

THE ORIGINS OF MODERN PSYCHOLOGY: EXPLORATIONS IN THE OLD AND THE NEW WORLD

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In starting to work on this article I recalled vividly my meeting Professor and Mrs. BROŽEK in March 1980 in Padova, Italy, as well as the collaborative efforts that ensued and that were devoted to further clarification of the origin of the term *psychologia*. This endeavor provided a stimulus for initial exploration of the Latin literature of the early period of Italian humanism - a potentially fertile field for the study of the history of psychological thought. From there it was a short step to the current involvement in research on the origins of psychological thought in Brazil.

A THRILLING DISCOVERY OF A NEGLECTED FACET OF THE HISTORY OF PSYCHOLOGY

The encounter with Professor BROŽEK in Padova in the early Spring of 1980, when I was still a student at the University of Padova (1), affected profoundly the development of my research interests. I was interested in the history of psychology already prior to our encounter, as documented by my doctoral thesis (*tesi de laurea*) on *The Concept of Determinism in the History of Science and of Scientific Psychology* (MASSIMI, 1979) and a study, then in process, on a face of the history of modern Italian psychology (MASSIMI, 1980) and, more specifically, on the relationship between

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philosophy and psychology in the thought of Agostino GEMELLI. However, the perspective for continuing this intellectual journey appeared bleak: I did not have an adequate access to the primary and secondary sources of the history of psychology abroad, and the history of psychology in Italy did not appear to me to constitute a rewarding and stimulating area of research.

Three days spent with the BROŽEKs in visiting libraries and archives as well as in long discussions enabled me to discover that within the confines of Padova there existed treasures, largely unexamined, which promised to provide rich material for the historiography of psychology. Dr. BROŽEK helped me to identify an almost virgin area of research on the "paleohistory" of psychology for which the archives, the libraries and the annals of the old Italian universities and of the ancient cultural centers of the Mediterranean region contain unique primary sources.

The opening wedge to this "New World" -European and, especially, the Italian scholarly world of the late medieval and early modern period -emerged in the form of a simple question that has fascinated Prof. BROŽEK for some time (and to which the final answer has yet to come): Where did the term "psychologia" come from?. Since the term is a compound consisting of two Greek words, one might be tempted, at first, to think that the word has its origin in the ancient Greek philosophy or literature. In reality, its origin is relatively recent. According to the presently available information (KRSTIĆ, 1964; BROŽEK, 1973b), the term is first attested as a part of the title of a work written by Marcus MARULUS (1450-1524), a humanist thinker of Croatian nationality. The work was entitled *Psychologia de ratione animae humanae* and the manuscript is believed to have perished in the chaos associated with a plague that struck the city of Split (in Latin Spalatum, in Italian, Spalato), on the coast of Dalmatia, in which MARULUS was born and has lived.

The title of the "liber" is preserved in the listing of MARULUS' works, published and unpublished, contained in a brief biography of MARULUS prepared by his younger contemporary, Franciscus NATALIS. The biography was first published by the learned Jesuit, Domenicus FARLATUS, in the third volume of his compendium *Illyrici Sacri*, in 1765. This source seems to have totally escaped the attention of the historians of psychology, until recently (BROŽEK, 1973a). Prof. BROŽEK placed the probable date of origin of *Psychologia* between 1511 and 1518 and, more broadly, in the second decade of the 16th century.

Several issues remain:

1.- Did MARULUS not only use (which he did) but also *coin* the word *psychologia* (or its orthographic variant)?.

2.- If MARULUS did not coin the term, where (and when) did the term originate?. One way to attempt to answer this question is through the study of the works of MARULUS' teachers and of such written records as may exist in the areas of the world with which MARULUS was in cultural contact. It was this specific issue that was the reason for Prof. BROŽEK's journey to Padova (and some other Italian libraries, especially the Biblioteca Vaticana) in 1980. The exploratory visits were based on the hypothesis that the term *psychologia* was coined in the second half of the fifteenth century in Northern Italy, and most probably in Padova. The hypothesis was tied to

a widely held, traditional view (CRONIA, 1941, 1943; FABRIS, 1941; ROSSETTI, 1972) according to which MARULUS had studied at the University of Padova.

3.- It is possible to "reconstruct" the probable content of MARULUS' *Psychologia*?. What meaning could the term have had for MARULUS, in view of the character of the writings of MARULUS that have been preserved?

The fact that I lived in Padova and, consequently had a ready access to the local libraries and archives and, more generally, to the archives of other ancient Italian universities, made it possible to begin collaboration with Prof. BROŽEK on these challenging issues.

RECONSTRUCTING MARCUS MARULUS' INTELLECTUAL HORIZON

An important part of MARULUS' published work constitutes a product of an ethico-pedagogical humanism, permeated by a deep religious inspiration. His central preoccupation was to instruct the readers in the art of living "well and happily" *-bene beateque* (MARULUS, 1580 and earlier editions).

To MARULUS, the human mind and the human personality, moulded by the external and the internal (physiological) environment, must be guided by reason and the normative considerations of ethics. Reason, in its turn, must be illuminated by the Christian faith. Consequently, it is highly probable that MARULUS' *Psychologia* was not a theologico-philosophical treatise dealing with abstruse, metaphysical issues but a practical guide to a sound way of life in which the human actions are oriented by the values fixed by faith and interpreted by reason (MASSIMI, 1983, p. 38).

Assuming, with BROŽEK, that MARULUS was not the originator of the term *psychologia*, I intended to study the thought and the writings of his teachers: Three of them are given in MARULUS' biography written by Franciscus NATALIS (cf. BROŽEK, 1973b): Colla Firmianus, Hieronymus Genesius Picentinus, and Tydaeus Acciarinus (Acciarini, in Italian). I was able to verify the historical existence and the writings of only one of them, Acciarini, born around 1430-1440. Among his writings I came across a work entitled *De animorum medicamentis* (On the Healing of the Hearts) and written around 1491. Two copies of the manuscript are being held in the Bibliotheca Vaticana in Rome. It is well possible that a thorough analysis of this work would yield valuable information bearing on the history of psychology in Italy.

On the issues of MARULUS' studies at the University of Padova, no conclusive positive evidence has been obtained so far on the basis of the documents that could be examined.

PIONEERS OF A NEW, NATURALISTIC PSYCHOLOGY IN 15th CENTURY ITALY

The work of Marcus MARULUS opened for me a whole new field of study concerned with the efforts to generate a new kind of knowledge about man, knowledge no longer dominated by theology and metaphysics but still not totally free of them to deserve the label of modern science.

Some of the leading figures will be noted:

BIAGIO PELACANI DA PARMA (1347-1416), professor of astrology, mathematics, and moral philosophy at the Universities of Bologna and Padova, in his

commentaries on ARISTOTLE's *De anima* and in his *Quaestiones perspectivae* defined the study of the activities of the soul as an aspect of natural philosophy. He proposed a naturalistic explanation of human behavior, in terms of astral determinants and of sensory influences. He demonstrated that phenomena that might appear phantastic (and supernatural) become completely comprehensible when viewed in terms of optics. Specifically, he provided "scientific" explanation for optical illusions. Rejecting concepts of mental phenomena interpreted in terms of the common sense, he explored ways to study psychological events experimentally, with the aid of mathematics.

GARGANO DA SIENA (deceased in 1526), stimulated by AVICENNA, in his *De generatione soni* (On the Generation of Sounds, 1489) explored some psychophysiological aspects of the auditory phenomena, anticipating GALILEO's theory of sound as a "secondary quality" (cf. MASSIMI, 1981).

ANTONIO BENIVENI (first half of the 14th century -1502), a Florentine physician, proposed a psychosomatic-somatopsychological theory of disease in his *De abditis morborum causis* (On the Obscure Causes of Disease; 1st ed., Florence, 1507). Amnesia is interpreted as a consequence of an excessive amount of "blood, green bile, and mucous" in the organism (pp. 116-117); episodes of fever and of sudden death are ascribed to fright (pp. 116-117); and acute forms of insanity are viewed as effects of the collision in the brain of the warm, mobile and the cold matter (pp. 148-150).

ALESSANDRO ACHILLINI (1463-1551), a student of Pietro D'ABANO and Michele SAVONAROLA, wrote on "physiognomy" (1503), an approach that diagnoses human personality from the bodily characteristics, especially from the facial features. This discipline, known already in Greek antiquity and subsequently condemned as "non-scientific", may be viewed, in a certain sense, as a legitimate part of the history of psychology: "Before there was any explicit method for describing human behavior or even a terminology which could serve as a tool for such a method, men have responded in characteristic and appropriate ways to the appearance and gestures of their fellow men. Such responses frequently referred to fleeting indicators perceived largely subconsciously, as they are perceived today. These responses constitute a prescientific, biological foundation of a science of behavioral indicators...In addition, we may concede the theoretical possibility that the readily observable physical characteristics, such as the skeletal structure or the timbre of the voice, may serve as empirical, generally dependable indicators of behavioral dispositions determined constitutionally" (BROŽEK & DIAMOND, 1982, pp. 13-14).

Finally, in the period of humanism there emerged a large number of pedagogical treatises which attest to an increased interest in the observation and the modification of child behavior; cf. Pier Paolo VERGERIO, *I Nobili Costumi e gli Studi Liberali degli Adolescenti* (Noble Behavior and the Liberal Studies of the Adolescents) or Maffeo VEGIO DI LODI, *L'Educazione dei Figli a i loro Buoni Costumi* (Education of Children and their Good Behavior).

These "discoveries" of mine confirmed the hypothesis suggested by Drs. BROŽEK and DIAMOND about the roots of objective psychology. In general, the classical

historiography of psychology holds to the view that antiquity was concerned with the "study of the soul", considered in theological and speculative terms. The merit of generating a new knowledge about man, based on the description of objective phenomena (i.e., behavior) is attributed to the Cartesian system or the 17th century English empiricism; at the most, reference is made to ARISTOTLE's natural philosophy. In reality, there exist many "stages" in the process of the formation of modern psychology that need to be recognized and correctly assessed. In his spirit, Karl BÜHLER wrote: The history of psychology is richer and more significant than is being thought" (cited by BROŽEK & DIAMOND, 1982, p. 9). A thorough search for the roots of scientific psychology will call for much additional work.

A JOURNEY TO THE NEW WORLD OF LATIN AMERICA IN SEARCH OF THE "OLD" WORLD

For the time being, my explorations of the treasures of the "Old World", guided by Prof. BROŽEK, and concerned with a new phase in the long process of man's discovery of himself, has come to a close. Economic and other consideration forced me to adapt and apply to myself the North American exhortation of the pioneer days, "Go west, young man"!.

But I was not ready to give up research in the history of psychology, and I asked myself: In the New World of the Americas, might there not be "archeological sites" the study of which would bring to light new information about early psychological thought on that continent?. Having arrived in Brazil in December 1982, I set out in this perspective- to investigate the roots of psychological thought in this country (2).

On the basis of exploratory research I have been able to carry out to date, I am ready to assert that the roots of psychological thought in Brazil go back to the second half of the 17th century. Its protagonists were physicians, philosophers, educators and moralists, trained for the most part abroad, especially at the University of Coimbra and at French universities.

These are some names that have come to my attention in the initial phase of a complex and arduous "archeological research" (Brazil is a large country and the documents are not easy to locate):

ALEXANDRE DE GUSMÃO, a Jesuit, wrote in 1685 a treatise on *Arte de Criar Bem os Filhos na Idade de Puerícia* (The Art of Raising Children in the Period of Early Adolescence).

FRANCO FRANCISCO DE MELLO, a physician and a versatile poet, is the author of several volumes, including the curious *Medicina theologica*, published in 1794, an exposition of psychosomatic medicine.

MATHIAS AIRES DE SILVA DE EÇA, in his *Problem de Arquitetura Civil* tackled in 1770 an interesting problem related to the psychology of perception, namely, the optic illusions experienced by miners working underground.

CLOSING COMMENT

I wished to put on the record that the intellectual and personal encounter with Prof. and Mrs. BROŽEK, and friendly collaboration-at-a-distance not only helped me to discover in the Italian humanist writings a valuable source of new information on the "paleohistory" of psychology but also made me realize that it is a delusion to regard psychology as a "young science": In reality, much of the "old" persists in the "new" just as much of the "new" exists in the "old".

NOTES

- (1) I received my doctoral degree (*laurea*) in psychology in March 1979, with Prof. Sadi MARHABA, University of Padova, serving as thesis supervisor (cf. MARHABA, 1981), and was enrolled in a graduate program on the philosophy of science.
- (2) According to PELACANI, anticipating GALILEO, the primary qualities of objects are describable quantitatively while the secondary qualities are not.
- (3) This research was directed by Dr. Isaias PESSOTTI, of the University of Ribeirão Preto, Brazil; cf. PESSOTTI, 1982.

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The purpose of the Archives of the History of American Psychology (AHAP) was initially restricted to the preservation of unpublished documents and archival materials relevant to the history of psychology, but in 1980 the library began to supplement these archival and museum functions by starting a "Literature Center for the History of Psychology". The first major acquisition was the library of Eunice and Josef BROZEK. This has been supplemented by several additional libraries, including those of William BATTIG, David SHALOW, E. Paul TORRANCE, William VERELANCK, and Robert A. WATSON, Jr. Additional deposits have been provided and study arrangements developed. But at the moment, the BROZEK library of 12,000 volumes is particularly relevant to this account since it is strong in works relating to Soviet and Slavic psychology. The collection is distinctive in the West because of the richness of the whole and the rarity of many of the individual items. The Literature Center includes additional deposits from the continent, the most concentrated being a series of volumes of Norwegian social sciences deposited in the Martin ARLMONT Library.

These published books, as the articles with comments that are intensive in their quality and quantity, but they are not unique. More extensive and original

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