

Beyond doubt?  
Accurate assessment of  
delusions: its role towards  
delivering justice and safety

PAMELA J TAYLOR

CARDIFF  
UNIVERSITY

PRIFYSGOL  
CAERDYDD

# Acknowledgements

- ▶ Reid Meloy, Steven Golding and Shawn Channell – and especially Reid - who wanted a forum to consider 'sovereign citizens' and the art and science of distinguishing eccentricity or extremism from delusions
- ▶ Karam Fadhli, whose MD I have been supervising, and Gemma Plant, Anna Kissell and others who have contributed to the data collection for parts of what follows, including the patients

# The difficulties with delusions

- ▶ They are common
- ▶ They are associated with action – lawful and unlawful – including violent action
- ▶ Practitioners are avoidant of them
- ▶ But we are required from time to time to pronounce in court, in a state of being beyond reasonable doubt, not only that delusions were present/not present at a particular time [perhaps now, perhaps at the last examination, more probably at the time of an alleged offence over 18 months previously] but also that they are relevant to a range of actions or behaviours
- ▶ Or, we are required to detain a person in hospital for their safety or the safety of others because of their delusions so, again in the interests of human justice, although we might accept balance or probabilities here, we should be rather sure of the evidence
- ▶ They are abstractions/ideas
- ▶ They are difficult to measure
- ▶ Difficult but not impossible

# Delusions are common

- ▶ Non-affective psychosis affects 1-2% of the population
- ▶ Delusions
  - ❖ N. Europe about up to 17.5% *van Os et al 2000*
  - ❖ UK up to 3-11% *Wiles et al, 2006*
  - ❖ USA up to 5% *Mojtabai, 2006*
  - ❖ Australia 4.5% *Scott et al, 2006*
  - ❖ 52 countries 5-8% *Nuevo et al, 2010*
  - ❖ *Link & Stueve 1994* recognised the role of delusions in violence regardless of diagnosis

# Six studies associating delusions with violence

- ▶ Taylor, 1985, especially serious violence; pre-trial prisoners, UK
- ▶ Robertson and Taylor, 1993, pre-trial prisoners, UK
- ▶ Taylor et al, 1998, almost all serious violence, high security hospital patients, UK
- ▶ Appelbaum et al, 2000, mostly minor/moderate violence, general psychiatric patients, USA; Monahan et al, 2001
- ▶ Teasdale et al, 2006, as Appelbaum sample, confirmed association with threat delusions for men, not women
- ▶ Swanson et al, 2006, USA-wide sample general psychiatric patients, association with more serious violence

# Six studies associating TCO symptoms with violence

- ▶ Link and Steuve, 1994, USA general psychiatric patients and community controls in New York
- ▶ Swanson et al, 1996, 3-centre USA study general psychiatric patients
- ▶ Link et al, 1998 Israeli population based sample
- ▶ Bjørkly & Havik, 2003, small Norwegian sample seriously mentally ill and violent patients
- ▶ Stompe et al, 2004, Austrian NGRI men – more serious violence
- ▶ Hodgins et al, 2003, forensic and general psychiatry discharged men, Canada, Germany, Finland & Sweden; longitudinal study; at least one TCO or increasing TCO

# Delusion avoidant practitioners?

- ▶ Conversational analysis 7 psychiatrists and 32 patients *McCabe et al, 2002*
  - ❖ Once per consultation
  - ❖ Mean time 67 seconds
  - ❖ Patients as likely as psychiatrists to initiate talk of delusions
  - ❖ When patient talks in detail about symptoms or asks for explanation, psychiatrist turns attention to something else/ends interview
- ▶ 11 staff, various disciplines, in 3 centres in Norway *Loe and Hem, 2012*
  - ❖ You know you don't understand
  - ❖ Coping: Emotional attunement to suffering and seeking meaning
- ▶ Expressed emotion literature *Moore et al, 2002; Berry et al 2011*
  - ❖ Over time, staff develop intense and criticising relationships with some psychotic patients



# Beyond delusion avoidance? - changing the diagnosis

- ▶ Ms A's contact with mental health services can be divided into two periods:
  - ❖ 1992-8, when given a diagnosis of schizophrenia, treated with anti-psychotics and followed up by services
  - ❖ 2003-5, when given a diagnosis of BPD, and not given continued treatment nor followed up

*Healthcare Inspectorate Wales, Homicide Inquiry 2000*





# Some specific challenges to assessment

## A 'sovereign citizen'



U.S. Department of Justice  
United States Marshals Service

# WANTED BY U.S. MARSHALS

NOTE TO ARRESTING AGENCY: Before arrest, validate warrant through National Crime Information Center (NCIC).  
United States Marshals Service NCIC entry number: (NCIC) M255541014  
W502433894

NAME: KAHL, GORDON MENDELL  
AKA/IS: LOUDEN, SAN

DESCRIPTION:

Sex:	MALE
Race:	WHITE
Place of Birth:	NORTH DAKOTA
Date(s) of Birth:	JANUARY 8, 1920
Height:	5'7"
Weight:	160 LBS.
Eyes:	HAZEL
Hair:	WHITE/BALDING
Skintone:	MEDIUM
Scars, Marks, Tattoos:	SCAR FOREHEAD, SCAR LEFT HIP
Social Security Number(s):	501-14-2682
NCIC Fingerprint Classification:	DO CI PM PI PM DI PM PN PI CI

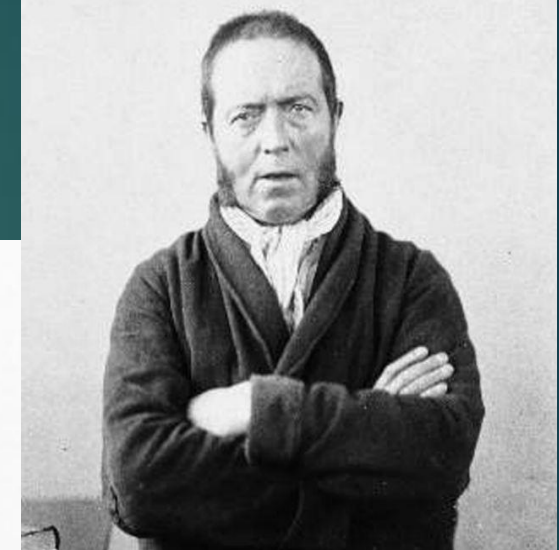
ADDRESS AND LOCALE: CONSIDER ARMED AND DANGEROUS  
KAHL is believed to have been involved in the February 13, 1983 shooting where two U.S. Marshals were slain and four other officers were wounded.

WANTED FOR:	MURDER	PROBATION VIOLATION
Warrant Issued:	District of North Dakota	Western District of Texas
Warrant Number:	8359-0214-0044E	8180-0330-0444D

DATE WARRANT ISSUED: February 13, 1983      March 30, 1981

A \$25,000 REWARD IS OFFERED FOR INFORMATION WHICH WOULD LEAD TO THE DIRECT ARREST OF KAHL.

If arrested or whereabouts known, notify the local United States Marshals Office, (Telephone: \_\_\_\_\_).  
If no answer, call United States Marshals Service Communications Center in Manassas, Virginia.  
Telephone (800)336-0102; (24-hour telephone contact) NLT/TS access code is VAUSM0000.  
Form USM-112 (Rev. 3/2002)  
FBI/DOJ EDITIONS ARE OBSOLETE AND NOT TO BE USED



The prototype NGRI  
[but not all are]

# Sovereign citizenship

A much decorated war veteran and farmer, Gordon Kahl, wrote to the US Internal revenue that he could no longer 'pay tithes to the Synagogue of Satan'

He renounced his driving licence and his pilot's licence and appeared on television to urge others to stop paying taxes

He was prosecuted for non-payment of taxes: 'I realised that I could be cast into prison here, or I could spend an eternity in the Lake of Fire'

He was convicted and sentenced to one year in prison and five years of probation

He learned that a friend who followed his advice had similarly been sent to prison and died there, of a heart attack

When he continued to refuse to pay taxes his lands were seized

Government agencies set a trap for him, leading to a shoot out – he escaped 2.5 years later a second trap and a second shoot out resulted in his death

# Not guilty by reason of insanity

- ▶ He said he was persecuted by a system at Glasgow, Edinburgh, Liverpool, London, Boulogne
- ▶ They followed him everywhere; he was sure it would kill him; it was grinding his mind
- ▶ Physicians could be no service; if he took a ton of drugs - no service; he observed people in the streets pointing at him and speaking of him: 'that's he'; perpetually watched and followed
- ▶ Stopped going out after dark; applied to an English MP & the Scottish court for protection; once or twice 'something pernicious' had been put into his food
- ▶ The person at whom he fired was part of the system that was destroying his health

# What are the problems with a concept of delusion?

- ▶ Is it an idea, a belief, an opinion, an intuition/'cognitive feeling'
- ▶ A belief is a construction which is not testable by scientific method – so neither provable nor falsifiable
- ▶ Most people have beliefs – WIMPs?
- ▶ It may not be pathological if
  - ❖ It's culturally appropriate, but just not familiar to me
  - ❖ It's quantitatively extreme rather than qualitatively so
  - ❖ It's shared by people who are not extremists, and
  - ❖ Doesn't seem to be doing any harm
    - ❖ But if it brings the believer into conflict with others?

# How do we decide that a belief is pathological?

- ▶ Delusions are fixed beliefs that are not amenable to change in light of conflicting evidence. The distinction between a delusion and a strongly held idea is sometimes difficult to make and depends in part on the degree of conviction . . . despite clear or reasonable contrary evidence. *DSM-5 APA, 2013*
- ▶ The [schizophrenia] disturbance involves the most basic functions that give the normal person a feeling of individuality, uniqueness and self-direction ... explanatory delusions may develop *ICD-10 WHO, 1992*

- ▶ Jaspers 1913: primary delusions 'phenomenologically irreducible'

- Held with extraordinary conviction

- Impervious to experience or counter argument

- Impossible content

- Transformed experience of reality



# Non-pathological conviction?

- ▶ *In the trial of Daniel McNaughton:*
  - ❖ Mr Cockburn: [counsel for the defence, addressing the medical witness]: Do you think that your knowledge of insanity enables you to judge between the conduct of a man who feigns a delusion and one who feels it?
  - ❖ Dr Monro: I do, certainly
  - ❖ Mr Cockburn: do you consider, Dr Monro, that the delusions were real or assumed?
  - ❖ Dr Monro: I am quite satisfied that they were real. I have not a shadow of doubt on the point.) *Bousfield & Merrett, 1843*

## **BUT**

- The personality of any normally constituted person must be capable of at least a certain flexibility, otherwise the machinery for doubt would be absent, and what is more irrefutable proof of madness than an inability to have doubt. No, no, to ensure sanity there must at least be the elements of internal disagreement ever present in a personality *Ustinov, 1977*



# Moving towards an evidence based position of correct identification without unfounded, even pathological certainty

- **Clinical examination of the beliefs**
  - ❖ Open ended interview
  - ❖ Systematic questionnaire inquiry
  - ❖ Consistency over time
  - ❖ The role of consistency between observers
  - ❖ *Barriers to inquiry*
- **Hypotheses of belief formation and tests for underlying pathology**
- ***Responsivity to treatment***
- **Neuro-imaging**

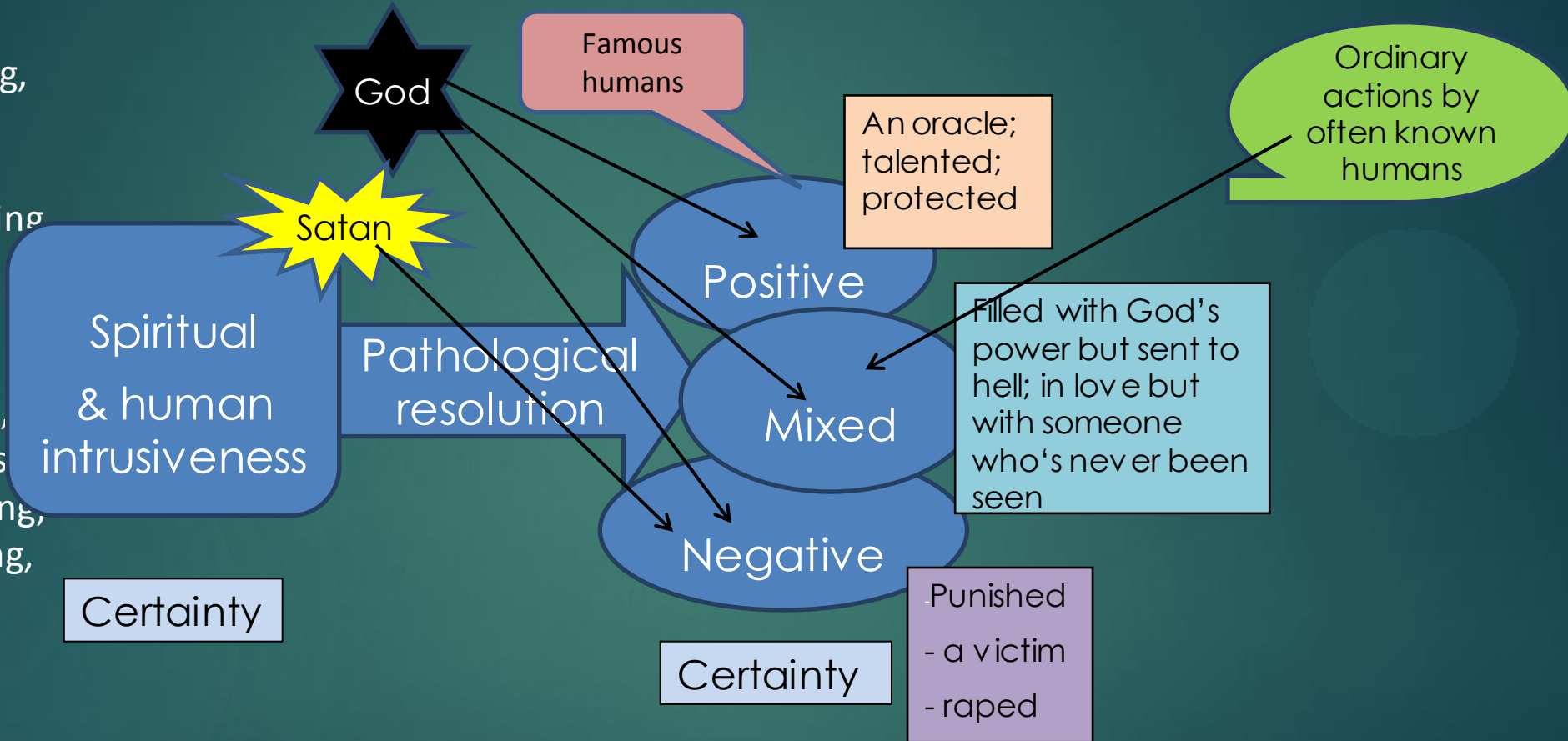
# Open ended interview

- ▶ *I haven't got no delusions, definitely not*
- ▶ *Can you take complaints?*
- ▶ *My husband put me here*
- ▶ *I have a chemical imbalance, impairment and deafness in my right ear*
- ▶ *a lesion in the right side of my brain – causing an 'impairment'; this may be the reason why my family have cut me off - they don't want to be associated with anyone with impairment; they don't want anyone with impairment in the family*
- ▶ *I am having difficulty washing and drying my clothes – they [the staff] bagged them up but I had to wash them again and then I had to put them on while they were wet; I think I smell, you know, body odour, but I can't wash and I haven't got enough clothes .... I have asked to go out and buy more clothes, but they won't let me*
- ▶ *No beliefs; no delusions*
- ▶ *Sometimes I get angry that others are screwing up my life*
- ▶ *How did you know that?*
- ▶ *The impediment is the obstacle that others present – that others represent. On Monday I went to Scotland Yard to report a crime – the policeman there told me that I had to go to a police station – he gave me directions but it was difficult, I couldn't find it and I got agitated ...*
- ▶ *It's about fraud, cheating ...*
- ▶ *It's like I've been farmed and not paid, I am like a milk cow, they keep taking my ideas – I think I have been taken as a muse by many, but I have never been paid and I need something to live on*
- ▶ *I had been suspecting it for some time ... there were key steps when single events deepened and I had a gradual realisation ...*

# Personal impact of the delusion

**Miraculous** healing, sacrificing, impregnating, endowing, punishing, overpowering

**Human** listening, inserting thoughts, inserting materials, extracting, following, torturing, betraying, victimising, experimenting on, poisoning, raping, smelling



# Logical elaborations Junginger 1996

- ▶ Logical elaborations add detail to the central theme of the delusion
- ▶ Count them and describe them
  - ❖ how,
  - ❖ where,
  - ❖ when,
  - ❖ why
  - ❖ who was involved
  - ❖ What followed
- Intra-class correlation co-efficients high

# As applied to Daniel McNaughton

- He said he was persecuted by a system **[who?/what?]**
  - at Glasgow, Edinburgh, Liverpool, London, Boulogne **[where?]** ...
  - destroying his health **[what followed?]**
  - It was grinding his mind **[how?]**
  - He observed people **[who?]** in the streets **[where?]** pointing at him ... perpetually **[when?]**
  - He stopped going out after dark **[response?]** and
  - applied to an English Member of Parliament & the Scottish court for protection **[response]**
  - The person he shot **[response]** was part of the system **[who?/what?]**

# Structured and semi-structured interviews

## 1. As small element in general mental health diagnostic interviews

e.g. PSE/SCAN; BPRS, CPRS

## 2. Focus on psychotic illness

- ❖ Scale for the Assessment of Positive Symptoms [SAPS] Andreasen, 1984
- ❖ New Haven Schizophrenia Index Astrachan et al, 1972
- ❖ Positive and Negative Symptom Scale [PANNS] Kay et al, 1987
- ❖ Psychotic Symptom Rating Scales [PsyRATS] Haddock et al, 1999

## 3. Focus on delusions

- ❖ The Maudsley Assessment of Delusions Schedule [MADS] Taylor et al, 1994
- ❖ The Peters et al Delusions Inventory [PDI] Peters et al 2004
  - conviction, preoccupation resultant distress from 21 possible 'feelings' or beliefs

Inter-rater reliability  
high (K 0.6+)

1 & 2 focus on  
content

3 begin to examine  
other qualities



# Maudsley Assessment of Delusions Schedule

Pamela J Taylor, Phillipa Garety, Alec Buchanan, Alison Reed, Simon Wessely, Katarzyna Ray, Graham Dunn & Don Grubin

- ▶ BELIEF \*\*\*\*\*  
MAINTENANCE  
seeking support for belief  
'finding' it  
adjusting belief on  
contradiction
- ▶ AFFECTIVE IMPACT\*\*\*\*\*  
being frightened by it
- ▶ Conviction
- ▶ Action (+ve act)
- ▶ Withdrawal (-ve)
- ▶ Idiosyncrasy
- ▶ Preoccupation
- ▶ Systematisation
- ▶ Insight

Let me suggest something to you that would not fit with your belief .....

how do you think you would react?

- ▶ Suggestion ignored; persistently denied as possible
  - ▶ Situation accommodated into belief system, so belief and situation are consistent
  - ▶ Belief changes in conviction but not content
  - ▶ Belief dropped in the face of contradictory evidence
- ▶ Under 40% people who acted on a belief ignored the hypothetical challenge
    - ▶ Over 80% of those who did not act did ignore it

Buchanan et al, 1993

# Consistency of presentation within interview and over time

- ▶ Delusions are not immutable Beck 1952
- ❖ They may respond to challenge Buchanan et al, 1993
- ❖ They may be susceptible to treatment Appelbaum et al 2000 in context
- ❖ Eric Johnsen
- ❖ Gillian Haddock
- ▶ Making sense of the 2<sup>nd</sup> and 3<sup>rd</sup> interviews
- ❖ Sample decline
- ❖ IRR: 0.8-1.00; TRR: 0.6-0.7
- ❖ 2<sup>nd</sup> interview invariably gives lower prevalence of symptom
- ❖ Unreliability v. appropriate change

# Consistency between observers Fadhli & Taylor

- ▶ A form of validation?
- ▶ Samples difficult to achieve
- ▶ 36 patients [10 women] 50% forensic
  - 5 did not speak about delusions
  - 31 patients – 16 nominated a relative – 9 (25%) relative agreed participation
    - 22 nominated staff – 16 (44%) staff agreed participation
  - 7 triads, 17 dyads

## **Good relative and staff agreement on**

Talking about belief at all  
Belief content generally, and  
most important belief specifically  
Conviction

## **50%+ agreement relatives <50% agreement staff**

Confidant preference  
Factors maintaining belief  
Negative affective impact  
Harmful actions to others  
Harmful actions to self

# Impact of treatment

- ▶ If drugs alter the belief - many drug treatment studies
- ▶ If psychological approaches alter belief - a minority of CBT studies
- ▶ US MacArthur study 10 weekly assessments for 1 year Monahan et al 2001
  - ▶ Necessarily confirms 'real delusions'?
- ▶ Failure of treatments
  - ▶ Necessarily indicates 'faked delusions' / absence pathology?
- ▶ Failure of treatment - rejection
  - rediagnosis & rejection

# Tests for deficits compatible with theories of delusion formation

- ▶ Explaining a primary perceptual abnormality
  - ❖ primary sensory abnormality
  - ❖ primary organic brain dysfunction
  - ❖ secondary organic brain dysfunction
- ▶ Cognitive/information processing deficits – jumping to conclusions paradigm
  - ❖ Neutral stimuli
  - ❖ Ambiguous stimuli
  - ❖ Salient stimuli
- ▶ Primary personality trait – under-confident/overconfident
- ▶ Defensive behaviour in the context of
  - ❖ low mood
  - ❖ low self-esteem
  - ❖ early traumatic experience



# Neuroimaging

- ▶ Probabilistic concepts of normality

Population based study of 2000 symptomatic people >7% had brain infarcts + 2% aneurysms or benign tumours

- ▶ Plethora of small scale, cross-sectional studies which show that people with psychosis as a group have different brain structure or function from healthy controls – and even some studies which show that people with psychosis who have been violent as a group differ from either (and from those with personality disorder who have been violent)
- ▶ Also studies of primary brain diseases, with known areas affected, which have been associated with delusions
- ▶ We need
  - ❖ Longitudinal studies of people who are symptomatic
  - ❖ Relevant testable paradigms

# Longitudinal neuroimaging studies

- ▶ Passivity delusions associated with deficits in internal monitoring of motor acts
- ❖ Impaired motor performance in absence of visual feedback
- ❖ Impaired recall of motor acts

An experiment: Spence et al 1997

- ▶ The sample
  - ❖ 7 men with schizophrenia & passivity delusions, 6 men with schizophrenia and no passivity delusions and 6 healthy control men
- ▶ The task
  - ❖ Move a joy stick 1. randomly, 2. as instructed, 3. no movement; debriefed after each
  - ❖ Under PET scan
- ▶ Result
  - ❖ Increased blood flow in parietal and cingulate cortex, indicating over-activation in these areas among men with active experience of passivity during the random trial, reduced when rescanned in conjunction with symptom remission weeks later

# Other relevant imaging paradigms

- ▶ Deception is reflected in brain activity –
- ❖ Attempted deception is associated with extended reaction time and over-activation of prefrontal and anterior cingulate cortical areas relative to activation in truth telling
- ▶ But such demonstration is unreliable, not always replicable Spence, 2008
- ▶ and vulnerable
  - 26 students asked to lie about specified dates fitted this paradigm 100%, until
  - mild interference was requested – wiggling fingers/toes – ‘lie detection’ by this method fell to 33% Ganis et al, 2011
- ▶ Application in single case Munchausen by proxy measures by fMRI 3T machine on four separate occasions when asked to endorse her own story and that of others Spence et al 2007
- ▶ Application: is the description of a delusion truth telling or lie according to accompanying PFC or cingulate over-activation?

# Is an unambiguous neuro-image likely to affect a court decision?

- ▶ Quazi-jury survey – 1170 eligible community members, USA
- ▶ Asked to decide on NGRI
- ▶ Presented mock trial data – psychological assessment, neuropsychological assessment, neuroscience explanation (1) alone or (2) with neuro-image of major frontal lobe deficit
- ▶ NGRI decision no more likely in neuro-image group, but
- ▶ Those who did not receive the image considered that it would have helped them

Schweitzer & Saks, 2011

# Being and seeming

- ▶ There is still much subjectivity in the determination of delusions – sometimes someone seems deluded because their ideas seem weird, but only seem ....

Or

- ▶ Your majesty seems more yourself.

Do I? I have always been myself even when I was ill. Only now I seem myself. That's the important thing. I have remembered how to seem. *Bennett, 1992*

# We can achieve

- ▶ An enlarging of the pool of people for whom we have good enough knowledge from a combination of systematic evaluations to separate pathology from eccentricity or extreme normality
  - ▶ A shrinking of the pool of people for whom we have mainly weak, single source and much disputed evidence of delusions – or their absence
- Remembering that to take a position of absolute certainty which can no longer be breached by any argument may itself constitute pathology