Different Psychological Perspectives on Cognitive Processes

Different Psychological Perspectives on Cognitive Processes: Current Research Trends in Alps-Adria Region

Edited by

Alessandra Galmonte and Rossana Actis-Grosso

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PREFACE

ROSSANA ACTIS-GROSSO[1]
AND ALESSANDRA GALMONTE[2]

Since their foundation, the psychological sciences have been multifaceted in nature, with a variety of theoretical and methodological frameworks guiding the research. Situated within a theoretical framework, studies of the human mind have approached it from various clinical, social, developmental or neurophysiological perspectives. Diverse methodologies can be usefully applied in a theoretical framework: behavioural data can be supported by psychophysiology or neuropsychological data can be corroborated by patients' self-reports; statistical analysis can be used to reveal the attitudes and opinions of the majority of a population or to better understand the individual differences inside a population.

There are many reasons why a scientist favours a given theoretical and methodological approach over another. Some are grounded in the particular philosophical and epistemological environment which, in turn, is rooted in its history. Although the orientation of the international scientific community is toward establishing a uniformity of methodology, predominant in Anglo-American science, there are clear regional differences characterizing the theoretical approach to scientific research carried out in other geographical areas. These differences derive mainly from historical events. In each region, the study of the human mind has been strongly influenced by the background of the first academic who founded a psychology laboratory in the region, and who wanted psychology to be taught in the academy as an independent subject (and not, as was once usual, as a branch of philosophy).

Oftentimes, the founder of the first psychology laboratory in a region was also the founder of a school of thought on psychology itself, and the ideas on which this school of thought were grounded are reflected in the

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way psychology is now studied in that region. For example, psychophysics was founded in Germany by Gustav Theodor Fechner (1860) as a "new" way to measure subjective dimensions, such as lightness or loudness, bridging in this way the gap between physical quantities – such as the heaviness of a body – and psychological quantities – such as the perceived heaviness of that body and the estimated effort needed to raise it. Modern approaches to psychophysics, such as the signal detection theory (e.g., Swets, 1964), measure what the perceiver's judgment extracts from the stimulus, putting aside the question of what sensations are being experienced. Although from a historical viewpoint this could be seen as a generic development of the discipline, in fact a theoretical difference is hidden behind this apparent development. In Fechner's research programme, psychophysics was meant as a new discipline, which, starting from natural physics, should be developed as an independent subject, a sort of "physics for psychology", where human perception is not merely considered as a way to detect the external world but rather as a way to construct a "new" reality (i.e., the internal world that can be studied and measured). In other words, Fechner wanted to develop a method to study consciousness, whereas for modern psychophysics, chiefly developed in Anglo-American science, the internal world is seen as a more or less faithful copy of the external world, and in this perspective the main aim of modern psychophysics is to measure "the error" made by the perceiver with respect to the external world. For many years, this broad division persisted between a theory which puts consciousness at its centre and a theory which, on the contrary, considers the human being as a part of the physical world and regards the problem of consciousness as simply unimportant. These irreconcilable standpoints serve as a backdrop to the development of many different approaches to the study of human psychology. To limit the discussion to the field of visual perception (which happens to be the field of the two editors of this book), this theoretical difference is especially clear when we compare studies on this field. In those originating from Central Europe, the focus of interest is on the perceptual outcome (such as visual illusions or the perception of animations where moving items are seen as intentional or causal). This contrasts with studies from Anglo-American areas, where the primary focus is on the difference between the physical stimulus and the perceptual outcome: the difference is considered an "error" and studied as such.

The consequence of these divergent conceptions of how to conduct psychological studies, still mirrored in some contemporary studies, was that for decades many European studies were ill received by Anglo-American circles and ultimately ignored by the international community.

For example, the work by Albert Michotte, who developed an important theory on event perception during the first half of the last century, was strongly criticized because it was based on a method, so-called experimental phenomenology, which was considered unscientific. Danziger (1985) dubbed Michotte's method the "Leipzig model": according to Danziger the Leipzig model assumed the interchangeability of the experimenter and the experimental subject (they are often the same person!), because in this model the role of subject was not simply to provide responses but to offer descriptions that would warrant the use of the proper terms. According to Costall (1991), "The observers were themselves meant to be involved in the process of theory development." (p. 56). Conversely, the scientific method – called the Paris model - requires a rigid distinction between experimenter and subject and a rigorous experimental setting, so to ensure that the subjects would be unaware of the aim of the experiment. Yet, throughout Europe a myriad of schools of thought grew and thrived – each with its own methodologies – mainly based on the "Leipzig model" (such as the phenomenological school of Meinong and Brentano which strongly influenced the development of psychology in Central European countries such as Germany, Italy, Austria, and Belgium). What made the so-called Paris model attractive was that it was adopted by scientists with an education in medicine – such as von Helmholtz, just to cite one eminent proponent – and very soon became the recognized standard for "scientific" methods also in psychology. Accordingly, Michotte's experiments were regarded as "demonstrations", his research considered as simply descriptive (and almost exclusively referred to the perception of causality), and its underlying theory almost completely neglected. A similar treatment was dealt to the most influential theorists of Gestalt Psychology. For example, Marr (1982) referred to their work as characterized by "mathematical ignorance" (p. 186) and as "lacking the idea of a process" (p. 187), whereas in Europe it is well known that working within the Gestalt School were some of the keenest mathematicians of the times who had a very clear "idea of a process".

The fact that the majority of the papers and books by these scientists were not written in English created an addition obstacle to wider acceptance of their theories. The language barrier meant that young scientists trained in some of the most prominent European schools found it extremely difficult to have their work published in international journals. This inevitably deepened the gap between different schools and did not motivate the young scientists to learn English in order to engage in fruitful scientific discussion of the main issues of their research.

Today, the majority of those studies and theories, including for example Michotte's and Koffka's research, are being reconsidered in light of recent discoveries in the field of neuroscience (e.g., mirror neurons [Fadiga, Fogassi, Pavesi, & Rizzolatti, 1995] or the social neural network [Wheatly, Milleville, Martin, 2007]) which highlight the validity of data collected using different methodologies and the insightfulness of the theories developed on those data.

The problem of conscious experience – and the difference in the methodology applied to study it – is just one of the many "hidden" issues to be found in the different approaches to the study of the human mind. However, different schools of thought are not necessarily coincident with precise geographical areas. For example, two of the most important names in the history of psychology - William James and James Gibson - were strongly influenced by European studies, whereas many European works may be more likely framed in the Anglo-American mainstream. This, besides the fact that different methodologies often subtend different conceptions of the human mind, allow different groups and tendencies to coexist not only within the same discipline but also in the same country, and lead young scientists to exchange methodologies - and relative concepts and languages – in those countries. This exchange, together with a growing awareness of the importance of different perspectives on so a complex matter as the human mind, brought to maturity also those schools of thought marginalized by the mainstream.

Some of those schools are well represented in the Alps-Adria region (and therefore represented in this book). The reasons why psychology has been developed in different ways in different countries can be seen in the first section of this book, which outlines a brief history of psychology in each country in the Alps-Adria region. The first section starts with a foreword –by Herbert Janig - on the Alps Adriatic Working Community. We think that this introduction also gives a good overview of the main reasons why we decided to edit this book. According to Janig, the Alps Adria Rector Conference (AARC) "..believes that harmonious coexistence and efficient collaboration of the peoples and communities of the different regions constitute the characteristics and specificities of the present cultural landscape of the Alps-Adria region in Europe. These particulars are well represented in the history of this unique European territory and in the spirit of coexistence, which distinguishes its inhabitants who have developed and exerted conscious resistance to every attempt of abuse and uniformity. Furthermore, the AARC believes that the history and the spirit of the Alps-Adriatic communities strengthen internal binding among the

European nations and represent a consolidated model for the present and future states of the European Union."

It is in this spirit that we bring together authors from different geographical areas and with a different approach to the broad discipline defined as "Cognitive Science", which encompasses psychophysics, learning and problem solving, neuropsychology, language and reading, methodology and many other topics. We hope to have highlighted some of the main lines of research in cognitive psychology in the Alps-Adria region, underscoring the concept of "unity in diversity" (as Janig states in the Introduction) that has characterized the Alps-Adriatic community. Furthermore, it is now a necessary attribute for science, where interdisciplinarity is both highly encouraged and increasingly accepted. We think that inter- and crossdisciplinarity are in the real nature of Alps-Adria community, where historically its inhabitants have exchanged ideas and engaged in trade beyond the boundaries of their own community. For this reason, we trust that this book will provide a basis for a fruitful exchange not only inside the community but also beyond both geographical and theoretical borders.

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References

Costall, A. (1991). Phenomenal Causality. In Costall, A., Thines, G., Butterworth, G. *Michotte's experimental phenomenology of perception.* Hillsdale, N.J.: L. Erlbaum Associates, 1991, pp. 51-116

Danziger, K. (1985). Origins of the psychological experiment as a social institution. *American Psychologist*, 40, 133–140.

Fadiga, L., Fogassi, L., Pavesi, G., Rizzolatti G. (1995). Motor facilitation during action observation: a magnetic stimulation study. *Journal of Neurophysiology,* 73, 2608-2611.

Marr, D.C. (1982). *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information.* New York: Freeman.

Swets, J.A. (ed.) (1964) *Signal detection and recognition by human observers*. New York: Wiley

Wheatly, T., Milleville, S.C., Martin A. (2007). Understanding animate agents. Distinct role for the social network and mirror system. Psychological Science, 18, 469-474

SECTION 1

WHAT IS ALPS ADRIA AND SOME NOTES ON THE HISTORY OF PSYCHOLOGY IN THE AREA

THE ALPS-ADRIATIC REGION: AN UNUSUAL FRAMEWORK FOR THIS BOOK

HERBERT JANIG[1]

What does a collection of essays on the topic of cognitive science have to do with the Alps-Adria region and the development of scientific psychology at the universities of the region? A valid question – and here are some clues to the answer. The contributions to this collection reflect the topics usually treated at the Alps Adria Psychology Conferences. These conferences take place regularly and form the core of a 25-year cooperation between the psychology departments in the Alps-Adria region.

1. Scientific Conferences

In the 19th century, scientific societies for various disciplines developed – at least within national borders. Increasingly, throughout the 20th century international scientific associations developed without displacing the national ones. And thus parallel structures emerged. The Alps-Adria Conferences are neither national conferences nor international professional meetings but rather represent a special category. Obviously, there is a need for regional conferences in which colleagues from neighboring countries can participate in order to represent the discipline of psychology in its entire breadth.

Nowadays we recognise at least three developments in our science of psychology:

- a differentiation or separation of the different subdisciplines of psychology, sometimes with different methodologies,
- an increase in interdisciplinary research between psychological and non-psychological fields of research (e.g., neurocognitive science, computational science, cognitive science, etc.) and

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- a development of transdisciplinarity to solve practical problems in energy, environment or health, like healthcare management, and technology assessment.

Both interdisciplinarity and transdisciplinarity seem to be an adequate reaction to the mentioned phenomena of rigidity or constriction of science, but they need the foundations of scientific disciplines. On the other hand, the traditional disciplines also need the new dimensions of interdisciplinary and transdisciplinary research and application (Ash, M.G., 2004). These developments are reason enough to cooperate over and above national and discipline boundaries. The Alps Adria Conferences offer a low-threshold possibility for exchange.

2. Alps-Adriatic Region

One can ask why the Alps-Adria region can serve as a political-geographical context for the now nine scientific conferences (cf. following explanation [Janig, H., 2005]). It is important to consider our shared history in this context. What forms the characteristics of the Alps-Adria region? Although located geographically in the centre of the European continent, the region has always been of peripheral interest to the European centres of power. Two main European traffic routes intersect this region: the first running North-West to South-East along the rivers Save, Drau, and Mur, the second from North-East to South-West following the Pannonian plain and ultimately reaching the Adriatic Sea.

The Alps-Adria region has a geographically diverse structure, comprising the Alpine highlands of the Southern Alps, the Sub-Mediterranean and Mediterranean areas in the east and the midwestern areas of northern Italy, the southern Dinarian territory, and the Pannonian areas in the East.

But also from a historical and political point of view the region is multifaceted - ethnic diversity, landscape variety, and peripheral position with regard to the rest of Europe have stimulated greed in various external powers (Moritsch, A., 2001). Throughout history, the region became the battlefield where martial conflicts of interest - such as those of Rome, Byzantium, Istanbul, Vienna, Venice, and Belgrade were fought. Despite the political goals and power plays waged by the European capitals, the inhabitants of the Alps-Adria region have consistently maintained a lively cultural exchange and traded extensively, exchanging raw materials and dealing in goods.

The response to the question of whether this region can be defined from a geographical or historical point of view is NO – if we are to trust

statements by historians. The differences in the way of life, the conditions of life, and the national political interests seem far too contrary; in addition, the partly shared regional history has alienated as well as consolidated the people living and working here. Nevertheless, the Alps-Adria region is a paradigm of European variety within the smallest geographical space, featuring a strong interregional communication and a strong integrative force. Apart from the disastrous history of military actions and conflicts in our region, there is a "rather suppressed history of cooperation and unity" (Rumpler, H., 2001; p. 517) - in my opinion all the more vivid and fruitful for the people of our region.

Considering the possibility that one cannot attribute to this region a historical uniformity - what could it be that evokes the intensive ties between the people here? Apparently, the flair exuded by this region that unites so much diversity and brings forward uncounted positive virtues. Perhaps this could more aptly be referred to as the enigma of the Alps-Adria region.

3. Alps-Adriatic Working Community (AAWC)

The Alps-Adriatic Working Community (AAWW) was founded in Venice in 1978. By signing the “Joint Declaration, the informal amicable relationships between the border regions were transformed into an organization with clearly defined tasks and aims.” But it was more than just a formal act that marked the birth of the Alps-Adriatic Working Community – it was an important step on the way to a future for Europe. Today, the Alps-Adriatic Working Community counts 11 members: Baranya; Burgenland; Friuli-Venezia Giulia; Carinthia; Croatia; Lombardy; Upper Austria; Slovenia; Styria; Vas; and Veneto (http://www.alpeadria.org/english/index.php?page=1075458018&f=1&i=1075458018, 9.7.2010). Article 3 of the Joint Declaration states: The task of the Working Community is joint informative expert treatment and co-ordination of issues in the interest of its members. Specifically, the following will be dealt with: trans-Alpine traffic links, port traffic, generation and transmission of energy, agriculture, forestry, water management, tourism, environmental protection, nature conservation, landscape care, preservation of cultural and recreational landscape, regional development, settlement development, cultural relations, contacts between scientific facilities. Commissions may be installed for the purpose of expert consultation.” (http://www.alpeadria.org, 16.2.2010). Moreover, the statement issued in 2008 specifies, “This cooperation has to be seen, above all, as a service to the people, in particular in the fields of education and

human resources, as well as in the social and health sectors. It also has to be rooted in the joint acknowledgment of the fundamental values of dignity, freedom, equality, solidarity, civil values and justice, as laid down in the Charter of Fundamental Rights of the Europe Alps Adriatic Working Community Mission Statement" (http://www.alpeadria.org, 16.2.2010).

However, the Working Community did not develop from "nothing". Already in the 1940s, the first cross-border contacts between Friuli-Venezia Giulia, Carinthia, and Slovenia were established. The goal was to prepare for peaceful future development with cultural, sport and economic events. In 1969, a four-country commission was established - including Croatia - for cooperation in issues of tourism, as well as urban and regional planning. By the middle of the 1960s an active diplomacy based on mutual visitations at the political level provided the basis for the founding of the AAWC (http://www.alpeadria.org, 16.2.2010).

The Alps-Adriatic Working Community does not exist for itself alone. It is represented at the assembly of the European regions, in the Alpine Convention, and maintains close contact with the European institutions in Strasbourg and Brussels. It thus supports the European process of unity, as well as the integration of states not yet members of the EU. Hellwig Valentin, the former secretary general of the AAWC wrote, "The Alps-Adriatic Working Community is not only responsible for European integration, but also helps to break the external borders of the EU. Due to the geopolitical changes in the Alps-Adriatic area, the Working Community finds itself faced with new and significant challenges."

He continues, "'Alps-Adriatic' has become a term for good neighbour policy that places more importance on mutual interest than on divisive issues.... It is a sort of counterbalance to the national borderline strategies, standing for the preservation of linguistic and cultural varieties. The Alps-Adriatic Working Community focuses on the common identities that emerged during the centuries of coexistence of the people in this area. Thousands of people get involved with the Alps-Adriatic activities every year and help to animate this idea. Activating the huge intellectual and emotional potential, the Alps-Adriatic Working Community looks confidently toward the future." (http://www.alpeadria.org, 16.2.2010).

The Villa Manin Declaration of 19 November 2009 states, "The Alps Adriatic Working Community decided to become a major player in the development of a macroregion as an interface between the Danubian, Alpine, and Adriatic areas. Moreover, it shall position itself as a partner for the regions in Central and South-East Europe. The main tasks are the implementation of strategies that are instrumental to achieving an optimal integration between different development policies, following a variable

geometry method, whereby several issues may be addressed by different partners depending on their focus of interest." (Villa Manin Declaration, 19 November 2009, http://www.alpeadria.org, 16.2.2010).

The Alps-Adria region can be seen as a lively community with minimal state and geopolitical responsibilities that establishes and fosters cultural, economic, and scientific relationships. It lives through its bonds of its common historical togetherness, voluntarily connected to each other, and supported by formulated goals and declarations of intent.

4. Rectors' Conference of the Alps-Adria Region (AARC)

In 1979, one year after the founding of the AAWC, the Rector's Conference of the Alps Adriatic countries was constituted as a subsidiary in Graz (Austria). The Rector's Conference should serve crossborder cooperation in research, teaching, science and culture. Included in this are subsidies for projects for solving social problems, mobility of teachers and students, the harmonizing of academic degrees, the use of resources, scholarship awards, as well as a unified presence on the international level. In its concepts and conventions, the AARC adheres to the principles of a "Europe of Regions".

"AARC acknowledges and observes the legal regulations valid at both the EU and national levels but, at the same time, aims at creating more elaborate forms of interrelationships between different communities within the established legal framework, not necessarily limited to national states. Cooperation ought to reflect the diverse cultural specificities present in the European Union and the neighbouring areas in the expanding European context.

The AARC believes that harmonious coexistence and efficient collaboration of the peoples and communities of the different regions constitute the characteristics and specificities of the present cultural landscape of the Alps-Adria region in Europe. These particulars are well represented in the history of this unique European territory and in the spirit of coexistence, which distinguishes the inhabitants who have developed and exerted conscious resistance to every attempt of abuse and uniformity. Furthermore, the AARC believes that the history and the spirit of the Alps-Adria communities strengthen internal binding among the European nations and represent a consolidated model for the present and future states of the European Union.

As a protector of this cultural memory manifested as "unity in diversity" through the various forms of reciprocal collaborations and willingness to conserve and deepen friendships, the AARC seeks to promote the

voluntary and democratic stabilization of this sophisticated complexity called the Alps-Adria region. (http://www.uni-bamberg.de/fileadmin/uni/leitung/AARC/AARC_AGREEMENT_May_2008.pdf, 9.7.2010).

5. Alps-Adria Psychology Conferences (AAPC)

Both the AAWC and the AARC set the stage for initiating the cooperation between the university psychology departments of the Alps-Adria region. At the end of the 1980s, the Austrians began the internationalization process. In the beginning, it was private individual initiatives that marked international mobility and cooperation in the area of higher university education. Today, there are various mobility programs, exchange programs, and cooperation programs that entail enormous administrative and organizational work. Organizational structures have replaced individual initiatives (Pechar, H. et al., 1998). These authors describe the years after 1985 as the innovative beginning era of internationalization with a creative spirit of optimism. Added to that, the opening of Eastern Europe "was seen and used by Austria as a historical chance for cultivating an international political profile" (Pechar, H. et al., 1998; p. 211).

These organizations appeared to the author to be suitable for comparing the traditional academic approaches with an orientation consistent with the region's geographical, historical and cultural connections.

When the preparations for cooperation began, there were two primary considerations. First, academic psychology was faced with new and increasing expectations to find solutions for individual, social, and political problems. The second was based on the fact that the psychologists working in academia were already internationally well connected in the scientific community through their professional associations - mostly with a clear orientation toward Anglo-American cultural areas – or they could also make use of the dense national networks. However, there was no possibility to do so with the crossborder neighbors in the Alps-Adria area.

The considerations were persuasive enough to allow private initiatives to develop, which eventually led to a series of conferences, numerous scientific contacts with teachers and students in the various departments, and the founding of a professional journal. The founding of the AAPC was not attributed to official university politics nor was it established "from above". The first conference took place in Klagenfurt in 1987, followed by conferences held in Triest in 1991, Ljubljana in 1992, Zagreb in 1996, Pecs in 1999, Rovereto in 2002, Zadar in 2005, Ljubljana in 2008, and Lignano in 2012, and in Pecs 2014, each with numerous presentations by

highly recognized academics and attracting an increasing number of participants.

Finally, and summing up, one can notice that:

- The Alps-Adria cooperation among psychology departments is based on a mutual idea - difficult to specify - an enigma?
- our conferences are devoted to international companionability, whilst resting on a solid scientific base
- the success of this collaboration is due to the efforts of many colleagues within the partner institutes
- young scientists are offered the chance to develop their profiles and to acquire international experience through the AAPC

Summary

Over the last 25 years, the political situation of higher education has changed in the countries of the Alps-Adria region. During this time, Alps-Adria cooperation has continued to grow and today is stronger than ever. By virtue of its informal organizational structure, it can overcome some of the bureaucratic hurdles typical of nearly all university structures everywhere.

The continuing success of the Alps Adria Psychology Conferences, the increasing number of participants and lecturers, as well as the high quality of the contributions all show that regional conferences in the general area of psychology are a stimulating forum for scientific cooperation and exchange of ideas and experiences, and where conviviality also plays an important role. These particular features distinguish them from international scientific professional conferences and the general national conferences.

The Alps Adria Psychology Conferences provide an opportunity for the exchange of ideas, perceptions, and experiences. As such, they have become an example for lively cooperation within Europe – of which this anthology is a good example.

References

Ash, M.G. (2004). Zeitpunkte. Geschichte eines Kongresses als Geschichte einer Disziplin. Psychologische Rundschau, 55, 3, 107-117.

Janig, H. (2005). Alps-Adria Psychology Conferences 1987-2005. in Department of Psychology, University of Zadar: 7th Alps Adria Conference in Psychology 2005, Zadar, p. 9-12.

Moritsch, A. (2001). Geographische Voraussetzungen der Geschichte der Alpen-Adria-Region. In: Moritsch, Andreas (Hrsg.). Alpen-Adria. Zur Geschichte einer Region. Klagenfurt: Mohorjeva-Hermagoras, 11-36.

Pechar, H. et al. (1998). Internationalisierung der österreichischen Hochschulen. HOFO Working Paper Series 98.002, Vienna: IFF.

Rumpler, H. (2001). Verlorene Geschichte. Der Kampf um die politische Gestaltung des Alpen-Adria-Raumes. In: Moritsch, Andreas (Hrsg.). Alpen-Adria. Zur Geschichte einer Region. Klagenfurt: Mohorjeva-Hermagoras, 517-569.

A BRIEF HISTORICAL INTRODUCTION

1. Austria (by Herbert Janig[1])

With the appointment of Franz Brentano in 1874 to the University of Vienna, the pivotal fusion of modern psychology and philosophy of the methodological guidelines of natural sciences began. In his book, *Psychology from an Empirical Standpoint*, he created his program of "descriptive" psychology. Brentano strove throughout his entire teaching career at the University of Vienna to establish an Institute of Experimental Psychology; however, this was prevented by the school authorities.

With the appointment of his student, Alexius Meinong, experimental psychological exercises were held at the University of Graz from 1886 onwards. In 1894, the first experimental psychology laboratory in Austria was established under his leadership. Meinong's assistant, Vittorio Benussi, was appointed professor of Gestalt Psychology in 1905 and headed the Graz Institute for some time. In 1920, he taught at the University of Padua where he became one of the founders of the Italian school of Gestalt Psychology.

In 1896, Franz Hillebrand set up an Institute of Experimental Psychology at the University of Innsbruck. Parallel to the development of academic psychology at the philosophical faculties, a multifarious psychoanalytical and individual psychologically aligned psychological tradition, based at the medical faculty of the University of Vienna, established itself. However, to date it has had no strong connection to academic psychology. Famous names from the early days of this tradition are Sigmund and Anna Freud, Alfred Adler, Sandor Ferenczi, Ernest Jones, Paul Federn, and Otto Rank among others.

In 1922, Karl Bühler was appointed to Vienna and, jointly with the City of Vienna, set up the first Psychology Institute at the University of Vienna. Together with his wife, Charlotte, he built up an extensive fundamentals researched and application-oriented psychology which attracted many students from many countries. Renowned Ph.D. students included Marie Jahoda, Paul Lazarsfeld, who many consider to be the

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founder of modern social research, Ernest Dichter, Egon Brunswik, Karl Popper, and Konrad Lorenz.

In 1938, both Karl Bühler and Sigmund Freud among others had to leave Austria. University psychology was then managed by political cronies for some years. Surprisingly, in 1943 Hubert Rohracher, an opponent of national socialism, was appointed to the University. He is said to have influenced university psychology in Austria until the late 1960s.

In 1964, the Psychology Department was established at the University of Salzburg and one also in Klagenfurt in 1978. In 1993, the Austrian Society for Psychology was founded, which is noteworthy, as there had been no independent representation of the Austrian psychological scientific community hitherto and Austrian colleagues at universities aligned with a regional group of the German Society for Psychology and were thus represented by them.

Currently in Austria, hopelessly overcrowded bachelor, masters, and Ph.D. programs are provided at five state universities. Three private universities offer bachelor and master degree programs.

2. Croatia (by Mirjana Krizmanić[2] & Vladimir Kolesarić[3])

Scientific psychology in Croatia began its development when Ramiro Bujas founded the laboratory of experimental psychology at the School of Medicine, University of Zagreb, in 1920. This year is taken as the formal beginning of the development of scientific psychology in Croatia; although Elsa Kučera a few years earlier performed psychological experiments in her own private laboratory. Elsa Kučera received her Ph.D. in 1909 with Gustav Störring in Zürich. Before 1920. psychology was included into the curriculum of secondary schools, while at the University it was only a part of philosophy. The first study of psychology in Croatia was also founded by Ramiro Bujas in 1929 at the Department of Philosophy in Zagreb (today Department of Humanities and Social Sciences). Until the Second World War, psychology in Croatia was represented only by the research activities of Ramiro and Zoran Bujas, who were both distinctly experimentally oriented. The post-world war era was characterized by an increase in the number of psychology students

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and the burgeoning of applied psychology due mostly to the efforts of Zoran Bujas.

Croatia has five independent departments of psychology, located at universities in Zagreb (two) Rijeka, Zadar, and Osijek. Credit for the constitution of the Croatian Psychological Association in 1953 goes, again, to Ramiro Bujas. In 2003 the Croatian Parliament passed legislation regulating the psychological profession; and in the same year the Chamber of Psychologists started its work. Currently, there are some 2400 psychologists in Croatia. Most practice psychology in education, health services, army and police services, jurisprudence and penal institutions, professional sports, and marketing. A national conference of Croatian psychologists is held annually.

Psychological research is done for the most part at the departments of psychology (i.e., at universities), although most psychologists in Croatia are experimentally oriented. There are three exclusively psychological journals: Contemporary Psychology, Review of Psychology (published only in English), and Rijeka's Psychological Themes. Contemporary research activities are quite diverse, and are generally experimentally or quasi-experimentally based. At the present, there are several dominant fields of research: the causes of violence at school, the workplace, and in the family; consequences of Homeland war in Croatia during the 1990s and the optimal ways of taking care of war victims, and also in the realm of organization/industrial psychology.

3. Hungary (by János László[4])

The first psychological laboratory was established at the Neurological Clinic of Budapest University in 1895. The second laboratory was opened in 1902. Its founder was Paul Ranschburg, who described, among other things, the phenomenon of homogenous inhibition. The current Institute of Psychology of the Hungarian Academy of Sciences grew out of this laboratory. During the first third of the twentieth century, psychoanalysis became very popular in Hungary (Budapest School of Psychoanalysis: Ferenczi, Bálint, Alexander). In 1919 Sandor Ferenczi founded a short-lived independent department of psychoanalysis at Budapest University. Another cultivated area was "geisteswissenschaftliche Psychologie" (national characterology, typologies). In experimental psychology, Hungarian

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psychologists worked in Germany, the Netherlands and the United States (e.g., Lajos Kardos who worked on object perception or Géza Révész who worked on musical perception and talent) .

University training of psychologists began after WW II at Budapest University, but it was forced to pause for about 10 years during Stalinism. The first chairman of the Department of Psychology was Lajos Kardos. Training re-started in 1960 on a very low scale (8-10 students in each year). The number of students has grown ever since, with about 400 today at the MA level. The second university department was opened at Debrecen University in 1974, and the third in Pécs in 1989. (These departments, like the subsequent department at Szeged University were formed out of the psychology departments of former teachers' colleges; however, in Pécs there were substantial traditions in psychophysiology at the Medical School where Endre Grastyán worked.) Currently, there are six universities offering psychology training, one research institute at the HAS, and two doctoral schools (Eötvös University Budapest and University of Pécs.)

The Hungarian Review of Psychology started in the 1930s. Today, there are three academic journals published in Hungarian.

Post-graduate training for professional psychologists (clinical, work- and organizational, counselling, etc.) started in the late 1960s with clinical psychology, which is the most popular field even today. Today, there are five other fields where certificates can be obtained.

4. Italy (by Riccardo Luccio[5])

Scientific psychology began in Italy in the last quarter of the 19th century. The scholars were all representatives of positivism, and particularly distinguished among them were the psychiatrist G. Buccola (Reggio Emilia), the philosopher R. Ardigo (Padua), and the anthropologist G. Sergi (Bologna / Rome). The first chairs of psychology were established in 1905 in Turin (with F. Kiesow, a student of Wundt), Rome (with S. De Sanctis, a psychiatrist), and Naples (with F. Colucci, a psychiatrist). Gradually, new centres of learning and research arose, particularly in Florence (with the spiritualist F. De Sarlo and his student E. Bonaventure), Padua (with V. Benussi, a pupil of A. Meinong in Graz, and whose pupils included C. Musatti, F. Metelli, and G. Kanizsa, which would give rise to a strong Gestalt school), Milan (with A. Gemelli, who adhered to neo-

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Scholasticism and was linked to the Leipzig School of). This development was interrupted under the Fascist regime, which denied the scientific value of the psychology and suppressed research funding and university chairs in the field.

The post-war era saw a new development that enjoyed particularly rapid growth starting in 1969, when the first two departments of psychology were established in the University of Padua and Rome; until then, psychology was taught in the departments of philosophy, education and medicine. The number of psychology departments has gradually grown: today there are 18 in 16 universities. In total, 43 bachelor courses and 62 master level courses in psychology are offered at 37 universities. Ph.D. courses in psychology are offered in 26 universities.

The universities where research is particularly actives and also internationally recognized (in no order of priority, from North to South and from East to West) are: Trieste (cognition, perception); Padua (cognition, psychometrics, developmental psychology, social psychology, neuropsychology); Trent / Rovereto (cognitive processes, animal psychology); Milan (cognition, developmental psychology, social psychology); Turin (cognition, developmental psychology, social psychology); Bologna (clinical psychology, developmental psychology, social psychology); Florence (developmental psychology, social psychology, psychophysiology); Rome (cognition, developmental psychology, social psychology, clinical psychology, psychometrics). Good research, although with fewer resources, takes place in many other locations from Verona to Pavia, from Pisa to Naples, from Bari to Palermo, from Chieti to Siena and Macerata. Excellent research, especially in the fields of psychobiology and psycholinguistics, is also carried out at the National Research Council.

Unfortunately, the incompetent policy of savage cuts, indiscriminately practiced under the Berlusconi administration over the past years, has resulted in serious damage to the entire Italian university system, and Italian psychology has suffered heavily. We hope that the crisis will not prove fatal.

5. Serbia (by Dejan Todorović[6])

The development of academic institutions in Serbia was only possible after the gradual forced withdrawal of the Ottoman Empire from the Balkan peninsula during the 19th century, and the establishment of the Serbian

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state. The Lyceum, which was the precursor of Belgrade High School and later Belgrade University, was founded in 1838. Psychology as an academic subject was first taught in 1854, within the School of Philosophy, first for one semester, then for two, and in some years for four semesters.

The first professor of psychology was Konstantin Branković (1814-1865), who taught the subject from 1854 to 1865. He was several times rector of the Lyceum and taught a number of other subjects as well. Branković was educated in Austria-Hungary and based his lectures on a 1843 textbook of psychology by Johann von Lichtenfels, a Viennese philosopher. A copy of this book with handwritten notes, possibly by Branković himself, is held in the Belgrade University library. He never published a textbook of psychology, but fairly complete handwritten student notes from his 1859 course survive.

Branković's successor was Milan Kujundžić – Aberdar (1842-1893), who taught psychology first from 1866 to 1867, and then from 1878 to 1882. He studied philosophy in Belgrade, Vienna, Munich, and Paris, and finished his studies at Oxford. Kujundžić was the secretary of the Serbian Learned Society and a member of its successor, the Serbian Royal Academy. He also was president of parliament, minister of education, and ambassador to Italy; a street in downtown Belgrade is named after him. He wrote poems and short stories, engaged in literary criticism, and published a textbook of psychology in 1867.

Between Kujundžić's two teaching appointments, psychology was taught by Alimpije Vasiljević (1832-1911) from 1868 to 1875; there were no academic courses in 1876-1877, due to a war with Turkey. Vasiljević was educated in Russia, and was a member of the Serbian Learned Society, rector, minister of education, and ambassador to Russia. He wrote a textbook of psychology in 1870, and cited as his sources Bain, J.S. Mill, Spencer, Wundt, and Troitsky.

Branković and Kujundžić lived relatively short lives (both died at the age of 51). They, together with Vasiljević, laid the foundation for academic psychology in Serbia, but that was only a small part of their activities. All three also taught various philosophical courses, and were actively engaged in the intellectual and political life of 19th century Serbia. They were also polemicists: Kujundžić criticized the work of Branković and Alimpijević, and Alimpijević, in turn, criticized Kujundžić and Branković. Their teachings and writings reflected the state of psychology of their times, as a philosophical discipline.

When Wilhelm Wundt began to reformulate psychology as an experimental science, he attracted many students from all over the world,

including several from Serbia. One was Ljubomir Nedić (1858-1902), who taught psychology from 1884 to 1893. He studied in Jena, Berlin, London, and Leipzig, and received his Ph.D. from Wundt in 1884. He did not publish a textbook of psychology, but we have detailed handwritten student notes from his lectures. Nedić died relatively young, aged 44, after a prolonged illness that prevented him from teaching. In his later years, he turned his interests to literary criticism, becoming an influential critic of works by Serbian writers and poets.

After several years in which psychology was apparently not taught, in 1897-1898 the course was given by Maximillian Arrer. He studied philosophy in Belgrade, Vienna, and Leipzig, where he obtained a Ph.D. from Wundt in 1896. He was Wundt's only student from Serbia whose Ph.D. thesis included experimental work. His topic was the role of accomodation in depth perception, continuing on earlier studies by Wundt. These studies were criticized by Hillebrand, and Arrer's work included some novel methodological variations in reply to the criticisms. This work seems to have been noted, as witnessed by several short reviews in international psychological journals. It was also cited in Woodworth's (1938) influential textbook, including Arrer's diagram of his experimental setup.

After Arrer returned to Serbia, he helped organize a scientific society and the foundation of a new journal. Unfortunately, due to reasons which are not entirely clear, but probably included his failure (or reluctance) to obtain a teaching licence which had recently become obligatory, he abandoned his academic career in 1898 and began to work in diplomacy. The society was apparently disbanded, and the journal ceased publication after a single issue. Thus, although Belgrade had two of Wundt's doctoral students for a few years, the singular opportunity to boost academic psychology in Serbia did not materialize.

Arrer's successor as professor of psychology was Branislav Petronijević (1875-1954), who taught courses from 1898 to 1927 (but not during World War I), and published a textbook of psychology. However, his main interest was in philosophy, and he remains one of the foremost Serbian philosophers. His book on the principles of metaphysics was reviewed by Bertrand Russel. Petronijević helped to establish the department of psychology in 1928, led by Borislav Stevanović (1891-1971), who obtained his Ph.D. in London.

Currently, the Belgrade Department of Psychology has more than 40 faculty members and accepts about 100 students each year. State-sponsored departments of psychology exist in Novi Sad and Niš, and there are also departments in several private universities.