This is illustrated in the long and complex history of the famous medieval shrine of Santiago de Compostela with its maritime legend which, it is contended, was of megalithic origin. In a modified form with different settings, the same tradition has recurred and survived south of the Minho in Portugal, and can be detected in many cult legends throughout the megalithic region (for example, the St. Martha story). Behind this widespread theme and its cultus lie the movements of peoples, for a variety of purposes, and the diffusion of culture, which characterized the rise of Neolithic civilization in the Ancient East, bestowing on certain sites and centres a permanent tradition of sanctity of sufficient endurance to enable pagan sanctuaries to become Christian shrines.

## NERVOUS CONTROL OF THE MOVE-MENTS OF THE ALIMENTARY CANAL

IN his presidential address to Section I (Physiology), Prof. R. C. Garry points out that, in spite of continuing interest and of steady research, our present attitude towards the nervous control of the alimentary canal differs little from that expressed with general acceptance more than fifty years ago by Bayliss and Starling. Yet many facts have since been elicited which appear not to conform to their original conception, and constructive attacks have been made on certain aspects. Nevertheless, for want of a better, we have still to subscribe, more or less, to the original hypothesis.

When entirely separate from the body, the intestine, if kept under suitable conditions, can still show co-ordinated movements. There must be some form of intrinsic control. Certain simple and local movements may be 'myogenic' and independent of the nervous elements in the gut wall. Peristaltic waves, however, may extend over a considerable length of gut, moving only caudad. Bayliss and Starling believed that peristalsis is governed by a reflex in the nervous myenteric plexus of Auerbach. This belief has been vigorously attacked from several sources, but modern work seems once more to emphasize the importance of the nervous element.

Much of the present uncertainty is due to our imperfect knowledge of the histology of the nervous plexuses in the gut wall. Are there receptors in the intestine ? If so, what is their nature and where are they located ? Do axons passing from the gut into the central nervous system make contact with nerve cells in the myenteric plexus ? How many types of nerve cell are present in the wall of the intestine ? How are the outgoing axons from the nervous system to the gut distributed to these nerve cells in the gut ? Until the histologists can give an answer to these questions, we may be unable to interpret satisfactorily the nature of the control of the intrinsic movements of the intestine.

In the intact animal the autonomic nervous system undoubtedly influences the activity of the gut; and it is attractive to believe that the two divisions of the autonomic system, the orthosympathetic and parasympathetic, oppose one another, as they are known to do elsewhere in the body. Yet there are many observations inconsistent with this view. It may easily be that our experimental approach is crude and is responsible for the observations inconsistent with theory. In spite of everything, the original conception still holds the field, partly due to its inherent logical tidiness and partly to its appeal to our preconceived notions.

At the cranial and caudal ends of the gut there is less dubiety. There the alimentary canal seems to lose much of its autonomy and to come more intimately under the influence of the nervous system. The complex acts of swallowing, vomiting and defæcation are undoubtedly governed by elaborate reflexes which control not only movements of the gut but also the behaviour of skeletal musculature.

In the body, the intestine not only receives nerve impulses from the central nervous system, but also sends impulses into the nervous system. Recent work has disentangled the routes followed by these ingoing nerve impulses, but we still do not know exactly how and where they arise. Neither do we understand the normal function of these ingoing nerve impulses. They may give rise to sensation, but apparently only when the normal gives place to the abnormal. Moreover, the controversy concerning the nature of sensation from the viscera is by no means settled. Once more, only at the extremities of the gut can we form a clear picture of the nature and functions of the impulses which pass inwards into the central nervous system. It may easily be that a better understanding of the nature of the nervous control of the intestinal movements will depend not so much on the physiologist as on the histologist and morphologist.

## THE ASSESSMENT OF PERSONALITY

PROF. P. E. VERNON, in his presidential address to Section J (Psychology), discusses "The Assessment of Personality".

Personality may be regarded as an organized and fairly stable structure which includes all the social and emotional traits, the interests and attitudes and complexes that underlie a person's behaviour. Difficulties in studying it scientifically and assessing it arise, first, because many of its links are repressed into the unconscious mind. Secondly, it is not purely a property of the individual, but varies with the particular social environment. Thirdly, personality traits are generalized inferences from behaviour; they involve subjective interpretation by an observer, and thus depend largely on the outlook and mentality of the observer and on the interaction of his own personality with that of the individual. Nevertheless, considerable progress has been made in recent years in the theoretical analysis, and in experimental investigations, of personality. But we do not possess, and cannot expect to devise, simple, straightforward tests comparable in reliability and validity to our tests of aptitudes and attainments.

Many experiments show wide discrepancies between the personality judgments of different interviewers, or observers, of the same individuals. In personnel selection work, predictions of vocational or educational suitability, based on interviews of recruits, school pupils or university students, are often poorer than predictions based on a few psychological tests of aptitudes. Some vocational interviewers are relatively successful; many employers, teachers and psychologists are very unsuccessful. More intensive 'clinical' or psychiatric interviewing, designed to elicit a complete picture of personality structure, may merely result in more biased assessments. Closeness of acquaintanceship also tends to make for greater inaccuracy.