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761

SPECIAL ARTICLE

Adolf Hitler's Parkinson's disease and an attempt to analyse his personality structure

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It has been proved that Adolf Hitler suffered from idiopathic Parkinson's disease. No indication for postencephalitic parkinsonism was found in the clinical symptoms or the case history. Professor Max de Crinis established his diagnosis of Parkinson's disease in Hitler early in 1945 and informed the SS leadership, who decided to initiate treatment with a specially prepared 'antiparkinsonian mixture' to be administered by a physician. However, Hitler never received the mixture, this implies that the SS intended to remove the severely diseased 'Leader'.

Two different character traits can be analysed in Hitler's personality: on the one hand the typical premorbid personality of parkinsonian patients with uncorrectable mental rigidity, extreme inflexibility and insupportable pedantry. On the other an antisocial personality disorder with lack of ethical and social values, a deeply rooted tendency to betray others and to deceive himself and uncontrollable emotional reactions. This special combination in Hitler's personality resulted in the uncritical conviction of his mission and an enormous driving for recognition. The neuropsychiatric analysis of Hitler's personality could lead to a better explanation of the pathological traits of one of the most conspicuous historical personalities. Eur J Neurol 6:121–127 © 1999 Lippincott Williams & Wilkins

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INTRODUCTION

This paper is based on intensive studies of publications on Hitler's medical history, such as Ellen Gibbels' analyses of Hitler's Parkinson's disease (Gibbels, 1988; Gibbels, 1989; Gibbels, 1990), papers by Recktenwald (1963) and Stolk (1968), and secondary literature including the books by Maser (1971), Fest (1981) and Hamann (1996), as well as short newsreel sequences (Knopp *et al.*, 1995).

There is no doubt that Adolf Hitler suffered from Parkinson's disease. The diagnosis is confirmed by authentic descriptions of the typical symptoms given by people in his immediate environment, in reports published in secondary literature, by personal interviews with Hitler's secretaries and servants, and also in documentary films, which clearly show Hitler's tremor affecting primarily the left side, in addition to amimia, akinesia and characteristic deficiencies of gait and posture. However, none of the medical or non-medical documents from Hitler's time mention Parkinson's disease. There is unanimous agreement in the literature that Hitler's physicians (Assmann, 1953; Braunmühl, 1954; Bundesarchiv a,b,c,d), in particular his personal physician Dr Morell (Bundesarchiv b,c), avoided any remark about tremor or deficiencies of gait and posture in medical reports. Only the ENT specialist Dr Giesing confirms, in a report written on 12 June 1945 (Bundesarchiv a,d)—after Hitler's death—that he had found rigidity in the upper extremities when he examined Hitler on 1 October 1944; the report does not mention tremor. The Trevor-Roper report (Trevor-Roper, 1961) states that Professor Max de Crinis, who at that time was director of the Neurological University Hospital, Charité, Berlin, and the highest ranking SS physician, informed his friend SS-General Schellenberg (Schellenberg, 1979), and also Heinrich Himmler himself, that Adolf Hitler suffered from Parkinson's disease. De Crinis is reputed to have prepared an antiparkinsonian mixture for Hitler's treatment.

Recktenwald (1963) and Stolk (1968) were the first authors who advanced the opinion that Hitler suffered,

without doubt, from Parkinson's disease after they had studied available documents. Gibbels (1988, 1989, 1990) analysed 83 sequences of newsreels (Deutsche Wochenschau) (Knopp *et al.*, 1995) and conducted interviews with three persons of Hitler's immediate surroundings. She came to the conclusion that the diagnosis 'Parkinson syndrome' is incontestably confirmed (Gibbels, 1990).

MEDICAL HISTORY

Gibbels (1990) believes that the disease began in 1941, at the latest, with increasing tremor on the left side. A mild habitual hypoactivity of the left arm was allegedly already perceptible in 1939. Left-sided hypokinesia constantly increased after 1941 and finally became generalized. Documentary films from 1943 already show the typical stooped posture and gait deficiencies can be recognized from 1944 onwards, along with hypomimia at the beginning of the year 1945. Film scenes showing gait and posture deficiencies and tremor, which could no longer go unnoticed after March 1945, were rigorously cut out by the censor. Only two short scenes in newsreels of March 1945 escaped censorship (Knopp *et al.*, 1995). These show the typical gait and posture deficiencies (Fig. 1) as well as the characteristic resting tremor with a frequency of 4/sec (Gibbels, 1990).

The fact that all film scenes with noticeable signs of the disease were censored permits the conclusion that the diagnosis 'Parkinson's disease' was known from the beginning of 1945 onwards, probably due to the information given by the neurologist de Crinis to the leader of the SS, Heinrich Himmler (Trevor-Roper, 1961; Maser, 1971). At that time, Himmler had already managed to involve Dr Stumpfegger, a physician of his confidence, in the medical treatment of Adolf Hitler. It is known that Dr Stumpfegger, after a short period of having been responsible for Hitler's medical care, refused to administer the mixture prepared by de Crinis to his patient (Trevor-Roper, 1961; Maser, 1971).

Gibbels (1990) is of the opinion that Hitler's Parkinson's disease was moderately severe. Maser (1971), on the other hand, explains in detail that in March 1945, Hitler had a severe form of Parkinson syndrome with high-grade gait and posture deficiencies, and permanent intensive tremor on the left side. When walking, he needed constant support and had to rest every 20 m.

According to currently used diagnostic criteria (Ransmayr *et al.*, 1987), Adolf Hitler's disease must be classified as 'equivalent' type of severe Parkinson syndrome, which Gibbels (1990) believes to have corresponded to idiopathic Parkinson's disease.

FIGURE 1. Adolf Hitler at the age of 56 exhibiting the typical Parkinsonian posture and gait with small steps and amimia. He fixes his left trembling arm with his right hand (Fest *et al.*, 1975; reproduced with permission of Bayrische Staatsbibliothek, München)

AETIOLOGY OF HITLER'S PARKINSON'S DISEASE

Searching for the aetiology of Hitler's Parkinson's disease, Gibbels (1990) carefully analysed the case history with particular attention to previous diseases and environmental stress. She came to the conclusion that cerebral trauma, cerebrovascular disturbances or intoxication, especially by drug abuse, can be ruled out as aetiologic factors of symptomatic Parkinson's disease. 'Anti-gas tablets', which Hitler took for many years, contained atropine and may therefore even have suppressed the disease. There is no evidence for amphetamine dependence. Cerebral syphilis or progressive paralysis with Parkinson symptoms can be excluded on the basis of clinical and serological findings in 1940.

Recktenwald (1963) and Stolk (1968), as well as Grewel (1969) and Walters (1975), believe that Hitler suffered from post-encephalitic Parkinson's disease, and refer to the accompanying symptoms and the case

history. Stolk thinks that a film dating from 1939 and a report by the Swedish diplomat Dahlerus (1948) about an incident at his meeting with the German 'Leader' prove that Hitler had oculogyric crises with periorbital and faciopalpebral spasms, and facial tic. However, Stolk does not provide conclusive evidence for the existence of oculogyric crises. It cannot be assumed that the occurrence of oculogyric crises would have escaped the attention of Hitler's environment and the general public. Neither detailed interviews with persons living close to Hitler (Gibbels, 1990), nor reports in the secondary literature (Speer, 1969; Maser, 1971) give any indication for oculogyric crises. In addition, it is evident that Hitler had no disturbances of eye movements, such as deficiency of convergence, etc.

Recktenwald (1963) and Stolk (1968) mention, as further signs of post-encephalitic parkinsonism, autonomic symptoms such as hyperhydrosis, gastrointestinal complaints, pathological sleep habits with short nighttime sleep, loss of weight and hyposexuality.

Stolk (1968) sees the most important evidence for the encephalitic aetiology of Hitler's parkinsonism in his psychopathic personality traits (Economo, 1929; Engerth and Hoff, 1929; Cutting, 1988) with his well-known affective disturbances, bouts of rage and permanent restlessness, while his intellectual functions remained unchanged. Hitler lacked ethical values and self-criticism; he never doubted in his own abilities, and was a stranger to compassion and scruples. Stolk (1968) considered all this indicative of personality changes caused by an organic cerebral defect, as it may be seen in post-encephalitic Parkinson syndrome.

Stolk (1968) thinks that Hitler had gone through an abortive attack of epidemic encephalitis around the year 1919. The most recent detailed studies by Hamann (1996) about Hitler's childhood and youth provide no evidence for an encephalitis during that time period (Jetzinger, 1956; Kubizek, 1975). In the last weeks of World War I, Hitler suffered an intoxication with mustard gas with short-term blindness (Recktenwald, 1963; Stolk, 1968; Maser, 1971). As far as we know, there are no reports of parkinsonian symptoms caused by mustard gas poisoning.

THE STRUCTURE OF HITLER'S PERSONALITY

An analysis of Hitler's personality must examine two different groups of character traits: on the one hand, those frequently found in the premorbid personality of parkinsonian patients, such as mental rigidity, inflexibility and pedantry; and on the other, those which warrant the suspicion of a severe personality disorder (Assmann, 1953; de Boor, 1985, Cutting, 1988).

The personality of parkinsonian patients

A study carried out by the Parkinson Working Group at the Neurological University Department in Innsbruck has clearly demonstrated that patients with idiopathic Parkinson syndrome exhibit conspicuous personality traits long before the onset of the first symptoms of the disease (Poewe *et al.*, 1983; Poewe *et al.*, 1990). The study, including 38 patients with Parkinson's disease and 17 healthy controls, shows no significant differences in intellectual performance (Wechsler Adult Intelligence Scale) and mini-mental state between parkinsonian patients and healthy controls. However, parkinsonian patients were more depressed on the Geriatric Depression Scale than healthy controls. The Cattel's 16 PF personality inventory also revealed significant differences between the patients and healthy controls in the following categories: shrewdness, social alertness, spontaneity, apprehensiveness, self-reproach, worrying, tenseness, restlessness, adjustment, scepticism, caution (Table 1).

Assessment of the premorbid personality in Parkinson's disease

A semi-standardized biographical interview with patients and their relatives as well as healthy controls showed statistically significant differences in the premorbid personality of patients and healthy controls already in early youth; patients being described, more often, as introverted and depressed, pedantic, mentally rigid and as 'loners'. Furthermore, it became apparent that a large majority of parkinsonian patients were workaholics and teetotallers (Table 2).

In another study together with Lockowandt (Lockowandt *et al.*, 1990), specimens of the handwriting of 30 patients with idiopathic Parkinson's disease, dating back, on average, 26 years before the onset of the disease, and of 30 healthy controls, were subjected to a blinded graphomotor examination. 73%

TABLE 1. Personality profile of Parkinsonian patients and controls by Cattell's 16 PF [mean score (±S.D.)]: significant differences between patients and controls (38 Parkinsonian patients, 17 healthy controls) (Poewe *et al.*, 1990)

Factor	Patients	Controls
N*	↑5.4 (±1.9)	3.9 (±1.6)
O*	↑6.5 (±1.6)	4.9 (±2.7)
Q4*	↑5.1 (±2.0)	4.1 (±1.5)
QII*	5.1 (±1.6)	↑6.3 (±2.3)

* $P < 0.05$.

Factor N, shrewd, calculating, socially alert; factor O, apprehensive, self-reproaching, worrying; factor Q4, tense, driven, restless, overwrought; factor QII, low adjustment, sceptical, cautious.

TABLE 2. Results of semi-standardized biographical interviews with patients and controls regarding behaviour in early youth (Poewe *et al.*, 1990), percentages given as means of two independent ratings with individual ratings in brackets

	Introverted/ depressed	Workaholic	Pedantic	Rigid	Loner	Non-smoker	Teetotaller
Patients ($N = 33$)	49%* (48/50)	71.5% (50/85)	75%* (74/75)	50% 42/58	47.5%* (45/50)	66.5% (61/72)	28% (27/29)
Controls ($N = 17$)	17.5% (11/24)	55.5% (41/70)	29.5% (24/35)	14.5% (12/17)	17.5% (11/24)	49.5% (41/50)	29.5% (24/35)

$P < 0.05$.

of the specimens were correctly judged as handwriting of persons who later developed Parkinson's disease. An excessive 'rigidity of handwriting', restrained and deteriorated motion, lack of flow and rhythm (Table 3) were considered to be characteristic of a premorbid Parkinson personality. The graphomotor analysis of early specimens leads to the conclusion that basic traits of the Parkinson personality—non-motor behaviour—have existed already in early youth.

Parkinsonian features in Hitler's personality

Typical signs of a premorbid Parkinson personality can be found in Adolf Hitler (Gerstenbrand and Karamat, 1997). These are pedantry, introversion, distrust and scepticism against the environment, lack of decisiveness, inner tension, and mental and motor restlessness. Hitler was a teetotaller, he could not enjoy, was not addictive, never smoked and was a workaholic. He had no deeper interest in women and hyposexuality may be assumed (Table 4). Particularly striking is his love for ceremonies such as the pompous annual 'Reichsparteitage' in Nuremberg, which were conducted in the style of operas by Richard Wagner such as the 'Mastersingers of Nuremberg' or 'Tannhäuser'. A sample of Hitler's early handwriting shows all the characteristics of a premorbid Parkinson personality, such as excessive rigidity, restrained motion, deteriorated motion, lack of flow and rhythm (Fig. 2).

Hitler's paintings also reveal characteristic features of his premorbid Parkinson personality. Hitler only copied paintings by others with very minor changes (Fig. 3). The paintings totally lack creativity, following a stereotyped pattern. An analysis of Hitler's paintings shows similar traits to his handwriting.

TABLE 3. Premorbid handwriting features of individuals who later (average 26 years) developed Parkinson's disease (Lockowandt *et al.*, 1990)

- Excessive rigidity of stroke
- Restrained and deteriorated motion
- Lack of flow and rhythm

TABLE 4. Premorbid Parkinson personality traits found in Adolf Hitler's personality

- Pedantic
- Obsessive/compulsive (anancastic)
- Introverted
- Apprehensive
- Irresolute, undecided, wavering, hesitant
- Self-reproaching
- Sceptical
- Tension, restlessness
- Teetotaller
- Non-smoker
- Ahedonic
- No tendency towards addictiveness
- Workaholic
- Difficult relationship with women
- Urge for ceremonial ritual procedures at political assembly meetings and sports events
- Obsessed by the idea to have been elected by fate to save Germany and Europe

Antisocial personality traits in Adolf Hitler

The second group of pathological traits in the personality of Adolf Hitler fulfil the criteria of an antisocial personality disorder given in the DSM IV. The main characteristics are failure to conform to social laws, deceitfulness, impulsivity, irritability and aggressiveness, reckless disregard for safety, consistent irresponsibility, and lack of remorse.

The analysis of Hitler's personality for traits of an antisocial personality disorder reveals the following. Hitler had difficulties establishing or maintaining personal relationships; already as a young man, he placed himself outside social norms and later developed pseudo-ethical norms. He did not finish school or any professional training and was an idler. He accused others, deceived and betrayed them for his personal advantage. He was highly irritable and tended to bouts

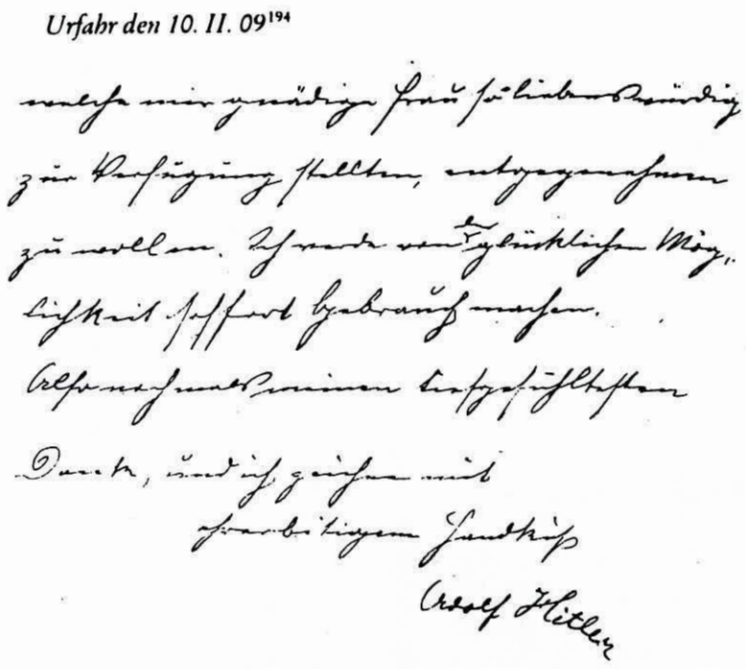

FIGURE 2. Adolf Hitler's handwriting at the age of 20 showing excessive rigidity, restrained motion, lack of flow and rhythm. He used the old angular German handwriting (Fest, 1981; reproduced with permission of Institut für Zeitgeschichte, München)

of rage (Dietrich, no year; Dahlerus, 1948; Strasser, 1948; Rauschnig, 1973; Kubizek, 1975; Warlimont, 1978). He completely lacked sympathy with others and never showed remorse. The origin of Hitler's antisocial personality has not yet been clarified. It is interesting that Hitler already showed emotional disorders with bouts of rage during his early youth, as reported by his teachers and his friend Kubizek (Table 5).

SUMMARY OF HITLER'S PERSONALITY DISORDERS

A summary of Adolf Hitler's abnormal personality shows the basic characteristics of a premorbid Parkinson personality with obsessive-compulsive traits, uncorrectable rigidity, extreme inflexibility and insupportable pedantry. In addition, symptoms of an antisocial personality disorder with lack of ethical and social values, a deeply rooted tendency to betray others and deceive himself, and uncontrolled emotional reactions are present.

This special combination resulted in his uncritical conviction of his mission and an enormous striving for recognition. He loved pompous ceremonies and the theatrical presentation of his person. The deliberately developed image of the 'Leader' was supported and controlled by the SS. Research on the last phase of Hitler's Parkinson's disease has revealed that the SS may have attempted to remove the severely diseased Leader by medical intervention using the supposedly anti-parkinsonian mixture.

SUMMARY

There is general agreement among physicians and experts in modern history that Adolf Hitler had Parkinson's disease. Symptoms towards the end of Hitler's life included severe tremor predominantly on the left side, a marked disorder of gait and posture, amimia and akinesia, which corresponds to the 'equivalent' type of idiopathic Parkinson's disease. There are no signs of post-encephalitic origin.

A careful study of the case history and Hitler's personality, exhibiting the typical signs of a premorbid Parkinson personality, provides indications for idiopathic Parkinson's disease.

An attempt to analyse Hitler's personality reveals two different groups of character traits: on the one hand, those frequently found in the premorbid personality of idiopathic parkinsonian patients, such as mental rigidity, inflexibility and pedantry; and on the other, those which warrant the assumption of a severe personality disorder. The aetiology of this antisocial personality disorder is not yet clear.

FIGURE 3. An example of Hitler's painting (Hamann, 1996: reproduced with permission of Deutsches Bundesarchiv, Koblenz)

TABLE 5. Traits of antisocial personality disorders in Adolf Hitler's personality

– Failure to conform to social norms
– Deceitfulness, repeated lying, using others for personal profit
– Impulsivity, failure to plan ahead
– Irritability, aggressiveness, bouts of rage
– Recklessness, disregard for safety of self and others
– Consistent irresponsibility
– Lack of remorse, insight and empathy
– Inability to establish personal relationships
– Craving for recognition
– Megalomania

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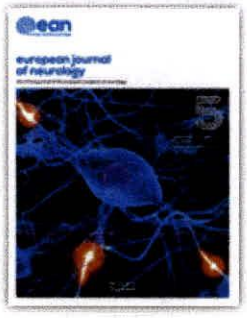

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