Right Cerebral Hemisphere Functions

An Essay
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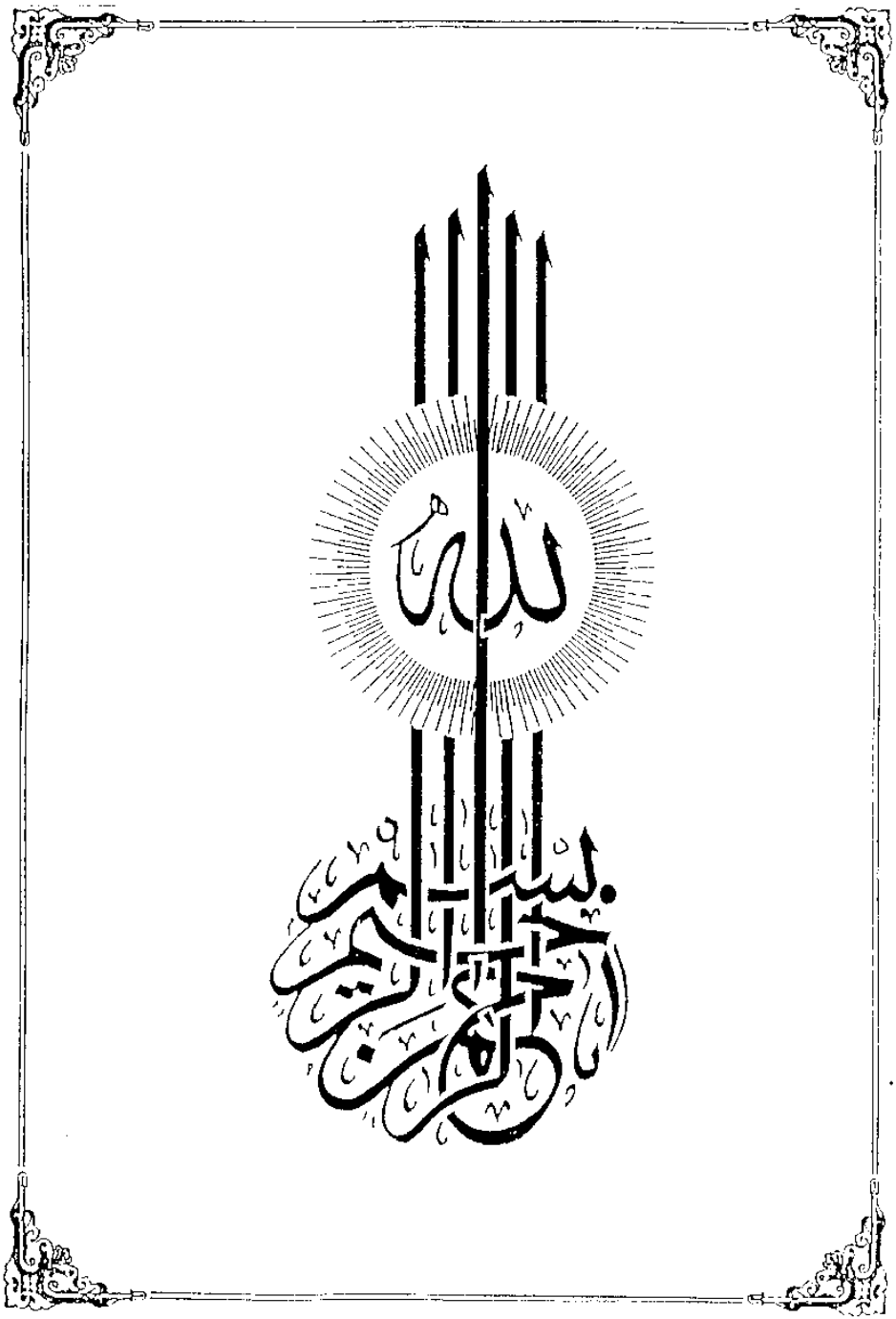

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To my levely wife

Acknowledgment

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Introduction

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Cerebral dominace is the tendeney of one hemisphere to process aparticular type of information and to control respons behaviour based on that information - each hemisphere is dominant for pateicular functions than the other . The left hemisphere is dominant for language functions . Clinical studies of patients with left cerebral lesions have awide variety of language disorders or dysphasia from articulation to comrehension defecits . Also the left hemisphere has a role although not dommant in music, where more experinced musicans demonstrated right ear advantage (left hemisphere advantage) for melodic presentation - where less shiklled non musicans exhibit left ear adavantge.

Also the left hemisphere play acriucial role in maintenance of poistitve mood state - Patients with left anterior lesions were significantly more depressed than patients without left anterior lesion .

The right hemisphere is less dominant in language functions, but play a very improtant role in language recovery from dysphasia . Prosody is the right hemisphere contribution to language , patient with right hemisphere anterior lesions often spoke with flattened intonation , where those who had right posterior lesions have more problem in determining emotional tone produced by the other .We will describe the language symptoms of right hemisphere damage , also the right hemisphere is more dominant in musical fumction than the left hemisphere because patientss with right hemisphere lesions were described as having lost sense of musical feeling

or integrity of well known medlodies - intact singing has already descrined following dominant hemisphereactiony .

Some others concluded that the right hemisphere is solely responsible for cortical mediation of emotions while other assort that each hemisphere is specilized to process different types of emotions and the right hemisphere is dominant for negative emetions. Studies of visuosptial abilities in normal subjects demonstrated right hemisphere superiorties due to it's superiority in manipulating spatial components with the enviroment.Nuropsychological studies of patients with focal brain damage suggest that the right cerebral hemisphere plays acritical role in the processing of facial emotional information .

AIM OF THE WORK .

Is to study the right brain functions which is crucial to reach proper evaluation and management of different cases of brain damage .

AIM OF THE WORK

Cerebral dominance

Chapter I

1.Cerebral dominance

2. Tracing the origin of handedness

3. Theories relating to hand asymmetries

a) Environmental explanation

b) Genetic model of hand preference

c) Maturational differences between hand groups

Cerebral dominance

Cerebral dominance or specialization is the tendency of one hemisphere to process a particular type of information and to control response behavior based on that information more than the other hemisphere (Perecman, 1983).

Aproximataly 93% of the population are right - handed and it is commonly estimated that 90 - 99% of all right handers have their language functions predominently subserved by the left hemisphere (pratt and warrington , 1972) ; the remaining 7% of the pouplation are thought to be left - handed , with approximately 50 - 70 % of these non- right- handers having their language functions localized primarily within the left hemisphere (Warrington and pratt, 1973)

Tracing the origins of Handedness

Springer and Deutsch, (1989) stated that 90% of the american population, approximately are right-handed, whereas about 7-8% is left handed. Furthermore, this distribution of handedness does not seem to change, whatever culture is examined.

Some authors have argued that the ancient Hebrews might have been predominately left-handed, because their writing proceeded from right to left (Erlenmeyer, 1883). Yet, others have countered that the direction of scripts bears absolutely no relationship to handedness. In fact, speculations have been made that in engraving hieroglyphics within clay or stone, it was only natural to begin on the right side, because that was where the best hand was located (Hewes, 1949). Similar claims of left-handedness have been attributed to the ancient Egyptians, on the basis that most humans and