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### **Person and Environment: Reflections on the roots of environmental psychology**

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Hermann EBBINGHAUS said that psychology had a short history but a long past. The same may be said of environmental psychology. As a distinct field of research, it emerged after the 2<sup>nd</sup> World War, inspired in particular by the writings of Kurt LEWIN and Egon BRUNSWIK. As a particular perspective to conceive the psychological situation of man in environment, it may be traced back to the early days of psychology.

Recent American textbooks of environmental psychology (e.g. Gifford 1997, Bell et al. 2001) refer to a continuous interest in the influence of environmental factors on human behaviour within the realm of psychology but date the emergence of environmental psychology as a particular sub-discipline not before the middle of the 20th century when LEWIN and BRUNSWIK published their influential papers on this topic.

I would not deny that writings like LEWIN's *Psychological Ecology* or theoretical constructs like BRUNSWIK's lens model were crucial step stones in the development of environmental psychology. But I think that the idea of an environmental psychology was thoroughly elaborated in the German tradition already in the early years of the 20<sup>th</sup> century. There are different reasons why these remarkable ideas could not develop in the scientific climate of German universities in the 20<sup>th</sup> century and I will point to some of them in my lecture. It was not before the seventies of the past century that environmental psychology was rediscovered as an essential part of German tradition and it was in particular the merit of two scholars to implement this revival. One of them was Gerhard KAMINSKI, who organised the first symposium on environmental psychology within the realm of an official congress of the *German Society of Psychology* in Salzburg, 1974, and the second was Carl Friedrich GRAUMANN, who, in the following year, organised a meeting at *Schloss Heinsheim* near Heidelberg, aimed at developing an ecological perspective in psychology. In a way, these two personalities also reflect the two different approaches of environmental psychology we can distinguish at that time: While KAMINSKI represents the pragmatic idea of implementing the actual methods of empirical psychology to investigate concrete man-environment relations, the ideas of GRAUMANN aimed at transforming psychology to an ecologically oriented science in general – claiming for an “ecological turn” comparable to the “cognitive revolution” that had happened in psychology thirty years ago. In this sense, we might compare the approach of KAMINSKI with that of the mainstream of environmental

psychology in the USA at the same time and of organisations like the EDRA (*Environmental Design Research Association*) which sprang up in these years, while the intention of GRAUMANN's approach rather resembles the intentions of James GIBSON as laid out in his last book *The Ecological Approach to Visual Perception* (1979).

In this context, I would like to point in particular to Carl Friedrich GRAUMANN, who, in his historical review at the 1975 meeting in Salzburg, explicitly referred to HELLPACH's essay *Psychologie der Umwelt*, published exactly fifty years before that meeting, as a starting point of environmental psychology, and I think he is right to do so. It is indeed fascinating how clearly the idea of an environmental psychology was already exposed in that early writing. Also recent German textbooks (e.g. Hellbrück & Fischer 1999, Miller 1998) increasingly acknowledge the work of Willy HELLPACH as an early conception of environmental psychology in the first decades of the 20<sup>th</sup> century. As another precursor of environmental psychology the biologist Jakob VON UEXKÜLL is sometimes mentioned in German publications. He is an interesting personality as well with respect to the origins of environmental psychology. One reason why these two interesting personalities are practically ignored in English textbooks may be that most of their works, as far as I know, have never been translated into English.

In my contribution, I would first like to give you some impressions of those early conceptions of environmental psychology and then I will discuss some arguments why those conceptions might be regarded as the very historical roots of environmental psychology.

Jakob von UEXKÜLL was born in Estonia in 1864. He studied zoology in Dorpat, Estonia, and then worked at the Institute of Physiology of the University of Heidelberg and later at the University of Hamburg, where he founded the *Institut für Umweltforschung* in 1926. In several papers he published at the beginning of the 20<sup>th</sup> century he criticised the reduction of life sciences to physiology as it was the mainstream trend within biology after the great success of physiological research during the 19<sup>th</sup> century. In an essay of 1900<sup>1</sup> we find a remarkable quoting which illustrates the focus of his criticism very well:

“If an animal performs a movement, it was caused by muscular contraction. The contraction of the muscles was caused by the input of an electric oscillation in the end fibres of the nerves. This oscillation had not been generated spontaneously in the motor neuron but had been evoked by similar motor phenomena in particular centres of the central nervous system. But these centres, for their part, had received, more or

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<sup>1</sup> Ueber die Stellung der vergleichenden Physiologie zur Hypothese von der Tierseele, *Biologisches Centralblatt* 20(15), pp. 497-502

less directly, impulses from particular centripetal nerves, and the oscillations in the centripetal nerves had been generated by the sense organ of these nerves, after it had been stimulated by a movement in the external world”.

In this manner, UEXKÜLL resumed, the biologist had investigated causes and effects all over the animal, landing up finally at its other end without ever coming across the animal he or she investigated.

What UEXKÜLL described as the fundamental error of physiologicistic biology is exactly the dilemma of behaviorism in human sciences: The concept of stimulus as evolved by the behaviorist doctrine cannot be conceived but in physical terms, and in the same way environment cannot be conceived but as the physical context of stimuli outside the individual. It was exactly this dualistic conception Kurt LEWIN opposed in his life-space concept where environment was understood as a part of personality, namely the subjective representation of the physical surrounding in the concrete situation of the person's development in time. In this sense, VON UEXKÜLL may be regarded as an early precursor of that mentalistic conception of “environment”, which initiated environmental psychology in the second half of the 20<sup>th</sup> century in the USA.

But let me return to Jakob VON UEXKÜLL: In contrary to the trend to objectifying the physiological mechanisms determining the behaviour and sensitivity of living organisms, UEXKÜLL stressed the problem of how living beings *subjectively* perceive their environment and how this perception determines their behaviour. In 1909 he published his book *Umwelt und Innenwelt der Tiere (The external and internal world of animals)*, where he introduced the term *Umwelt* to denote the subjective world of organism. Biology as a science of life, he argued, should not primarily be interested in environment as the physical surrounding of an animal but in the qualities of the “counter-world” (*Gegenwelt*) it evokes in the process of perception.

There are two later works that are, to my opinion, remarkably important for the conception of an environmental psychology, namely *Streifzüge durch die Umwelten von Tieren und Menschen (A stroll through the worlds of animals and men)*, published in cooperation with Georg KRISZAT in 1934, and *Bedeutungslehre (The theory of meaning)*, published by VON UEXKÜLL in 1940, at the age of 76. These two works belong to the few papers of VON UEXKÜLL that have been translated into English – mainly in the Journal *Semiotica* or as a part of an anthology. Especially the first book just by its title tries to underline that these ideas were not restricted to the non-human or pre-human world of animals but aimed at characteristics of life which find their most impressive shaping in the human mind. The

particular intention of this work is expressed by the subtitle *Ein Bilderbuch unsichtbarer Welten* (*A picture book of invisible worlds*): VON UEXKÜLL tried to visualize by drawings how the external world could be represented in the animal's "counter-world" according to the complexity of its sense organs and to the functional aims they had to serve.

The central idea of this conception was that of *the functional cycle of sensing and acting*. Although VON UEXKÜLL had developed this construct already at the beginning of the century and pictorially described in his *Streifzüge* of 1934, the most impressive and concise description may be found in his last important book *Bedeutungslehre* (*The Theory of Meaning*), which he published in 1940, four years before his death, at the age of 76.

The crucial thesis of this theory of meaning is that for sciences dealing with sensible, living organisms (and this also includes psychology) not the physical qualities of environment are the decisive factors but primarily those structures or objects that can be perceived as meaningful by the respective living being. By the same token, it essentially depends on the animal's possibilities of acting, which objects may appear as meaningful in its perceived environment. Things that cannot be the object of any activity (that means: which are not part of the *Wirkwelt* [operational world, ambit of actions] of the respective living being) do not appear in his *Merkwelt* (perceptual world) as a distinguishable, meaningful object, structure or stimulus, either.

These general suggestions are of particular importance for the interpretation of the coherence of human behaviour and action. In some aspect, the theory of environmental perception is the most contrasting alternative to the stimulus-response-paradigm which was developed by behaviorism in the USA at about the same time. In America, the predominance of behaviorism delayed the development of environmental psychology until the 60ies of the past century – it required the mediating ideas of Kurt LEWIN and Egon BRUNSWIK to replace the model of environment as a source of stimuli by the idea of person and environment as an interactive system. All these ideas can be found clearly elaborated already in the early writings of Jakob VON UEXKÜLL.

Even more elaborated – in particular with respect to the particularities of human environments and the idea of an environmental psychology – can we find some of these ideas in the writings of the second author I would like to present to you as an early precursor of environmental psychology, namely Willy HELLPACH (1877-1955). He was born in Silesia (which today is Polish territory) in 1877 and studied medicine in Greifswald, then went to Leipzig and acquired a Ph.D. in psychology at Wilhelm WUNDT's institute in 1899

and a doctor's degree in medicine in Heidelberg in 1903. In 1911 he published his book *Die geopsychischen Erscheinungen* (later: *Geopsyché*), in which he dealt extensively with the moulding of human character by factors like climate and landscape. Furthermore, he was interested in particular in the influence of migration – from the country to the big cities, as it was caused by industrialisation in Germany at that time – to personality and social behaviour of individuals. Especially his last book, *Mensch und Volk der Großstadt*, published in 1939, is devoted to this topic.

In 1924, HELLPACH wrote an article for the renowned *Handbuch der biologischen Arbeitsmethoden*, edited by Emil ABDERHALDEN, entitled *Psychologie der Umwelt* (*Psychology of Environment*). In my paper I will refer in particular to this article because I think that it represents a programmatic essay that could as well be regarded as an origin of environmental psychology, the same as LEWIN's and BRUNSWIK's writings, which actually mark such starting points for this discipline.

But let me add just a few words about the personality and the career of Willy HELLPACH before I concentrate on his scientific ideas and his writings. He was not only engaged as a scientist but even more as a politician. In 1918 he joined the German Democratic Party (DDP), a liberal left-centre party, which in particular stood for strengthening democracy and equal rights. Other prominent members of this party were, for example, the well-known sociologist Max WEBER, the murdered foreign minister Walther RATHENAU and later on the first president of the Federal Republic of Germany, Theodor HEUSS. In 1920 HELLPACH got a chair for social psychology at Karlsruhe, the capital of the federal country of Baden, but just two years later he went into politics as minister of education. In 1924, the year when *Psychology of Environment* was published, HELLPACH was elected prime minister of the federal country of Baden, an office he held for two years. During that period he also got involved in the most exciting adventure of his political career, namely his candidature for the office of the German *Reichspräsident* in 1925, where he got about 6% of the votes in the first ballot. In 1926 he resigned from his office as prime minister and moved to Heidelberg as professor of psychology. Another two years as a member of the German *Reichstag* from 1928 until 1930 mark the end of his political aspirations: annoyed of the political climate in the *Reichstag* HELLPACH left politics shortly before the end of German democracy.

But now back to the ideas of *Psychologie der Umwelt*: In the introduction HELLPACH complains about the “forcible individuation” (*gewaltsame Individuation*) by which science

takes its objects “out of their real occurrence and connections); the scientist “deals with them as if they all had a totally isolated existence”. However, psychology as an applicable science outside the laboratory cannot cope with this “artificially individualised psyche” and the “laboratory monad of individual conscience” but needs an investigation of psyche “as it depends on its actual environment”, and this is exactly the aim of a “psychology of environment”.

The methodology of environmental psychology which HELLPACH evolves on the following pages resumes the idea of the three “circles of influence” of environment with respect to the human psyche Hellpach had postulated already in his earlier writings, namely those of *Geopsyche*, of social psychology and of cultural psychology. By *Geopsyche* Hellpach refers to the influence of the “nature”, that means of “soil, air, light, weather, wood, mountains or plains, rivers, etc.”; these influences of natural environment have to be seen in connection with those of the social and cultural environment.

We can see from this structure that the intention of HELLPACH’s “psychology of environment” differs in two essential aspects from “environmental psychology” as it turned out in the wake of LEWIN. While LEWIN’s concept of *Lebensraum* (life space) stresses the individual representation of environment and its integration into personality, HELLPACH’s concept of environment always represents a socially and culturally shared environment. Furthermore, HELLPACH’s concept of a “psychology of environment” is not just a complementary approach to social psychology and cultural psychology as it turned out in the later development, but *includes* both disciplines on a superordinate level. Perhaps that might have been too far away from the traditional systematology of psychology to be accepted by the scientific community. In order to convince the audience HELLPACH should have treated the three “circles” at least in a comparable way and extension. In fact more than 60% of the text deal with traditional topics of social psychology and just five pages are devoted to the cultural environment and even those do not contain much more than general anthropological statements and some references to ethnology and cultural politics. This makes the construction as a whole not really convincing.

Despite these possible objections it seems remarkable to me that the idea of an environmental psychology was conceptualised in Germany as early as that and in such an explicit and programmatic way. Carl Friedrich GRAUMANN compares HELLPACH’s appreciation of the problems and the necessity of an ecological orientation of psychology with that of William ITTELSON and Harry PROSHANSKY in the 70ies, when they published

their first textbook on environmental psychology. This is probably true and I have no doubt that the idea of an environmental psychology was developed and explicitly elaborated much earlier in Germany than in the USA, namely about 50 years earlier.

However, there are several reasons why environmental psychology as a successful research program sprang up from the writings of LEWIN and BRUNSWIK and the methodological efforts of LEWIN's co-operator Roger BARKER and not from the ideas of HELLPACH. There are internal and external reasons. The external reasons are obvious: The nine years between the publishing of *Psychologie der Umwelt* and Hitler's seizure of power were characterised by HELLPACH's political engagement –there was probably little time to elaborate scientific ideas. The following twelve years under the Nazi regime did not offer a climate for developing new scientific ideas either – HELLPACH predominantly used that time to revise his textbooks on social psychology and *Völkerpsychologie* without making too obvious concessions to the Nazi government. After the 2<sup>nd</sup> World War, when HELLPACH regained his chair in Karlsruhe, he was 68 and had no followers to develop his ideas.

But there are also internal reasons: HELLPACH's scientific language was that of traditional *Völkerpsychologie* and some aspects of its terminology might have sounded rather strange to the next generation grown up in the jargon of experimental psychology. Rudolf MILLER criticises the “normative” character of HELLPACH's writings on the environment of big cities (1998, 32), and he is probably right: In some respect HELLPACH was rather a political writer than an impartial scientist. Another critical argument of MILLER stresses that in particular the extensive knowledge HELLPACH had acquired qualified him for “the necessarily interdisciplinary treatment of his topic”. This is only partially right because HELLPACH had in fact elaborated a systematic concept for an integral science of man-environment relations in his essay of 1924, but it was too narrative in detail in order to become a serious alternative to the new research domains of experimental psychology in which environment has been deliberately left aside due to methodological reasons.

Anyway, in German academic psychology after the 2<sup>nd</sup> World War which struggled to re-establish after the damages of the war and the ideological *Gleichschaltung* and to recover from the void of intellectual power which had been caused by the forced emigration of a great part of the scientific elite, there was no place to root for an interdisciplinary concept of environmental psychology. However, some of these ideas came to America in the heads of emigrants, and it is not by chance that the crucial impacts that led to the development of an environmental psychology in the United States according to the

unanimous judgement of American historians of psychology and textbook authors are attributed to two emigrants, namely Egon BRUNSWIK and Kurt LEWIN.

Let me briefly summarise the historical facts: Egon BRUNSWIK was born in Budapest in 1903 and was a student of Karl BÜHLER in Vienna before he had to leave Austria in the 30ies like his teacher. Already in his book *Wahrnehmung und Gegenstandswelt* (*Perception and the world of objects*) of 1934 he used explicitly the term *Umweltpsychologie* as a discipline he thought to be necessary for the development of what he called *representative designs*. In this conception the investigation of environments was not so much an aim in itself but rather a methodological prerequisite for securing the “ecological validity” of experimental research, for example with respect to perception. This was a conception much closer to the interests of experimentalists than the conception of HELLPACH. The second important contribution of BRUNSWIK was his *lens model*. It provided a rather simple but very instructive frame for designing concrete investigations of man-environment relations by differentiating between environmental-related *distal cues* and their representation in the perceiving mind, namely *proximal cues*. Unlike HELLPACH’s rather descriptive approach this was a concrete methodological framework for empirical investigations.

Even more influential was the approach of Kurt LEWIN. Lewin was born in East Prussia in 1890, 13 years before BRUNSWIK and 13 years after HELLPACH. His first reflections on environmental psychology can be traced back to the 1<sup>st</sup> World War, when he served as a soldier in the Prussian army. After having been wounded, he wrote the essay *Kriegslandschaft*, published in 1917, where he described how the situation of war through the immediate presence of threat changes the perception of a scenery. Like HELLPACH’s writings of 1911 and 1924, this is an early example of the awareness for the idea of environmental psychology in German psychology. After the war, he became one of the most prominent members of the Berlin school of *Gestalt Psychology*, where he worked until he was forced to emigrate. In America, he finally joined the MIT in Boston, where he died in 1944.

The central idea of LEWIN’s theory is that the behaviour of an individual results from his actual involvement in situations. Person and environment as perceived by and represented in the individual mind form a complex entity called the individual life space. The investigation of the transactions between such an individually represented environment and the central regions of personality formed, according to LEWIN, the crucial topic of what

he called, in a publication of 1943, “*psychological ecology*”. This was the theoretical fundament for environmental psychology as a distinct applied research program within psychology. The next and likewise important step was the evolution of a distinct methodology. This was mainly the achievement of LEWIN’s disciple Roger BARKER, who with the *behavior setting analysis* developed a genuine methodical instrument for the investigation of particular environments and whose book *Ecological Psychology*, published in 1968, marks the shaping of environmental psychology as an autonomous but essentially interdisciplinary field of research. The growing public interest for topics like pollution and sustainability, which characterises the 70ies of the past century, favoured the further development of environmental psychology and provided the necessary monetary support. In 1974 a first and very influential textbook was edited, namely *An Introduction to Environmental Psychology* by William ITTELSON and Harry PROSHANSKY and some co-operators, and you may have noticed that this was exactly the time when environmental psychology, by the efforts of scholars like Carl F. GRAUMANN and Gerhard KAMINSKI, came back to Germany. Already in 1977, the first German translation of ITTELSON & PROSHANSKY’s textbook was published in Germany.

Thus, as a resume, the emergence of environmental psychology as a concrete discipline was an American event, performed by American actors and inspired by German émigrés as authors and producers. But the idea of the piece was a German idea, and I think that it may in particular help to understand the interdisciplinary background of environmental psychology to trace those ideas back to their earliest roots, and those, in my opinion, lay undoubtedly in the concepts of VON UEXKÜLL and HELLPACH. I think it is not chauvinistic pomposity, when recent German textbooks like that of HELLBRÜCK & FISCHER (1999) or Rudolf MILLER (1998) began to re-evaluate those early ideas but a well-founded and justified return to the very roots of environmental psychology. I hope that publications like these will stimulate also the American textbook authors to have at least a look on the history of environmental psychology before Kurt LEWIN.

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