Original Research

Personality Changes in Patients With Beginning Alzheimer Disease

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Objective: To investigate personality traits in patients with Alzheimer disease, compared with mentally healthy control subjects. We compared both current personality characteristics using structured interviews as well as current and previous personality traits as assessed by proxies.

Method: Fifty-four patients with mild Alzheimer disease and 64 control subjects described their personality traits using the Structured Interview for the Five-Factor Model. Family members filled in the Revised NEO Personality Inventory, Form R, to evaluate their proxies' current personality traits, compared with 5 years before the estimated beginning of Alzheimer disease or 5 years before the control subjects.

Results: After controlling for age, the Alzheimer disease group presented significantly higher scores than normal control subjects on current neuroticism, and significantly lower scores on current extraversion, openness, and conscientiousness, while no significant difference was observed on agreeableness. A similar profile, though less accentuated, was observed when considering personality traits as the patients' proxies remembered them. Diachronic personality assessment showed again significant differences between the 2 groups for the same 4 domains, with important personality changes only for the Alzheimer disease group.

Conclusions: Group comparison and retrospective personality evaluation are convergent. Significant personality changes follow a specific trend in patients with Alzheimer disease and contrast with the stability generally observed in mentally healthy people in their personality profile throughout their lives. Whether or not the personality assessment 5 years before the current status corresponds to an early sign of Alzheimer disease or real premorbid personality differences in people who later develop Alzheimer disease requires longitudinal studies.

Clinical Implications

- Personality changes have been demonstrated in patients with beginning Alzheimer disease.
- Personality changes may be early signs of Alzheimer disease.
- A better understanding of personality changes in patients with Alzheimer disease may ultimately suggest novel treatment strategies and delay the occurrence of symptoms.

Limitations

- Measuring personality changes using retrospective assessment by proxies may have introduced some memory bias.
- The heterogeneity of the proxies interviewed may have introduced another bias as their descriptions depend on different filters. Although the analyses were adjusted for significant age differences, findings ought to be replicated with more similar groups.

Alzheimer disease is a leading cause of cognitive decline in old age. It is also accompanied by behavioural and psychological symptoms and personality changes. The few existing studies on the topic suggest that personality changes occur early in the disease and may aid in early detection and diagnosis.[1] A better understanding of personality traits on disease susceptibility and risk or the interaction between personality change and the disease process may further both early detection of Alzheimer disease and more appropriate care. Research into current and premorbid personality traits or disorders as early markers of Alzheimer disease has been neglected.[2] Further, experimental and clinical work strains to prove clear links between personality factors and features of Alzheimer disease, a difficulty owing, at least in part, to the complexity and multitude of the causal factors involved in the development of Alzheimer disease and the many facets of personality itself. At that, only a few studies have systematically investigated personality changes in patients with Alzheimer disease. However, some studies[3–5] have examined changes in personality traits among patients with Alzheimer disease using ratings from close relatives asked to compare current with retrospective personality. These studies show that premorbid personality traits were the only significant predictor of change for neuroticism (particularly higher anxiety, depression, and vulnerability facets), extraversion (lower assertiveness and activity facets), and lower openness to new ideas, fantasy, esthetics, and values. In a 12-year annual follow-up study, using a standard 12-item measure of conscientiousness, Wilson et al[6] demonstrated an association between lower levels of conscientiousness and the incidence of Alzheimer disease.

Although these studies provide a consistent and plausible picture, they reflect evaluation by close caregivers and often ignore the personality description by the patients themselves. The information given by a close relative about a patient's previous personality may be biased to some extent as a result (for example, the idealization of the patient and their previous relationship as well as the stress endured as a consequence of the change in their relationship).[7] Thus personality self-assessment may be a useful piece of information in addition to the evaluation by a close caregiver. Moreover, the interaction between personality and dementia development might be especially sensitive and informative at the onset of this disease.

Whether personality changes during beginning dementia is unclear. Given the dearth of information and the controversies in this research domain, we preferred not to make specific assumptions. In our study, we wished to compare both current and retrospectively assessed previous personality traits in patients with incipient Alzheimer disease and mentally healthy control subjects, using both structured interviews of current personality as well as an evaluation by proxies of a patient's current and previous personality traits.

Method

Sample
Fifty-four patients diagnosed with mild Alzheimer disease were selected from patients attending an old-age psychiatric memory clinic, and 64 control subjects were recruited by journal announcements and word of mouth.

Procedure
All of the patients had a comprehensive medical, psychiatric, neuropsychological, and psychosocial evaluation. Most often, they also had cerebral magnetic resonance imaging as well as numerous standard laboratory tests. This investigation yielded an International Classification of Diseases, 10th Edition, diagnosis[8] and the National Institute of Neurological and Communicative Disorders and Stroke, and the Alzheimer's Disease and Related Disorders Association[9] criteria for Alzheimer disease were established.

More specifically, and for the purpose of our study, Alzheimer disease patients had the HADS[10] and the MMSE.[11] Observer report by family members was obtained through the NPI,[12] ADL,[13] the IADL,[14] and the IQCODE.[15] The control subjects had an identical assessment.

Participation in our study was proposed to the patients, the control subjects, and their proxies. The goals of the project were explained and written consent was obtained. The completion of the clinical research battery took about 2.5 hours for the patient, 2 hours for the participants in the control group, and 1 hour and 40 minutes for the family member. To minimize the subjects' fatigue, they were seen in 1 or 2 sessions with not more than 1 week between sessions. Our study did not present any particular risks for the patients. The Ethics Committee of the Biology and Medicine Faculty of the University of Lausanne approved this project (Protocol 85/2008).

Personality Assessment
Personality traits were assessed according to the FFM that is currently the most common dimensional approach to personality.[16,17] This model claims that personality can be described along 5 main independent dimensions called neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Each of these dimensions is composed of 6 lower-level personality facets.[18] Costa and McCrae[19] have suggested that the extremeness of scores on the dimensions of the FFM could differentiate normal personality from pathological

Abbreviations

ADL	activities of daily living
FFM	Five-Factor Model
HADS	Hospital Anxiety and Depression Scale
IADL	Instrumental ADL
IQCODE	Informant Questionnaire on Cognitive Decline in the Elderly
MMSE	Mini-Mental State Examination
NEO-PI-R	Revised NEO Personality Inventory
NPI	Neuropsychiatric Inventory

Table 1 Demographics and descriptive statistics					
	Patients with Alzheimer disease, n = 54		Healthy control subjects, n = 64		
Demographics and descriptive statistics	Mean	SD	Mean	SD	P
Age, years	76.9	8.5	69.3	8.7	<0.001
Sex	39 female, 15 male		35 female, 29 male		0.05
MMSE	23.7	3.0	29.2	1.0	<0.001
HADS: anxiety	4.1	2.7	4.4	2.2	0.44
HADS: depression	4.2	2.7	2.3	1.6	<0.001
ADL	5.1	1.1	6.0	0.0	<0.001
IADL	3.9	2.1	8.0	0.0	<0.001
IQCODE	4.0	0.5	3.0	0.1	<0.001
NPI: severity	7.6	4.1	0.7	2.1	<0.001

personality or that dysfunction might be associated with some specific personality profiles according to another study.[20]

Two mutually compatible tools based on the FFM were used. The French version[21] of the Structured Interview for the FFM[22] appears as a well-suited instrument for the assessment of personality traits in patients with Alzheimer disease who may be unable to complete a questionnaire. It is composed of 120 questions. The NEO-PI-R[16] is a questionnaire composed of 240 items and used for peer ratings. For our study, proxies assessed both the current and the previous personality of the patients with Alzheimer disease. The previous period was defined as the time from young adult age to 5 years prior to the beginning of cognitive decline. Thus family members completed the NEO-PI-R twice, once to evaluate the participants' current personality and the second time to assess personality traits as they were remembered to be 5 years earlier.

Statistical Analysis

The data were analyzed using SPSS, Version 18 (SPSS Inc, Chicago, IL) and R Development Core Team.[23] Descriptive statistics were used to characterize demographic and clinical characteristics by the 2 groups: patients with Alzheimer disease and control subjects. Comparison of current personality characteristics between patients with Alzheimer disease and normal control subjects were performed calculating ANCOVAs to control for demographic variables, in particular age, which differed between the 2 groups. Gender distribution was similar across the 2 groups. Previous personality traits in patients with Alzheimer disease and healthy control subjects were compared using also ANCOVAs with control for age. Comparisons of current and previous personality traits in patients with Alzheimer disease were done using ANOVAs for repeated measures. We also calculated the effect size for each comparison. To further examine the effect of generalized interaction, a MANCOVA was carried out. Correlations between current self-assessment of personality traits and observer-description of current and previous traits for the clinical group were also computed.

Results

The Alzheimer disease and control groups had significantly different mean age but gender distributions were similar. As expected, the clinical group scored higher than the control group on the clinical depression scale (HADS), the IQCODE, and on the NPI for symptom severity, and had lower scores on the MMSE, and the ADL and IADL scales (Table 1).

Current Personality Profiles in Patients With Alzheimer Disease, Compared With Control Subjects

Concerning evaluation through the structured interview for the FFM of Personality,[21] the mean personality profile for patients with Alzheimer disease was very different from the healthy control subjects. Some of the differences reported below were associated with large effect sizes ($d \geq 0.80$).[24] After controlling for age, the Alzheimer disease group presented significantly higher scores on neuroticism owing to differences, especially on the vulnerability facet scale. The significantly lower scores of the Alzheimer disease group on extraversion were mainly due to differences on the gregariousness, assertiveness, activity, excitement-seeking, and positive emotions facet scales. Equally, the significantly lower scores of the Alzheimer disease group on openness to experience were due to differences on the fantasy, esthetics, action, ideas, and values facet scales. The significantly lower scores of the Alzheimer disease group on conscientiousness resulted from differences on the competence, dutifulness, achievement-striving, and self-discipline facet scales. No significant difference between the 2 groups was observed for agreeableness (Table 2).

The current observer ratings, using NEO-PI-R, indicate significant differences between the 2 groups for the same 4 domains: for the Alzheimer disease patients we found a higher score on neuroticism ($t = 7.73$, $df = 115$, $P < 0.001$, $d = 1.13$), and a lower score on conscientiousness ($t = 14.72$, $df = 115$, $P < 0.001$, $d = 1.48$), in comparison with personality self-description. The results on extraversion ($t = 10.56$, $df = 115$, $P < 0.001$, $d = 1.33$) and on openness to experience ($t = 8.81$, $df = 115$, $P < 0.001$, $d = 1.19$) remain as high as in self-assessment, similarly, agreeability scores are also unchanged ($t = 0.76$, $df = 115$, $P = 0.446$, $d = 0.14$).

Table 2 Current personality profiles in patients with Alzheimer disease, compared with control subjects

Variables Structured Interview for the FFM	Patients with Alzheimer disease		Healthy control subjects				
	Mean	SD	Mean	SD	t^a	d	P
Neuroticism	14.1	5.6	12.5	4.7	2.42	0.43	0.02
Anxiety	2.5	1.8	1.9	1.4	1.78	0.32	0.08
Hostility	1.8	1.1	1.7	1.1	0.32	0.06	0.75
Depression	2.6	1.6	2.5	0.7	1.33	0.24	0.19
Self-consciousness	2.1	1.2	2.0	1.4	1.54	0.27	0.13
Impulsiveness	1.7	1.0	1.9	1.1	0.40	0.07	0.693
Vulnerability	3.4	1.4	2.4	1.4	4.30	0.74	<0.001
Extraversion	19.2	4.9	29.5	4.6	11.38	1.41	<0.001
Warmth	4.0	1.6	4.7	1.4	2.83	0.51	0.05
Gregarious	3.5	1.2	5.2	1.1	8.00	1.17	<0.001
Assertiveness	2.9	1.4	5.0	1.7	7.08	0.30	<0.001
Activity	3.1	1.1	5.5	1.2	10.12	1.30	<0.001
Excitement-seeking	1.7	1.1	3.6	1.0	8.91	1.21	<0.001
Positive emotions	4.0	1.1	5.5	1.1	7.60	1.14	<0.001
Openness	16.3	4.0	23.5	4.2	8.26	1.14	<0.001
Fantasy	1.8	1.1	2.8	1.0	3.95	0.66	<0.001
Esthetics	3.0	1.0	4.6	1.3	6.26	1.02	<0.001
Feelings	5.3	0.9	5.7	1.1	1.65	0.30	1.008
Action	1.6	0.9	2.7	1.4	4.17	0.70	<0.001
Ideas	1.9	1.3	3.9	1.6	6.76	1.03	<0.001
Values	2.8	0.9	3.9	1.3	4.44	0.74	<0.001
Agreeableness	29.4	3.4	29.3	3.7	0.79	0.14	0.43
Trust	4.0	1.3	5.1	1.1	4.79	0.80	<0.001
Straightforwardness	5.4	0.8	5.3	1.0	0.37	0.07	0.71
Altruism	4.0	0.9	4.7	1.1	2.99	0.52	0.004
Compliance	5.2	1.2	4.7	1.2	2.88	0.51	0.05
Modesty	4.5	1.6	3.8	1.5	3.50	0.61	0.007
Tender-mindedness	6.2	1.2	5.6	1.2	2.21	0.40	0.03
Conscientiousness	28.1	4.0	33	4.2	6.57	1.03	<0.001
Competence	4.3	1.1	5.8	0.9	7.20	1.07	<0.001
Order	4.1	1.5	4.2	1.3	0.67	0.12	0.51
Dutifulness	5.7	1.1	6.3	0.9	4.08	0.71	<0.001
Achievement-striving	4.6	0.8	5.2	0.9	3.85	0.67	<0.001
Self-discipline	4.6	1.2	6.5	1.3	7.97	1.66	<0.001
Deliberation	4.9	1.2	5.0	1.4	0.82	0.15	0.42

[a] ANCOVAs to control for age; $df = 115$

Table 3 Correlation between current self- and observer ratings, both concurrent and retrospective personality traits, in the Alzheimer disease group

Structured Interview for the FFM current personality	NEO-PI-R previous personality					NEO-PI-R current personality				
	N	E	O	A	C	N	E	O	A	C
	Alzheimer disease group									
Neuroticism	0.40[a]	−0.22	0.07	−0.08	−0.05	0.40[a]	−0.25	0.06	−0.16	−0.01
Extraversion	−0.14	0.40[a]	0.22	0.15	0.30[a]	−0.03	0.20	0.12	0.02	0.21
Openness	−0.13	0.13	0.60[b]	0.05	0.19	−0.09	0.12	0.60[b]	0.07	0.13
Agreeableness	−0.03	−0.22	−0.16	0.29[c]	−0.01	0.14	−0.31[a]	−0.14	0.26	−0.10
Conscientiousness	0.07	0.14	0.23	0.09	0.18	0.09	0.25	0.23	0.13	0.28[c]
	Control group									
Neuroticism	0.34[a]	−0.07	0.00	−0.19	−0.09	0.34[a]	−0.04	0.00	−0.20	−0.08
Extraversion	0.05	0.38[a]	0.06	−0.11	−0.13	0.03	0.35[a]	0.05	−0.11	−0.10
Openness	0.00	0.18	0.51[b]	−0.08	−0.11	−0.03	0.17	0.50[b]	−0.08	−0.09
Agreeableness	−0.06	0.26	0.30[c]	0.47[a]	0.06	−0.05	0.28[c]	0.30[c]	0.48[a]	0.06
Conscientiousness	−0.15	−0.18	−0.13	0.00	0.37[a]	−0.15	−0.18	−0.10	0.00	0.34[a]

A = Agreeableness; C = Conscientiousness; E = Extraversion; N = Neuroticism; O = Openness

[a] $P < 0.01$; [b] $P < 0.001$; [c] $P < 0.05$

Facets description follows the same consistent trend, but they are more pronounced.

Previous Personality Profiles in Patients With Alzheimer Disease, Compared With Control Subjects

Comparisons of the previous personality traits in patients with Alzheimer disease and healthy control subjects show significant differences for 4 domains: higher scores on neuroticism for patients with Alzheimer disease ($t = 4.10$, $df = 115$, $P < 0.001$, $d = 0.70$), and lower scores on extraversion ($t = 6.42$, $df = 115$, $P < 0.001$, $d = 1.00$), openness to experiences ($t = 6.87$, $df = 115$, $P < 0.001$, $d = 1.03$), and conscientiousness ($t = 4.82$, $df = 115$, $P < 0.001$, $d = 0.80$). These results were mainly due to differences on the following facet scales: for neuroticism, depression ($d = 0.73$), self-consciousness ($d = 0.79$), and vulnerability ($d = 0.78$); for extraversion, warmth ($d = 0.85$), gregariousness ($d = 0.61$), assertiveness ($d = 0.96$), and activity ($d = 0.66$); for openness to experiences, esthetics ($d = 0.68$), actions ($d = 0.96$), ideas ($d = 1.21$), and values ($d = 0.80$); for conscientiousness, competence ($d = 0.88$), achievement striving ($d = 0.74$), and self-discipline ($d = 0.80$). No significant difference between the 2 groups was observed for agreeableness ($t = 0.28$, $df = 115$, $P = 0.78$, $d = 0.05$). Several differences between the 2 groups are thus associated with a large effect size ($d \geq 0.80$).[24] Moreover, for the Alzheimer disease group there was a significant and positive association between current self-assessment of personality traits and observer-description of previous traits for neuroticism, extraversion, openness to experiences, and agreeableness, but not for conscientiousness, compared with the control group (Table 3).

Evolution of Personality Characteristics Between Previous and Current Traits in Patients With Alzheimer Disease

Current personality traits, as assessed by the proxies of the patients with Alzheimer disease, were clearly distinct from previous traits, with some of the differences being associated with large effect sizes. Although the correlations between current and previous traits for the clinical group are significant and very high, incipient Alzheimer disease was accompanied by a highly significant increase on neuroticism, a decrease on extraversion, openness to experiences, and conscientiousness, while agreeability scores remained unchanged. These results were mainly due to changes on the following facet scales: for neuroticism, depression, activity, impulsiveness, and vulnerability; for extraversion, warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions; for openness to experiences, fantasy, esthetics, feelings, and ideas; for conscientiousness, competence, order, dutifulness, achievement striving, self-discipline, and deliberation. (Table 4).

These results were confirmed by an overall MANCOVA. Comparing current and previous personality of patients with Alzheimer disease and healthy control subjects, this analysis showed a significant and very large interaction effect between repeated measures, personality domains, and group ($F = 89.35$, $df = 4,113$, $P < 0.001$, $\eta_2 = 0.76$). Figure 1 enables the identification of significant differences regarding the evolution of personality characteristics in the last 5 years between the 2 groups.

Discussion

Our study shows that current personality features of patients with beginning Alzheimer disease are different, compared with those in normal healthy control subjects. Patients with incipient Alzheimer disease have higher mean scores on neuroticism and lower mean scores on extraversion,

Table 4 Evolution of personality characteristics between previous and current traits in patients with Alzheimer disease

NEO-PI-R (previous and current)	r	P	t[a]	d	P
Neuroticism	0.73	<0.001	9.78	1.33	<0.001
Anxiety	0.63	<0.001	2.77	0.38	0.008
Hostility	0.75	<0.001	3.29	0.48	0.002
Depression	0.79	<0.001	9.48	1.29	<0.001
Self-consciousness	0.77	<0.001	3.14	0.43	0.003
Impulsiveness	0.56	0.001	4.35	0.59	0.001
Vulnerability	0.57	0.001	13.10	1.78	<0.001
Extraversion	0.66	<0.001	9.57	1.30	<0.001
Warmth	0.73	<0.001	6.46	0.88	<0.001
Gregariousness	0.71	<0.001	3.83	0.52	0.001
Assertiveness	0.59	<0.001	9.19	1.25	<0.001
Activity	0.57	0.001	9.44	1.28	<0.001
Excitement-seeking	0.77	<0.001	4.90	0.67	0.001
Positive emotions	0.66	<0.001	4.20	0.57	0.001
Openness to experience	0.87	<0.001	7.35	1.00	<0.001
Fantasy	0.67	<0.001	5.16	0.70	<0.001
Esthetics	0.89	<0.001	7.43	1.01	<0.001
Feelings	0.84	<0.001	3.24	0.44	0.002
Actions	0.49	0.001	2.55	0.35	0.01
Ideas	0.80	<0.001	10.45	1.42	<0.001
Values	0.67	<0.001	1.44	0.20	0.16
Agreeableness	0.93	<0.001	2.06	0.28	0.04
Trust	0.90	<0.001	2.61	0.36	0.01
Straightforwardness	0.95	<0.001	0.82	0.11	0.42
Altruism	0.69	<0.001	4.82	0.66	0.005
Compliance	0.82	<0.001	0.99	0.13	0.33
Modesty	0.86	<0.001	4.11	0.56	0.001
Tender-mindedness	0.82	<0.001	1.82	0.25	0.08
Conscientiousness	0.47	0.001	17.83	2.48	<0.001
Competence	0.59	<0.001	14.92	2.03	<0.001
Order	0.47	0.001	15.35	2.09	<0.001
Dutifulness	0.46	0.001	15.49	2.10	<0.001
Achievement striving	0.58	<0.001	12.85	1.75	<0.001
Self-discipline	0.46	0.001	16.37	2.23	<0.001
Deliberation	0.67	<0.001	13.48	1.83	<0.001

[a] ANCOVAs adjusted for age; *df* = 53

Figure 1 The scatter diagram shows the evolution of personality dimensions during the last 5 years as assessed by their proxies, in patients with Alzheimer disease and in control groups
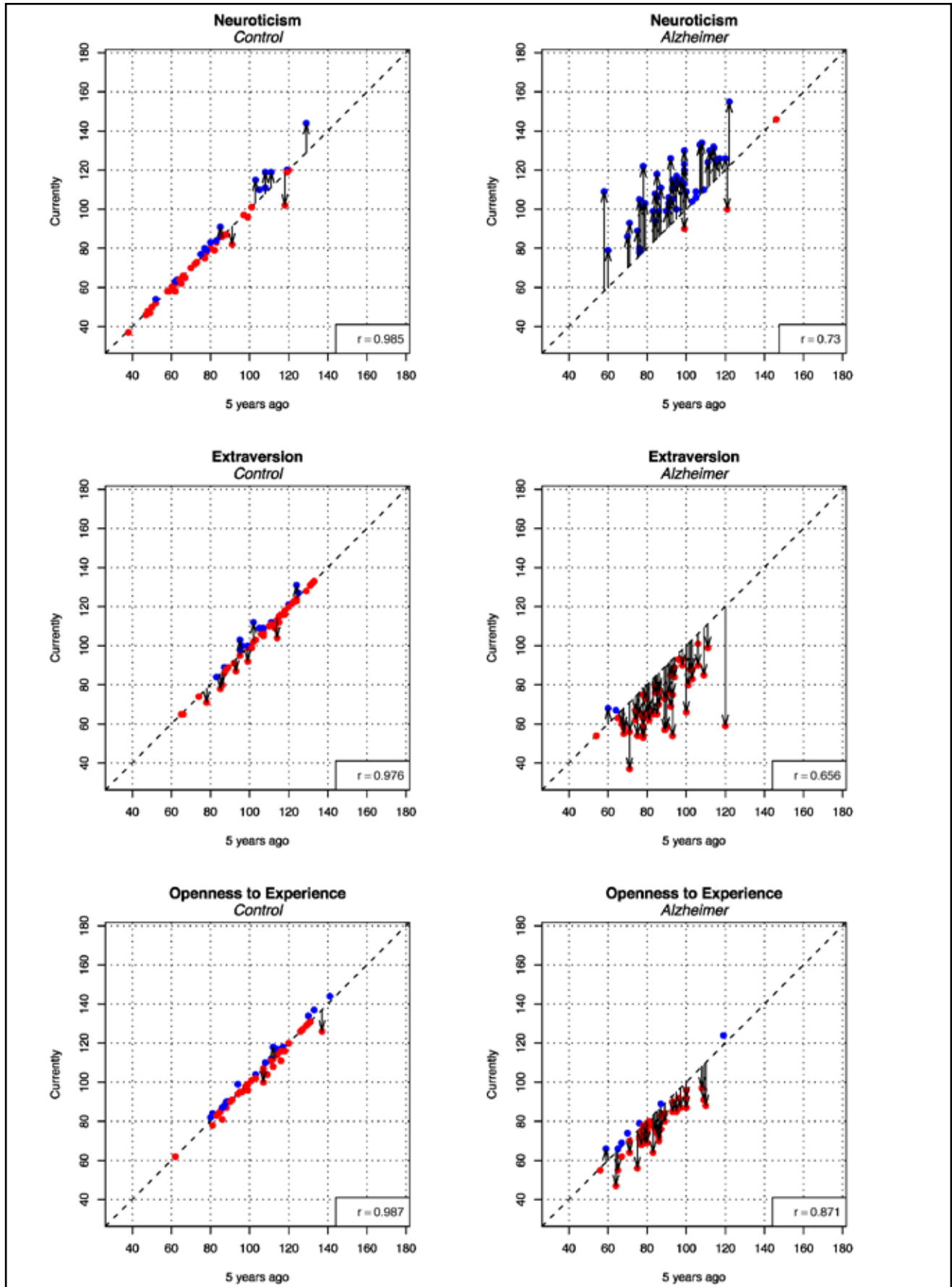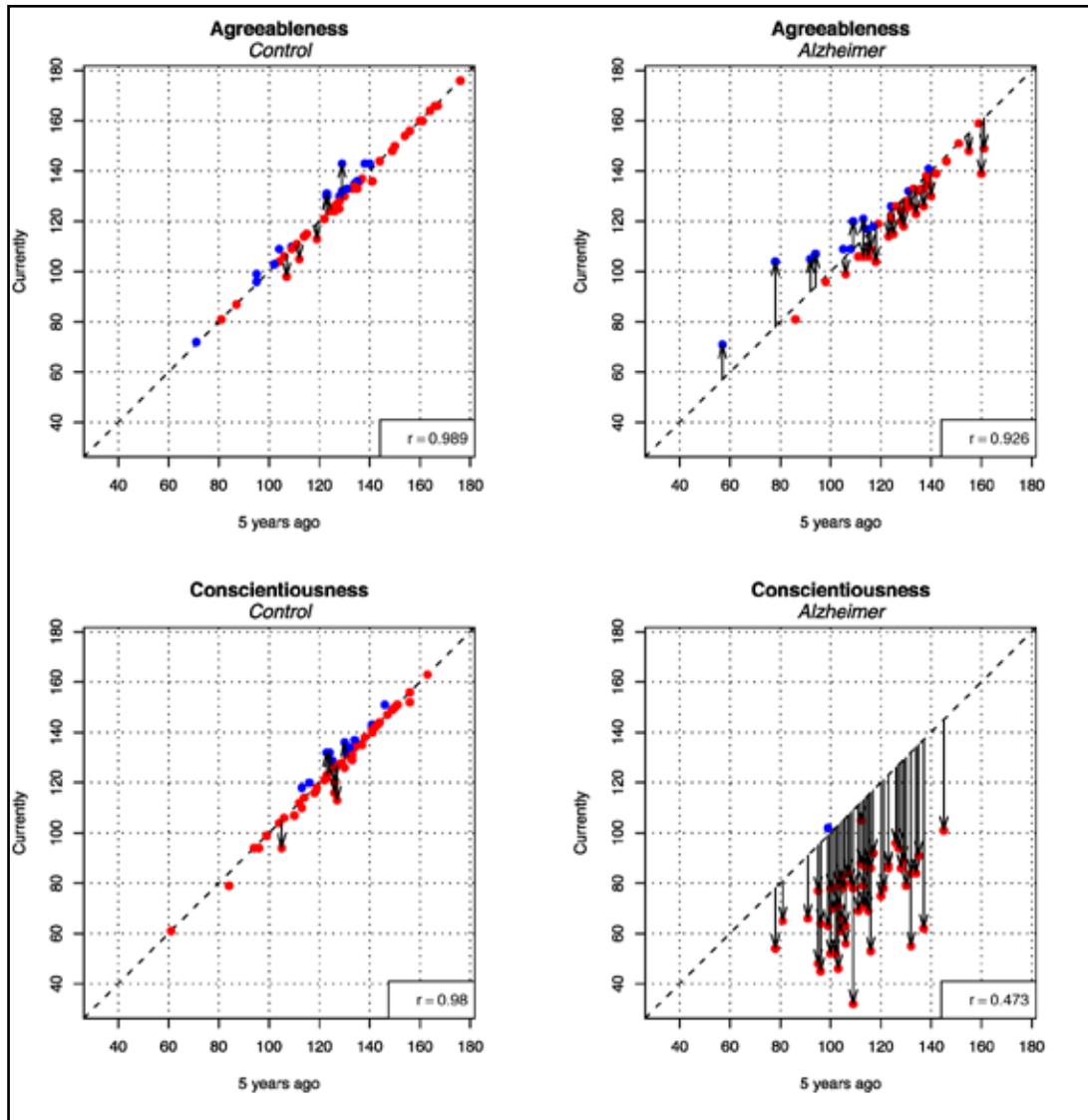
Figure 1 continued

Note: " ↓" and "↑" emphasize the direction of the evolution of personality traits with blue upwards directed arrows indicating increase, and red downwards directed arrows decreased scores on the various personality dimensions (scores indicate absolute values on the NEO-PI-R).

openness to experiences, and conscientiousness, while no significant difference was observed on agreeableness. Importantly, there is major convergence between the description given by the subjects themselves as to their current personality traits and the evaluation made by their proxies. However, the differences between patients and control subjects appear to be much larger in current observer ratings, compared with self-report. This suggests that patients with Alzheimer disease evaluate their former personality when asked to evaluate their current personality traits and that self-perception in patients with Alzheimer disease does not evolve parallel to personality changes as observed by third parties. In Rankin et al,[25] patients with dementia may fail to update their self-image once affected by the disease.

The same differences were already present, although to a lesser degree, 5 years earlier to the current assessment. This profile was observed when considering personality traits

as the patients' proxies remembered them. Moreover, the findings about the evolution of personality characteristics in patients with Alzheimer disease were convergent with the current differences between the patients and the control subjects and concerned the same 4 domains. Thus patients with Alzheimer disease undergo significant personality changes, which contrasts with the overall stability of personality traits observed for the healthy control subjects of our study and which has been reported by others.[16,26] Overall, patients with Alzheimer disease seem to become more vulnerable to stress, more dependent, hopeless, and reserved, somewhat gregarious, as well as more compulsive. Their conservativeness and conventionality in their views and behaviours increase; these patients prefer situations they are familiar with, and their novelty seeking and emotional responses are somewhat blunted. Their general interest is decreased and indifference in the pursuit of their goals becomes evident.

According to Terracciano et al,[26] personality traits of people in good mental health remain relatively stable during their whole life, small changes occur slowly and gently and not as quickly and significantly as observed in our clinical group. Our findings are in line with those of other studies reporting personality change in patients with Alzheimer disease and suggest that personality change is a consistent aspect of the phenomenology of Alzheimer disease.[27] Current personality traits in patients with Alzheimer disease could correspond to systematic shifts of previous personality traits, or specific personality changes affecting subtypes of patients as postulated by some authors.[3] In agreement with the literature,[25] in patients with Alzheimer disease, the personality changes are dissociated; that is, our findings suggest reproducible patterns of personality changes either through accentuation or attenuation of specific personality traits over time following a consistent trend. We interpret these changes as a uniform direction of change whatever the previous personality traits were before. Thus there seems to be a specific change but not a specific Alzheimer disease personality. This interpretation is also in line with that of some researchers, who consider that patients with dementia retain much of their former personalities and argue against the emergence of a specific Alzheimer personality.[1]

The strengths of our study result from the use of well-validated instruments allowing comparing self- and observer assessment of personality traits in a well-characterized sample of patients with incipient Alzheimer disease. However, measuring personality changes using retrospective assessment by proxies may have introduced some memory bias and the heterogeneity of the proxies interviewed may figure among the more important study limitations. Although the analyses were adjusted for significant age differences findings ought to be replicated with more similar groups. However, in general our findings appear to clearly show that important personality changes occur in patients with incipient Alzheimer disease.

Conclusions

Patients with incipient Alzheimer disease have different personality profiles, compared with healthy control subjects, as they undergo significant personality changes with an increase in neuroticism, and a decrease in openness, extraversion, and conscientiousness. These changes are likely to occur early during the course of Alzheimer disease and their observation may help in the early detection of dementia. Our study does not further the debate as to whether the existence of specific premorbid personality traits may constitute a risk factor either for Alzheimer disease, for future cognitive decline in Alzheimer disease or patients with mild cognitive impairment, or, the occurrence of specific behavioural and psychological symptoms of dementia. Future studies should attempt to detect these early personality changes using long-term prospective designs. A better understanding of such links may ultimately suggest novel strategies for delaying the occurrence of symptoms of Alzheimer disease and help patients and their proxies more efficiently.

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Résumé : Changements de personnalité chez les patients au début de la maladie d'Alzheimer

Objectif : Investiguer les traits de personnalité chez les patients souffrant de la maladie d'Alzheimer, comparativement à des sujets témoins en bonne santé mentale. Nous avons comparé les caractéristiques de la personnalité actuelles à l'aide d'entrevues structurées, ainsi que les traits de personnalité actuels et antérieurs tels qu'évalués par des représentants.

Méthode : Cinquante-quatre patients souffrant d'une maladie d'Alzheimer bénigne et 64 sujets témoins ont décrit les traits de leur personnalité à l'aide de l'entrevue structurée du modèle à 5 facteurs. Les membres de la famille ont rempli le formulaire R de l'inventaire de personnalité NEO révisé afin d'évaluer les traits de personnalité actuels du patient qu'ils représentaient, comparativement à 5 ans avant le début estimé de la maladie d'Alzheimer ou à 5 ans auparavant pour les sujets témoins.

Résultats : Après un contrôle pour l'âge, le groupe de la maladie d'Alzheimer présentait des scores significativement plus élevés que ceux des sujets témoins en ce qui concerne le névrosisme actuel, et des scores significativement plus faibles en matière d'extraversion, d'ouverture à l'expérience et de caractère consciencieux actuels , alors qu'aucune différence significative n'était observée quant à l'agréabilité. Un profil semblable, quoique moins accentué, a été observé lorsqu'on a examiné les traits de personnalité tels qu'évoqués par les représentants des patients. L'évaluation diachronique de la personnalité a de nouveau révélé des différences significatives entre les 2 groupes dans les 4 mêmes domaines, des changements de personnalité importants n'étant observés que dans le groupe de la maladie d'Alzheimer.

Conclusions : La comparaison de groupes et l'évaluation de la personnalité rétrospective sont convergentes. Les changements de personnalité significatifs suivent une tendance spécifique chez les patients souffrant de la maladie d'Alzheimer et tranchent avec la stabilité généralement observée chez les personnes en bonne santé mentale, dans le profil de leur personnalité de durée de vie. Il faut des études longitudinales pour déterminer si l'évaluation de la personnalité 5 ans avant l'état actuel correspond à un signe précoce de la maladie d'Alzheimer ou à des différences de personnalité pré-morbides réelles chez les personnes qui développent ultérieurement la maladie d'Alzheimer.