

# *Fit to Drive*

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Welcome



## Psychological Assessment of Driving Fitness in Finland

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## Roles of the specialists and authorities

- A physician's statement concerning health premises is sent to the police authority, who makes the decision about driving licence allowance
- The police relies on the physician's opinion about health issues
- Physician can consult a psychologist about the cognitive skills, most often a neuropsychologist

## Role of a psychologist

- There is a neuropsychologist or several in each central hospital, altogether about 20 in Finland. Central hospitals belong to the public health care system.
- Questions about driving fitness are most often about neurological patients, and driving fitness is just another issue among the general neuropsychological assessment
- The field of clinical traffic psychology in Finland is relatively small, and there are only few private clinics specialized into driving fitness evaluation.

## Evaluating driving fitness: whose responsibility?

Is the evaluation a duty of the public health care, or is it everybody's own problem?

If the physician needs cognitive testing to help the decision-making, who pays for it? The cost is several hundred euros.

Is it fair that some (neurological) patients get the service subsidiary among the general neuropsychological assessment, and others do not?

Is it fair that the variety of test methods vary a lot between the institutions?

How about the youngsters who are willing to start driving school but have cognitive limitations?

## Needs of the clinical psychologists

- Clear information on whose job it is, where the patients can be sent and who pays for it
- Which test methods are suitable
- Clinics need to be able to provide the psychologists with these methods and equipment

## Assessment at a private clinic

- Assessment includes an interview, visuoconstructive tests, and several computerized neuropsychological tests of Vienna test system and CANTAB.
- A wide range of cognitive skills are able to be evaluated, and thus can be said what exactly the problem is.
- A test drive with a driving instructor, observed by the psychologist
- The day is long to test the concentration and to be sure the patient is not keeping up the façade
- Statement is sent to the patient, and the sending institute

## **Current study: actual licence holding compared to neuropsychological recommendations in two patient groups, youngsters and oldies**

-Youngster group consists of 35 patients aged 18 to 28, who are willing to start driving school and who have some cognitive or behavioural deficits. Main groups are learning disabilities, mental retardation, attention disorders, autism, behavioural and psychiatric problems

-Oldies group consists of 22 patients aged 36 to 78. Their driving fitness is questioned due to an illness or injury. Main groups are traumatic brain injury, stroke, Parkinson disease and dementia.

## Licence holding compared to neuropsychological recommendation: Youngsters group

Driving Licence	Neuropsychological recommendation			Total
	Yes	No	Borderline	
Yes	6	6	4	16
No	4	9	2	15
Not known	2	1	1	4
<b>Total</b>	<b>12</b>	<b>16</b>	<b>7</b>	<b>35</b>

## Licence holding compared to neuropsychological recommendation: Oldies group

Driving Licence	Neuropsychological recommendation			Total
	Yes	No	Borderline	
Yes	11	6	2	19
No	0	3	0	3
Total	11	9	2	22

## Why the psychologist's recommendation seems to affect more to the licence holding in youngsters than in oldies group: hypothesis

- Youngsters have lived with their cognitive restrictions throughout their lives: the result isn't a surprise and the driving licence restriction is just another thing among e.g. occupational plans.
- Oldies are used to drive, it is an important part of independency, and they might put a lot of effort to get the licence back, for example meet several physicians to get a positive statement.

## Differences of the patient groups in computerized neuropsychological tests

- Vienna Test System: simple and multiple-choice reaction time, vigilance, visual perception
- CANTAB: executive and planning skills, rapid visual perception, visual memory
- The older patients were slower in planning, but their problem solving was more effective.
- The young were impulsive, problem solving was less effective, and in vigilance test they had more misses and wrong reactions.

- There were no difference between the young and the old patients in simple reaction times, effectiveness in multiple-choice reactions, perception or memory
  - >This is interesting knowing the differences in age groups in healthy population
- The results are coherent what is known about the usual neuropsychological symptoms in neurological patients, and on the other hand in developmental disorders, such as attention or learning difficulties.
- Traffic is the same for everyone, so should the borderlines be.

Thank you!

”Cursing hedgehog” by Milla Paloniemi

”you had the obligation to give way,  
damn it!!!”

