

Psychology serving society: whose needs are met?



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Introduction

Social demand for discourse and wisdom emerged at the stage of the prosperity of Ancient Greek cities-states where a new societal community on the city square, the *agora*, was shaped (Vernant, 1962). The authority of a person on the *agora* was determined not only by one's wealth or descent, but also by his thinking and reasoning. This shaped the development of philosophy, which satisfied people's curiosity for more than two thousands years.

In the 17th century due to the benefits of Renaissance, the Reformation, opening and reclaiming of new continents, development of military equipment, substantial change in the type of production, and, especially, due to the development of printing, the situation in societal elite, first of all among university teachers, nobles, and educated monarchs who were growing in number, started changing. Scientific discoveries and devices were more increasingly viewed as a value, for verification of their utility became available to many people. The significance of mechanics, chemistry, physics, and astronomy became understandable for societal elite at the end of 17th century.

But which needs of society would be met by psychology? It seems that in the 17th — 18th centuries there were none, for researchers who studied mental processes, such as French Pierre Bouguer or German Christian von Wolff who differentiated types of psychology did not view themselves as psychologists. The same was true of many 19th century researchers including Ernst Weber and Gustav Fechner who contributed significantly to the development of experimental psychology, but did not identify themselves as psychologists either.

The main obstacles preventing the transformation of psychology into a science can be roughly divided into three wide clusters: 1) epistemological factors: the research model

in natural sciences emerges from the measurement of mechanical movement, to which all more complicated forms of physical-chemical processes with their mass and speed features can be reduced, which is not the case with social disciplines; 2) pragmatic factors: up to a certain point society had no need for precise knowledge about mind and society, leaving the field in the competence of philosophy and theology; 3) social factors: firstly, religious prohibition of research on mind; secondly, limited financial resources of society. The second group of factors seems to be more significant, for there is no supply without demand.

The overcoming of epistemological barriers was largely facilitated by the development of medicine and biology, particularly by the creation and dissemination of evolutionary theory and experimental methods of research where quantitative analysis of data was a must. At the same time the Great French revolution and subsequent social-political changes aroused interest in more precise understanding of individual and group activities and in a more accurate prediction of the probable consequences of these activities. Particular interest to this kind of assessments and forecasts was displayed by banks and insurance companies that became the main force of societal life in the 20th century. The profit of these corporations was directly linked to the accuracy of risk assessment of investments in various innovations.

According to George Mead, it is exactly the ability of science to offer solutions that can improve the security of social institutes realizing innovations and can help to avoid destructive problems that makes science attractive and significant in the eyes of the public (Mead, 1964). Among pragmatic factors were also the change of attitude to mental disorders in post-revolutionary France and the increase of gunshot brain injuries in 19th century wars.

This social need increased significantly physicians' interest to the study of the central nervous system and contributed not only to discoveries in anatomy, neurology and physiology, but also to the elaboration of new experimental methods of investigation.

In one of recent historical books two general socio-historical concepts were singled out as crucial for the development of psychology: *individualization and social management* (Jansz, 2003). "Individualization" covers a number of changes in people's "life-world," in particular the shift from a group to an individual, the interest in individual differences, and the focus on the inner world of feelings. "Social management" refers to the concerted efforts to monitor and control the behavior of individuals and groups. Taking these phenomena as our leads, we will begin with a review of early processes of individualization, starting around 1400" (Jansz, 2003). While referring individualization to the 15th century is more or less justifiable, referring social management to this time is highly doubtful because Ancient Greece and Rome elaborated many special social institutions for social control and management, such as gymnasiums, democracy, Roman law, etc., and in Antique literature we can find very advanced social-philosophical and educational ideas in the field of societal management.

At the same time, the indirect impact of literature, philosophy, legislation, industry and art on societal interest to mental life is undeniable, especially after the Reformation and the Great French Revolution.

Social order and the emergence of psychology

Social order for psychology may vary greatly, ranging from a neighbor's questions and societal discussions on psychological issues to the priority of international, national or regional financed programs in the field. The simplest notion of social demand includes public representation of societal interest in the form of non-professional and professional publications in the field, educational initiatives, direct orders, and international, state, or private investments in the development of psychological infrastructure.

As shown in the first chapter, the emergence and development of natural sciences was linked with improved efficiency of the solution of many social tasks in most advanced countries. The next topical field was medicine. In the 18th — 19th centuries it drew attention to brain injuries, which, in its turn, improved the studies of bodily regulatory mechanisms, including the understanding of the functions of mental processes. Which societal need brought about the emergence of psychology?

We mentioned the interests of banks and insurance companies, which became the leading economic and political force in the 20th century, in human risks and the need to predict the probability of negative outcomes of human activities. But this does not mean an automatic emergence of social demand for psychological activities. It will be easier to describe more particular demand for psychological products.

How much was Wundt's promotion of psychology dictated by societal interest? Indeed, while reading various courses in Heidelberg and later in Leipzig, he could compare the interest of students to different subjects and to see the priority of psychology in comparison with philosophical subjects. When this became clear to the University authorities too, Wundt got financial support and the status of a professional unit for the laboratory. The authorities were interested in enrolling new students because students' fees shaped a big part of the University budget.

Despite all experimental psychology achievements at the turn of centuries, the social status of psychology at the beginning of the 20th century could not be compared to that of physiology. By some data, the total of financial budgets of seven best-financed German laboratories and institutes in 1913/1914 study year was 17.600 marks, while the budget of Berlin University Physiological Institute was 63.116 marks (Ash, 1995).

Development of Psychology and School

At the end of the XIX c. (in the USA from the middle of XIX c.), with the introduction of obligatory primary education in advanced European countries, psychologists were in increased demand in school education. All countries beginning to set up obligatory elementary school faced the problem of learning disabilities and should organize special classes or schools for such pupils.

The emergence of the first psychological test was stimulated by two social orders. Firstly, Binet was involved in the Free Society on the Study of Child Psychology where he witnessed big interest from elementary schools teachers and administrators to retardations, mental disorders, and maladjustment of pupils. It compelled him to set up a special commission of the Society for the study on abnormal children and to publish the journal of the Society. Later due to these activities he got a state order too. He was invited by the French Minister of Public Instruction Joseph Chaumié to participate in the state commission elaborating a program for disabled children, which required working out special methods for the assessment of children's intelligence. As the result (of these orders) a small laboratory in one elementary school was established, special classes for disabled children were organised,



Figure 1. The "Trierianum" building where the first laboratory of psychology was elaborated in Leipzig University at 1879. (Wundt with his pupils in the Institute of Psychology 1912).

and Binet-Simon's intelligence scale was created, which opened a new era in human factor assessment. Later it was standardized by Terman in Stanford University and got the title the *Stanford-Binet's test*.

A little later provision of opportunities to children from poor families to continue education in gymnasiums and liceums became a topical issue in rich European countries. Despite the First World War, in 1917 a gymnasium and a vocational secondary school for gifted children were organized in Berlin, and Moede with Piorkovski selected children for them using psychological tests. Later Stern was asked in Hamburg to select 990 gifted schoolchildren from 20 000 ten-year old candidates.

Psychology was in particularly big demand in the United States where the school became not only the institute of socialization, but also the means of acculturation and social integration. Immigration flow to America increased in 1890-1920 dramatically, and the amount of state and municipal schools increased many times. This predetermined the shift from psychology of mental processes to psychology of behavior and learning in the USA, and later in the world at large. It is not by chance that the pioneer of psychology in the USA Stanley Hall was the organizer of a broad pedagogical movement aiming to adapt schools to the child's mind, not vice versa. Psychologists were involved in special courses for teachers and officials in schools departments and in many

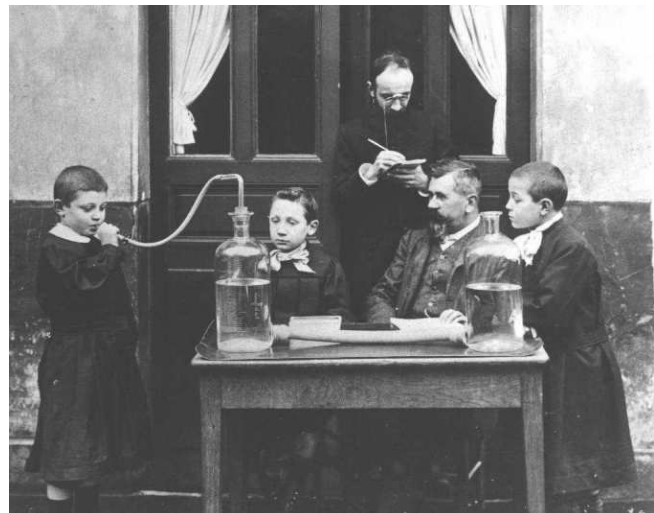


Figure 2. Binet & Simon studying schoolboys' perception and thinking in school laboratory.

universities departments for school psychologists' training were opened.

A classic example of a local order from the education system was the case of Witmer which led to the emergence of *clinical psychology*. In 1894 Pennsylvania University organized upgrading courses for state schools teachers, and a student there asked Witmer to consult

her on the case of a fourteen-year old pupil who had problems with writing, even though generally he was quite successful. In the process a counseling centre was established, and later a psychological clinic, considered by American historians to be the first centre of clinical psychology in the world because Witner coined the title Clinical Psychology.

A more institutionalized proposal to elaborate a plan to study and solve the problem of juvenile delinquency was made to Henry Goddard by the governor of Ohio James Cox. Cox was an enthusiast of humanistic reforms and attempted to centralize all social services in the state. Goddard worked out the project of a center for delinquent adolescents, and was later involved in the implementation of the project. The first results showed that delinquent population overlapped significantly with mental retardation and psychopathic populations. Goddard and his colleague Florence Mateer's more or less progressive ideas on non-violent ways of correcting anti-social behavior of juvenile delinquents were not realized

because of the change of the state governor. At the same time Goddard's ideas on the inborn level of intelligence were unlikely to be considered progressive by professionals in the field.

Other fields of social order to psychological study and service

Social order on psychological study and service was shaped in other societal fields too. At the beginning of the XX c. the issue of reliability of witness's evidence in court became very topical in Germany and then in Switzerland, France, and the USA. William Stern published for more than three years a journal on the topic emphasizing the unreliability of children's eyewitness narratives. In the USA Münsterberg discussed a full complex of psychological factors which influenced judicial decisions in his book *On the Witness Stand* (1908) describing very impressive experiments and data on unreliability of witnesses' statements.



Figure 3.
Psychotechnical assessment of female factory workers at the "Philips" Psychotechnical laboratory in Eindhoven.



Figure 4. Group testing of complex reaction times (U.S. Air Force).

Some orders to psychologists came as the result of technogenic disasters. For example, the famous German psychologist from Wurzburg Karl Marbe was invited to investigate the big railway accident with many victims in the south of Germany (Müllheim in Baden) in 1912. He was able to imitate the actions of the train drivers in the situation prior to the accident. The analysis of these actions later became a well-founded basis for the court decision. This study provided a standard for the elaboration of the drivers' selection system and the development of a new applied psychology field.

Many new psychological laboratories for personnel selection and training were elaborated in the 1920-ies and 1930-ies in European countries and the USA by big companies and governmental institutions.

Applications of psychology were most impressive in the USA, especially in the field of advertising and political monitoring and management, they became a model emulated in many other countries.

Wars and psychology

As mentioned above, the biggest order to the psychological community came from the American military department at the time of World War I. But it was prepared by

Yerkes who had sent them a proposal, and in 1917 organized a special psychological conference on psychological services for war needs. These activities resulted in setting up the Committee for army tests invention in Vineland (New Jersey).

In May 1917 the War Department established the Committee on Classification of Personnel in the Army, which consisted of ten psychologists and two employment managers headed by Walter Scott. Scott's Committee used different tests and expert assessment, including intelligence tests. Military authorities preferred Scott's methods of personnel assessment to the intelligence tests of Yerkes' group. By the end of the war the staff of the Committee increased to 175, they created skills tests for 83 military professions and tested hundreds of thousands of volunteers who actually participated in military activities (Mayrhauser, 1987).

At the same time Erich von Hornbostel and Max Wertheimer worked on the creation of an apparatus revealing the direction of underwater noises for the German War-Marine Department. The same task was solved by William McDougall and Charles Myers, but for the British Department. Later Myers described the phenomenon of *shell shock* as a specific war neurosis, and his teacher Rivers worked out technologies to minimize fatigue and stress of war pilots.

Moede and Piorkovski were invited to Germany to select drivers for army cars. They created an apparatus test that imitated drivers' behavior in real situations. The selection was so effective that in 1917 these psychologists were invited by the Saxon railway company to select train drivers, and the first psychological laboratory for imitation tasks testing in the field was elaborated, which became later a routine procedure (Gundlach, 1997).

Since 1925 and later in the 1930-ies in Nazi Germany psychologists were involved in the behavioural selection of officer candidates that was discontinued as too expensive, but was resumed by American and British psychologists during World War II (Geuter, 1997).

The involvement of psychologists in governmental call at the time of World War II (especially in the USA) leaves behind psychological activities at the time of World War I by amount and the range of tasks. The biggest one was the selection of 10 million recruits using the *Army General Classification Test* (AGCT) held by Bingham, Thurstone, and Garret.

The Army General Classification Test is divided into three distinct parts: 1) *The Vocabulary Test*, requiring the ability to select correct responses regarding the meanings of words in the person's long term memory; 2) *The Arithmetic Test*, requiring knowledge of mathematics as well as language-based knowledge to comprehend the words in verbal tasks; 3) *The Block-Counting Test* emphasized the use of literacy as graphics display processing and required visualization to imagine the presence of obscured blocks. The Army General Classification Test comprises 150 questions and is usually given to large groups at the same time. It is a multiple choice test, and separate score sheets are provided for each person being tested. These score sheets are calculated by electric tabulating equipment, and the score of the test is obtained before the person is interviewed. The score of 110 or higher is one of the prerequisites if the person wishes later in his army career to apply for an officer candidate school, and a high score perhaps influences classifiers when deciding on the initial assignment of personnel.

Simultaneously with selection work the APA together with the National Research Council created the Psychological Committee on emergency situations with many subcommittees which dealt with topical problem solving. Especially effective was the Office of psychological personnel headed by Marquis that informed the professional community and elaborated a special section "Psychology and War" in the journal *Psychological Bulletin*, improved the system of professional education and transformed the APA as the organisation promoting the development of psychology as a science, profession, and as the means of well-being improvement.

The wartime tasks can be classified by priorities into two groups. The first one includes: a) administrative personnel testing and selection; b) counseling and consulting service; c) creation of new tests and selection procedures; d) statistical data analysis; e) creation of training programs and skills verification procedures; f) improvement of counseling and consulting procedures; g) analysis of war tasks and activities. The second one includes: a) elaboration of opinions and attitudes assessment; b) creation and implementation of orientation programs; c) elaboration of propagandistic projects; d) study of military activities and application of results; e) study of psychophysiological factors of military activities; f) elaboration and verification of military equipment (Britt, & Morgan, 1946).

In the context of these tasks new tests and effective cooperation with mass media were elaborated, facilitating a positive emotional climate and minimization of hate. In this framework applied social psychology was improved too — new fields emerged, such as psychology of prejudices, persuasion and social movements (Cantril, 1941; Allport, 1954). There is the opinion that World War II was the most important event in the social history of American psychology (Gilgen, Koltsova, Oleinik, 1997, 104). It gave to psychologists real opportunities to show to the establishment and private companies how really useful their knowledge and technologies can be, it transformed the infrastructure of psychology and made it more professional and applied.

During World War II some other applied fields of psychology emerged. For example, Lewin's group was involved in the so-called „Food Habits Study" (Marrow, 1969), specially formed groups of housewives or students discussed the use of different kinds of food. The results showed that involvement in such groups changed beliefs on food more effectively than special lectures on the topic.

Resume

Does psychology always serve humanistic aims and values? One can hardly expect this in wartimes, but even in peaceful times a social order can contradict these values in the field of public relations and advertising, where capturing attention and excitement, not the interests of residents' majority, is a first-priority task. Does it mean that psychological service is oriented towards a particular person or group satisfaction rather than general humanistic values? Indeed, psychologists try not to come into conflict with these values and the legislation of a particular state, but, as well as other scientists, they cannot satisfy the needs of the society's majority. It is the essence of social order that it serves the interests of a particular individual or group.