THE LOCKED-IN SYNDROME AND THE BEHAVIORIST
EPISTEMOLOGY OF OTHER MINDS*

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ABSTRACT. In this paper, the problem of correct ascriptions of consciousness to patients in neurological intensive care medicine is explored as a special case of the general philosophical 'other minds problem'. It is argued that although clinical ascriptions of consciousness and coma are mostly based on behavioral evidence, a behaviorist epistemology of other minds is not likely to succeed. To illustrate this, the so-called 'total locked-in syndrome', in which preserved consciousness is combined with a total loss of motor abilities due to a lower ventral brain stem lesion, is presented as a touchstone for behaviorism. It is argued that this example of consciousness without behavioral expression does not disprove behaviorism specifically, but rather illustrates the need for a non-verificationist theory of other minds. It is further argued that a folk version of such a theory already underlies our factual ascriptions of consciousness in clinical contexts. Finally, a non-behaviorist theory of other minds for patients with total locked-in syndrome is outlined.

Key words: behaviorism, coma, consciousness, locked-in syndrome, other minds problem

1. INTRODUCTION

How can one know that other people have minds? How can one know that they are conscious beings like oneself? These questions paraphrase the notorious philosophical other minds problem (henceforth OMP), which may also arise when we are confronted with the fact that no matter how obvious the occurrence of consciousness in other people may be, a verification of statements concerning such consciousness seems impossible (see section 4). Now this primarily philosophical problem also deserves the neurologists' (or the physicians' in general) interest, especially when they try to establish an empirical – and, if possible, scientific – method of ascribing consciousness to patients with lesions of the central nervous system.

In this paper, we try to explore the epistemological status of ascriptions of consciousness in clinical practice, chiefly in neurological intensive care medicine. In the following section 2, we present some clinical concepts of consciousness and coma that seem to be rather behavioristically minded at first
sight. In the third section, we introduce the most striking example of consciousness \textit{without behavioral expression}: the so-called total locked-in syndrome (TLIS), in which preserved consciousness is combined with a total loss of motor abilities. We then argue that the TLIS at least discloses the practical limits of a behavioristic account of consciousness. In section 4, the famous Wittgensteinian account of the OMP is redefined, and it is argued that no behavioristic solution of the OMP can be derived from the mere fact that other-ascriptions of consciousness are performed on the basis of ‘outward criteria’. In the last section, 5, we maintain that clinical ascriptions of consciousness are based on a \textit{folk psychological} rather than a \textit{behavioristic} account of consciousness, and that the TLIS demonstrates the limits of such a \textit{folk theory} of consciousness. Finally, the prospect of a \textit{neuroscientific} theory of other minds will be considered, and it will be conjectured that such a theory would not be conclusive unless it could provide a complete ‘neuroscientific image of man’.

2. CLINICAL CONCEPTS OF CONSCIOUSNESS AND COMA: IMPLICIT BEHAVIORISM?

Most attempts of defining ‘consciousness’ for neurological contexts can be classified as either \textit{mentalistic} or \textit{behavioristic}. But the mentalistic definitions play no major role in clinical practice: rather, they give metaphorical and mostly circular explanations.\footnote{Contrary to this, the behaviorist approach seeks to judge a patient’s level of consciousness on the basis of purely behavioral evidence. ‘Consciousness’ could then be defined as the ability to respond adequately to certain applied stimuli or to emit certain patterns of behavior without actual stimuli. If ‘coma’ is just a ‘pathological loss of consciousness’, we also obtain definite and easily checkable features of coma, summed up as an ‘absence of conscious behavior’ (where ‘conscious’ is just an abbreviation of a list of behavioral patterns). Our current clinical scales, which should allow to discriminate not only ‘intact consciousness’ and ‘coma’, but also some intermediate stages of impaired consciousness, typically take responses to verbal and painful stimuli to be signs of consciousness or coma.\footnote{Now such a determination of a patient’s level of consciousness is not to be confused with the additional evaluation of his/her neurological status. Our clinical ascriptions of consciousness are not dependent on neurological criteria or on further diagnostic data (from computerized tomography, etc.). It is just that the fact that we have learned a lot about neurological \textit{correlates} of impaired consciousness may lead to the mistaken view that we also assess levels of consciousness primarily on the basis of such neurological (or radiological) evidence. This view is mistaken in that it confuses the causal explanation of a state of consciousness with the ascertain-}}