

OR. 726. 448

FACULTAD DE MEDICINA  
UNIVERSIDAD DE BARCELONA

EL DETERIORO COGNITIVO EN LOS  
ENFERMOS ALCOHOLICOS

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Trabajo presentado para la obtención del grado de doctor

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Enero 1989



- McCLAIN, C.J., POTLER, T., KROMHOUT, J., ZIEVE, L. (1984). The effect of lactulose on psychomotor performance tests in alcoholics without overt hepatic encephalopathy, *Journal of Clinical Gastroenterology*, 64, 325-329.
- MCCORD, J. (1972). Etiological factors in alcoholism: Family and personal characteristics, *Quarterly Journal of Studies on Alcohol*, 33, 1020-1027.
- MCCRADY, B.S., SMITH, D.E. (1986). Implications of cognitive impairment for the treatment of alcoholism, *Alcoholism: Clinical and Experimental Research*, 10, 145-149.
- MCDERMONT, W.V., ADAMS, R.D. (1954). Episodic stupor associated with an Eck fistula in man with particular reference to ammonia metabolism, *Journal of Clinical Investigation*, 33, 1-14.
- McFIE, J. (1975). *Assessment of organic intellectual impairment*. New York, Wiley.
- MCLAUGHLIN, E.J., FAILLACE, L.A., OVERALL, J.E. (1979). Alcohol studies: Cognitive status and changes during 28-day hospitalization. En: M. Galanter (ed.), *Currents in Alcoholism (Vol 5)*. New York, Grune Stratton.
- MCLELLAN, A.T., LUBORSKY, L., WOODY, G.E., O'BRIEN, C.P., DRULEY, K.A. (1983). Predicting response to alcohol and drug abuse treatments, *Archives of General Psychiatry*, 40, 620-625.
- MCNICHOL, R.W. (1987). Disulfiram (Antabuse<sup>R</sup>) a strategic weapon in the battle for sobriety. En R.W. McNichol, J.A. Ewing, M.D. Faimon (eds.), *Disulfiram (Antabuse<sup>R</sup>) a unique medical aid to sobriety. History, pharmacology, research, clinical use*. Springfield, Thomas.
- MELGAARD, B., DANIELSEN, U.T., SØRENSEN, H., AHLGREN, P. (1986). The severity of alcoholism and its relation to intellectual impairment and cerebral atrophy, *British Journal of Addiction*, 81, 77-80.
- MENDELSON, W., JOHNSON, N., STEWART, M. (1971). Hyperactive children as teenagers: A follow-up study, *Journal of Nervous and Mental Diseases*, 153, 273-279.
- MENDENHALL, C.L. (1985). Clinical and therapeutic aspects of alcoholic liver disease. En: H.K. Seitz B. Kommerell (ed.), *Alcohol related diseases in gastroenterology*. Berlin, Springer.
- MERRIT, H.H., WEISMANN, A.D. (1945). Primary degeneration of the corpus callosum (Marchiafava-Bignami's disease), *Journal of Neuropathology and Experimental Neurology*, 4, 155-155.

- MESSERT, B., ORRISON, W.W., HAWKINS, M.J. (1979). Central pontine myelinolysis, *Neurology*, 29, 147-160.
- MEZEY, E. (1985). Effect of ethanol on intestinal morphology, metabolism, and function. En: H.K. Seitz B. Kommerell (ed.), *Alcohol related diseases in gastroenterology*. Berlin, Springer.
- MIGLIOLI, M., BUTCHSTEL, H., CAMPANINI, T. (1979). Cerebral hemispheric lateralization of cognitive deficits due to alcoholism, *Journal of Nervous and Mental Diseases*, 167, 212-217.
- MILLER, W.R. (1985). Motivation for treatment: A review with special emphasis on alcoholism, *Psychological Bulletin*, 98, 84-107.
- MILLER, W.R., ORR, J. (1980). Nature and sequence of neuropsychological deficits in alcoholics, *Quarterly Journal of Studies on Alcohol*, 41, 325-337.
- MILLER, W.R., SAUCEDO, C.F. (1983). Assessment of neuropsychological impairment and brain damage in problem drinkers. En: C.J. Golden (ed.), *Clinical Neuropsychology. Interface with neurologic and psychiatric disorders*. New York, Grune and Stratton.
- MODLIN, H.C.A. (1947). A study of the MMPI in clinical practice with notes on the Cornell Index, *American Journal of Psychiatry*, 103, 758-769.
- MONRAS, M., SALAMERO, M. (1987). Perfil de personalidad y adherencia a grupos. Comunicación presentada a las XV Jornadas de Sociodrogalcohol, Zaragoza, Diciembre de 1987.
- MOREL, F. (1939). Une forme anatomo-clinique particuliere de l'alcoholisme chronique: Sclerose cortical laminaire alcoolique, *Revue Neurologique*, 71, 280.
- MOREY, L.C., ROBERTS, W.R. (1987). MMPI alcoholic subtypes: replicability and validity of the 2-8-7-4 subtype, *Journal of Abnormal Psychology*, 96, 164-166.
- MOREY, L.C., SKINNER, H.A., BLASHFIELD, R.K. (1984). A typology of alcohol abusers: Correlates and implications, *Journal of Abnormal Psychology*, 93, 408-417.
- MORRISON, J.R. (1979). Diagnosis of adult psychiatric patients with childhood hyperactivity, *American Journal of Psychiatry*, 136, 955-958.
- MOSS, M.B., ALBERT, M.S., BUTTERS, N., PAYNE, M. (1986). Differential patterns of memory loss among patients with Alzheimer's disease, Huntington's disease, and alcoholic

- Korsakoff's syndrome, *Archives of Neurology*, 43, 239-246.
- MURPHY, M.M. (1953). Social class differences in intellectual characteristics of alcoholics, *Quarterly Journal of Studies on Alcohol*, 14, 192-196.
- NAKADA, T., KNIGHT, R.T. (1984). Alcohol and the central nervous system, *Medical Clinics of North America*, 68, 121-131.
- NATELSON, B.H., HAUPT, E.J., FLEISCHER, E.J., GREY, L. (1979). Temporal orientation and education: a direct relationship in normal people, *Archives of Neurology*, 36, 444-446.
- NEWLIN, D.B. (1983). Assessing brain damage in schizophrenia. En: C.J. Golden, J.A. Moses, J.A. Coffman, W.R. Miller, F. Ostrider (eds.), *Clinical neuropsychology. Interfaces with neurologic and psychiatric disorders*. New York, Grunne and Stratton.
- NIXON, S.J., KUJAWSKI, A., PARSONS, O.A., OHMAN, J.R. (1987). Semantic (verbal) and figural memory impaired in alcoholics, *Journal of Clinical and Experimental Neuropsychology*, 9, 311-322.
- O'CONNOR, A., DALY, J. (1985). A twenty year follow-up, *British Journal of Psychiatry*, 146, 645-647.
- O'LEARY, M.R., DONOVAN, D.M. (1979). Male alcoholics: Treatment outcome as a function of length of treatment and level of current adaptive abilities, *Evaluation and the Health Profession*, 2, 373-384.
- O'LEARY, M.R., DONOVAN, D.M., CHANEY, E.F., WALKER, R.D., SCHAU, E.J. (1979). Applications of discriminant analysis of level of performance of alcoholics and nonalcoholics on Wechsler-Bellevue and Halstead-Reitan subtests, *Journal of Clinical Psychology*, 35, 204-208.
- O'LEARY, M.R., DONOVAN, D.M., CHANEY, E.F., WALKER, R.D. (1979). Cognitive impairment and treatment outcome with alcoholics: Preliminary findings, *Journal of Clinical Psychology*, 40, 397-398.
- ORNSTEIN, P. (1977). Cognitive deficits in chronic alcoholics, *Psychological Reports*, 40, 719-724.
- OSBORNE, D. DAVIS, L.J. (1978). Standard scores for Wechsler Memory Scale subtests, *Journal of Clinical Psychology*, 34, 115-116.
- OVERALL, J.E. (1973). mmpi PERSONALITY PATTERNS OF ALCOHOLICS AND NARCOTICS ADDICTS, *Quarterly Journal of Studies on Alcohol*, 34, 104-111.

- OVERALL, J.E., HOFFMAN, N.G., LEVIN, H. (1978). Effects of aging, organicity, alcoholism, and functional psychopathology on WAIS subtest profiles, *Journal of Consulting and Clinical Psychology*, 46, 1315-1322.
- PAGE, R.D., LINDEN, J.D. (1974). 'Reversible' organic brain syndrome in alcoholics, *Quarterly Journal of Studies on Alcohol*, 35, 98-107.
- PAGE, R.D., SCHAUB, L.H. (1977). Intellectual functioning in alcoholics during six months abstinence, *Journal of Studies on Alcohol*, 38, 1240-1248.
- PANT, M. (1980). Womwn with drinking problems, *British Journal of Psychiatry*, 137, 289-290.
- PAPPAS, S.C., FERENCI, P., SCHAFFER, D.F., y cols. (1984). Visual evoked potentials in a rabbit model of hepatic encephalopathy, post-ictal coma and coma induced by synergistic neurotoxics, *Gastroenterology*, 86, 546-551.
- PARKER, E.S., BIRNBAUM, I.M., BOYD, R.A., NOBLE, E.P. (1980). Neuropsychology decrements as a function of alcohol intake in male students, *Alcoholism: Clinical and Experimental Research*, 4, 330-334.
- PARKER, D.A., KAEBLER, C., HARFORD, J.C., BRODY, J.A. (1983). Alcohol problems among employed men and women in Metropolitan Detroit, *Journal of Studies on Alcohol*, 44, 1026-1039.
- PARKER, E.S., NOBLE, E.P. (1977). Alcohol consumption and cognitive functioning in social drinkers, *Journal of Studies on Alcohol*, 38, 1224-1232.
- PARSONS, O.A. (1977). Neuropsychological deficits in chronic alcoholism: Facts and falacies, *Alcoholism: Clinical and Experimental Research*, 1, 51-56.
- PARSONS, O.A. (1986). Cognitive functioning in sober social drinkers: A review and critique, *Journal of Studies on Alcohol*, 47, 101-114.
- PARSONS, O.A. (1987). Neuropsychological consequences of alcohol abuse: Many questionas- Some answers. En: O.A. Parsons, N. Butters, P.E. Nathan (eds.), *Neuropsychology of alcoholism: Implications for diagnosis and treatment*. New York, Guilford Press.
- PARSONS, O.A., FARR, S.P. (1981). The neuropsychology of alcohol and drug use. En: S.B. Filskov, T.J. Boll (ed), *Handbook of Clinical Neuropsychology*. New York, Willey.
- PARSONS, O.A., LEBER, W.R. (1981). The relationship between cognitive dysfunction and brain dysfunction in

- alcoholics: causal, interactive or epiphenomenal,  
**Alcoholism: Clinical and Experimental Research**, 5,  
 326-343.
- PARSONS, O.A., PRIGATANO, G.P. (1977). Memory functioning in alcoholics. En: I.M. Birnbaun, E.S. Parker (ed.), **Alcohol and Human Memory**. Hillsdale, New York, Lawrence Erlbaum.
- PARSONS, O.A., PRIGATANO, G.P. (1978). Methodological considerations in clinical neuropsychological research, **Journal of Clinical and Consulting Psychology**, 46, 608-619.
- PARSONS, O.A., STEVENS, L. (1986). Previous alcohol intake and residual cognitive deficits in detoxified alcoholics and animals, **Alcohol and Alcoholism**, 21, 137-157.
- PARSONS, O.A., TARTER, R.E., EDELBERG, R. (1972). Altered motor control in chronic alcoholics, **Journal of Abnormal Psychology**, 80, 308-314.
- PENK, W.E., PATTERSON, C.E.T., ROBERTS, W.R., DOLAN, M.P. (1982). Chronological age differences in MMPI score of male chronic alcoholics seeking treatment, **Journal of Consulting and Clinical Psychology**, 50, 322-324.
- PETERS, G.A. (1956). Emotional and intellectual concomitants of advanced chronic alcoholism, **Journal of Consulting Psychology**, 20, 390-390.
- PIERSMA, H.L. (1986). Wechsler Memory Scale performance in geropsychiatric patients, **Journal of Clinical Psychology**, 42, 323-327.
- PIMSTONE, N.R., FRENCH, S.W. (1984). Alcoholic liver disease, **Medical Clinics of North America**, 68, 39-56.
- PISHKIN, V., FISHKIN, S., STAHL, M. (1972). Concept learning in chronic alcoholics: Psychophysiological and set functions, **Journal of Clinical Psychology**, 28, 324-334.
- PLANT, M. (1980). Women with drinking problems, **British Journal of Psychiatry**, 137, 289-290.
- PLUMEAU, F., MACHOVER, S., PUZZO, F. (1960). Wechsler-Bellevue performance of remitted and unremitted alcoholics and their normal controls, **Journal of Consulting and Clinical Psychology**, 24, 240-242.
- POLLOCK, V.E., VOLAVKA, J., GOODWIN, D.W., MEDNICK, S.A., GABRIELLI, W.F. (1983). The EEG after alcohol administration in men at risk for alcoholism, **Archives of General Psychiatry**, 40, 857-861.

- PORJESZ, B. BEGLEITER, H. (1985). Human brain-electro-physiology and alcoholism. En: R.E. Tarter, D.H. van Thiel (eds.) Alcohol and the brain. Chronic effects. New York, Plenum.
- PRIGATANO, G.P. (1977). Neuropsychological functioning in recidivist alcoholics treated with disulfiram, *Alcoholism*, 1, 81-86.
- PRIGATANO, G.P. (1980). Neuropsychological functioning in recidivist alcoholics treated with disulfiram: A follow-up study, *International Journal of the Addictions*, 15, 287-294.
- PRIGATANO, G.P., PARSONS, O.A. (1976). The relationship of age and education to Halstead Test performance in different patient populations, *Journal of Consulting and Clinical Psychology*, 44, 527-533.
- QUERY, W.T., MEGRAM, J. (1984). Influence of depression and alcoholism on learning, recall and recognition, *Journal of Clinical Psychology*, 40, 1097-1100.
- RADA, R.T., POCH, B.E., DILLINGHAM, C., KELLNER, R., POREC, J.B. (1977). Alcoholism and language function, *Alcoholism: Clinical and Experimental Research*, 1, 199-205.
- REDMAN, S., SANSON-FISHER, R.W., WILKINSON, C., FAHEY, P.P., GIBBERD, R.W. (1987). Agreement between two measures of alcohol consumption, *Journal of Studies of Alcohol*, 48, 104-107.
- REHNSTRÖM, S., SIMERT, G., HANSSON, J.A., JOHNSON, G., VANG, J. (1977). Chronic hepatic encephalopathy: a psychometric study. *Scandinavian Journal of Gastroenterology*, 12, 305-311.
- REILLY, D., SUGERMAN, A. (1967). Conceptual complexity and psychological differentiation in alcoholics, *Journal of Nervous and Mental Diseases*, 144, 14-17.
- REINER, R., GOLIGHTLY, C. (1968). The relation between the Bender-Gestalt and the Organic Integrity Test, *Journal of Clinical Psychology*, 24, 203-204.
- REITAN, R.M. (1959). *Manual for administration of neuropsychological tests batteries for adults and children.* Indianapolis. Policilado.
- REITAN, R.M. (1985). Relationships between measures of brain functions and general intelligence, *Journal of Clinical Psychology*, 41, 245-263.
- REITAN, R.M., DAVISON, L.A., (eds.). (1974). *Clinical*

**neuropsychology: Current status and applications.**  
Washington, Winston.

- RHODES, R., CARR, J., JURJI, E. (1968). Interpersonal differentiation and perceptual field differentiation, *Perceptual and Motor Skills*, 27, 172-174.
- RIEGE, W.H., HOLLOWAY, J.A., KAPLAN, D.W. (1981). Specific memory deficits associated with prolonged alcohol abuse, *Alcoholism: Clinical and Experimental Research*, 5, 378-385.
- RITCHIE, J.M. (1980). The aliphatic alcohols. En: A. Goodman, L.S. Goodman, A. Gilman (ed.), *The pharmacological basis of therapeutics*. New York, MacMillan.
- ROBYAK, J.E., DONHAM, G.W., ROY, R., LUDENIA, K. (1984). Differential patterns of alcohol abuse among normal, neurotic, psychotic and characterological types, *Journal of Personality Assessment*, 48, 132-136.
- ROMEDER, J.M. (1973). *Méthodes et programmes d'analyse discriminante*. Paris, Dunod.
- RON, M.A. (1977). Brain damage in chronic alcoholism: A neuropathological, neuroradiological and psychological review, *Psychological Medicine*, 7, 103-112.
- RON, M.A., ACKER, W., LISHMAN, W.A. (1980). Morphological abnormalities in the brain of chronic alcoholics. A clinical psychological and computerized axial tomographic study, *Acta Psychiatrica Scandinavica (suppl.)*, 286, 41-46.
- ROTH, D.L., CROSSON, B. (1985). Memory span and long-term memory deficits in brain-impaired patients, *Journal of Clinical Psychology*, 41, 521-527.
- ROURKE, B.P., YOUNG, G.C., STRANG, J.D., RUSSELL, D.L. (1968). Adult outcomes of childhood central processing deficiencies. En: I. Grant, K.M. Adams (eds.), *Neuropsychological assessment of neuropsychiatric disorders*. New York, Oxford University Press.
- RUDIN, S., STAGNER, R. (1958). Figure-ground phenomena in the perception of physical and social stimuli, *Journal of Psychology*, 45, 213-225.
- RUSSELL, E.W. (1975). A multiple scoring method for the assessment of complex memory functions, *Journal of Consulting and Clinical Psychology*, 43, 800-809.
- RUSSELL, E.W. (1987). A reference scale method for construing neuropsychological tests batteries, *Journal of Clinical and Experimental Neuropsychology*, 9, 376-392.



- RUSSELL, E.W., NEURINGER, C., GOLDSTEIN, G. (1970). **Assessment of brain damage. A neuropsychological key approach.** New York, Willey.
- RYAN, C. (1980). Learning and memory deficits in alcoholics, *Journal of Studies on Alcohol*, 41, 437-447.
- RYAN, C., BUTTERS, N. (1980). Learning and memory impairment in young and old alcoholics: Evidence for the premature-aging hypotesis, *Alcoholism*, 4, 288-293.
- RYAN, C., BUTTERS, N. (1980). Further evidence for a continuum-of-impairment encompassing male alcoholic Korsakoff patients and chronic alcoholics, *Alcoholism*, 4, 190-198.
- RYAN, C., DIDARIO, B., BUTTERS, N. (1980). The relationship between abstinence and recovery of function in male alcoholics, *Journal of Clinical Neuropsychology*, 2, 125-134.
- RYBACK, R.S. (1971). The continuum and specificity of the effects of alcohol use on memory, *Quarterly Journal of Studies on Alcohol*, 32, 995-1016.
- SALAMERO, M., BROS, T., CIURANA, T., BUENO, M. (1980). Examen neuropsicológico del Servicio de Psiquiatría de la Mutua de Terrassa, *Revista del Departamento de Psiquiatría de la Facultad de Medicina de Barcelona*, 7, 391-414.
- SALAMERO, M., MARCOS, T., RODRIGUEZ, X.A. (1983). Una forma abreviada del MMPI, el Mini-Mult, para la evaluación de rasgos psicopatológicos, *Revista del Departamento de Psiquiatría de la Facultad de Medicina de Barcelona*, 10, 311-321.
- SALAMERO, M., MONRAS, M. (1986). Perfil de personalidad en enfermos alcohólicos a través del cuestionario Mini-Mult. Comunicación presentada alas XIV Jornadas de Socidrogalcohol, Cáceres, Octubre de 1986.
- SAMSON, Y., BARON, J.C., FELINE, A., BORIES, J., CROUZEL, C. (1986). Local cerebral glucose utilisation in chronic alcoholics: a positron tomographyc study, *Journal of Neurology, Neurosurgery, and Psychiatry*, 49, 1165-1170.
- SANCHEZ-CRAIG, M. (1980). Drinking pattern as a determinant of alcoholics performance on the Trail Making Test, *Quarterly Journal of Studies on Alcohol*, 41, 1082-1090.
- SASSON, H., WISE, J., WATSON, J. (1970). Alcoholism and color-vision: Are there familial lines?, *Lancet*, ii, 367-368.

- SCHAFFER, D.F. (1985). Hepatocerebral interactions. En: R.E. Tarter, D.H. van Thiel (ed.), *Alcohol and the brain. Chronic effects*. New York, Plenum.
- SCHAFFER, D.F., JONES, E.A. (1982). Hepatic encephalopathy and the gamma-aminobutyric acid neurotransmitter system, *Lancet*, i, 18-20.
- SCHAEFFER, K.M., PARSONS, O.A. (1987). Learning impairment in alcoholics using an ecologically relevant test, *Journal of Nervous and Mental Diseases*, 175, 213-218.
- SCHAU, E.J., O'LEARY, M.R. (1977). Adaptive abilities of hospitalized alcoholics and matched controls, *Journal of Studies on Alcohol*, 38, 403-409.
- SCHEAR, J.M. (1986). Utility of half-credit scoring of Russell's revision of the Wechsler Memory Scale, *Journal of Clinical Psychology*, 42, 783-787.
- SCHULTON, M.D., PARSONS, O.A., LEBER, W.R., YOHMAN, J.R. (1982). Locus of control and neuropsychological performance in chronic alcoholics, *Journal of Clinical Psychology*, 38, 649-655.
- SCHOMERUS, H., HAMSTER, W., BLANCK, H., REINHARD, U., MAYER, K., DOLE, W. (1981). Latent portalsystemic encephalopathy. I. Nature of cerebral functional deficits and their effect on fitness to drive, *Digestive Diseases Science*, 28, 622-630.
- SCHUCKIT, M.A. (1983). Alcoholic patients with secondary depression, *American Journal of Psychiatry*, 140, 711-714.
- SCHUCKIT, M.A. (1985). The clinical implications of primary diagnostic groups among alcoholics, *Archives of General Psychiatry*, 42, 1043-1049.
- SCHUCKIT, M.A. (1985). Subjective response to alcohol in sons of alcoholics and control subjects, *Archives of General Psychiatry*, 41, 879-884.
- SCHUCKIT, M.A. (1986). Alcoholism and affective disorders: Genetic and clinical implications, *American Journal of Psychiatry*, 143, 140-147.
- SCHUCKIT, M.A., ZISOOK, S., MORTOLA, J. (1985). Clinical implications of DSM-III diagnoses of alcohol abuse and alcohol dependence, *American Journal of Psychiatry*, 142, 1403-1408.
- SCHULSINGER, F., KNOP, J., GOODWIN, D.W., TEASDALE, T.W., MIKKELSEN, U. (1986). A prospective study of young men at high risk for alcoholism, *Archives of General Psychiatry*, 43, 755-760.

- SHARP, J.R., ROSENBAUM, G., GOLDMAN, M.S., WHITMAN, R.D. (1977). Recoverability of psychological function following alcohol abuse: Acquisition of meaningful synonyms, *Journal of Consulting and Clinical Psychology*, 5, 1023-1028.
- SHELLY, C., GOLDSTEIN, G. (1976). An empirically derived typology of hospitalized alcoholics. En: G Golstein C.N. Neuringer (ed.), *Empirical studies on alcoholism*. Cambridge, Ballinger.
- SILBER, M., HIRSCHENFANG, S., BENTON, J.G. (1968). Psychological factors and prognosis in peripheral neuropathy, *Diseases of the Nervous System*, 29, 688-692.
- SILBERSTEIN, J.A., PARSONS, O.A. (1979). Neuropsychological impairment in female alcoholics, *Alcoholism: Clinical and Experimental Research*, 3, 195-195.
- SILBERSTEIN, J.A., PARSONS, A.O. (1981). Neuropsychological impairment in females: replication plus extension, *Journal of Abnormal Psychology*, 90, 179-182.
- SKINNER, H.A. (1981). Toward the integration of classification theory and methods, *Journal of Abnormal Psychology*, 90, 68-87.
- SKINNER, H.A. (1984). Assessing alcohol use by patients in treatment. En: R.G. Smart, H.D. Cappell, F.B. Glasser (eds.): *Research advances in alcohol and drug problems*. New York, Plenum.
- SKINNER, H.A., ALLEN, B.A. (1982). Alcohol dependence syndrome: Measurement and validation, *Journal of Abnormal Psychology*, 91, 199-209.
- SMITH, H.H., SMITH, L.S. (1977). WAIS functioning of cirrhotic and non-cirrhotic alcoholics, *Journal of Clinical Psychology*, 33, 309-313.
- SMITH, J.W. (1977). Neurological disorders in alcoholism. En: N.J. Estes, M.E. Heineman (eds.), *Alcoholism*. Sant Louis, Mosby.
- SMITH, J.W., BURT, D.W., CHAPMAN, R.F. (1973). Intelligence and brain damage in alcoholics: A study in patients of middle and upper social class, *Quarterly Journal of Studies on Alcohol*, 34, 414-422.
- SMITH, J.W., JOHNSON, L.C., BURDICK, J.A. (1971). Sleep, psychological and clinical changes during alcohol withdrawal in NAD-treated alcoholics, *Quarterly Journal of Studies on Alcohol*, 32, 982-993.

- SMITH, J.W., LAYDEN, T.A. (1972). Changes in psychological performance and blood chemistry in alcoholics during and after hospital treatment, *Quarterly Journal of Studies on Alcohol*, 33, 379-394.
- SNELL, D., HARRIS, R.A. (1979). Impairment of avoidance behavior following short-term ingestion of alcohol, *Psychopharmacology*, 63, 251-257.
- SNELL, D., HARRIS, R.A. (1980). Impairment of avoidance behavior following short-term ingestion of ethanol, tertiary-butanol, or phenobarbital in mice, *Psychopharmacology*, 69, 53-57.
- SNOWDEN, L.R., CAMPBELL, D. (1986). Validity of an MMPI classification of problem drinkers-drivers, *Journal of Studies on Alcohol*, 47, 344-347.
- SNOWDEN, L.R., CAMPBELL, D.R., NELSON, L.S. (1984). The MMPI and problem drinking: statistical controls and multifactor criteria, *Journal of Personality Assessment*, 48, 271-278.
- SOKAL, R.R., SNEATH, P.H. (1963). *Principles of numerical taxonomies*. San Francisco, Freeman.
- SOLOMON, G.S., GREENE, R.L., FARR, S.P., KELLY, M.P. (1986). Relationships among Wechsler Intelligence and Memory Scale quotients in adults closed head injured patients, *Journal of Clinical Psychology*, 42, 318-323.
- SPARADEO, F.R., ZWICK, W., ALTERMAN, A.I. (1984). Cognitive functioning of alcoholic female. An exploratory study, *Drug and Alcohol Dependence*, 12, 143-150.
- STABENAU, J.R. (1984). Implications of family history of alcoholism, antisocial personality, and sex differences in alcohol dependence, *American Journal of Psychiatry*, 141, 1178-1182.
- STORK, J. (1967). Kleinhirnwurmsatrophie un chronischer Alkoholismus - Klinische-anatomische Studie über 44 Falle, *Schweizer Zeitschrift für Neurologie, Neurochirurgie und Psychiatrie*, 99, 40-82.
- STRAUSS, H., LEWIN, I. (1982). An empirical study of Weigl-Goldstein-Scheerer color-form test according to a developmental frame of reference, *Journal of Clinical Psychology*, 38, 367-375.
- STUSS, D.T., ALEXANDER, M.P., LIEBERMAN, A., LEVINE, H. (1978). An extraordinary form of confabulation, *Neurology*, 28, 1166-1172.
- SUSSMAN, S., RYCHTARIK, R.G., MUESER, K., GLYNN, S., PRUE, D. (1986). Ecological relevance of memory tests and the

- prediction of relapse in alcoholics, *Journal of Studies on Alcohol*, 47, 305-310.
- SVANUM, S., SCHLADENHAUFFEN, J. (1986). Lifetime and recent alcohol consumption among male alcoholics. Neuropsychological implications, *Journal of Nervous and Mental Diseases*, 174, 214-220.
- SWAIN-HOLCOMB, B., THORNE, B.M. (1984). A comparison of male and female alcoholics with an MMPI classification system, *Journal of Personality Assessment*, 48, 392-397.
- TALLAND, G. (1963). Alcoholism and reaction time, *Quarterly Journal of Studies on Alcohol*, 24, 610-621.
- TAMKIN, A.S. (1983). Impairment of cognitive functioning in alcoholics, *Military Medecine*, 148, 793-795.
- TAMKIN, A.S. (1980). The Weigl Color-Form Sorting Test as an index of cortical function, *Journal of Clinical Psychology*, 36, 778-781.
- TAMKIN, A.S., KINCE, J.T., BLOUNT, J.B., MAGHARIOUS, W.M. (1984). The effectiveness of the Weigl Color-Form Sorting Test in screening for brain dysfunction, *Journal of Clinical Psychology*, 40, 1454-1459.
- TAMKIN, A.S., KUNCE, J.T. (1982). Construct validity of the Weigl Color-Form Sorting Test, *Perceptual and Motor Skills*, 55, 105-106.
- TAMKIN, A.S., KUNCE, J.T. (1985). A comparison of three neuropsychological tests: Weigl, Hooper and Benton, *Journal of Clinical Psychology*, 41, 660-664.
- TARIOT, P.N., WEINGARTNER, H. (1986). A psychobiologic analysis of cognitive failures, *Archives of General Psychiatry*, 43, 1183-1188.
- TARTER, R.E. (1973). An analysis of cognitive deficits in chronic alcoholics, *Journal of Nervous and Mental Diseases*, 157, 138-147.
- TARTER, R.E. (1975). Psychological deficits in chronic alcoholism: A review, *International Journal of Addiction*, 10, 327-368.
- TARTER, R.E. (1982). Psychosocial history, minimal brain dysfunction and differential drinking patterns of male alcoholics, *Journal of Clinical Psychology*, 38, 867-873.
- TARTER, R.E., ALTERMAN, A.I. (1984). Neuropsychological deficits in alcoholics: Etiological considerations, *Journal of Studies on Alcohol*, 45, 1-9.

- TARTER, R.E., BUONPANE, N., WYNANT, C. (1975). Intellectual competence of alcoholics, *Journal of Studies on Alcohol*, 36, 381-386.
- TARTER, R.E., EDWARDS, K.L. (1985). Neuropsychology of alcoholism. En: R.E Tarter, D.H. Van Thiel (eds.), *Alcohol and the brain. Chronic effects*. New York, Plenum Press.
- TARTER, R.E., EDWARDS, K.L. (1986). Multifactorial etiology of neuropsychological impairment in alcoholics, *Alcoholism: Clinical and Experimental Research*, 10, 128-135.
- TARTER, R.E., GOLDSTEIN, G., ALTERMAN, A., PETRARULO, E.W., ELMORE, S. (1983). Alcoholic seizures: Intellectual and neuropsychological sequelae, *Journal of Nervous and Mental Diseases*, 171, 123-125.
- TARTER, R.E., HEGEDUSS, A., GOLDSTEIN, G., SHELLY, C., ALTERMAN, A. (1984). Adolescent sons of alcoholics: Neuropsychological and personality characteristics, *Alcoholism: Clinical and Experimental Research*, 8, 216-222.
- TARTER, R.E., JONES, B. (1971). Motor impairment in chronic alcoholics, *Journal of Nervous Diseases*, 32, 632-636.
- TARTER, R.E., PARSONS, O.A. (1971). Conceptual shifting in chronic alcoholics, *Journal of Abnormal Psychology*, 77, 71-75.
- TARTER, R.E., SCHNEIDER, D.U. (1976). Blackouts: Relationship with memory capacity and alcoholism history, *Archives of General Psychiatry*, 33, 1492-1496.
- TARTER, R.E., VAN THIEL, D.H., (eds.). (1985). *Alcohol and the brain. Chronic effects*. New York, Plenum.
- TAYLOR, J.R. (1982). Alcohol and strokes, *New England Journal of Medicine*, 306, 1111-1111.
- TAYLOR, J.R., COMBS-ORME, T. (1985). Alcohol and strokes in young adults, *American Journal of Psychiatry*, 142, 116-118.
- TESCHKE, R. (1985). Gamma-Glutamyltransferase and other markers for alcoholism. En: H.K. Seitz B. Kommerell (ed.), *Alcohol related diseases in gastroenterology*. Berlin, Springer.
- TEEM, A.F. (1981). Neuropsychological functioning in chronic alcoholism, *Dissertation Abstracts International*, 42, 791B.

- TEICHER, M.I., SINGER, E.A. (1946). A report on the use of the Wechsler-Bellevue scales in an overseas general hospital, *American Journal of Psychiatry*, 103, 91-93.
- THOMAS, J.R., FRENCH, K.E. (1985). Gender differences across age in motor performance: A meta-analysis, *Psychological Bulletin*, 98, 260-282.
- TORVIK, A., LINDBOE, C.F., RODGE, S. (1982). Brain lesions in alcoholics, *Journal of the Neurological Science*, 56, 233-248.
- TORVIK, A., TORP, S. (1986). The prevalence of alcoholic cerebellar atrophy. A morphometric and histological study of an autopsy material, *Journal of the Neurological Sciences*, 75, 43-51.
- TREIT, D., TERLEKI, L., PINEL, J.P.J. (1980). Active avoidance deficits after long-exposure to ethanol: associative or nonassociative effects, *Substance and Alcohol Actions Misuse*, 1, 165-172.
- TULVING, E. (1985). How many memory systems are there?, *American Psychologist*, 40, 385-398.
- TUMARKIN, B., WILSON, J., SNYDER, G. (1955). Cerebral atrophy due to alcoholism in young adults, *US Armed Forces Medical Journal*, 6, 67.
- VAILLANT, G.E., MILOFSKY, E.S. (1982). Natural history of male alcoholism: IV. Paths to recovery, *Archives of General Psychiatry*, 39, 127-133.
- VICTOR, M., ADAMS, R.D., COLLINS, G.H. (1971). *The Wernicke-Korsakoff syndrome*. Philadelphia, Davis.
- VICTOR, M., FERRENDELLI, J.A. (1970). The nutritional and metabolic diseases of the cerebellum. En: W.S. Field, W.C. Willis (ed.), *The cerebellum in health and disease*. St. Louis, Green.
- VIVIAN, T., GOLDSTEIN, G., SHELLY, C. (1973). Reaction time and motor speed in chronic alcoholics, *Perceptual and Motor Skills*, 36, 136-138.
- WALKER, D.W., FREUND, G. (1973). Impairment of timing behaviour after prolonged consumption in rat, *Science*, 182, 597-599.
- WALKER, D.W., HUNTER, B.E. (1974). Prolonged alcohol consumption in the rat: absence of retrograde amnesia for an avoidance response, *Pharmacology, Biochemistry and Behavior*, 2, 63-66.
- WALKER, D.W., HUNTER, B.E. (1978). Short-term memory

impairment following chronic alcoholic consumption in rats, *Neuropsychologia*, 16, 545-553.

- WALKER, D.W., HUNTER, B.E., ABRAHAM, W.C. (1981). Neuroanatomical and functional deficits subsequent to chronic ethanol administration in animals, *Clinical and Experimental Research*, 5, 267-282.
- WALKER, R.D., DONOVAN, D.M., KIVLAHAN, D.R., O'LEARY, M.R. (1983). Length of stay, neuropsychological performance and aftercare: influences on alcohol treatment outcome, *Journal of Consulting and Clinical Psychology*, 51, 900-911.
- WALLER, P.F., STEWARD, J.R., HANSEN, A.R., STUTTS, J.C., POPKIN, C.L., RODGMAN, E.A. (1986). The potentiating effects of alcohol on driver injury, *Journal of the American Medical Association*, 256, 1461-1466.
- WALSH, K.W. (1985). *Understanding brain damage. A primer of neuropsychological evaluation*. Edinburg, Churchill-Livingstone.
- WALTERS, G.D., GREENE, R.L., JEFFREY, T.B. (1984). Discriminating between alcoholic and nonalcoholic blacks and whites on the MMPI, *Journal of Personality Assessment*, 48, 486-488.
- WARHEIT, G.H., AUTH, J.B. (1986). Epidemiology of alcohol abuse in adulthood. En: R.M. Michels, J.O. Cavenar (eds.), *Psychiatry, Vol. V. Social, epidemiological and legal psychiatry*. Filadelfia. Lippincott.
- WATSON, C.G., PUCEL, J. (1985). Consistency of posttreatment alcoholics' drinking patterns, *Journal of Consulting and Clinical Psychology*, 53, 679-683.
- WECHSLER, D. (1941). The effect of alcohol on mental activity, *Quarterly Journal of Studies on Alcohol*, 2, 479-485.
- WECHSLER, D. (1945). A standardized memory scale for clinical use, *Journal of Psychology*, 19, 87-95.
- WECHSLER, D. (1958). *The measurement of adult intelligence* (4 ed). Baltimore, Williams and Wilkins.
- WECHSLER, D. (1955). *Manual for the Wechsler Adult Intelligence Scale*. New York, Psychological Corporation (Traducción y adaptación castellana: WAIS. Escala de Inteligencia de Wechsler para Adultos. Madrid, TEA).
- WEINGARTNER, H., FAILLACE, L.A. (1971). Alcohol state-dependent learning in man, *Journal of Nervous and Mental Diseases*, 153, 395-406.



- WEINGARTNER, H., FAILLACE, L.A., MARKLEY, H.G. (1971). Verbal information retention in alcoholics, *Quarterly Journal of Studies on Alcohol*, 32, 293-303.
- WEINTRAUB, S., MESULAM, M.M. (1985). Mental state assessment of young and elderly adults in behavioral neurology. En: M.M. Mesulam (ed.), *Principles of behavioral neurology*. Philadelphia, Davis.
- WELLS, CH. (1977). Dementia: definition and description. En: Ch. Wells, *Dementia* (2 ed.). Philadelphia, Davis.
- WHITEHOUSE, P.J. (1986). The concept of subcortical dementia: Another look, *Annals of Neurology*, 19, 1-19.
- WHITEHOUSE, P.J., PRICE, D.L., STRUBLE, R.G., CLARK, A.W., COYLE, J.T., DE LONG, M.R. (1982). Alzheimer's disease and senile dementia: loss of neurons in the basal forebrain, *Science*, 215, 1237-1239.
- WILKINSON, D.A. (1985). Neuroradiologic investigations of alcoholism. En: R.E. Tarter, D.H. van Thiel (eds.), *Alcohol and the brain. Chronic effects*. New York, Plenum Press.
- WILKINSON, D.A. (1987). CT Scan and neuropsychological assessment of alcoholism. En: O.A. Parsons, N. Butters, P.E. Nathan (eds.), *Neuropsychology of alcoholism: Implications for diagnosis and treatment*. New York, Guilford Press.
- WILKINSON, D.A., CARLEN, P.L. (1980). Neuropsychological and neurological assessment of alcoholism: Discrimination between groups of alcoholism, *Journal of Studies on Alcohol*, 41, 129-139.
- WILKINSON, D.A., CARLEN, P.L. (1980). Relationship of neuropsychological test performance to brain morphology in amnesic and non-amnesic chronic alcoholics, *Acta Psychiatrica Scandinavica*, 62, 89-101.
- WILSON, R.S., BACON, L.D., KASZNIAK, A.W., FOX, J.H. (1982). The episodic-semantic memory distinction and paired associate learning, *Journal of Consulting and Clinical Psychology*, 50, 154-155.
- WITKIN, H., KARP, S., GOODENOUGH, D. (1950). Dependence in alcoholism, *Quarterly Journal of Studies on Alcohol*, 11, 493-504.
- WULFF, H.R. (1981). *Rational diagnosis and treatment* (2 ed.). Oxford, Blackwell.
- YESAVAGE, J.A. (1985). Nonpharmacological treatments for memory losses with normal aging, *American Journal of Psychiatry*, 142, 600-605.

- YEUDALL, L.T., FROMM, D., REDDON, J.R., STEFANYK, W.O. (1986). Normative data stratified by age and sex for 12 neuropsychological tests, *Journal of Clinical Psychology*, 42, 918-946.
- YOHMAN, J.R., PARSONS, O.A. (1985). Intact verbal paired-associate learning in alcoholics, *Journal of Clinical Psychology*, 41, 844-851.
- YOHMAN, J.R., PARSONS, O.A. (1987). Verbal reasoning deficits in alcoholics, *Journal of Nervous and Mental Diseases*, 175, 219-223.
- ZIEVE, L., DOIZAKI, W.M. (1980). Brain and blood methanethiol and ammonia concentrations in experimental hepatic coma and coma due to injections of various combinations of these substances, *Gastroenterology*, 79, 1070.
- ZIMMERMAN, I.L., WOO-SAM, J.M., GLASSER, A.J. (1973). *Clinical interpretation of the Wechsler Adult Intelligence Scale*. New York, Grune and Stratton (Traducción castellana: WAIS. Interpretación clínica de la Escala de Inteligencia de Wechsler para Adultos. Madrid, TEA.).
- ZWICK, W.R., VELICER, W.F. (1986). Comparison of five rules for determining the number of components to retain, *Psychological Bulletin*, 99, 432-442.

**ANEXO I:**  
**PROTOCOLO DE LA EXPLORACION NEUROPSICOLOGICA**

**EXPLORACION NEUROPSICOLOGICA**

Apellidos .....  
 Nombre ..... Edad ..... Sexo .....  
 Nº de historia ..... Nº identificación .....

**ORIENTACION TEMPORAL (Benton y cols.)**

	Respuesta	Diferencia		
Día semana	.....	..... x 1 =	.....	(Máximo 3)
Día del mes	.....	..... x 1 =	.....	(Máximo 15)
Mes	.....	..... x 5 =	.....	(Máximo 55)
Año	.....	..... x 10 =	.....	(Máximo 60)
Hora	.....	..... x 1 =	.....	(Máximo 5)
			Total	.....

**MEMORIA LOGICA INMEDIATA**

Ana Pérez | de la provincia | de Málaga | que estaba empleada | como mujer de limpieza |  
 en una casa comercial | denunció | en la comisaría | de la estación | que la habían atracado |  
 en la Calle Mayor | la noche antes | y le habían quitado | quince mil pesetas. |  
 Ella tenía cuatro | niños pequeños | debía el alquiler | y hacía dos días |  
 que no habían comido. | Los policías | conmovidos por la historia de la mujer |  
 hicieron una recolecta | para ella. | Puntos .....

El trasatlántico | americano | San Francisco | chocó con una mina | cerca de La Habana |  
 el lunes | por la tarde. | A pesar de la densa niebla, | de la tormenta | y de la oscuridad |  
 los sesenta pasajeros | incluidas dieciocho mujeres | fueron salvados todos |  
 aunque las lanchas | se zarandeaban | en el agitado mar | como si fueran corchos. |  
 Todos llegaron a buen puerto | al día siguiente | a bordo de un vapor | británico. | Puntos .....

Total = (A+B)/2      Total .....

**MEMORIA LOGICA MEDIO PLAZO (30 minutos)**

Ana Pérez | de la provincia | de Málaga | que estaba empleada | como mujer de limpieza |  
 en una casa comercial | denunció | en la comisaría | de la estación | que la habían atracado |  
 en la Calle Mayor | la noche antes | y le habían quitado | quince mil pesetas. |  
 Ella tenía cuatro | niños pequeños | debía el alquiler | y hacía dos días |  
 que no habían comido. | Los policías | conmovidos por la historia de la mujer |  
 hicieron una recolecta | para ella. | Puntos .....

El trasatlántico | americano | San Francisco | chocó con una mina | cerca de La Habana |  
 el lunes | por la tarde. | A pesar de la densa niebla | de la tormenta | y de la oscuridad |  
 los sesenta pasajeros | incluidas dieciocho mujeres | fueron salvados todos |  
 aunque las lanchas | se zarandeaban | en el agitado mar | como si fueran corchos. |  
 Todos llegaron a buen puerto | al día siguiente | a bordo de un vapor | británico. | Puntos .....

Total = (A+B)/2      Total .....

**MEMORIA VISUAL INMEDIATA**

A ..... B ..... C1 ..... C2 .....  
 Total .....

**MEMORIA VISUAL MEDIO PLAZO**

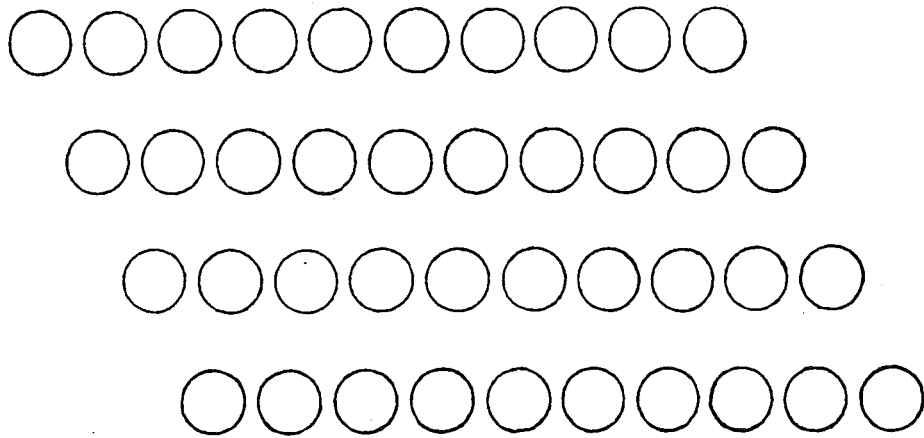
A ..... B ..... C1 ..... C2 .....  
 Total .....

	Puntuación (2, 1 ó 0)	VOCABULARIO
1. Cama		
2. Manzana		
3. Peseta		
4. Desayuno		
5. Invierno		
6. Enorme		
7. Barco		
8. Ocultar		
9. Apresurarse		
10. Calamidad		
11. Monumento		
12. Compasión		
13. Remordimiento		
14. Reparar		
15. Consumir		
16. Terminar		
17. Santuario		
18. Organizar		
19. Agobiar		
20. Reflexionar		
21. Sentencia		
22. Inminente		
23. Caverna		
24. Reunir		
25. Empezar		
26. Borde		
27. Designar		
28. Obstruir		
29. Perímetro		
30. Insolente		

	Puntuación (2, 1 ó 0)	
31. Peculiar		
32. Plagiar		
33. Seto		
34. Tangible		
35. Aséptico		
36. Empalar		
37. Diatríba		
38. Amanuense		
39. Ominoso		
40. Trasunto		

TEST FORMA-COLOR DE WEIGL
<u>1ª Clasificación</u>
¿Logra realizarla? .....
Tiempo en segundos .....
Explicación: .....
.....
Esquema de la clasificación realizada
TEST FORMA-COLOR DE WEIGL
<u>2ª Clasificación</u>
¿Logra realizarla? .....
Tiempo en segundos .....
Explicación: .....
.....
Esquema de la clasificación realizada
Después de la demostración, ¿es capaz de repetir las dos clasificaciones? .....

CUBOS			
	Tiempo	PUNT.	
1. 60"	$\frac{1}{2}$	0	2 4
2. 60"	$\frac{1}{2}$	0	2 4
3. 60"		0	4
4. 60"		0	4
5. 60"		0	4
6. 60"		0	4
7. 120"		0 4	$\frac{31-40}{5}$ $\frac{1-30}{6}$
8. 120"		0 4	$\frac{40-70}{5}$ $\frac{1-45}{6}$
9. 120"		0 4	$\frac{61-80}{5}$ $\frac{1-60}{6}$
10. 120"		0 4	$\frac{81-90}{5}$ $\frac{1-60}{6}$



..... ¿Cuál es la mano dominante?

TEST DEL MARCADO  
MANO DOMINANTE

CLAVE DE NUMEROS

NUMEROS	1	2	3	4	5	6	7	8	9	PUNTUACION
CLAVES	-	1	7	L	U	O	^	X	=	<input type="text"/>

EJEMPLOS

2	1	3	7	2	4	8	1	5	4	2	1	3	2	1	4	2	3	5	2	3	1	4	6	3

1	5	4	2	7	6	3	5	7	2	8	5	4	6	3	7	2	8	1	9	5	8	4	7	3

6	2	5	1	9	2	8	3	7	4	6	5	9	4	8	3	7	2	6	1	5	4	6	3	7

9	2	8	1	7	9	4	6	8	5	9	7	1	8	5	2	9	4	8	6	3	7	9	8	6

MARCADO

○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

Puntuación en el subtest. . . . .

MANO NO DOMINANTE

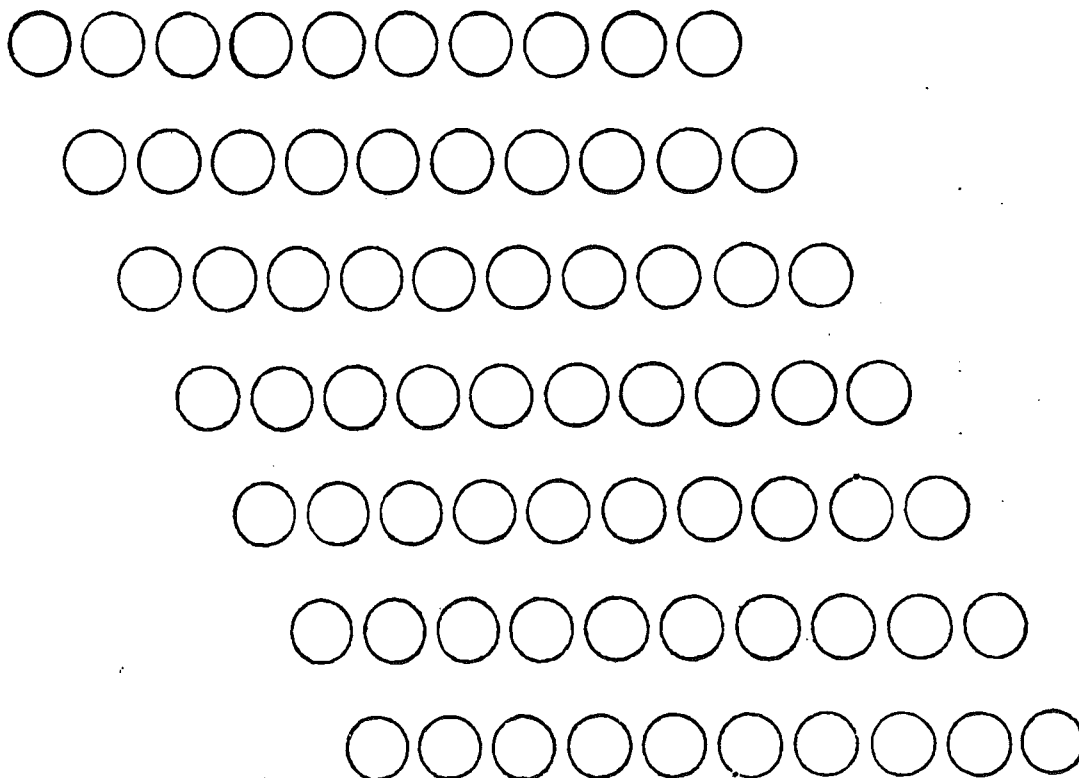
○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○



## MARCADO



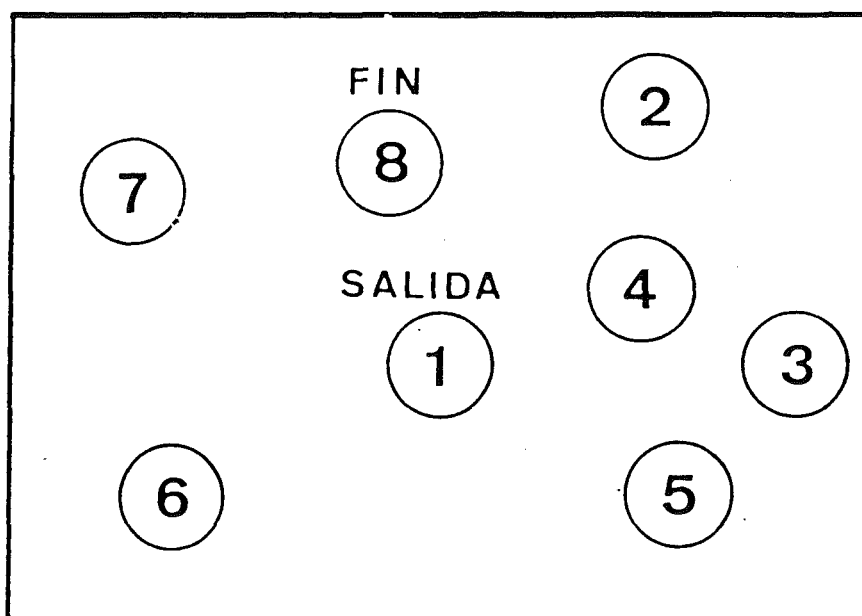
Puntuación en el subtest. . . . .

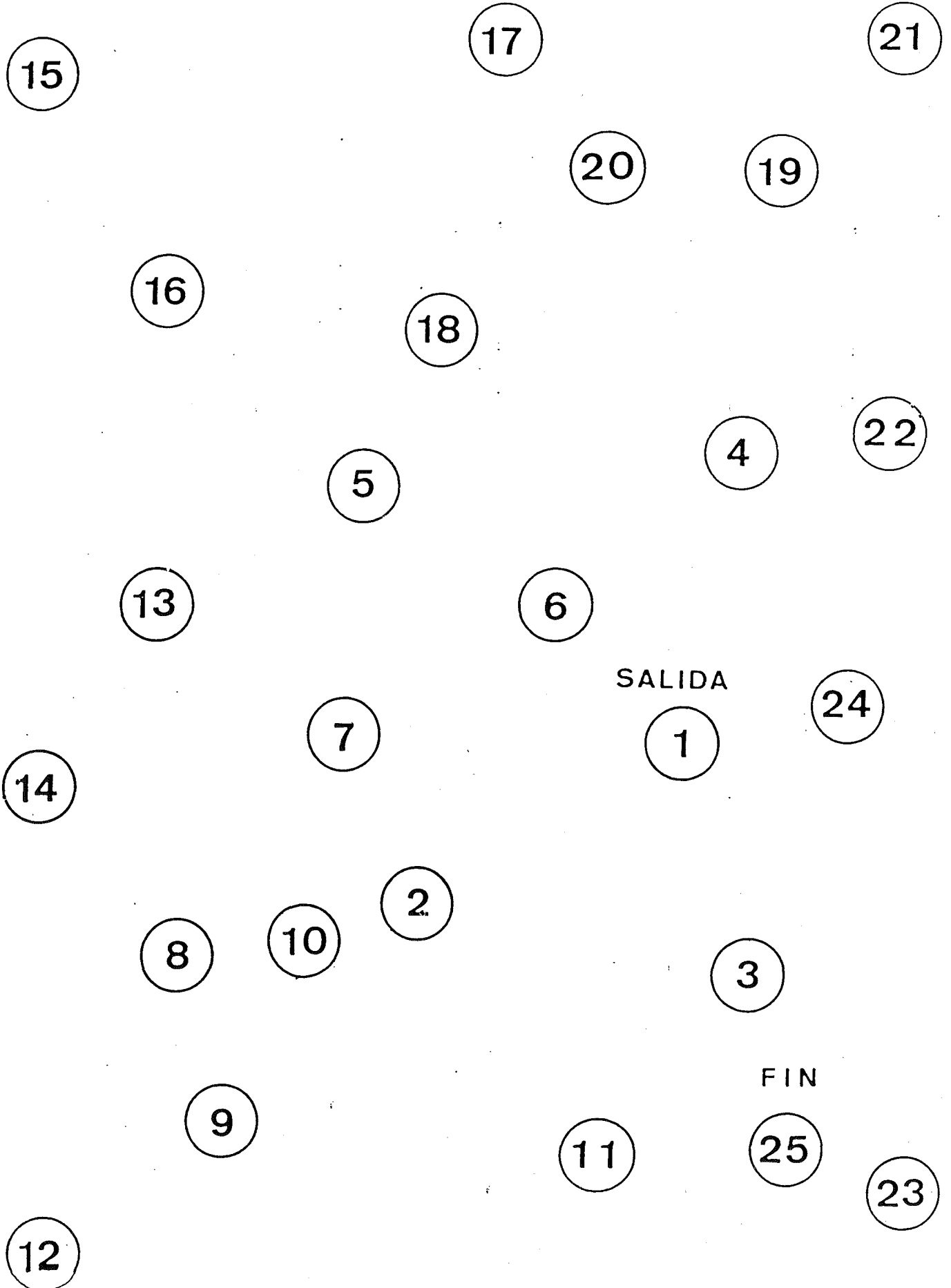
SEMEJANZAS	Puntuación (2, 1 ó 4)
1. Hacha - Sierra	
2. Chaqueta - Pantalón	
3. Naranja - Plátano	
4. Perro - León	
5. Huevo - Semilla	
6. Poema - Estatua	
7. Norte - Oeste	
8. Ojo - Oído	
9. Premio - Castigo	
10. Mesa - Silla	
11. Aire - Agua	
12. Madera - Alcohol	
13. Mosca - Arbol	

# TEST DEL TRAZO

## PARTE A

### EJEMPLO

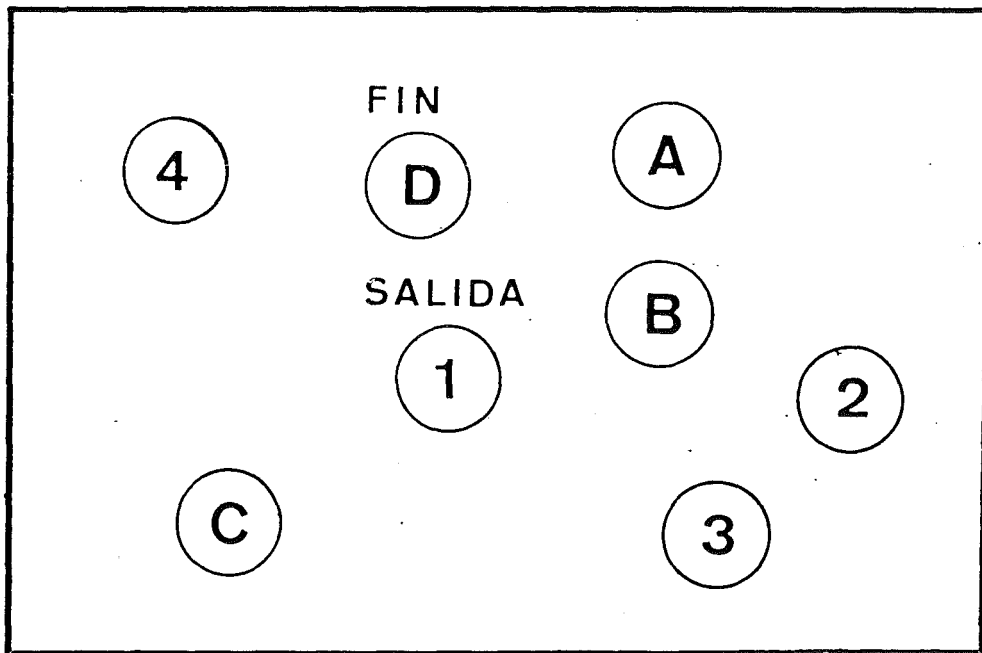




# TEST DEL TRAZO

## PARTE B

### EJEMPLO



FIN

13

10

8

9

I

D

B

4

3

SALIDA

7

1

5

H

C

12

G

A

J

L

2

6

F

E

K

11

DIGITOS

Orden directo.	rodear	Orden inverso	rodear
5 8 2	3	2 4	2
6 9 4	3	5 8	2
6 4 3 9	4	6 2 9	3
7 2 8 6	4	4 1 5	3
4 2 7 3 1	5	3 2 7 9	4
7 5 8 3 6	5	4 9 6 8	4
6 1 9 4 7 3	6	1 5 2 8 6	5
3 9 2 4 8 7	6	6 1 8 4 3	5
5 9 1 7 4 2 8	7	5 3 9 4 1 8	6
4 1 7 9 3 8 6	7	7 2 4 8 5 6	6
5 8 1 9 2 6 4 7	8	8 1 2 9 3 6 5	7
3 8 2 9 5 1 7 4	8	4 7 3 9 1 2 8	7
2 7 5 8 6 3 9 1 4	9	9 4 3 7 6 2 5 8	8
7 1 3 9 4 2 5 6 8	9	7 2 8 1 9 6 5 3	8

SEÑALADO

Orden directo	Orden inverso
2	2
2	2
3	3
3	3
4	4
4	4
5	5
5	5
6	6
6	6
7	7
7	7
8	8
8	8

D \_\_\_\_\_ + I \_\_\_\_\_ = \_\_\_\_\_

D \_\_\_\_\_ + I \_\_\_\_\_ = \_\_\_\_\_

MEMORIA ASOCIATIVA

1ª presentación

metal - hierro  
niño - llanto  
machacar - oscuro  
norte - sur  
escuela - almacén  
rosa - flor  
arriba - abajo  
obedecer - centímetro  
fruta - manzana  
col - lápiz

2ª presentación

rosa - flor  
obedecer - centímetro  
norte - sur  
col - lápiz  
arriba - abajo  
fruta - manzana  
escuela - almacén  
metal - hierro  
machacar - oscuro  
niño - llanto

3ª presentación

niño - llanto  
obedecer - centímetro  
norte - sur  
escuela - almacén  
rosa - flor  
col - lápiz  
arriba - abajo  
fruta - manzana  
machacar - oscuro  
metal - hierro

norte \_\_\_\_\_  
fruta \_\_\_\_\_  
obedecer \_\_\_\_\_  
rosa \_\_\_\_\_  
niño \_\_\_\_\_  
arriba \_\_\_\_\_  
col \_\_\_\_\_  
metal \_\_\_\_\_  
escuela \_\_\_\_\_  
machacar \_\_\_\_\_

col \_\_\_\_\_  
niño \_\_\_\_\_  
metal \_\_\_\_\_  
escuela \_\_\_\_\_  
arriba \_\_\_\_\_  
rosa \_\_\_\_\_  
obedecer \_\_\_\_\_  
fruta \_\_\_\_\_  
machacar \_\_\_\_\_  
norte \_\_\_\_\_

obedecer \_\_\_\_\_  
fruta \_\_\_\_\_  
niño \_\_\_\_\_  
metal \_\_\_\_\_  
machacar \_\_\_\_\_  
escuela \_\_\_\_\_  
rosa \_\_\_\_\_  
norte \_\_\_\_\_  
col \_\_\_\_\_  
arriba \_\_\_\_\_

Total \_\_\_\_\_

Fáciles

1ª \_\_\_\_\_  
2ª \_\_\_\_\_  
3ª \_\_\_\_\_

Difíciles

\_\_\_\_\_

Total \_\_\_\_\_ /2= \_\_\_\_\_

Puntuación total = fáciles/2 + difíciles \_\_\_\_\_

## EXPLORACION NEUROPSICOLOGICA

Apellidos .....

Nombre ..... Historia nº: .....

1. Grupo ..... (1)  
 2. Número ..... (4)  
 3. Número de exploración ..... (9)  
 4. Fecha ..... (10)  
 5. Edad ..... (16)  
 6. Sexo (1=masculino, 2=femenino) ..... (18)

DATOS SOCIOCULTURALES

7. Titulación académica ..... (19)  
 1 analfabeto  
 2 sin titulación, pero sabe leer y escribir  
 3 primer grado  
 4 segundo grado, primer ciclo  
 5 segundo grado, segundo ciclo  
 6 escuelas universitarias y técnicas  
 7 universitario
8. Categoría laboral más alta alcanzada ..... (20)  
 1 nunca ha trabajado en puesto retribuido  
 2 aprendiz, peón (ind. o serv.), bracero  
 3 oficial u obrero (ind. o serv.) especializado  
 4 jefe o maestro de taller (ind. o serv.)  
 5 conserje, subalterno  
 6 administrativo, pequeño propietario  
 7 jefe o técnico no titulado, pequeño empleador  
 8 jefe o técnico titulado, empleador mediano  
 9 alto ejecutivo, gran empleador o prof. de gran prestigio
9. Categoría laboral más alta cabeza familia ..... (21)
10. Situación laboral actual ..... (22)  
 1 empresario que emplea personal  
 2 empresario que no emplea personal  
 3 miembro de cooperativa  
 4 asalariado fijo  
 5 asalariado eventual, subempleo  
 6 sin salario fijo en negocio familiar  
 7 parado  
 8 en busca del primer empleo  
 9 jubilado o incapacitado  
 10 estudiante  
 11 ama de casa

INTELIGENCIA GENERALVocabulario: 11. p. directa ..... (24)12. NOTA I ..... (26)Cubos de Kohs 13. p. directa ..... (28)14. NOTA I ..... (30)ORIENTACION TEMPORAL

15. p. directa ..... (32)

ABSTRACCION/FORMACION DE CONCEPTOSSemejanzas 16. p. directa ..... (34)17. NOTA I ..... (36)Test F-C de Weigl

18. 1ª clasificación (1=correcta,2=incorrecta) ..... (38)

19. Explicación (1=abstr.,2=conc.,3=mal) ..... (39)

20. Tiempo en segundos ..... (40)

21. 2ª clasificación (1=correcta,2=incorrecta) ..... (43)

22. Explicación (1=abstr.,2=conc.,3=mal) ..... (44)

23. Tiempo en segundos ..... (45)

24. ¿Logra aprendizaje? (1=si,2=no) ..... (48)

TESTS PERCEPTIVO-MOTRICES"Tapping" MacQuarrie

Mano dominante (1=derecha,2=izquierda) 25. .... (49)

Mano dominante 26. p. directa ..... (50)

27. NOTA 2 ..... (52)

Mano no dominante 28. p. directa ..... (54)

Clave de números 29. p. directa ..... (56)30. NOTA I ..... (58)Test del Trazo

Errores abecedario 31. p. directa ..... (60)

Trazo A 32. p. directa ..... (62)

33. NOTA I ..... (65)

Trazo B 34. p. directa ..... (67)

35. NOTA I ..... (70)

**MEMORIA**

"Span" de memoria

<u>Dígitos directos</u>	36.	p. directa	. . .		(72)
<u>Dígitos inversos</u>	37.	p. directa	. . .		(74)
total 0-1=.....	38.	<u>NOTA I</u>	. . .		(76)
<u>Test del señalado</u>	39.	p. directa	. . .		(78)
<u>Idea inverso</u>	40.	p. directa	. . .		( 9)

Memoria inmediata

Memoria lógica A	41.	p. directa	. . .		(11)
B	42.	p. directa	. . .		(13)
total (A+B)/2=.....	43.	<u>NOTA I</u>	. . .		(15)
Memoria visual A	44.	p. directa	. . .		(17)
B	45.	p. directa	. . .		(19)
C-1	46.	p. directa	. . .		(21)
C-2	47.	p. directa	. . .		(23)
total A+B+C1+C2=.....	48.	<u>NOTA I</u>	. . .		(25)

Memoria a corto plazo

Memoria lógica A	49.	p. directa	. . .		(27)
B	50.	p. directa	. . .		(29)
	51.	porcentaje	. . .		(31)
Memoria visual A	52.	p. directa	. . .		(34)
B	53.	p. directa	. . .		(36)
C-1	54.	p. directa	. . .		(38)
C-2	55.	p. directa	. . .		(40)
	56.	porcentaje	. . .		(42)

APRENDIZAJE ASOCIATIVO

Fáciles 1ª pres.	57.	p. directa	. . .		(45)
2ª pres.	58.	p. directa	. . .		(47)
3ª pres.	59.	p. directa	. . .		(49)
Difíciles 1ª pres.	60.	p. directa	. . .		(51)
2ª pres.	61.	p. directa	. . .		(53)
3ª pres.	62.	p. directa	. . .		(55)
total (F/2)+D=.....	63.	<u>NOTA I</u>	. . .		(57)

MINI-MULT

Puntuaciones directas

64. L	. . . . .		(59)
65. F	. . . . .		(61)
66. K	. . . . .		(63)
67. Hs	. . . . .		(65)
68. D	. . . . .		(67)
69. Hy	. . . . .		(69)
70. Pd	. . . . .		(71)
71. Pa	. . . . .		(73)
72. Pt	. . . . .		(75)
73. Sc	. . . . .		(77)
74. Ma	. . . . .		(79)

NOTAS I

75. L	. . . . .		( 9)
76. F	. . . . .		(12)
77. K	. . . . .		(15)
78. Hs	. . . . .		(18)
79. D	. . . . .		(21)
80. Hy	. . . . .		(24)
81. Pd	. . . . .		(27)
82. Pa	. . . . .		(30)
83. Pt	. . . . .		(33)
84. Sc	. . . . .		(36)
85. Ma	. . . . .		(39)

OBSERVACIONES:

.....  
 .....  
 .....  
 .....



**ANEXO II:**  
**BAREMOS DE LA EXPLORACION NEUROPSICOLOGICA**

En este anexo se incluye información útil para la corrección de la batería neuropsicológica. En primer lugar se ofrecen una transformación de las puntuaciones directas en notas T, derivadas a partir de las fuentes originales de los tests empleados o de tipificaciones posteriores en población general. Dada la diversidad de las fuentes los intervalos de edad no son coincidentes.

A continuación se presenta la tipificación de las puntuaciones brutas en el grupo de sujetos normales empleado como grupo control en el presente trabajo, cuyas características sociodemográficas se han descrito en el apartado 2.2.2. Se incluye la transformación de las puntuaciones en notas T y las notas escaladas en relación al ITP, de acuerdo con los estudios de validación de la batería desarrollados en el apartado 3.1. Van seguidas de una tabla para la determinación del punto crítico, en función de la edad y el nivel educativo, que mejor discrimina estadísticamente entre sujetos normales y con lesión cerebral leve.

Finalmente, se presenta un programa en lenguaje Basic que simplifica la corrección, junto a un ejemplo del informe resultante.

## BAREMOS VOCABULARIO

Nota T	Edad							
	18-19	20-24	25-34	35-44	45-54	55-64	65-69	70-74
80	76-79	78-79	79	79	79	79	78-79	78-79
77	72-75	77	77-78	77-78	78	78	77	76-77
73	69-71	72-76	74-76	75-76	76-77	76-77	74-76	72-75
70	66-68	68-71	71-73	74	74-75	74-75	71-73	70-71
67	63-65	65-67	68-70	71-73	71-73	71-73	67-70	60-69
63	58-62	62-64	65-67	69-70	67-70	67-70	59-66	54-59
60	53-57	56-61	60-64	63-68	61-66	60-66	54-58	50-53
57	46-52	51-55	55-59	55-62	54-60	54-59	50-53	44-49
53	41-45	45-50	48-54	47-54	46-53	45-53	53-49	35-43
50	34-40	38-44	41-47	41-46	39-45	37-44	35-42	30-34
47	29-33	31-37	33-40	35-40	33-38	32-36	30-34	24-29
43	25-28	25-30	27-32	29-34	27-32	26-31	24-29	19-23
40	21-24	21-24	23-26	23-28	22-26	19-25	19-23	16-18
37	15-20	16-20	20-22	19-22	16-21	15-18	15-18	13-15
33	12-14	12-15	16-19	14-18	14-15	12-14	11-14	11-12
30	11	11	13-15	11-13	11-13	10-11	10	10
27	9-10	9-10	10-12	10	9-10	6-9	6-9	6-9
23	5-8	8	9	9	5-8	2-5	2-5	2-5
20	3-4	5-7	5-8	5-8	1-4	1	1	1
17	0-2	0-4	0-4	0-4	0	0	0	0

Puntuaciones T obtenidas a partir de los baremos originales. Wechsler, D. (1955). **Manual for the Wechsler Adult Intelligence Scale**. New York, The Psychological Corporation.

## BAREMOS CUBOS DE KOHS

Nota T	Edad							
	18-19	20-24	25-34	35-44	45-54	55-64	65-69	70-74
80	---	---	---	---	---	48	46-48	44-48
77	---	---	---	48	48	46-47	43-45	43
73	48	48	48	---	46-47	43-45	42	39-42
70	47	---	---	46-47	45	41-42	41	37-38
67	46	46-47	46-47	45	41-44	39-40	39-40	33-36
63	44-45	44-45	44-45	43-44	38-40	36-38	36-38	29-32
60	41-43	41-43	42-43	40-42	35-37	33-35	31-35	---
57	38-40	38-40	39-41	37-39	32-34	29-32	29-30	26-28
53	33-37	35-37	34-38	32-36	29-31	28	28	24-25
50	30-32	32-34	31-33	29-31	27-28	24-27	24-27	21-23
47	28-29	29-31	29-30	27-28	24-26	21-23	21-23	17-20
43	25-27	25-28	25-28	24-26	21-23	18-20	18-20	13-16
40	21-24	21-24	21-24	20-23	17-20	14-17	13-17	9-12
37	17-20	17-20	16-20	15-19	13-16	8-13	8-12	6-8
33	13-16	13-16	13-15	11-14	10-12	5-7	5-7	5
30	9-12	9-12	12	7-10	6-9	4	4	2-4
27	3-8	3-8	7-11	3-6	3-5	2-3	2-3	1
23	1-2	2	2-6	2	2	1	1	---
20	---	1	1	1	1	---	---	---
17	0	0	0	0	0	0	0	0

Puntuaciones T obtenidas a partir de los baremos originales. Wechsler, D. (1955). *Manual for the Wechsler Adult Intelligence Scale*. New York, The Psychological Corporation.

## BAREMOS SEMEJANZAS

Nota T	Edad							
	18-19	20-24	25-34	35-44	45-54	55-64	65-69	70-74
80	25	---	25	25	25	24-25	23	22-23
77	23-24	25	24	24	24	---	22	---
73	---	24	23	23	23	23	---	20-21
70	22	23	---	22	22	22	20-21	19
67	21	22	22	21	21	20-21	19	17-18
63	20	21	21	20	20	19	17-18	16
60	18-19	18-20	19-20	19	18-19	17-18	16	14-15
57	16-17	17	18	17-18	16-17	15-16	14-15	12-13
53	15	16	16-17	15-16	14-15	12-14	12-13	10-11
50	13-14	14-15	14-15	13-14	11-13	10-11	10-11	8-9
47	11-12	12-13	11-13	11-12	9-10	8-9	8-9	6-7
43	7-10	10-11	8-10	8-10	6-8	5-7	5-7	5
40	6	7-9	7	6-7	4-5	4	4	4
37	4-5	5-6	5-6	4-5	3	3	3	2-3
33	3	4	4	3	2	2	2	---
30	2	2-3	3	2	---	1	1	1
27	1	.1	2	1	1	---	---	---
23	---	---	1	---	---	---	---	---
20	---	---	---	---	---	---	---	---
17	0	0	0	0	0	0	0	0

Puntuaciones T obtenidas a partir de los baremos originales. Wechsler, D. (1955). **Manual for the Wechsler Adult Intelligence Scale**. New York, The Psychological Corporation.

## BAREMOS CLAVE

Nota T	Edad							
	18-19	20-24	25-34	35-44	45-54	55-64	65-69	70-74
80	89-90	89-90	90	88-90	84-90	75-90	57-70	52-70
77	87-88	82-88	80-89	79-87	76-83	70-74	55-56	49-51
73	82-86	79-81	79	76-78	70-75	66-69	47-54	47-48
70	77-81	77-78	76-78	71-75	66-69	59-65	43-46	42-46
67	72-76	72-76	72-75	68-70	63-65	55-58	42	36-41
63	69-71	69-71	69-71	64-67	58-62	50-54	39-41	31-35
60	64-68	65-68	65-68	58-63	54-57	47-49	36-38	28-30
57	60-63	61-64	61-64	54-57	48-53	41-46	33-35	25-27
53	56-59	57-60	57-60	49-53	43-47	36-40	29-32	21-24
50	51-55	54-56	51-56	43-48	38-42	33-35	26-28	19-20
47	45-50	49-53	45-50	39-42	32-37	27-32	22-25	15-18
43	41-44	44-48	40-44	36-38	27-31	22-26	17-21	12-14
40	36-40	40-43	34-39	30-35	24-26	17-21	13-16	10-11
37	32-35	32-39	29-33	23-29	20-23	14-16	9-12	9
33	27-31	24-31	21-28	18-22	15-19	11-13	8	8
30	22-26	20-23	18-20	12-17	9-14	8-10	7	7
27	10-21	13-19	16-17	7-11	7- 8	7	5- 6	4- 6
23	6- 9	9-12	7-15	5- 6	4- 6	4- 6	4	3
20	5	5- 8	5- 6	3- 4	3	3	3	---
17	0- 4	0- 4	0- 4	0- 2	0- 2	0- 2	0- 2	0- 2

Puntuaciones T obtenidas a partir de los baremos originales. Wechsler, D. (1955). **Manual for the Wechsler Adult Intelligence Scale**. New York, The Psychological Corporation.

## BAREMOS DIGITOS

Nota T	Edad							
	18-19	20-24	25-34	35-44	45-54	55-64	65-69	70-74
80	---	---	---	---	---	17	17	17
77	17	17	17	17	17	16	16	16
73	---	---	---	---	16	---	15	15
70	16	16	16	16	---	15	---	---
67	15	15	15	15	15	14	13-14	13-14
63	14	14	---	14	13-14	13	12	12
60	13	13	14	13	---	12	---	11
57	12	---	13	12	12	---	11	---
53	---	12	12	---	11	11	10	10
50	11	11	11	11	10	10	---	---
47	10	10	10	10	---	9	9	9
43	9	---	---	9	9	8	8	8
40	---	9	9	---	8	---	---	---
37	8	8	8	8	---	7	7	7
33	---	---	---	---	7	---	---	6
30	7	7	7	7	---	6	6	---
27	6	---	---	6	5-6	5	5	5
23	4-5	4-6	4-6	4-5	3-4	3-4	3-4	3-4
20	3	3	3	3	2	1-2	1-2	1-2
17	0-2	0-2	0-2	0-2	0-1	0	0	0

Puntuaciones T obtenidas a partir de los baremos originales. Wechsler, D. (1955). **Manual for the Wechsler Adult Intelligence Scale**. New York, The Psychological Corporation.