

## The impact of psychological knowledge on society

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### ABSTRACT

This paper addresses the questions: What is the impact of psychological knowledge on society; to what degree does psychology respond to these needs; and to what extent will psychology have to modify its tactics in order to make an impact on society in the 21st century. Psychology, as a relatively new science, does not have a clear social representation with the public that other more traditional sciences and professions have. Nor has psychology the special consulting relationships with government that, e.g., physics, economics, law, and medicine have. Yet, psychological knowledge and applied psychology are at the heart of social and human problems that the world will face in the 21st century, e.g., HIV infection, health psychology, economic psychology, ecological psychology, ecological problems, athletics, urban problems. The argument is presented that European psychology, through its national and international associations, must take a more active stance in projecting its potential usefulness and in promoting itself in governmental power circles, in order to compete with other disciplines and sciences in solving problems of society in the 21st century.

*Key words:* Psychology, psychology applications, society

The invitation to contribute to this meeting on "The place of psychology in modern science", and more specifically to this symposium on "Scientific knowledge and socio-political issues", was very timely for me. It came at a time when we were in process of organizing the IV European Congress of Psychology which was held in Athens from July 2 to 7, 1996. One of our goals in organizing the Congress was the hope that the assemblage of all the major European psychological associations and societies would provide the catalyst in discussing a number of issues which concern the current state of European psychology. Some of these issues concerned scientific issues, e.g., the funding of research in the European Union; others concerned professional issues, e.g., task force

report of EFPPA on the licensing of psychologists in European nations; while other issues concerned the promotion of psychology as a science and profession in the governing bodies of the European Union.

Marina Manthouli, President of the Association of Greek Psychologists and co-President of the Congress, and I, organized the symposium "Goals, challenges and trends of scientific and professional psychology in the 21st century". Some of the questions discussed were: What are the challenges to psychology in the 21st century? What will be the new challenges of the 21st century to which psychology must address itself as both a science and a profession? How can psychology make a greater impact on society in the 21st century?

We were honored by the participants in the symposium, who were the acknowledged leaders of the major international and national psychological associations, and who represented all the continents. They were: Ingrid Lunt, from the United Kingdom, President of the European Federation of Professional Psychologists Associations; Kurt Pawlik, from Germany, President of the International Union of Psychological Science; Bernhard Wilpert, from Germany, President of the International Association of Applied Psychology, Raymond Fowler, Executive Vice-President and Chief Executive Officer of the American Psychological Association; Fouad A-L. H. Abou-Hatab, Egypt, representing the Arab nations and Africa; Durganand Sinha, India, representing India, and Hiroshi Imada, representing Japan.

The issues discussed in this symposium were a crystallization of many of the concerns expressed during the Congress regarding psychology's identity as a science and as a profession, and where psychology is going in the next century. I must state that the atmosphere of the discussions was extremely optimistic; nobody talked of an "identity-crisis", nor of pessimism regarding psychology's future value, as is the case with other social sciences. Indeed, both individual psychologists and international psychological associations expressed strong convictions about psychology's identity, and confidence in psychology's usefulness to society. But one issue which was raised repeatedly in its discussions was, the degree to which society as a whole understands what psychology really is and what it can offer to society.

### **Theory and application in psychology**

This is the background which led to the topic of this paper. The basic questions this paper attempts to address are: What is the impact of psychological knowledge on society? To what degree does psychology respond to these needs, and to what extent will psychology have to modify its tactics in order to make an impact on society in

the 21st century?

What are the goals of psychology as a science? Implicit in this question are issues related to which models or theories seem to satisfactorily predict behavior in current psychology and in which direction could one forecast new theories. Drenth (1996) refers to Francis Bacon's statement in 1620, that science is only relevant if it aims at societal progress, practical application and human control over nature. Drenth argues that, ever since Bacon, scientists have discussed the relationship and balance between the truthfulness and the usefulness of science. He raises questions such as, should science and scientific research be autonomous? Do concessions to practical applicability lead to the corruption or even the destruction of science? Or can it be held that objectives related to the improvement of human and societal welfare are not incompatible with scientific integrity? Can we go even further and maintain that science is enriched by the inclusion of the criterion of societal relevance?

We can even go a step further and raise a philosophical and epistemological question. Are theories and methodologies manifestations of Western European and North American cultural and scientific values or is there a universality in epistemology related to psychological phenomena? What are the potential inputs to psychological theory and methodology from non-western cultures?

### **Governmental policies and consultants**

This paper argues that psychology, as both a science and a profession, must take a more active stance in *projecting* its potential usefulness and promoting itself in political and governmental power centers, if it is to successfully compete with other disciplines and sciences in solving problems of *anthropos* throughout the world during the 21st century.

Governments of the nations of the developed world, Western Europe, North America, Japan, make critical decisions - economic, political,

social - only after consultations with experts in different fields. In the past, monarchs consulted the hierarchs or soothsayers, or their relatives, or their peers. Few ministers or presidents of nations in today's world will make a decision regarding policy or laws related, for example, to technology without consulting experts, industry without consulting engineers or economists, medical care without the opinion of medical experts, the rights of minorities without the opinion of constitutional experts. In the nations of the developed world, Western Europe, North America, Japan, these experts, that is, the physicists, the economists, as well as their associations, that is, the medical associations, the legal associations, have established special relationships with governments, based on prior experiences of trust in the value of these sciences and professions.

### **Stereotype of psychology**

Psychology does not have this special relationship, neither with government nor with the general public. It is not that psychology has a poor image as a profession or a science, but rather that it has an unclear image or a limited image. I think that almost all the psychologists have had numerous personal incidents, either when meeting someone new, or in formal contacts with ministers, politicians, lawyers, economists, where, after identifying oneself as a "psychologist", the other party remarks ironically, "Are you going to psychoanalyze us?", or "Maybe you can be of help around here, because everybody is crazy". I do not believe for a moment that others are either ignorant or insipid because they are not aware of what psychology really is. I do believe that we ourselves are to blame for this mistaken or amorphous image of psychology and the role of psychologists. We are the victims of a "self-fulfilling prophecy"; we have created a stereotype of psychology, with which the public and society identifies psychology - that psychology is tautological with clinical psychology and psychopathology - Freud and psychoanalysis - which we ourselves have created and projected.

### **The object of psychological inquiry**

I hope that these remarks are not interpreted as a personal attack on clinical psychology and psychoanalysis, which is not my intention. My original training was in clinical psychology, and I am director of our graduate program in clinical psychology. However, I am also aware that clinical psychology is only one section of applied psychology, albeit the largest numbers of psychologists in all countries are clinical psychologists. However, I am also aware that psychopathology is only one area within the body of psychological knowledge. We should not forget that the body of psychological knowledge is composed of phenomena such as: perception, sensation, memory, cognition, personality, motivation, interpersonal interaction, social behavior, etc., and their development throughout the life span. But most important, psychology is unique among the other social sciences. This uniqueness stems from the fact that psychology is not concerned only with nomothetic phenomena, but also with individual differences.

Let us pause for a moment and look more carefully at this theoretical and methodological approach which characterizes psychological inquiry. Sociology is primarily concerned with groups; it is not concerned with individuals nor with individual differences, except as members of social groups. Economics similarly is not concerned with projecting economic forecasts of individual behavior, but predicts the economic activities of states or groups within populations. Social anthropologists select as their smallest target, cultures or perhaps subcultures. The individual is merely an instance, an illustration, an example within a specific group. On the other hand, psychology "as a science" has employed the methodology of the "hard" sciences in studying nomothetic phenomena. It is these two epistemological issues that have characterized psychology and psychologists - and also divided them. Recall that as a graduate student, J. Mc Cattell was interested in studying the individual differences that his mentor Wilhelm Wundt was attempting to control and eradicate.

## History of applied psychology

Let us briefly look at the history of how applied psychology developed within psychology during the past 100 years. The development of a test which could measure intelligence and predict school achievement is perhaps the first significant application of psychological theory. This achievement by Binet and Simon at the beginning of the century, led to the introduction of psychologists into the educational system. A second important step was the employment of group intelligence tests by psychologists in the US during World War I for the selection of military recruits, many of them immigrants who could not speak English. A third milestone was the application of psychological knowledge to issues related to industry. Hugo Munsterberg published *Psychology of Industrial Efficiency* in 1913, and the Industrial Fatigue Research Board was organized in Great Britain at this time. A fourth milestone, which gave a critical kinesis to the development of clinical psychology, was the employment of psychologists, not only in psychodiagnosis, but in psychotherapy with military personnel during and after the World War II in the US and Great Britain. The growth of graduate departments in clinical psychology after this period led to the current predominance of clinical psychologists in comparison with the other areas of applied psychology.

Data from different countries indicate that school psychologists are the second largest group of applied psychologists, followed by organizational and work psychologists. The most rapidly expanding new field is health psychology, which Raymond Fowler, Vice-President of the APA, predicts will be the largest field in applied psychology in the next century (1996). Other new fields of application and certification are in psychology and the law, traffic psychology, and economic psychology.

## Models of applied psychology

These new trends are important, because

they lead to the next question: which models of intervention are employed in the application of psychological knowledge? Because of its concern with psychopathology, clinical psychology employs - or, relevant to my argument, *is associated by the public* as employing - the medical model as its method of intervention. Let me employ more neutral terms, i.e., psychological intervention techniques with abnormal behavior. Whatever the term employed, it is clear that the clinical psychologist's chief concern is people who manifest "deviant behavior" or feel "troubled", or "anxiety-laden", etc. Cognitive science tells us that either through development or through education, training leads to greater cognitive differentiation. Thus, we should expect that the clinical psychologist's concern with abnormal behavior leads to a cognitive set, or at least cognitive processes, in which *psychopathology* is more differentiated than what we would allude to as *normal* behavior. If one looks at any textbook on abnormal behavior, it is clear that perhaps one paragraph or a brief section is concerned with "normal" behavior, and the hundreds of other pages deal with the many varieties or classifications of "abnormal" behavior. Indeed, there is a tendency among many clinical psychologists, as well as psychiatrists to lump the 90 per cent of human behavior into the category, "normality". This process of categorization is, of course, identical with that of stereotyping.

The point I would like to make, once again, is that what characterizes psychology as a field of study, is individual differences. And that to employ the term "normal" behavior to characterize the infinite variety of personality and behavior, which Allport referred to in the famous dictum, "Anthropos is like all other anthropoi, like some other anthropoi, like no other anthropoi" (I hope the reader will forgive me for *anthropoi* instead of *men*) is, to say the least, a gross oversimplification and an immense stereotyping.

Let us look at the other applied areas of psychology. School or educational psychology is more concerned with the other side of the coin - the infinite variability of children, their personality,

their cognitive skills, their behavior. Although school psychology has its interventional aspect, with children who manifest learning problems and emotional problems, the most important contribution of educational psychology to education and personal growth has been to emphasize the creative side of human development; to focus on means of intervention - by school psychologists, teachers, educational programs - which would lead to fully developing one's capacities and abilities.

The new areas of applied psychology, e.g., economic psychology, health psychology, traffic psychology, are clearly concerned with areas of psychological knowledge which one would find it difficult to characterize as psychopathological.

### **Applications of psychology in the 21st century**

At this time, the end of the 20th century and the dawn of the 21st century, one is tempted to project what psychology's role will be. Historians have referred to the "industrial age", the "age of technology", the "post-modern" era. I firmly believe that the 21st century will be the "age of anthropos". With the knowledge that this statement can be interpreted as wishful thinking or perhaps superficiality, I would like to present a few examples of how psychological knowledge can be applied to new issues, of the next century.

#### **HIV infection**

One of the most serious illnesses of this century, which will rapidly multiply in the next, is AIDS. Two approaches are employed in fighting AIDS: the first is the search for a cure, and the second is prophylactic, to contain its transmission. Stimson (1996) states that prevention of the spread of blood-borne viruses such as HIV-1 poses a unique and critical challenge for social and behavioural scientists. He argues that although the investment in research in virology, immunology, vaccine development, disease

progression, and AIDS treatment, is an essential part of the societal response to HIV infection, the critical factor in containing its transmission is understanding the interaction between virus and population behavior. That is, HIV infection is fundamentally a behaviorally transmitted disease, passed on during intimate interactions. Containing the spread of the disease entails changing sexual habits, one of the most deeply rooted and biologically controlled of human behaviors - an awesome task by any means. There are few alternative options to educational and informational programs, which are of course based on social psychological techniques of attitude change.

### **Health psychology**

As indicated above, Fowler (1996) predicts that health psychology will be the largest area of applied psychology, much larger than the entire field of mental health. Health care psychologists will deal with the behavioral aspects of health problems and physical illness. As more effective treatments are developed for the common diseases and illnesses, the difficult to treat patient is likely to have physical disorders which are caused by or complicated by stress, emotional problems. The increase of the elderly people in affluent nations such as Europe and the United States will result in more psychologists specializing in gerontology. Because of new medical discoveries, many of the diseases of the elderly, for example, arteriosclerosis, arthritis, partial hearing and vision, strokes, will be treatable. The elderly will live longer and healthier. Even people with the most severe handicaps may anticipate improved functioning. Fowler states "We have been slow in letting other health professionals know about our services and how they can benefit patients who are not usually defined as being in need of mental health care" (p. 87).

### **Society, laws, and psychology**

It is interesting that societal means of attempting to control the spread of AIDS differ radically from society's usual means of controlling deviant human behavior, which is by passing laws forbidding specific behaviors or actions, as in the case of narcotic addiction or alcohol addiction. One of the subtle changes occurring at the end of this century, which will be magnified in the next, is the relationship of the citizen to the state. The reduction of nations with autocratic forms of governing, and the increase of democratic process in new nations, and a deepening of the change in nations of Western Europe and North America has resulted in a trend, in which governments attempt to persuade people to change their behavior, rather than forbidding it through laws. It is more difficult for current governments to pass laws, which in the past, citizens duly obeyed. There are reactions by the people, governments are more easily overturned in elections, heads of government pay increasing attention and make new policies according to the results of opinion polls. The power of police to enforce laws, to employ any and all techniques in order to obtain confessions from suspected criminals, has been greatly curtailed. Laws have been passed which grant protection from police brutality to suspects. The penitentiaries are full and governments are so concerned about the cost of constructing new prisons that they are considering whether to change laws and the rehabilitation of prisoners. To punish law breakers so that they will never repeat the crime and as a forewarning to others not to commit the crime, is an attitude of society as old as history. To educate them, to encourage prosocial attitudes and behaviors, reflects the archetypal philosophy of psychology. Indeed, one reason why the world has changed so much has been the expansion of basic education to all the people in a nation, with the increase in literacy, in most nations throughout the world. And it is clear that psychological knowledge has been the key factor, not only in the better transmission of knowledge in the schools, but also in stressing

the psychosocial aspect of the educational experience. Education, with the aid of psychological principles, has resulted in more profound changes in attitudes and behaviors of citizens of nations during the past century, than all the punishments and prisons of the past millennia.

### **Economics and psychology**

Economists in this day and age still base their mathematical models on the 19th century prototype of "rational man". It is astonishing that there is no dialogue between economists and psychologists. Economists are not aware of the body of knowledge in psychology regarding motivation. People do not invest, nor do they put money in the bank solely in order to "maximize profit and reduce loss". Some people are very conservative in their financial behavior while others are risk takers, or gamblers, without regard to the consequences. The understanding of consumer behavior cannot be based solely on demographic data, such as gender, religion, level of education, income level, which are primarily social measures. The new field of economic psychology is attempting to bridge this gap between the two disciplines.

### **Ecology and psychology**

It is clear that the biggest problem of the 21st century will be the relationship of anthropos with ecology of the environment. We know that there are at least two ways to confront the increasing danger of the destruction of the environment. The first is through laws regulating industry, and the second is through changing attitudes and behavior. Bernhard Wilpert presents his work on the prevention of accidents and indeed major disasters, such as Chernobyl, Bhopal, Challenger, Herald of Free Enterprise, Exxon Valdez. The possibility of such disasters in the next century is increasing. In highly complex socio-technical systems, the complex interaction

of technical, as well as human, social, organizational, managerial, and environmental factors as co-contributors of incidents and accidents, but also in the efficiency of industries, are part of the core of psychological knowledge, as Berndt Brehmer from Uppsala University, who works in the area of safety systems related to pilot-aircraft systems, discussed in this symposium. The concerns with the ecological system and its potential harm to anthropos always have, as a point of reference, social influence and changing the attitudes and behavior of people - whether they are, for example, residents of a city, or members of parliament, or chief executive officers of multinational organizations.

### Urbanization and psychology

The process of urbanization is related to the diminishing economic contribution of the individual farmer and the increase of huge agricultural businesses. Finding solutions to the urban crises of large cities constitutes a major challenge for governments and local authorities. These problems concern issues of the physical environment, for example, air pollution, few parks or open space, litter, traffic congestion, and also issues related to social problems, for example, crime and violence, narcotics, tensions between ethnic groups. Governments usually appeal to the expertise of urban planners, architects, economists, sociologists, etc. And yet, *psychological space*, *space-identity*, are psychological concepts developed by social psychology, which could contribute to the solution of these problems of urban areas (see Georgas, 1994; Georgas & Christakopoulou, 1992a, 1992b, 1993).

### Sport psychology

It is interesting that one of the applications of psychology, athletic or sport psychology, is rapidly gaining the attention of the public,

because of significant impact of television, which has advertised many achievements of athletic psychology. The public has become aware that in many individual sports, such as tennis or track, sport psychologists have played decisive roles in aiding athletes to become confident of their abilities, in reducing the psychological and physiological effects of stress, increasing concentration, and increasing performance, during competition. The employment of sport psychologists in team sports such as football, basketball and others is commonplace. Indeed, the acceptance of the role of psychologists in organized athletics is such that trainers accept as a fact that physical ability and training are only part of the formula for athletic success, and that it is the systematic psychological preparation which leads to championships.

### Taking an active role in projecting psychology

The common theme that runs through all the above issues, which will increasingly absorb the attention of governments throughout the world in the next century, is *anthropos*. And yet, governments rely primarily on experts from the other sciences, with only little knowledge of what psychology can offer.

I strongly believe that psychology can rise to these challenges of the 21st century; that psychology has the knowledge and means of effectively reaching out to anthropos and aiding him/her to change; that psychology can play an important consultative role in governmental policy planning.

Returning to our original question, what is the image of psychology today, not only in Greece but in much of Europe and throughout the world, I would argue that psychology must not be self-satisfied with its image, it must be not satisfied to produce knowledge that will be published only in scientific journals and appreciated and understood only by one's colleagues. The impact of psychology on society, its image, is very limited. It is up to us to determine methods of reaching out to decision making bodies, to

governments, and to inform them of the multifaceted potential of psychological knowledge and methodology. This may take the form of active lobbying in parliaments, as with the American Psychological Association. The APA has undertaken an active role in advising the American Congress on all issues which may be related to psychological issues. It has a Board for the Advancement of Psychology in the Public Interest, and also a Committee on Public Information.

There may be some disagreement with this relationship of psychology to government. As Ulric Neisser discussed during this symposium, there is a danger of psychology being a service of government policy, which could lead to the manipulation of human behavior. Neisser takes the position that he is a scientist, and as such, prefers to remain apart from entangling alliances with politics. I would disagree with this position, although I respect his decision to remain within the laboratory. My main thesis in this symposium, indeed, is that the application of psychological knowledge necessitates that psychology, as a science and in its application, find ways to influence governmental bodies. Is there a danger that psychologists will construct societies and will manipulate human behavior in the fashion that Skinner described in *Walden Two*? Is there a danger that governments will attempt to employ psychologists and psychological principles in order to control public opinion, to control dissent, to remain in power, and other actions deleterious to individual freedoms? Yes there is. And indeed, history has taught us that politicians seek any and all means, legal and illegal, in order to maintain power and to control its citizens.

This is exactly why psychology as a science and profession, through its national and international associations, must attempt to come into contact and influence governments. First, the code of ethics of psychological associations specifically disapproves of situations in which human behavior is manipulated by others, whether psychologists or governments. Second, the acceptance by governments of the consultative role of psychology and

psychologists is a relationship which binds both parties to a *social contract*, if psychological associations take an active stance in seeking this type of contract. If psychology were to make a decision to remain aloof from governments, lest they perchance become a partner to manipulation of humans through the powerful techniques of influence, the inevitable outcome would be that governments would entice individual psychologists who through inducements, might willingly attempt to carry out, without any qualms, any or all governmental policy. Thus, the presence of responsible psychologists in positions which can influence governmental policies, and the concomitant presence and public stance of psychological associations on these issues, can have the opposite effect - of *acting as a barrier against manipulation of human behavior by government*. Psychology can and must apply its knowledge responsibly, within the political framework of society. If we do not, there is a greater danger of misuses of psychological techniques by individual societies or by governmental agencies.

### Conclusions

In closing, I believe that if we believe in our science, that psychology can aid in solving many of the problems of the human condition, we should find effective techniques of projecting a truer image of psychology, and must find means of influencing governmental policies. It is not enough for us to sit in our ivory towers. We must be aware that the image we project to society is only partially correct. Indeed many in society, not the less educated, but usually the leaders in society, confuse us with psychiatry. Although one area of applied psychology has to do with psychopathology, it is clear that the main body of psychological knowledge is concerned with the creative development of abilities, with individual differences, within the framework of social structure and culture. We know, but others do not, that psychological knowledge is applicable in generating development and harmony in all



spheres of society, that is, to education, to industry, to government, to politics, to law, to athletics, and other areas.

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