



***Did Vincent van Gogh suffer from bipolar disorder ?
Results from an experts' meeting (preliminary)***

***Willem Nolen
UMC Groningen***

A close-up detail of a painting showing a man's face. The right ear is wrapped in white bandages. The background is a warm, reddish-orange color.

December 23, 1888

Ear incident

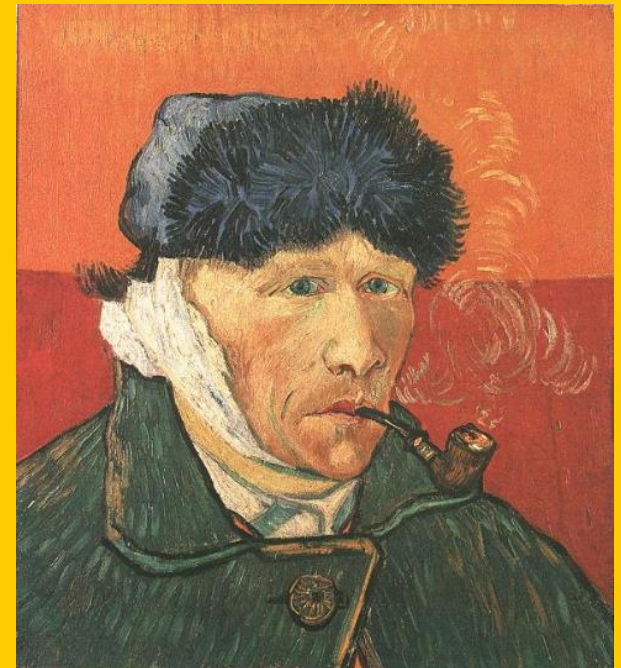
- Cuts off his ear and delivers it to a prostitute
- Not clear why
- Found next day and hospitalized in Arles

Psychiatric evaluation

- Lowered consciousness
- Partial amnesia
- Cognitive disturbances
- Vivid hallucinations

Course

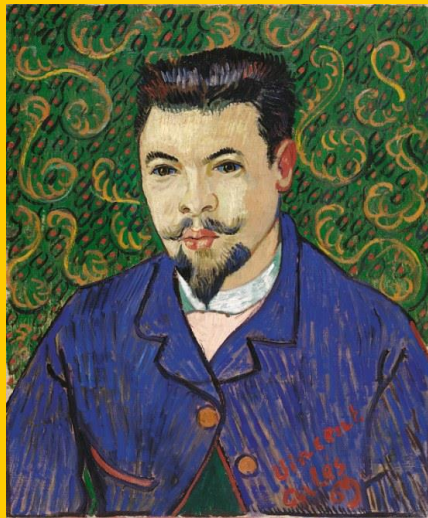
- Probably not yet on December 23, but within few days thereafter
- Recovered on January 2, 1889



First hospitalisations (Arles)

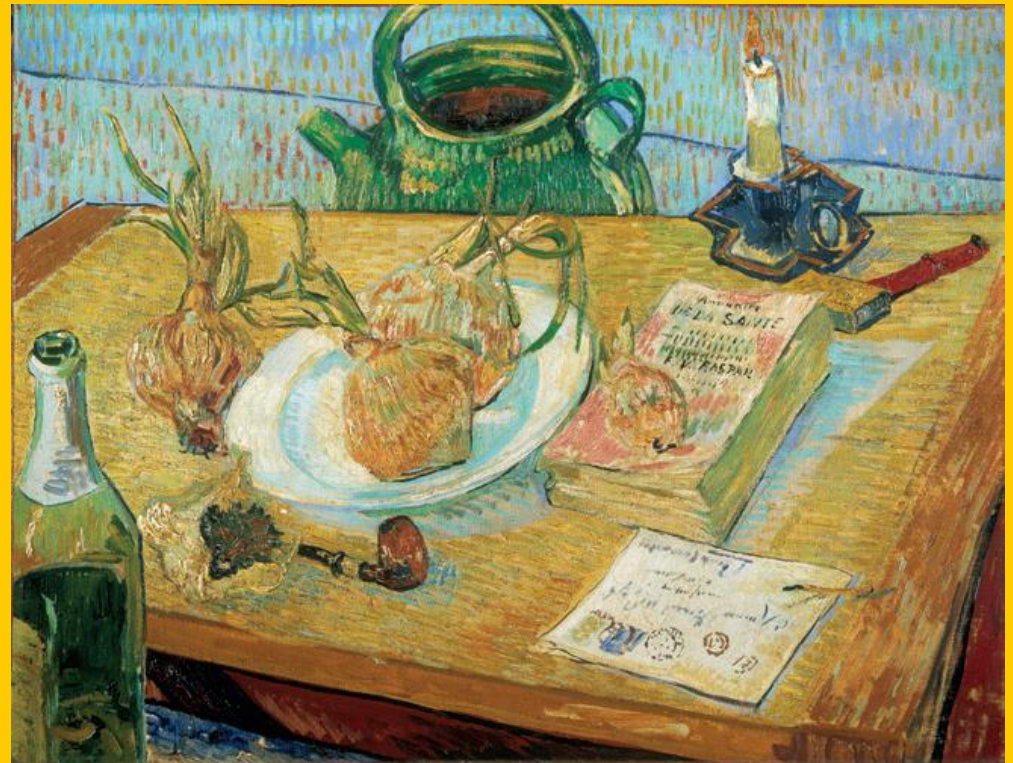
Dec 1888 - Jan 1889 / Feb 1889 / Feb - May 1889

Diagnoses from his physicians



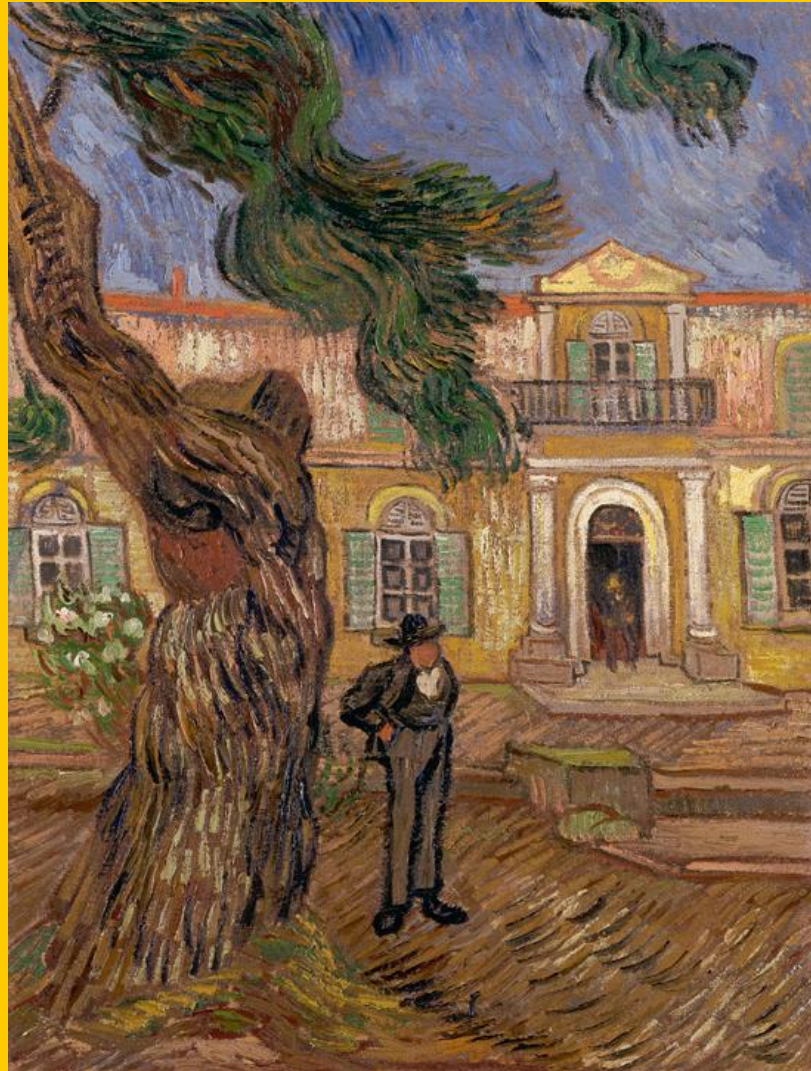
Félix Rey

- Mania, delirium
 - Epilepsy
- Due to unhealthy life style



Fourth hospitalisation

St.-Rémy de Provence: May 1889 - May 1889



Diagnoses from his physicians

Théophile Peyron

Noms, Prénoms, Age, Domicile et Profession de la personne placée	Noms, Prénoms, Age, Domicile, Profession, qualité de la personne fait le placement	Transcription de Certificat de Médecin joint à la demande	Transcription de Certificat de M. le Grand a de quinzaine Adressé par le Médecin de l'Asile
M. van Gogh Né le 20 Mars 1852 à Groot-Zuidwille dans le département de la Hollande à Paris le 20 Mars 1889	M. van Gogh Né le 20 Mars 1852 à Groot-Zuidwille dans le département de la Hollande à Paris le 20 Mars 1889	Je soussigné, Médecin en chef de l'Asile de St. Rémy de Provence, certifie que M. van Gogh, âgé de 37 ans, est atteint d'une affection mentale qui se traduit par des accès de violence et de désordre, séparés par de longues périodes de calme et de raison.	Je soussigné, Médecin en chef de l'Asile de St. Rémy de Provence, certifie que M. van Gogh, âgé de 37 ans, est atteint d'une affection mentale qui se traduit par des accès de violence et de désordre, séparés par de longues périodes de calme et de raison.

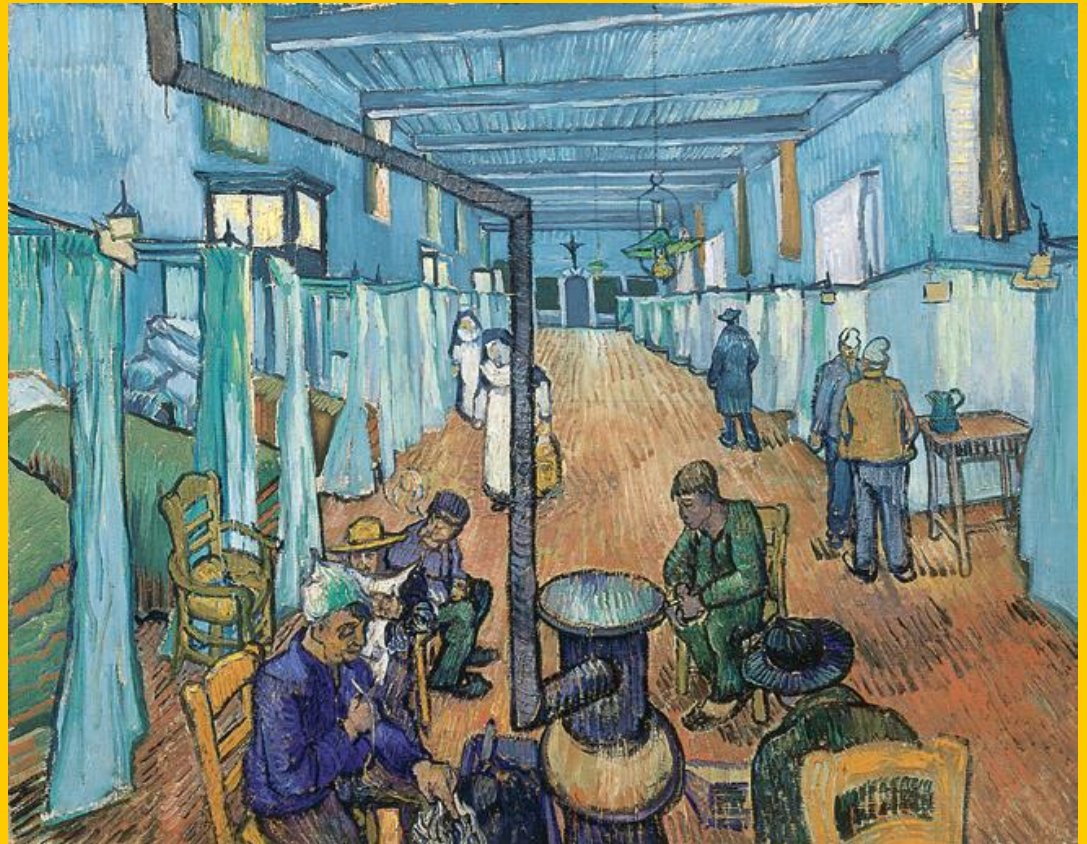
“I consider that Mr. van Gogh is subject to attacks of epilepsy, separated by long intervals.”

Fourth hospitalisation St.-Rémy de Provence: May 1889 - May 1889

Further episodes: but now depressions and psychoses

Own conclusion (December 1889)

“It’s a year since I became ill, and it’s difficult for me to express the extent to which I have or haven’t recovered. I often have terrible self-reproach about things in the past, my illness being pretty much my own fault...”



Auvers: May – July 1889

Auvers brings no relief



- July 27, 1890: shoots himself
- July 29: > dies





Diagnostic history

1889	Initial diagnoses: Mania, Delirium > Epilepsy
1922 - 1950's	Schizophrenia
1923 - present	Neurosyphilis
1924	Sunstroke
1924 - present	Psychodynamic theories
1926 - present	Epilepsy (épilepsie larvée, temporal lobe epilepsy)
1926 - 1950's	Episodic twilight states à la Kleist
1930 - 1950's	Psychopathy
1938 - present	Bipolar (manic-depressive) disorder
1949 - present	Poisoning: lead-containing pigments (in paint), turpentine, camphor, digitalis, carbon monoxide (in gas)
1953 - present	Alcohol abuse
1979 - 1991	Menière's disease
1979	Glaucoma
1988 - present	Cycloid psychosis
1991 - present	Acute intermittent porphyria
2000 - present	Borderline personality disorder
2006	Asperger syndrome



Epilepsy: temporal lobe epilepsy ?

- Temporal lobe epilepsy is not one disease. It is a brain dysfunction by specific recurrent electrophysiological discharges
- Symptoms are very variable depending on the origin and spread of these discharges
- In **episodes** Van Gogh had one or more of the following symptoms:
 - Disturbance of consciousness
 - Agitation
 - Anxiety
 - Visual and auditory hallucinations
 - Delusions (of being persecuted or poisoned)
 - Depression
 - Mutism



Bipolar disorder ?

Manic (or hypomanic) episodes

- Elevated, expansive or irritable mood
- Inflated self-esteem, grandiosity
- Decreased need of sleep
- More talkative
- Flight of ideas
- Distractability
- Increased goal-directed activity
- Excessive pleasurable, but painful activities

Depressive episodes

- Depressed mood
- Diminished interest/pleasure
- Significant change in weight and/or appetite
- Insomnia or hypersomnia
- Psychomotor retardation or agitation
- Fatigue and/or loss of energy
- Worthlessness of guilt
- Diminished thinking and/or concentration
- Recurrent thoughts of death/suicide(-attempt)

Episodes with psychotic features

- E.g. religious delusions during depressive episodes



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SCID Interview



SCID

Structured Clinical Interview for DSM-IV

- Semi-structured interview on all possible DSM criteria
 - Not *'top-down'* but *'bottom-up'*
- Designed to be administered by a clinician or trained mental health professional

Interview

- Normally performed with **patient and/or relatives**
- **In this case:**
 - Performed with three art historians and experts on Van Gogh: Louis van Tilborgh; Teio Meedendorp; Leo Jansen
 - Administered by Willem Nolen
- Further supported by **all available documents**
 - All Vincent van Gogh's letters
 - All other letters, including family correspondence
 - Medical and legal documentation



SCID

Screening module

Nr.	SCREENING MODULE	?	No	Ps	PI	Yes	Source
P1	Ever 5 or more drinks/occasion ?					X	
P2	Ever used street drugs ?		X				
P3	Ever hooked on prescribed medicine or taken lot more?		X				
P4	Ever had a panic attack ?				X		779
P5	Ever afraid of going out the house alone ?			X			
P6	Ever felt afraid or uncomfortable doing things in front of people ?	X					
P7	Ever nervous/anxious in social situations with unknown people ?				X		
P8	Ever afraid of special things/situations ?		X				
P9	Ever bothered by senseless thoughts that are coming again ?		X				
P10	Ever doing things over and over again ?		X				

Ps = possible; PI = plausible

SCID

Mood disorders

MOOD EPISODES							
Nr.	DEPRESSIVE EPISODE	?	No	Ps	PI	Yes	Source
A1	Depressed mood				X		221, 390, 764, 836, 874
A2	Diminished interest/pleasure					X	117, 410, 760, 779
A4	Significant weight loss / decreased appetite					X	246, 369, 463
A5	Significant weight gain / increased appetite		X				
A7	Insomnia					X	230, 410
A8	Hypersomnia			X			704
A10	Psychomotor retardation			X			611
A11	Psychomotor agitation	X					
A10	Fatigue/loss of energy					X	117
A11	Worthlessness or guilt					X	117, 703, 764, 801, 831
A12	Diminished thinking/concentration				X		611, 779, 815, 864
A13	Recurrent thoughts or death/suicide(-attempt)					X	797, 833, July 27 1890
	A1-A13: ≥5, incl. A1 or A2					X	
A25	Significant distress/impairment					X	
A15	Not substance related of medical				X		
A16	Not bereavement					X	
	Conclusion: Depressive episodes					X	

Nr.	(HYPO)MANIC EPISODE	?	No	Ps	PI	Yes	Source
A82	Elevated, expansive or irritable mood (≥1 week or ≥4 days)					X	592, 181-193
A87	Inflated self-esteem/grandiosity	X					
A88	Decreased need for sleep					X	676
A89	More talkative	X					
A90	Flight of ideas				X		181-193
A91	Distractibility	X					
A92	Increased goal-directed activity					X	430, 592, 594, 666, 709
A93	Excessive pleasurable but painful activities			X			574
	A82-A 93: ≥3 incl. A82 = elevated/expansive or ≥4 incl. A82 = irritable					X	
A97	Marked impairment			X			574, 592, 181-193
A98	Not substance related of medical						
	Conclusion: - Manic episode(s) - Hypomanic episode(s)			X		X	
	Overall Conclusion: Differential diagnosis - Bipolar 1 disorder - Bipolar 2 disorder (if not bipolar I)			X		X	

Ps = possible; PI = plausible

SCID

Psychotic disorders

Nr.	PSYCHOTIC SYMPTOMS	?	No	Ps	PI	Yes	Source
B1	Delusion of reference		X				
B2	Persecutory delusion		X				
B3	Grandiose delusion	X					
B4	Somatic delusion	X					
B5	Other delusion - Poisoning delusion - Religious delusion - Guilt delusion			X	X	X	- 747 - 801, 805 - 801, 831
B16	Auditory hallucination				X		743, 776, Dr. Delon
B19	Visual hallucination				X		739, 741, 812
B21	Other hallucination		X				
B24- B28	Catatonic behavior		X				
B29	Disorganized behavior		X				
B30	Inadequate affect		X				
B31	Disorganized speech		X				
B32- B37	Negative symptoms		X				
C22- C24	Schizoaffective criteria		X				
C41- C42	Not associated with medical disorder - porphyria					X	
	Not associated with with - substance intoxication - alcohol - other (e.g. absynth)	X				X	
	- substance withdrawal (e.g. delirium) - alcohol - other		X			X	

Nr.	DELIRIUM	?	No	Ps	PI	Yes	
NA	Disturbance of consciousness				X		
NA	Change in cognition				X		FR b1055, FR b1057
NA	Develops - Within hours/days - And fluctuates over the day					X	- FR 1056, 728
NA	Evidence that it developed - During intoxication - During or shortly after withdrawal	?					
	Conclusion: Delirium: all criteria yes	X			X		
	Overall Conclusion: Differential diagnosis - Psychosis, e.g. schizophrenia or schizoaffective disorder		X				
	- Depressive episode(s) with psychotic features (August/September 1889)				X		- 779
	- Deliriums (December 1888-February 1889)				X		- FR b1055 FR 1056 FR b1057

Ps = possible; PI = plausible

SCID

Anxiety disorders

Substance use disorders

ANXIETY DISORDERS							
Nr.	DESCRIPTION	?	No	Ps	PI	Yes	
F1	Recurrent unexpected panic attacks			X			
F2	Persistent concern, worry implications, change in behavior	X					
F3	Not better accounted for by another disorder	X					
Conclusion: Not pursued							
SOCIAL PHOBIA							
Nr.	DESCRIPTION	?	No	Ps	PI	Yes	Source
F47	Persistent fear			X			
F53	Exposure provokes anxiety			X			
F54	Fear is recognized excessive/unreasonable	?					
F55	Feared situations are avoided			X			244
F56	Interferes with person's normal routine			X			London, 244
F57	Duration ≥6 months			X			
F58	Not substance related of medical					X	
F59	Not related to medical or other mental disorder			X			244, Depression?
Conclusion: Social phobia (F47-59 yes)							

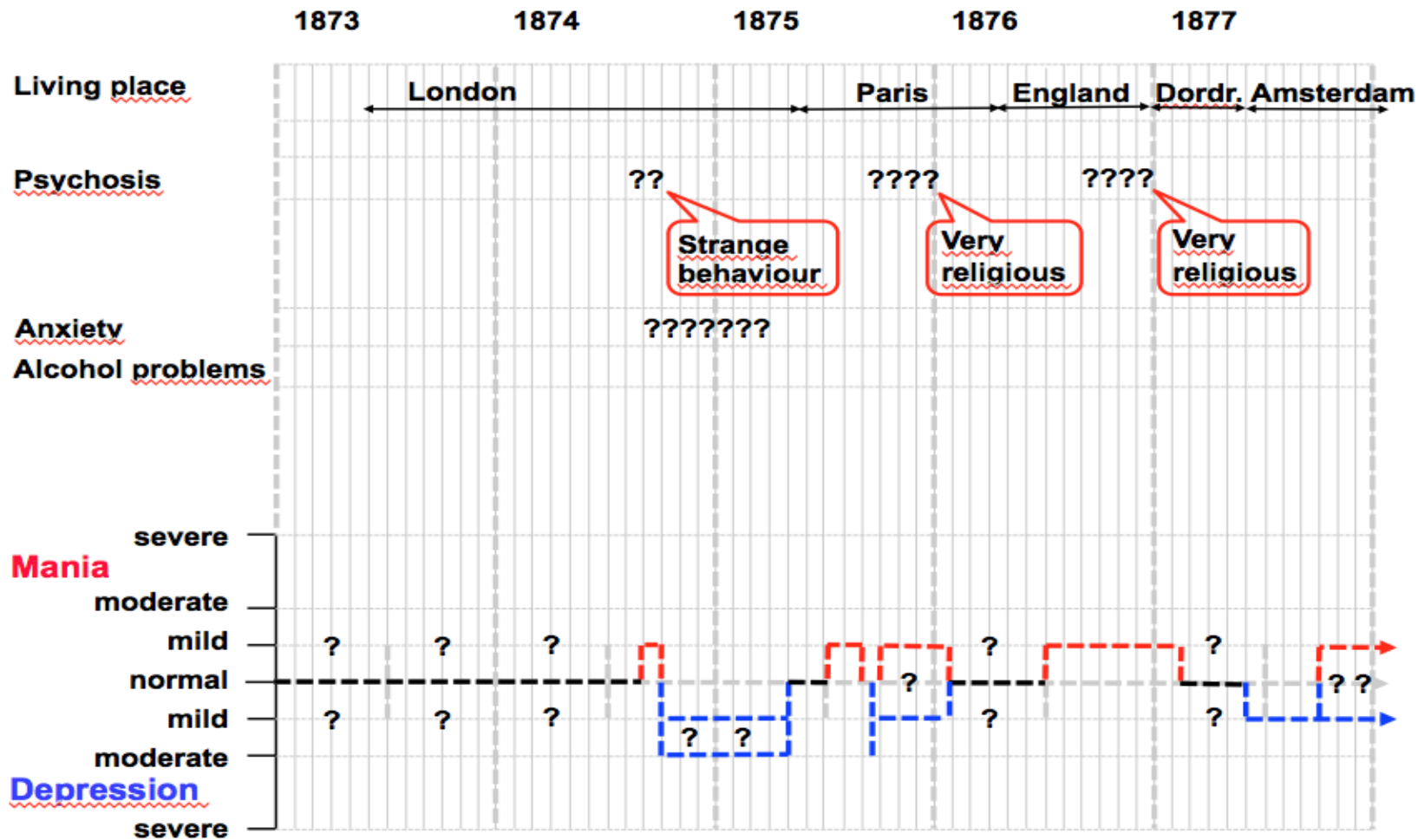
SUBSTANCE USE DISORDERS							
Nr.	DESCRIPTION	?	No	Ps	PI	Yes	Source
E1	Alcohol dependence likely					X	
Started with abuse							
- 1883 (The Hague)							
- 1887 (Paris)							
E2	Use results in failure to fulfill major role					X	
E3	Use in hazardous situations					X	
E4	Use results in legal problems					X	750-note7
E5	Continues use despite problems					X	
E2-E4: ≥1 yes							
E7	More or longer use than intended				X		760
E8	Persistent desire or unsuccessful efforts to end abuse				X		
E9	Much time spent to obtain alcohol			X			
E10	Important social activities given up			X			
E11	Continues use despite problems					X	645, 694, 650
E12	Tolerance				X		
E13	Withdrawal symptoms				X		747- note2 (delirium)
E7-E13: ≥3 yes within 12 months							
Conclusion: Alcohol dependence							

Ps = possible; PI = plausible

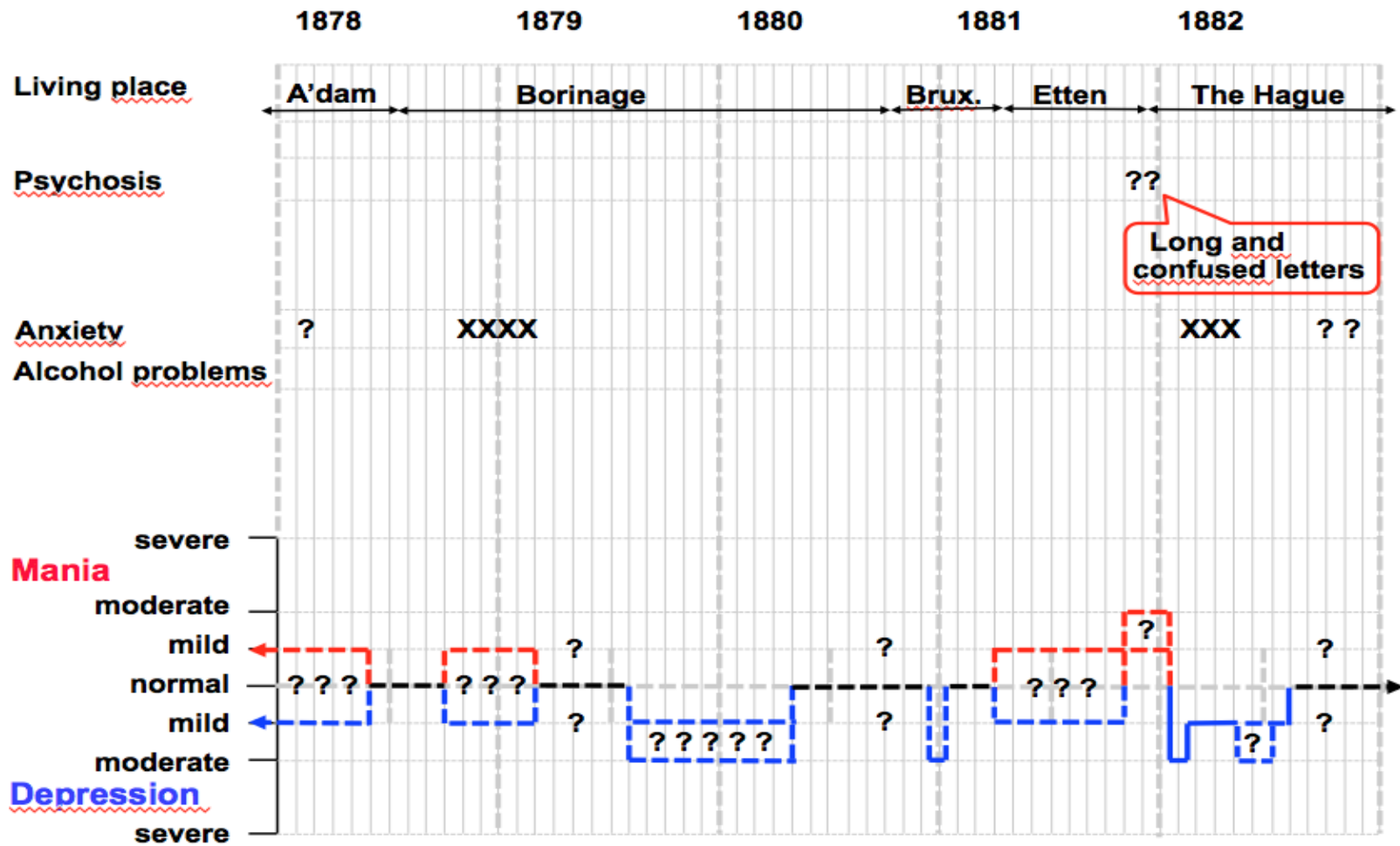


Lifechart

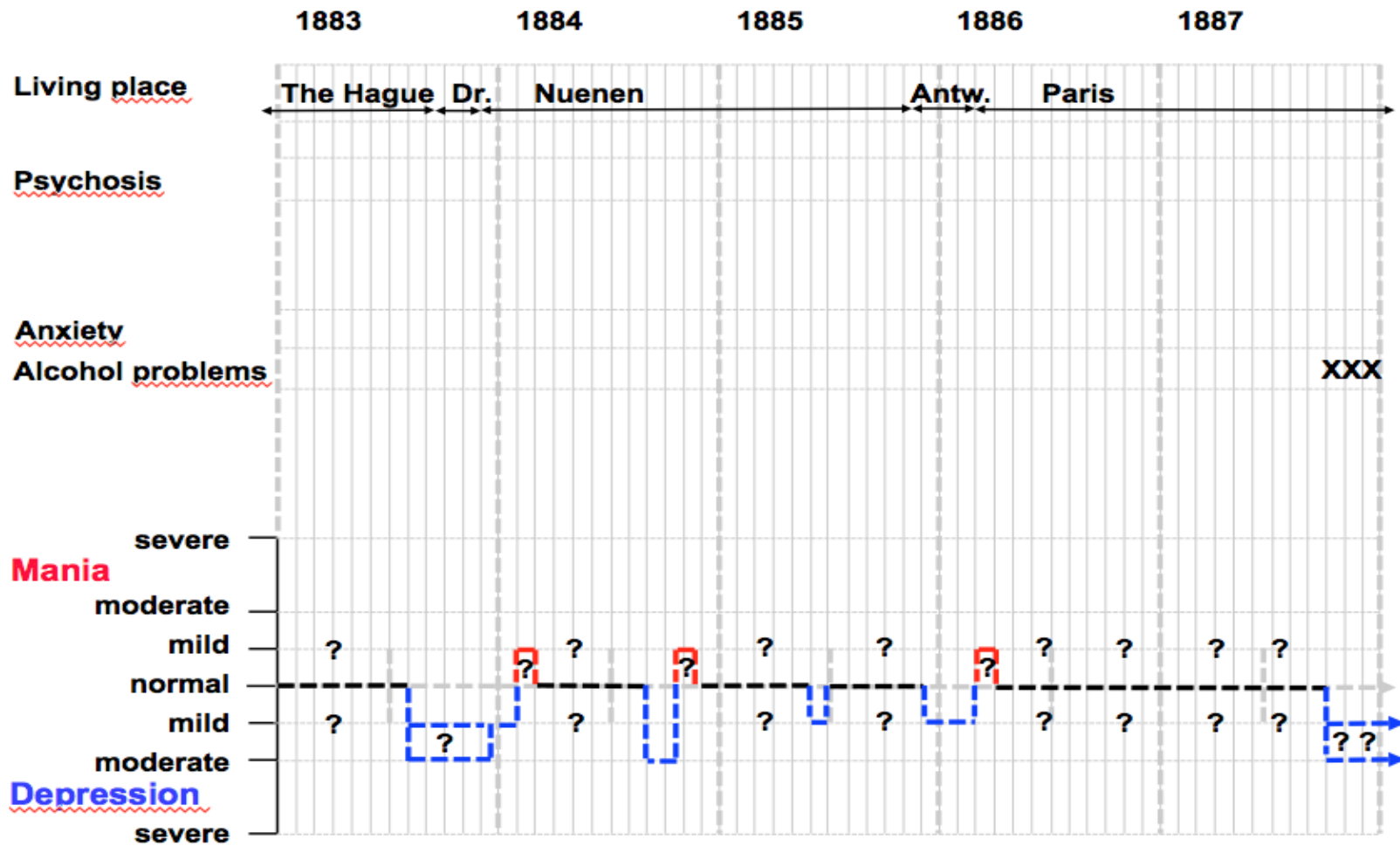
Lifeline



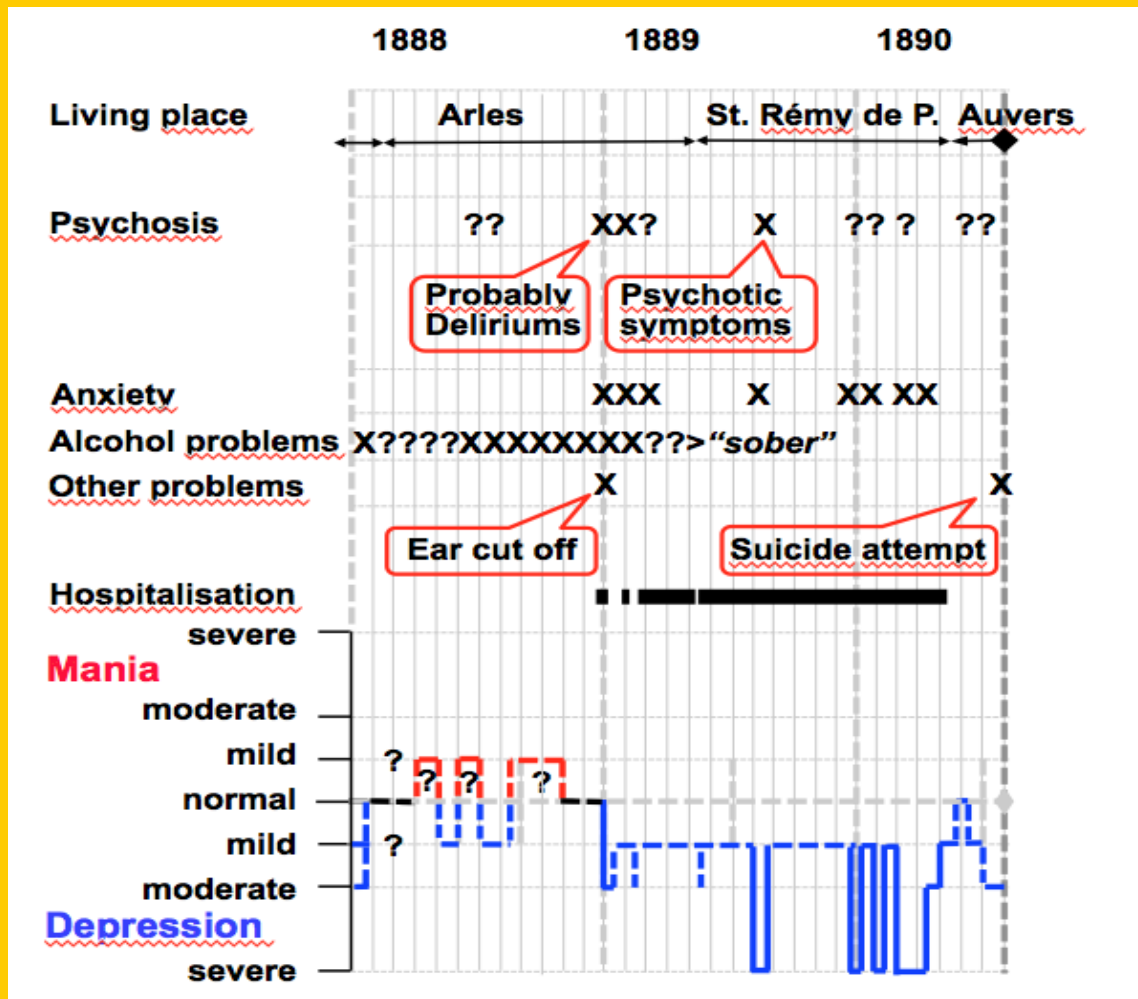
Lifechart



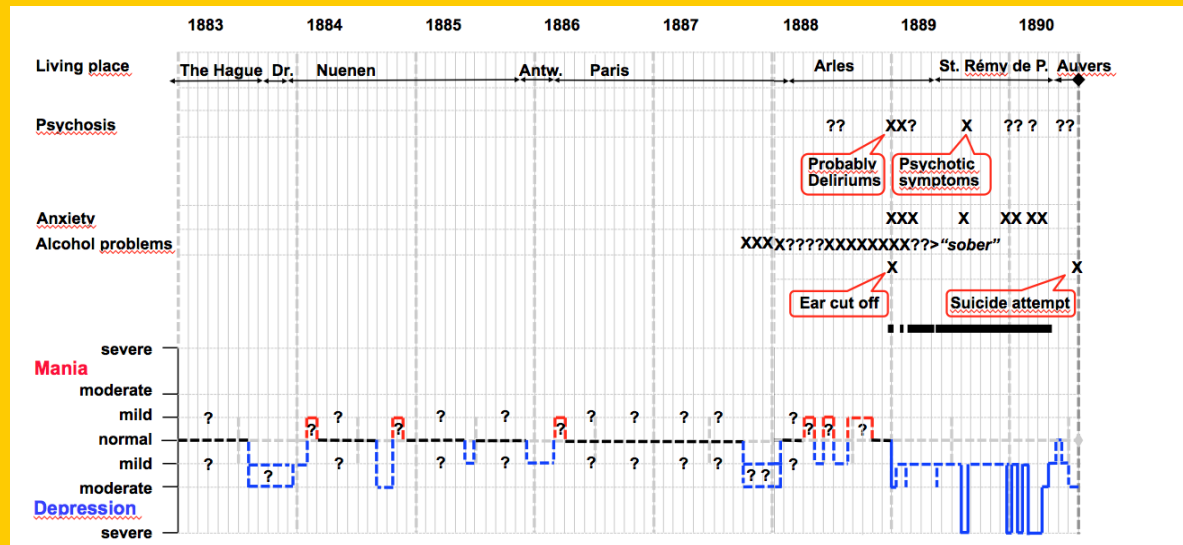
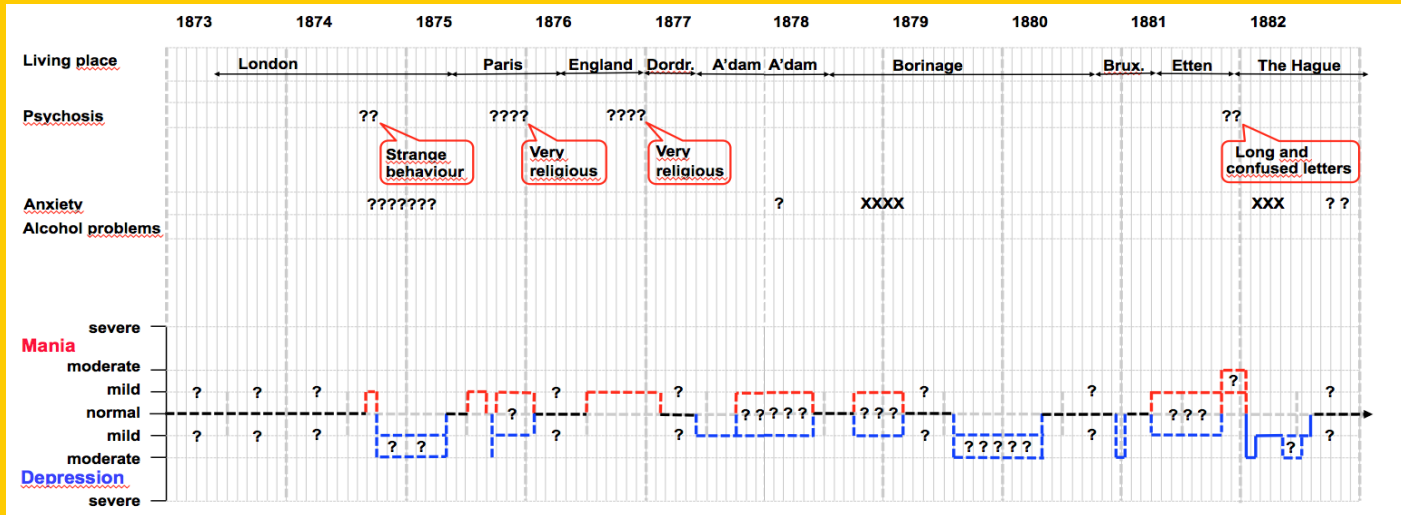
Lifechart



Lifechart



Lifechart





Conclusions



Conclusions

Conclusion #1 Limitations

- **SCID**
 - No direct interview with the patient and/or his close relatives
 - **Letters**
 - Not written for his doctors
 - Reliability/validity unclear
 - Not complete
 - **Medical information**
 - Based on 'state of the art' in 1888/1889
- **No definite diagnosis, but only probably (or even possibly)**



Conclusions

Conclusion #2 Bipolar disorder

- **Depressive episodes**
 - Documented about nine
 - At least one (Aug. 1889) with psychotic features (religious delusions)
- **(Hypo)manic episodes**
 - Documented about six
- **Subtype**
 - **Either:** with at least one (mild) manic (or mixed) episode
 - **Bipolar I disorder** (*possibly*)
 - **Or:** with only hypomanic episodes
 - **Bipolar II disorder** (*probably*)



Conclusions

Conclusion #3 Comorbid disorders

Alcohol dependence (*probably*)

- Since 1883 (*possibly*) or 1887 (*probably*)

Deliriums (*probably*)

- Two episodes (Dec. 1888 - Feb. 1889)
- With disturbances of consciousness, partial amnesia, change in cognition, delusions, and vivid hallucinations
- Due to alcohol intoxication or withdrawal ?

Anxiety disorders (*possibly*)

- Panic attacks unclear
- Possibly social phobia

Personality disorder (*probably*)



What when he would have lived now?

He would have been examined to exclude an underlying somatic illness

- Physical examination
- Lab tests: e.g. to exclude porphyria
- Neurological examination and EEG

➤ **Diagnosis of bipolar disorder would have been more certain**

He would have been offered effective treatment (for bipolar disorder)

- Psychoeducation after proper diagnosis
- Medication: e.g. lithium
- Psychosocial support or psychotherapy

➤ **Effect: he might have lived longer with fewer or no episodes**

➤ **Effect on his work: Unclear**

