Reprinted from EXCEPTEA MEDICA
International congress series no. 193,
1969, p. 176

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specialization as reflected in the syndrome of
the neocortical commissures.

Commissurotomy patients of P. Vogel and J. Bogen
with complete surgical division of corpus callosum and
anterior commissure show numerous functional deficits
in controlled performances that involve cross-
inTEGRATION between basic sensory, motor and linguistic
activities normally mediated between the two
hemispheres. By contrast none of these basic im-
pairments in cross-integration was evident in a
patient with total agenesis of the corpus callosum
studied by Saul and Sperry with the exact same battery
of tests. Functional compensation in the agenesis
patient remains unsuccessful, however, for more
complex perceptual and cognitive performances that
involve faculties directly related to cerebral
domnance and lateral specialization of function.
This same syndrome appears also in more exaggerated
form in the commissurotomy patients in unrestricted
testing conditions. The commissurotomy patients
as a group are severely impaired in their performances
on spatially oriented and perceptucomotor tasks, in
block design tests, in drawing, mathematics and
geometry and in non-verbal as opposed to verbal
reasoning. The findings suggest that the neocortical
commissures are crucial for better-than-mediocre
performance in activities that draw on mental
faculties that normally are specialties of the
minor hemisphere.