The Role of Language for Conscious Experience: Observations from Split-brain Man

MICHAEL S. GAZZANIGA*

Division of Cognitive Neuroscience, Department of Neurology, Cornell University Medical College, 1300 York Avenue, New York, N.Y. 10021 (U.S.A.)

INTRODUCTION

Over the past 18 years I have been involved in studying a special group of patients having undergone brain bisection for the control of intractable epilepsy. These studies first started with Roger Sperry when he and I initiated the modern work on Dr. Bogen's patients in the early 1960's. Ever since, there have been many interpretations of the significance of our findings for a theory of mind — of conscious experience. The early claims by split-brain researchers that splitting the cerebrum essentially doubled the mental apparatus was met with either (a) awe, (b) skepticism, or (c) incredulity. It was quite pleasant dealing with those people in the first category. As for the skeptics, their rightly placed arguments that the data existing in the mid-sixties could hardly support such a claim have now, when informed of our new results, given assent.

Actually, it was the incredulous who represented the most thought provoking group in the long run. "How," they asked, "does it possibly illuminate the problem of consciousness to learn that you can split it? You have merely doubled the task," they maintained. There is a certain amount of truth in that, and this paper will try and lift our results in split-brain research out of the well worn and usually erroneous "left function versus right function" paradigm. Instead, I will focus on how dividing the neural substrates of conscious activity might instruct us on what the processes are that allow for our sense of subjective reality.

GENERAL BACKGROUND

In modern times the initial studies on the complete split-brain syndrome were carried out by myself and Sperry at Cal-Tech (Gazzaniga et al., 1962, 1965, 1967; Sperry et al., 1969; Gazzaniga, 1970). Concurrently, a special clinical case with features of the total syndrome was reported by Geschwind (1965). These early studies which have been reviewed several times have shown in the main that information processed by one disconnected hemisphere is not available to the cognitive apparatus of the other. Moreover, it was shown that the left dominant hemisphere was vastly superior to the

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