 - 8.8% failed TOMM

- Cragar et al. (2006)
 - 25% failed >1 PVT versus 22% of epilepsy (although both groups had high rates of disability compensation – 35% versus 48%)
- Strutt et al. (2011)
 - No significant difference in TOMM between PNES and epilepsy *
- Salinsky et al. (2018, 2020; Binder et al., 2020)
 - 25% of veterans failed the TOMM (using trial 1, 15% without trial 1); 5.5% failed RBANS EI
- Sackellares & Sackellares (2001) *
 - Finger tapping and grip strength lower

*compensation-seeking status not reported

Functional Movement Disorder

- Van Beilen et al. (2009)
 - 38% failed Amsterdam Short-term Memory Test (ASTM) (none compensation-seeking) (versus 23% of neurologic patients)
 - 23% exceeded SIMS cut-offs (versus 4% of neurologic patients)
- Heintz et al. (2013) *
 - Lower on ASTM than Tourettes patients;
 24% failed versus 19% in Tourettes
- Criswell et al. (2010) *
 - Lower finger tapping than patients with PD, tremor, and dystonia, who were significantly older

*compensation-seeking status not reported

Fibromyalgia/Pain

- Brooks et al. (2012)
 - 32% to 56% failed WMT and/or TOMM (58% with motive to feign; compensation-seeking or citizen test accommodations)
- Gervais et al. (2001)
 - In patients seeking/receiving disability,
 24% failed CARB, 30% failed WMT, and
 35% failed 1 or both
 - In patients not seeking/receiving disability, only 4% failed WMT and none failed CARB
- Iverson et al. (2007)
 - None failed TOMM (recruited from rheumatology practices)
- Kalfon et al. (2016)
 - 16% failed TOMM *
- Suhr (2003)
 - 17% failed AVLT cut-offs (in treatment study)

Functional Blindness

- Theodor & Mandelcorn (1973)
 - Failed FC vision tasks

Functional Numbness

- Greve et al. (2003)
 - Failed FC tactile tasks

Functional Hearing Loss

- Pankratz et al. (1975)
 - Case 36% correct on forced choice hearing

- The above research appears to show that conversion disorder patients (but not necessarily somatoform patients in general) have elevated rates of PVT failure
 - Although the research is somewhat confounded by failure to consider external motive
- When conversion disorder patients display multiple PVT failures,
 - what does it mean?

- Minimal empirical literature available
 - Most somatoform patients do not show significantly inflated failure rates on multiple PVTs
 - They report numerous symptoms, but tend to score normally on cognitive tests
 - However, conversion disorder patients tend to have higher
 PVT failure rates
 - E.g., Jones et al. (2011) "foreign accent syndrome" (failed 7 PVTs)
 - Kemp et al. (2008)
 - (PNES, functional movement disorder, nonorganic sensory deficit, functional blindness, fibromyalgia, nonorganic cognitive complaints)
 - Only 11% failed >2 PVTs, but the PVTs were insensitive (e.g., coin-in hand test, below chance performance on FC test, etc.)

- Neuropsychologists judge somatoform/conversion disorder to be 1st or 2nd most common cause for performance invalidity in clinical settings (Martin et al., 2015)
 - My experience suggests that conversion diagnosis patients fail multiple PVTs

- How does failure on multiple PVTs inform our understanding of conversion disorder?
 - Increasing numbers of PVT failures = increased likelihood of deliberate faking of symptoms
 - · Why?
 - Because PVTs involve simple and/or overlearned skills that are preserved in all but marked brain injury/dysfunction
 - The patient groups who fail multiple PVTs despite performing to true skill level have major neurocognitive disorder (e.g., low IQ, dementia; Dean et al., 2008, 2009; Bortnik & Dean, 2021)
 - To fail multiple PVTs would require that the patients depress cognitive performance to the level of patients with major neurocognitive disorder, but they would repeatedly observe no true neurocognitive abnormalities in themselves

- For example,
 - Might have difficulty counting on the Dot Counting Test,
 - But will know that they in fact can count
 - Might perform particularly poorly on Finger Tapping
 - But will have observed normal use of fingers in other contexts
 - While 1 or 2 particularly lowered performances (enough to fail PVT cut-offs) perhaps can be ignored/rationalized, more diffusely suppressed test performance (leading to mutiple PVT failures)
 - Likely exceeds one's ability to self-deceive
 - Likewise, extreme symptom reports on personality testing, and extreme behavioral symptoms (dramatic conversion disorder symptoms) likely exceed one's ability to self-deceive
 - In other words, there are limits to self-deception

- Further,
 - Failure on PVTs occurs when the test taker directs attention to the task
 - I and they will have observed normal movement/use of their fingers throughout the exam until I say to them,
 - "Now I am going to measure how quickly you can move your index fingers," I place the finger tapper in front of them (and demonstrate its use), and then they display discoordinated and slowed performance
 - They might exhibit very slowed and inaccurate recitation of digits forward,
 - but then say number strings quickly and accurately in getting ready to repeat digits backward
 - If they score below chance on FC tests, this requires that they in fact "knew" the correct answer, which requires focused attention
 - If they are turning attention to the specific task,
 - How can performance then be "nonconscious?"
 - How can something be "nonconscious" that you are paying attention to?

- Arguably,
 - Multiple failed PVTs in conversion disorder provides evidence that conscious fabrication is present
 - Just as high multiple PVT failure rates have illuminated the high prevalence of malingering in compensationseeking settings (previous to PVTs, malingering was viewed as "rare")
 - In other words, we need to "trust our tests"
 - i.e., in the absence of major neurocognitive disorder, multiple PVT failures signal conscious feigning

What does the research show us?

Psychogenic Nonepileptic Seizures

- Observers of PNES episodes report loss of awareness and ability to react in patients, but
 - Episodes rarely result in selfinjury
 - no tongue biting or biting on tip, do not lose balance and fall if seated in chair (Reuber et al., 2011)
 - Avoid noxius stimuli during PNES
 - E.g., will not allow touching of cornea with a cotton swab (Ali et al., 2011)
 - Often display purposeful movements during PNES
 - such as reaching for persons and objects, or moving items away (Reuber & Rawlings, 2016)
 - Nearly half are able to follow simple commands during PNES
 - such as to shake hands (Bell et al., 1998)

- Patients report higher levels of awareness/responsiveness, and more vivid recalled experiences during the events, than do actual epilepsy patients (Nani & Cavanna 2014)
 - >75% recall memory items introduced during the PNES (as opposed to 10% of PCS patients) (Bell et al., 1998)
- Patients may delay PNES until in a place of safety (Stone & Carson, 2013)
- No post-ictal confusion (Ali et al., 2011)
- Number of PNES episodes declines immediately after patients are informed of diagnosis, whereas this is not observed in actual epilepsy (Farias et al., 2003)

 PNES: Case series of PNES patients who divulged some conscious control over seizure events (Stone & Carson, 2013)

PNES was described as occurring following "unbearable" prodromal symptoms of anxiety and panic (anxiety/panic are reported more often in PNES than actual epilepsy), and

- that patients with PNES frequently desire the seizure to
 "hurry up" in order to end the prodromal symptoms -
 - they wanted the seizure to happen in order to feel temporarily better, i.e., to escape an uncomfortable emotional state they cannot otherwise cope with
 - One patient reported she "wishes she would black out to get rid of the feeling"
 - Another stated that she feels "like I want it to happen so the feeling goes away"
 - Another described that she "doesn't feel well until she allows herself to 'go through it'"
 - Another reported, "It's like your body wants to do it to make the pain better"

- PNES: Case series of PNES patients who divulged some conscious control over seizure events (Stone & Carson, 2013)
 - Authors note
 - "a number of our patients were aware of exerting conscious control over the onset of their blackouts"
 - They conclude
 - "in some cases, patients deliberately choose to have an attack in order to escape from the sensation (e.g., panic)"
 - "the common theme was that the rising somatic and cognitive symptoms were so intolerable that it was preferable to make a conscious choice to pass out rather than to put up with it"
 - PNES patients describe "entering" a state with the episode as a "passive location" or state they travel to
 - Patients with actual seizures view seizures as an active force that acts on their body and involves struggle with an opponent (Plug et al., 2009, 2011)

PNES

- PNES "may reflect an *inability, failure, or unwillingness to* actively engage with anxiety" (Dimaro et al., 2015)
- PNES is an emotional avoidance reaction; "altered responsiveness during PNES is a marker of lower emotional resilience or ability to tolerate emotions," or panic attacks without the panic (Baslet et al., 2017; Goldstein & Mellers, 2006)
- Conclusion:
 - PNES may be a conscious, albeit unsophisticated, method of managing acute anxiety and distress in individuals who are not psychologically minded, and
 - one that patients are reluctant to divulge to treaters (Stone & Carson, 2013)

Functional Movement Disorder

- Nonphysiologic disordered movements often decrease with distraction (Reich, 2006; Bhatia & Schneider, 2007)
- In *psychogenic tremor*, the tremor in the affected hand decreases when the patient does an activity with the unaffected hand (thereby decreasing attention to the tremor), and reaction time increases in the unaffected hand during tremor in the affected hand
 - Because it is difficult to engage in two different purposeful movements at once
 - Patterns not found in patients with neurologically based movement disorders (Kumru et al., 2004, 2007)
- In *psychogenic parkinsonism*, patients "often demonstrate slow and deliberate movement when asked to perform a particular task, but are able to function normally when distracted or when they do not think they are being observed" (Jankovic, 2011)
 - In addition, inexplicably, speech "often becomes stuttering, 'baby-like' or demonstrating a foreign accent" (Jankovic, 2011)

Functional Movement Disorder

- Psychogenic tremor patients who kept a 5-day diary of tremor activity while wearing an actigraph to track actual temor activity
 - Reported tremor most of the day, and more tremor than patients with organic tremor
 - "despite having almost no tremor recorded by actigraphy"
 - Tremor activity increased "when attention was turned toward the symptom (around the time they had to fill in the diaries)" (Parees et al., 2012)
- The more precise and accurate the information given to patients regarding deliberate movements required for a task, the worse the performance
 - Conversely, performance was normal when it is difficult to discern what precise movements are needed (Parees et al., 2013)
- In a treatment study of psychogenic movement disorder
 - Some patients showed a dramatic and rapid improvement in response to a double-bind suggestion
 - telling them full recovery constituted proof of an organic etiology and failure to recover constituted conclusive evidence of a nonorganic or psychiatric etiology (Shapiro & Teasell, 2004; Teasell & Sapiro, 1994)

Functional Movement Disorder

- Parees et al. (2013) conclude
 - In these patients "movement becomes normal when attention is diverted away from the movement or when movement is triggered covertly....impairments observed in patients with functional symptoms are manifest *only during periods of explicit attention to movement*"
 - Psychogenic movements are the *product of directed attention* and disappear when attention is diverted
 - The fact that abnormal psychogenic movements appear only when the patient is providing attention to the symptom appears to confirm conscious awareness of behavior
 - How can one not be conscious of what one is directing attention to?

 Nicholson, Stone, and Kanaan (2011) conclude that in conversion disorder there is a

 "spectrum of awareness or conscious control, both between individuals and within an individual over time"









Nonconscious

Conscious

IV. Functional Brain Imaging in Conversion Disorder

Can functional brain imaging inform as to whether conscious processes are present in conversion disorder?

IV. Functional Brain Imaging in Conversion Disorder

- Patients with conversion disorder, or hypnotized to display conversion disorder symptoms, and simulators instructed to feign conversion symptoms
 - Show activation of anterior cingulate and/or right orbitofrontal cortex
 (Van Beilen, Vogt, & Leenders, 2010; Boone, 2017 for summary)
- Anterior cingulate is also activated during the Stroop interference task
 - activation of this area would appear to reflect 'effort' applied to override the 'default' setting of habitual behavior
 - i.e., telling the truth, moving one's extremity, reading words rather than than attending to the colors they are printed in, etc.
- Prefrontal and anterior cingulate activity is present early in motor learning, and disappears with increasing movement automaticity
 - If subjects are then asked to attend to their actions, prefrontal activity and anterior cingulate activity returns (Parees et al., 2013)

IV. Functional Brain Imaging in Conversion Disorder

- -These findings indicate that anterior cingulate activity is related to the amount of specific attention directed to a task/movement
- How can one pay attention to a behavior of which one is not conscious/aware?

- The research summarized above appears to demonstrate that conversion disorder involves conscious processes
 - —If so, where did the concept of nonconscious symptom creation in conversion disorder come from?

- In the DSM-III description of factitious disorder, it is admitted that
 - Previously some conditions now classified as factitious "would have been subsumed within the category of Hysteria"
- Nicholson et al. (2011) note that the
 - "neat distinction between malingering, factitious disorder, and conversion disorder is relatively new", and
 - That the current system in which each is placed in its own category "was political as much as medical"

- Kanaan and Wessely (2010) noted that many of the cases of hysteria described by Charcot (an early pioneer in "hysteria")
 - "were notoriously staged by the patients to accord with his diagnostic formulation and therefore remain in the Salpetriere"
 - Therefore the correct diagnosis would be factitious disorder or malingering, not conversion disorder
- Conversion disorder versus malingering diagnoses have varied as a function of socioeconomic status (Kanaan & Wesseley, 2010)
 - Lower SES patients were judged to be malingering
 - Upperclass patients (especially women) were judged to have conversion disorder

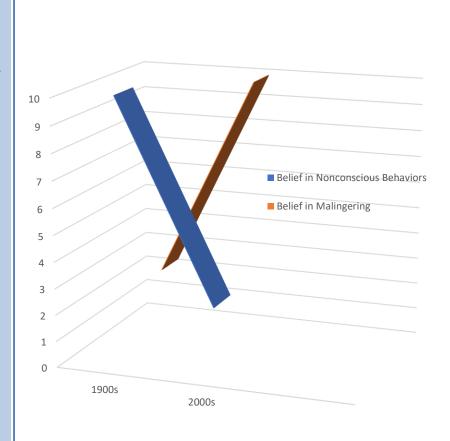
- What were the characteristics/descriptions of women in the Victorian age?
 - To be marriageable, they were expected to be
 - idle
 - innocent, and to reinforce appearance of innocence through attire (e.g., white muslin dresses)
 - ignorant
 - meek
 - lacking in opinions
 - generally helpless and weak
 - needing men to take care of and provide for them since they were unable to provide for themselves
- Theme of female inferiority in comparison to male superiority
 - Petrie, as reported in Appell (2021)

- Per Virginia Woolf (in Wikipedia, "Women in the Victorian Era"),
 women were to be
 - "immensely sympathetic, immensely charming, utterly unselfish...She sacrificed herself daily...In short, she was so constituted that she never had a mind but preferred to sympathize always with the minds and wishes of others. Above all...she was pure. Her purity was supposed to be her chief beauty."
- Would such a woman be viewed as able to consciously fabricate symptoms?
 - No
 - So, argubly, an interpretation had to be developed to "explain" how women came to produce nonphysiologic symptoms
 - Hence a "conversion disorder" involving nonconscious symptom production

 Conditions and diagnoses are shaped by the societies in which they are created

- E.g., homosexuality used to be viewed as a psychiatric disorder
 - Was dropped from the DSM in 1973

- Two important arcs can be observed in the last decades:
 - 1) Society as a whole appears
 less accepting of the idea
 that extreme symptoms can
 be produced nonconsiously
 - 2) growing appreciation
 within the field of mental
 health, and neuropsychology
 in particular,
 - That deliberate faking is common, particulary in the context of secondary gain



Changes within Society

- Movies in the 1930s, 1940s, and 1950s depicted cases of extreme amnesia, such that characters did not recall who they were (Dangerous Intrigue, 1936; Spellbound, 1945), or were hypnotized to commit crimes out of conscious awareness (The Cabinet of Dr. Caligari, 1920)
 - Such plots are rare today
 - More recent movies have depicted deliberate feigning of amnesia/multiple personality disorder (*Primal Fear*, 1996)

- TV shows portrayed characters who were hit on head, lost memory (including who they were), but memory would return when hit on head again (right before end of show)
 - These plots are not found in TV shows today

Changes within Society

- Hypnosis of audience *members* at carnivals and entertainment shows who were ordered to engage in silly behaviors seemingly out of conscious awareness (although they typically would not engage in behaviors at variance with their moral codes)
 - Such shows have disappeared

Changes within Mental Health Field

- Hypnosis (in which a patient is placed in a "trance-like state" and given therapeutic "suggestions") used to be a common treatment paradigm
 - Search of requirements for advanced degrees in psychology revealed no hypnosis coursework

- Appreciation that some cases of dissociative disorder are feigned
 - 11% of compensation-seekers with this diagnosis judged to be malingering (Mittenberg et al., 2002)
 - Case report of malingered fugue detected with PVTs (Marcopulos et al., 2016)

"Does the unconscious have a place in modern forensic psychology and neuropsychology?"

FC techniques detect
 fabricated amnesia for
 criminal behavior (Denney,
 1996)

Changes within Mental Health Field

 Existence of multiple personality disorder/dissociative identity disorder is now questioned





- Prominent in the 1970s and 1980s, but more recent empirical research has consistently questioned its existence (e.g., Lilienfeld et al., 1999)
- The case of Sybil (described in 1973) was demonstrated to be a fraud (e.g., Sybil Exposed; Nathan, 2008)

- High profile criminal defendants have feigned multiple personality disorder
- Informal poll of psychologists in California revealed that none had seen/treated a patient with DID
 - if DID is a viable condition, how can large groups of practicing mental health professionals never seen it?

 If the concept of nonconscious creation of symptoms is a product of obsolete societal views from over 100 years ago

— Is it now time to reconsider conversion disorder as a type of factitious disorder?

- The "default" setting appears to be to diagnose conversion disorder rather than factitious disorder
 - However, before we reflexively diagnose "conversion" or "dissociative" disorder in the context of nonphysiologic physical and cognitive symptoms, we need to carefully consider
 - "Why do I think this behavior is nonconscious?"
 - "How do I know that this behavior is nonconscious?"
 - "What cues am I relying on and are these in fact reliable?
 - Just as PVT use led to a paradigm shift in terms of understanding the prevalence of malingering
 - Multiple PVT failures can illuminate the likely high rate of factitious disorder in patients otherwise considered to be conversion disorder

- If conversion disorder is actually a type of factitious disorder
 - Why has it not been viewed as such?
 - Factitious disorders are underdiagnosed, and physicians are more comfortable diagnosing conversion disorder than factitious disorder (Bass & Halligan, 2014)
 - They are uncomfortable with concluding that the behaviors/symptoms are conscious – viewed as breach of treating relationship
 - Spence (1999) pointed to the doctor/patient relationship in emergence/maintenance of conversion disorder symptoms
 - "both doctor and patients were (consciously or otherwise)
 invested in the notion of an unconscious psychic mechanism"

Three reasons why it has not been viewed as such:

- 1) The idea of nonconscious feigning of CNS symptoms has been entrenched in training programs, and was mirrored by societal views
- 2) Clinicians view it as more "tactful" and less confrontational and disruptive of the treating relationship to describe the behaviors as nonconscious
 - Same process likely spawned the "cry for help" interpretation of nonplausible symptom report on personality testing
 - There is no research supporting a "cry for help" interpretation
 - Such an interpretation is no longer contained within MMPI interpretative guides
- 3) The marked drop in *quality of life* caused by the symptoms is hard to accept as conscious
 - We ask "who in their right mind" would consciously create symptoms that are embarrassing (body jerking, drooling, strange vocal tics, etc.), restrict activities including ability to drive, require use of canes and wheelchairs, etc.?

- We need to examine the marked drop in quality of life caused by the symptoms
 - And what psychological processes allow this to occur
 - i.e., are there particular goals in combination with specific coping patterns that spawn conscious feigning of extreme symptoms that lead to loss of quality of life?
- In contrast to malingering, factitious/conversion disorder patients display their symptoms 24/7
 - Malingerers only don their symptoms for exams or whenever otherwise observed
 - Some have suggested that conversion disorder patients are simply malingering
 - But most clinicians view these patients as very distinct

- Goals in factitious/conversion disorder:
 - Psychological needs and pressures are so overriding that extreme behaviors/symptoms may viewed as necessary
 - "conversion symptoms are associated with strong emotions or situations that threaten the individual's physical or psychological integrity" (Kozlowska & Williams, 2009)
 - The more prepotent the psychological need, the more extreme and continuous will be the displayed symptoms

- Eisendrath (1996)
 - in achieving the psychological goal (primary gain) there are "substantial secondary losses," but these losses are viewed are less than the psychological gain
 - In malingering, "the secondary gains far exceed any secondary losses or primary gain"
- In other words, the conversion disorder patient is willing to engage in much more extreme symptoms with loss of quality of life than is a malingerer attempting to secure an external goal
 - The person's "(psychological) life depends on it"

- What would represent "extreme" psychological needs?
 - Stem from world view that tells the person
 - What the world is like
 - How others behave
 - What the person needs to do to survive in that world
 - World view likely arises from early life experiences, perhaps originating in pre-language stages, and is not likely "conscious" (the "wallpaper" of the person's life)
 - The world view is powerful and organizes the life
 - Much more so than a single, time-limited, external goal found in malingering
 - Leads to continuous or semi-continuous symptoms, invalid life role, and loss of quality of life

- What comprises this problematic "world view": greater family psychopathology-
 - PNES patients are exposed to greater psychopathology within their families (Krawertz et al., 2001)
 - PNES family dynamics often reveal "unspeakable dilemmas"
 - At times involving threats of physical or sexual assault to someone in the family, with the PNES patient as the "silent" family member (Grifffith et al., 1998)
 - Increased rates of child abuse and emotional neglect in PNES (Fiszman et al., 2004; Kaplan et al., 2013)

- Extent of conversion disorder symptoms can be viewed as a direct barometer as to the extent of family dysfunction in the family of origin
 - The more extreme and developmentally regressed the behaviors and symptoms,
 - the more extreme the family dysfunction the person was exposed to in childhood

- Conversion disorder symptoms allow one to
 - Escape from powerful emotions
 - Assert control in relationships

 The "goal" is so all-consuming that sabotage to the quality of life is viewed as "worth it"

- Coping patterns in conversion/factitious disorder
 - Regressed, "childlike" manner of solving problems,
 due either to
 - Developmental failure to develop
 - Related to attachment breaches
 - That give rise to failure to develop the "self-talk" that allows one to process and regulate emotions,
 - Temporary dysruption of "mature" coping resources
 - Due to catastrophic stressor/unbearable emotion

• With *problematic attachment*, individual is not encouraged and supported in expressing feelings, and defaults to ignoring and avoiding them (Lind et al., 2014; van Middendorp et al., 2008)

 Problematic attachment is related to both reduced self talk and somatoform conditions

- *Self-talk* is key:
 - Inner speech facilitates the development of more coherent and sophisticated self-images and self-awareness, and serves to inhibit self-deception (Morin, 1995, 2009; Seigrist, 1995)
 - Inverse relationship between self-talk and selfdeception (or "non-consciousness")
 - "self deception is less common when people think about themselves.
 People who talk to themselves frequently know a lot about their own persons. For this reason, it is more difficult for them to deceive themselves" (Seigrist, 1995)
 - "in order for an individual to become explicitly conscious of something it is necessary for him to actively spell it out in a clear, elaborate and apparent way as a means to engage the world....where there is an increasing degree of self-deception it is suggested that this spelling out process is deficient" (Travin & Potter, 1984)

- Related to reduced self-talk, somatoform patients are
 - Less psychologically minded (Shapiro & Teasel, 2004)
 - Alexithymic: inability to identify, describe, and label emotions in oneself (De Gucht & Heiser, 2003; Huber et al., 2009; Kaplan et al., 2013; Waller & Scheidt, 2004)
 - When individuals *lack the ability to identify* and *label feelings, they search for* physiological explanations for stressinduced physical symptoms (Bailer et al., 2008)

- If conversion disorder patients are not engaging in inner dialog/self-talk
 - Regarding their feelings
 - How to manage stress
- By definition do they have a different type of consciousness?
 - Impressionistic?
 - Impulsive/reactive?
 - Failing to carefully weigh consequences and strategize?

Questions to consider:

- Would it be more accurate to say that conversion symptoms reflect an *altered or different type of* consciousness, rather than a lack of consciousness?
 - Is consciousness normal if it lacks inner speech?
 - Conversion disorder feels like a young child "at the wheel" who is attempting to solve a major crisis that the adult could not handle, either because the stressor was so major that it overwhelmed coping resources, or that because of developmental issues, the person had inadequate coping resources
 - The person is unable to "talk themselves through" the crisis due to lack of inner speech, and the developmentally immature coping apparatus takes over
 - The solution is unsophisticated, and ultimately backfires and sabotages quality of life (e.g., use of wheelchair that is not truly needed)
 - We think it is "nonconscious" because the plan/agenda does not appear rational

- Analogy to physical damage from childhood abuse:
 - If a child were to experience such heinous abuse in childhood that it resulted in substantial physical damage
 - When seeing this mangled individual (missing limbs, eyes, etc.)
 - We would instantly worry about their ability to naviate the physical world
 - But with abuse that does not lead to obvious lingering physical manifestations
 - We do not appreciate that these individuals are just as limited in their ability to function in the world
 - Their psyche is missing the equivalent of limbs, eyes, and ears, yet they are expected to navigate the interpersonal world

- Are there 3 separate/dissociable aspects of "consciousness" in conversion disorder?
 - 1) whether symptoms are consciously created
 - 2) whether patients are consciously aware as to why they are creating symptoms
 - 3) whether patients are consciously aware of underperformance on PVTs
- Patients are likely conscious of #1 and #3, not #2
 - Just because the patient is not aware of #2, does not mean they are not aware of #1 and #3

- Why do conversion disorder patients fail PVTs?
 - i.e., in a functional motor condition or PNES episodes, why would cognitive symptoms be feigned?
 - These patients are invested in appearing disabled because of the psychological needs that this life role satisfies
 - If multiple PVT failures signal conscious symptom production
 - Does it make sense that some symptoms are consciously feigned (i.e., cognitive) and others nonconsciously created (e.g., PNES, pseudomotor sx)?

- With any other type of psychiatric disorder that is associated with marked decrement to quality of life,
 - Do we attempt to decipher if the symptom is consciously versus nonconsciously produced?
 - 1) Hoarding
 - 2) OCD
 - 3) Anorexia
 - 4) Impulse control disorders

Do these conditions involve a "different" type of consciousness?

Then why do we attempt to determine nonconsciousness in conversion disorder?

- Further, position on the consciousness/nonconsciousness continuum is not static:
 - Nicholson, Stone, and Kanaan (2011) conclude that in conversion disorder there is a
 - -"spectrum of awareness or conscious control, both between individuals and within an individual over time"
 - If it is a "moving target" how do we document it?

In summary:

- In conversion disorder, symptom production
 - is likely conscious
 - Although perhaps involving a qualitatively different type of consciousness not informed by inner dialog and deliberation
 - Is predicted by the "perfect storm" of
 - 1) extreme psychological need that is viewed as imperative to maintain psychological integrity/equilibrium
 - Involves desperate need for recognition, support, control, and/or protection (including from intolerable emotion)
 - 2) Absence (temporarily or permanently) of "adult" coping mechanisms
 - Problem-solving is regressed, unsophisticated, and ultimately sabotages quality of life

IX. Need for a new diagnostic schema?

- Problems with the discrete diagnoses of conversion/dissociative disorder, factitious disorder, and malingering
 - Clinician has to determine whether symptoms are consciously/nonconsciously produced
 - With no specific methods as to how to do this
 - Malingering and factitious are the same with the exception of external versus internal motive

IX. Need for a new diagnostic schema?

- More parsimonious to have an "umbrella term," such as pseudo-symptoms, coded as to
 - Type of falsified symptom (psychiatric, cognitive, physical)
 - based on PVT and/or SVT data, laboratory or other medical tests
 - Context (external motive, psychological goal, or both)
 - Developmental level of the behavior and coping strategy
 - Immature/regressed versus sophisticated/analytical/"mature", and relatedly
 - Impact of symptoms on *quality of life*
 - Extent to which personality disorder plays a role in symptom manifestation
 - With more extreme and bizarre symptoms accompanied by personality disorder
 - Particularly borderline and histronic

Determination of "consciousness" would be dispensed with

Malingering

- secondary gain (external motive)
- "adult" (deliberative/analytical) approach to feigning
- no to minimal reduction in quality of life
- Personality disorder is not predictive

Factitious disorder

- psychological gain
- personality disorder (including desire to deceive medical personnel)
- mixed levels of coping (symptom feigning might be highly sophisticated, but driven by regressed psychological goals)
- reduced quality of life

- If Conversion disorder is a separate condition
 - Same criteria as factitious disorder with the exception that developmental level of coping is likely regressed/ unsophisticated for both the goal and how symptoms are fabricated
 - Personality disorder may or may not be present
- However, delineation of characteristics awaits research on groups without multiple failed PVTs

IX. Need for a new diagnostic schema?

 Would lead to additional research and assessment content:

- Future research should divide "conversion"
 disorder patients into those failing multiple PVTs
 versus not
 - On what characterstics do they differ?

IX. Need for a new diagnostic schema?

- Assessment should involve quantification of level of coping, including extent of inner speech and alexithymia
 - Use literature on emergence of coping abilities to stage at what level the developmental arrest has occurred
 - Early childhood coping behaviors involve seeking support and soothing from others, withdrawing from threat, and using objects for soothing (blankets, stuffed animals)
 - Older children employ evolving language and cognitive skills for self-talk to calm negative emotions, and have a wider range of coping resources (Compas et al., 2001)

X. Implications for treatment

- Do treatment strategies and goals change based on whether symptoms are viewed as conscious versus nonconscious?
 - Do attempts to determine consciousness/nonconsciousness of symptoms assist treatment?

X. Implications for treatment

- What "message" do the following statements convey?
 - "Did you see how your leg returned briefly to normal when I did that test (Hoover's sign)? That shows us that there is a problem with the way your brain is sending the signal to your leg."
 - "Have you heard of phantom limb syndrome? That's when someone has an amputation, but their brain still thinks the limb is there. Your disorder is a bit like the opposite the leg is there but the brain thinks it isn't anymore. The map of that part of the body in the brain has gone wrong."
 - "Brain scans have shown that the brain is working too hard in your condition. Normally we shouldn't have to think about how to move our arms or our legs. As soon as our brains start to work on this too hard it goes wrong. It's similar to thinking about your feet when you are climbing upstairs, or trying too hard to fall asleep at night."

X. Implications for treatment

- What "message" do the following statements convey?
 - That the patient
 - has no control over the symptoms
 - is a passive victim
 - is absolved of responsibility for the symptoms
 - is given permission to continue the symptoms

- Is there a different approach?
 - Martin and Schroeder (2021: A framework for providing clinical feedback when patients invalidate testing)
 - Advocating (colluding) approach: patient is not confronted, and relationship with patient is maintained, but at expense of society
 - *Enforcing approach*: patient informed that symptom production is deliberate/conscious; community is protected but relationship with patient is ruptured
 - **Objective approach**: patient documented to produce invalid data, and clinician conveys results to referring source and withdraws, and conveys to patient that the clinician cannot help
 - *Firm/beneficent approach*: goal is to minimize harm to both patient and others
 - Invalidity of test results is conveyed to the patient
 - But the clinician then makes a "hard turn" to focus on factors that are driving the behavior

- Is there a different approach?
 - Options are not solely colluding versus confronting the patient
 - Instead, convey respect for the patient's attempt to handle distress*, but that the two of you will have the opportunity in therapy to explore if there are other options for managing the problem situation

^{*}Given the ACEs and limited ability to cope/problem solve due to lack of inner speech, the "solution" they arrived at does make sense

- Build rapport through communicating interest in helping patient
- Convey respect
 - That the symptoms are extreme, which means that what the patient was dealing with was/is extreme, and has caused the patient to have to resort to extreme measures
 - Individuals attempt to find ways to manage the problems in their lives, which the patient has done
 - However, some strategies have more negative consequences than others; therapy will be a safe place to explore the pluses and minuses of the patient's approach, and if they want to pursue other options

Ask about the subjective experience of the symptoms

- What was happening right before the symptom started?
- How did the patient feel right before the symptom started?
- How did they feel once the symptom started? Better?
- How did they feel when the symptom stopped?
- How did the people around the patient react to the symptom?
 - How did they treat the patient?
 - Did the symptom stop any conflict?
- What do you think would happen if your symptom went away?

- The overall message should be:
 - 1) there is a good reason why this symptom developed, and you are not being negatively judged
 - 2) but are you OK with continuing the symptom or would you like to explore other ways of dealing with this situation so that you don't have to pay such a high price?
 - We get to live one life are you living the one you want?
 - 3) consciousness/nonconsciousness of symptom production is not addressed, but the message to the patient is that they can have control over whether they continue to have the symptom

- CBT intervenes by asking the somatoform/conversion disorder patient, "How is that (i.e., the symptom, preoccupation with the symptom, invalid life role, spending inordinate amounts of time and money in treatments) working for you?"
 - The therapist is forcing the patient to rationally confront the loss of quality of life caused by the symptoms, and to make an adult reasoned decision as to whether he/she wishes to continue with that behavior
 - The treatment facilitates the development of inner speech
 - It conveys to the patient that they ultimately have control over symptoms
 - Rather than colluding in the view that the patient is a passive victim of the symptom (a body that has gone "haywire")

- Arguably, effective treatment of symptoms involves facilitating self-talk
 - Meichenbaum (1977) described the addition of cognitive components to behavioral therapy, moving treatment toward cognitive-behavioral therapy:
 - "The theoretical implications of increased interest in cognitive factors direct attention to the nature of the clienttherapist interaction, mediation, the content of inner speech and the client's appraisal of outcome as active ingredients of the change process."

Other treatments?

- Transcranial magnetic stimulation* attempted in functional upper limb weakness
 - 4 of 8 participants reported adverse effects (severe headache, "thumping sore head for a few weeks," difficulty writing and opening things using the symptomatic hand, dissociative regression [forgetting simple things that what things tasted like, what people looked like]; McWhirter et al. 2016);
 - any improvements were not sustained at 3 months
- *Stimulation is produced by generating a brief, high-intensity magnetic field by passing a brief electric current through a magnetic coil on the head

Other treatments?

- Physiotherapy (for psychogenic movement disorders)
 - Focuses on education, demonstration that normal movement can occur, changing unhelpful behaviors, and retraining normal movements
 - Emphasize the task as a whole while utilizing a distraction (e.g., tossing a ball rather than discrete exercises on the limb, counting backwards by 3s during a motor task; Saxena et al. (2020)
 - Treatment serves two purposes:
 - Distracting from psychogenic movement symptom (and symptoms can only be maintained when the patient is focusing on them)
 - Substituting a new movement/behavior (the pseudomotor symptoms become overlearned and almost "reflexive," and new behaviors need to be substituted)

- Is treatment easy?
 - Unfortunately, no
 - Symptoms often become an *identity* that the patient is unwilling to discard
 - Symptoms have provided negative reinforcement (escape from negative feelings)
 - What we view as poor quality of life may not be viewed as such by the patient
 - Without dissatisfaction with quality of life, there is no impetus for change
 - Comorbid personality disorder is a complication
 - Longterm outcomes often poor

Case: Syncope and claimed concussion

- 27-year-old, right-handed, White female
- HS graduate; denied LD and ADHD
- Has never held employment and no current educational or occupational plans; wanted to become a parasitologist but was unable to attend school due to fainting up to 30 times per day; researched online training to become a pharmacy tech, but program "too much to handle"
- Claimed TBI related to MVA; she denied LOC, but reported that she felt "very weak" post accident and "confused about what happened;" no anterograde amnesia

- At ER, GCS = 15 and patient was not reporting head injury; claimed symptoms involved lower back pain and abdominal pain, and near or brief syncope; brain MRI month later was normal; no TBI diagnosis was provided; the patient was known at the ER for previous syncopal episodes
- Previous medical history:
 - POTS
- Only medication is klonopin for PTSD

Claimed symptoms 2 years later

Cried and laughed when questioned regarding cognitive symptoms

- Continuous neck pain
- Daily headaches similar to "knife pain" when she attempts to concentrate or multitask, and involve "heightened sensation" in which she can "see everything and hear everything."
- Worked on "divided attention" in speech therapy, but "took a break" because treatment was making her more depressed (ashamed to do "child"-level tasks)
- Her eyes "dart around" when she attempts to read and she has to cover up "half the page to focus on it"
- Reduced coping skills, and that if air conditioning is too loud it "causes me to snap, be on edge;" the "littlest things trigger me" (hearing someone's cell phone ring in a waiting room "made me snap" and she gave the person "dirty looks")
- "one moment I'm happy, one moment angry"
- Depression, including suicidal ideation and attempts, involving "biting myself" and "stabbing myself with a pen" in the hand (one occasion)
- Anxiety and panic attacks
- Sleep problems (felt like something would attack her and had to sleep with her mother post-accident)
- Gained 20 pounds

Life activities 2 years later

- Resides with mother (has to live with mother because she cannot live independently due to the "fainting")
- When she gets up in morning "depends;" she "must" obtain 8 hours of sleep per night due to her "heart condition"; typically arises at 10am
- When asked as to activities, she responded, "Not much," and that she "hates my life – I can't really do anything anymore"
- She does not like to go outside due to "noises"
- When asked as to socializing, she responded, "Not anymore"
- When asked as to hobbies, she began crying and responded, "Not anymore"; used to like to bake, and had volunteer job working with pit bulls and a school for homeless children
- Cannot drive due to her heart condition ("passing out")
- Her mother does the cooking, household cleaning and laundry, grocery shopping, and managing of finances; the patient stated that if she attempts to put something in the oven or reach in cupboards, this "triggers" the heart condition

Neuropsychological exam 2 years later: Behavioral observations

- Accompanied by her mother who remained in the lobby throughout the exam
- Normal height/weight; long blonde hair, wore clothing with cleavage showing, and long red fingernails on some fingers (she apologized for not having done her nails)
- The patient was waiting in the lobby when the examiner arrived, and was already crying with mascara was running down her face; "pained" facial expression
- Extreme tearfulness during interview; large pile of used Kleenexes accumulated on the examtable
- Several tests were discontinued due to patient's report of not being able to "cope" with them
 - E.g., circling letters in a booklet was "freaking me out", noise of the finger tapper was "making me angry," she interrupted presentation of a word list claiming she could not concentrate
- Provided immature/regressed responses, e.g., when shown a picture a cow and asked to report what important part was missing, she commented, "all I see is a cute cow"
- Patient asked for a bathroom break at approximately 2 hours, and when she passed by her mother, her mother asked in a rather plaintive and overly solicitous voice, "Are you OK?"
- No obvious cognitive problems (was able to provide a full history, no problems in understanding task instructions)
- No signs of pain (e.g., spontaneous comments regarding pain, repositioning, grimacing, massaging body areas, etc.)

Neuropsychological exam:

PVTs

Failed: 6

- Rey 15-item + recognition: recall = 6; recognition = 9; combination score = 15
- Rey Word Recognition Test:6
- Warrington (total = 38; time = 209"
- Digit Symbol Recognition equation: 29
- Rey figure indicators (copy = 24; effort equation = 48)
- Digit Span (failed 4-digit time = 5;" passed: ACSS = 6, RDS = 8)

Passed: 3

- DCT: E-score = 11.0
- Picture Completion Most Discrepant Index (4)
- Finger Agnosia (1 error)
 - Discontinued tests:
 - B Test
 - RAVLT
 - Finger Tapping
 - Marked inconsistencies that arguably prove deliberateness
 - Could do the MMPI-2-RF in 1 hour, but not the b Test (stopped p. 2)
 - Slow to recite digits in forward order, but recited them quickly in forward order in preparation for repeating them backward

Neuropsychological exam: Standard Test Results

- Attention:
 - Digit Span = 9th %
- Processing speed:
 - Digit Symbol = 2nd %
- Visual perceptual/spatial:
 - Picture Completion = 5th %
 - Rey copy = 24; $<1^{st}$ %
- Visual memory
 - Rey figure immediate = 6; <1st %

Neuropsychological exam: MMPI-2-RF

- Marked over-report of psychiatric, physical and cognitive symptoms:
 - F-r = 111T
 - -FBS-r = 92T
 - RBS = 97T
- Under-report
 - L-r = 71T
- 1st suggested diagnosis: "Malingering of emotional symptoms"
- VRIN-r = 43T and inventory completed in 1 hour (argues against presence of any significant cognitive dysfunction)

• Social history:

- Only child
- Home-schooled
- Mother with fibromyalgia and diabetes; works in customer service
- Father has not worked in two years and judged to be 100% disabled due to back surgeries
- Parents divorced when patient was 18 (the year before fainting started)

- She sees father two times per year (she travels to see him);
 speaks to him daily
- Paternal grandfather described as very abusive to patient's father, and she is not allowed to see him
- Patient has never been in a long term relationship, and reported that she dates "sometimes"
- Her only regular social contact is with her mother
- Receiving disability compensation for POTS

POTS (postural orthostatic tachycardia)

- Unclear whether any true cardiac abnormalities were detected in patient's case (she sees cardiologists rarely)
 - Psychiatric conditions are judged the cause of 26% of syncopal cases, especially in women with 4 or more episodes in previous year (Andrighetto et al., 1999)
 - Patients with unexplained syncope/POTS commonly present with depression, anxiety, panic attacks and somatization (Anderson et al., 2014; D'Antono et al., 2009)
 - Psychogenic nonsyncopal collapse is predicted by various factors including \geq 20 lifetime fainting spells and \geq 2 fainting spells in a day (Heyer et al., 2016)
 - At age 19 the patient was fainting up to 30 times per day; medical staff "didn't know what was wrong," but considered pacemaker implantation
 - Methods have been described to identify presence of somatoform/conversion reactions and malingering in claimed syncope (Grubb et al., 1992)

The Issue/Stressor

- Mother's treatment of her has conveyed that she is *incredibly fragile and* cannot take care of herself mother is keeping her in "suspended animation"
 - if she is alone she might die; she cannot live independently due to fainting
 - she cannot leave the home or drive, including to work or school, because her heart might "act up" and she would faint
 - When she travels to see her father on an airplane, she is transported on and off the plane via wheelchair
- Extremely ambivalent feelings toward mother
 - wants to be independent, but feels she is unable to and therefore has to depend on mother, but is angry at her dependent state and has rage toward mother; since MVA
 - She has become so angry at mother than she has wanted to "hit" her
 - She won't let mother talk to her from another room "because I can't concentrate unless she is in front of me"
 - She admitted to "probably" telling her mother to "shut up"
- Claimed symptoms from the MVA enable her to exert control in the relationship (mother commented "you can't yell at someone because of the way their brain is functioning")

How would I conceptualize this patient in 2022?

- 1) Extreme stressors (psychologically suffocated by very needy mother who cannot tolerate any independence in the patient patients feels completely trapped)
- 2) Completely inappropriate parenting (enmeshed, no boundaries; slept in same bed with mother post-accident) resulted in failure to develop adequate coping resources and which led to unsophisticated and regressed methods for dealing with stressors (fainting)
- Creation of symptoms for both external motive (monetary damages from lawsuit excuses her from education and employment, which she feels she cannot do) and internal motive (symptoms ensure she will be monitored and taken care of by others so she will not die)

How would I conceptualize this patient in 2022?

- I concluded 4 years ago that the patient had a factitious disorder, perhaps with some somatoform features at baseline
- 2) But do we need to comment on whether symptoms are consciously/nonconsciously produced?

Not convinced we do

How would I conceptualize this patient in 2022?

Using the <u>alternative diagnostic schema</u> for this patient:

- Type of falsified symptom (psychiatric, cognitive, physical)
 - based on PVT and SVT data, lack of confirming medical tests
- Context (external motive, psychological goal, or both)
- Developmental level of the behavior and coping strategy
 - Markedly immature/regressed versus sophisticated/analytical/ "mature", and relatedly
 - Massive impact on quality of life
 - She is frozen in time in dependent child role
- Extent to which personality disorder plays a role in symptom manifestation
 - Dependent and histrionic PD
- Do we need more information or is this enough to proceed with management of the case?

To Recap

- 1) The concept of a "nonconscious" conversion disorder is likely anachronistic and obsolete
- 2) View of symptom creation as nonconscious is inconsistent with research showing likely conscious processes
- 3) Symptom creation in conversion disorder is likely no more nonconscious than are symptoms associated with other psychiatric conditions that result in similar loss of quality of life
 - Symptom creation may be associated with an altered type of consciousness (less self-talk), but this would also likely be true of other psychiatric conditions
 - To the extent that "nonconsciousness" regarding symptom production occurs, it is not likely static within the individual

To Recap

- 4) Methods to determine whether symptoms are consciously versus nonconsciously produced are not available with the exception that multiple failed PVTs would be most consistent with conscious symptom fabrication
- 5) Attempts at determination as to whether symptoms are consciously versus nonconsciously produced do not appear to add to our understanding of patients, and most likely sabotage treatment by buttressing patients' views that they are passive victims whose symptoms are not under their control

Questions?

