Methods: The ANAM-PD battery including tests assessing working memory impairment, visuospatial and visuomotor dysfunction, set shifting, attention problems, reaction time, planning and executive functions was used to evaluate PD patients ($n=47$, mean age 65, mean UPDRS=35) and healthy controls ($n=20$, mean age 63). Patients were tested while "on" PD meds. Results: Multivariate analysis of accuracy and throughput (# of correct responses/time performed in ms) scores for each test within the ANAM-PD battery showed a trend toward, worse performance scores in the PD patients compared to the controls. Discriminant function analysis combining five of test in the battery showed an 83% accuracy in classification of the two groups. Discussion: The ANAM-PD, a test battery to assess cognitive dysfunction in PD may distinguish between PD patients and older healthy subjects. Additional studies using with a larger sample size and comparing ANAM-PD to conventional neuropsychological testing are required to further evaluate this promising tool.

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The HOEHN and YAHR staging scale [HY]: Status and recommendations of the movement disorder society task force report

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The Movement Disorder Society Task Force for Rating Scales for Parkinson's disease (PD) prepared a critique of the Hoehn and Yahr scale (HY). Strengths of the HY scale include its wide utilization and acceptance. Progressively higher stages correlate with neuroimaging studies of dopaminergic loss, and high correlations exist between the HY scale and some standardized scales of motor impairment, disability and quality of life. Weaknesses include the scale's mixing of impairment and disability and its non-linearity. Because the HY scale is heavily weighted toward postural instability as the primary index of disease severity, it does not completely capture impairments or disability from other motor features of PD and gives no information on non-motor problems. Direct clinimetric testing of the HY scale has been very limited, but the scale fulfills at least some criteria for reliability and validity, especially for the mid-ranges of the scale (Stages 2–4). Whereas a 'modified HY scale' that includes 0.5 increments has been widely adopted, no clinimetric data are available on this adaptation. The Task Force recommends that: (1) the HY scale be used in its original form for demographic presentation of patient groups; (2) when the HY scale is used for group description, medians and ranges should be reported and analysis of changes should use non-parametric methods; (3) in research settings, the HY scale is primarily useful for defining inclusion/exclusion criteria; (4) to retain simplicity, clinicians should 'rate what you see' and therefore incorporate co-morbidities when assigning a HY stage; (5) because of the wide usage of the 'modified HY' scale with 0.5 increments, this adaptation warrants clinimetric testing. Without such testing, however, the original 5-point scales should be maintained.

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Parkinson personality traits: Clinical, psychodiagnostic and graphomotor assessment

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Several studies have described certain character features to the personality of patients with Parkinson's disease — like traits of inflexibility, moral rigidity, punctuality, tendency to introversion, tendency to obsessive–compulsive behavior, etc. The aim of this study was to evaluate the question: do Parkinson patients (P) have significantly different personality traits in comparison to healthy controls? And if so, have these personality traits existed already before onset of illness? The study included 38 P patients (mean age 54.9) who had been ill for an average of 5.2 years, mean Hoehn and Yahr stage 2.7, 20 patients with Essential Tremor (ET), and 17 healthy controls, all matched in age and sex distribution. The intellectual performance was tested (Mini Mental State, Wechsler Adult Intelligence Scale, WAIS), the emotional state was assessed (Geriatric Depression Scale, GDS) and the actual personality profile was assessed (Cattell's 16 PF Personality Inventory). For assessment of premorbid character and behavior traits an extensive, semistandardized biographical interview was conducted with the patients and the healthy controls, to cover premorbid habits, hobbies, family life, professional career and social activities. The same interview was also conducted with a close relative. Also we collected handwriting samples from 30 P patients and from the control group, dating back an average of 26 years before onset of disease. These handwritings were subjected to a blinded graphomotor examination (Prof. Lockowandt, University of Bielefeld). 73% of the specimens were correctly judged as handwritings of persons who later developed P disease. The results of these studies show, that there are differences in personality traits between P patients and controls. These differences were already there in early youth, and also motor dysfunction (early handwriting) was apparent in early youth.

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Rating scales for non-motor elements of Parkinson's disease

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Whereas the core assessment of Parkinson's disease (PD) traditionally has focused on motor function, the established impact of non-motor disease features on overall patient function has prompted the need to develop rating scales that incorporate these impairments. Several strategies have been utilized. The Unified Parkinson's Disease Rating Scale (UPDRS) is the most widely used clinical rating measure of PD. This four-part scale is considered the 'gold standard' for published assessments and clinical trials involving PD subjects. Part I contains 4 questions on Cognition, Part II assesses Activities of Daily Living and incorporates motor and non-motor deficits in relation to clinical disability, Part III concerns only motor function, and Part IV assesses complications of disease therapy including both non-motor and motor problems. Based on a 2003 critique of the UPDRS, the Movement Disorder Society initiated an effort to create a new version of the UPDRS (1). One of the specific recommendations was to broaden the scale to provide a more comprehensive assessment of non-motor features. The new UPDRS has been formally presented at the Movement Disorder Society Congress (Rome, 2004), but has not been clinimetrically tested. The new scale retains a four part composition and all items will be designed to assess dysfunction in a parallel format using a 0–4 system anchored by the following construct: 0=normal; 1=minimal 2=mild; 3=moderate; 4=severe. All non-motor assessments are considered as screening questions, and an official appendix of additional specific scales to assess individual disabilities and impairments in greater detail is part of the new scale. In Part I, new non-motor items include assessments of nocturnal sleep patterns, daytime sleepiness, apathy, and autonomic functions, urinary, bowel and orthostatic dizziness. Other scales, both general and focused, are also available for assessing non-motor function in PD. An new questionnaire on non-motor features has been developed by Chaudhuri et al. (2), and assessment tools for individual elements of function (anxiety, depression, cognitive decline, quality of life) have been developed, sometimes specifically for PD and often adapted or adopted for use in the PD population. Whereas these efforts all signal an increasing appreciation of non-motor aspects of PD by clinicians, industry, and funding agencies, rating scales for these disabilities still successfully undergo clinimetric testing before they are validated. References: (1) Movement Disorder Society Task Force on Rating Scales for Parkinson's disease. UPDRS: status and recommendations. Mov Disord 2003;18: 738–750. Chaudhuri KR, Schapira

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DEMENTIA IN PARKINSON'S DISEASE

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Guest Editors

Amos D. Korczyn
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PARKINSON PERSONALITY TRAITS CLINICAL PSYCHODIAGNOSTIC AND GRAPHOMOTOR ASSESSMENT

E. Karamat[1], F. Gerstenbrand[1], W. Poewe[2]
Ludwig Boltzmann Institut für Restorative Neurologie

Mental Dysfunction in Parkinson's Disease

October 24-24, 2004
Salzburg, Austria

PREMORBID PERSONALITY IN PD AND ET

TABLE 1. Results of WAIS and MMS in controls, patients with essential tremor, and Parkinson's disease

Tests	C (N = 17)	ET (N = 20)	PD (N = 38)
WAIS			
VIQ	103.4 (± 12.3)	107.5 (± 9.7)	103.5 (± 11.7)
Information	98.1 (± 13.5)	106.1 (± 11.0)	98.9 (± 14.5)
Similarities	109.0 (± 13.4)	109.4 (± 11.7)	108.6 (± 10.7)
Picture completion	97.4 (± 14.4)	100.6 (± 12.1)	89.4 (± 16.8)
Block-design	106.6 (± 10.7)	105.5 (± 14.2)	96.4 (± 12.2)
IQ	109.2 (± 13.8)	111.5 (± 11.0)	103.1 (± 14.3)
mini-mental state	28.8 (± 3.2)	29.2 (± 2.3)	28.0 (± 3.3)

C. controls; ET, essential tremor; PD; Parkinson's disease; VIQ, Verbal Intelligence Quotient; IQ, Intelligence Quotient.

TABLE 2. Results of Geriatric Depression Scale

Score	Controls (N = 17)	ET (N = 20)	PD (N = 38)
≤ 10 (normal)	88.2% (N = 15)	35.0% (N = 7)	31.6% (N = 12)
11 – 15 (mildly depressed)	5.9% (N = 1)	25% (N = 7)	31.6% (N = 12)
≥ 16 (severely depressed)	5.9% (N = 1)	40% (N = 8)	36.6% (N = 14)

PD vs C: 0.05; ET vs C:p 0.05; ET vs PD: NS.
ET, essential tremor; PD, Parkinson's disease

Table 1

ACTUAL PERSONALITY PROFILE OF PARKINSON PATIENTS AND CONTROLS BY CATTELL'S 16 PF
MEAN SCORES (STANDARD DEVIATION)

FACTOR	PATIENT	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

Table 2

DESCRIPTION OF THE RESULTS OF ACTUAL PERSONAL PROFILE OF PARKINSON PATIENTS BY CATTELL'S 16 PF

FACTOR N : SHREWD, CALCULATING, SOCIALLY ALERT
FACTOR O : APPREHENSIVE, SELF REPROACHING; WORRYING
FACTOR Q4 : TENSE, DRIVEN, RESTLESS, OVERWROUGHT
FACTOR QII : LOW ADJUSTMENT, SCEPTICAL, CAUTIOUS

PREMORBID HANDWRITING FEATURES IN LATER PARKINSON PATIENTS (STUDY KARAMAT AND LOCKOWAND)

- EXCESSIVE RIGIDITY OF STROKE
- RESTRAINED AN DETERIORATED MOTION
- LACK OF FLOW AND RHYTHM

Table 4

- PEDANTIC
- OBSESSIVE/COMPULSIVE (ANANCASTIC)
- INTROVERTED
- APPREHENSIVE
- IRRESOLOTE, UNDECIDED, WAVERING, HESITANT
- SELF REPROACHING
- SCEPTICAL
- TENSION, RESTLESSNESS
- TEETOTALER
- NON SMOKER
- AHEDONIC
- NO TENDENCY TOWARDS ADDICTIVENESS
- WORKAHOLIC

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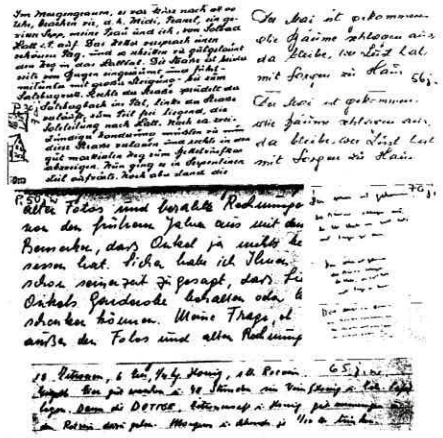

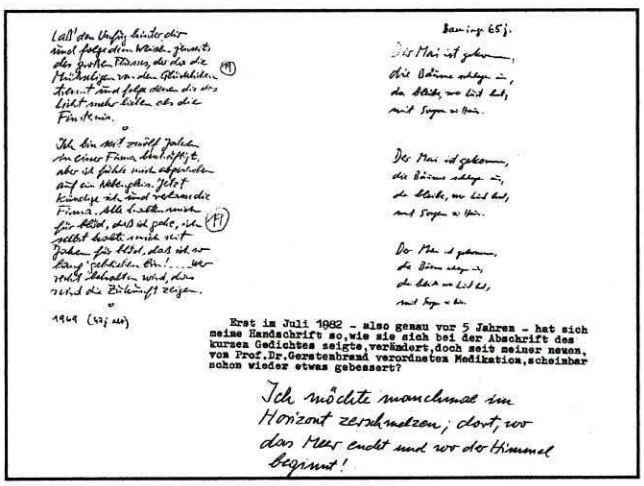

Erst im Juli 1982 – also genau vor 5 Jahren – hat sich meine Handschrift so,wie sie sich bei der Abschrift des kursen Gedichtes zeigte,verändert,doch seit meiner neuen, von Prof.Dr.Gerstenbrand verordneten Medikation,scheinbar schon wieder etwas gebessert?

Ich möchte manchmal im Horizont zerschmelzen; dort, wo das Meer endet und wo der Himmel beginnt!

Summary

Results in Parkinson' s patients

Morbid:

16PF test, semi-standardized biographical interview and graphomotor examination

introversion, pedantry, rigidity, apprehensive,

self reproaching, restlessness, cautious, low

adjustments, shrewd, loner, teetotaler

Premorbid:

semi standardized biographical interview and graphomotor examination

introverted, pedantic, rigid, calculating,

socially alert, self reproaching, worrying,

low adjustment, workaholic, ahedonic