

THE LEGACIES OF DAVID LOYE: THE GENERAL EVOLUTION RESEARCH GROUP, PARTNERSHIP, CHAOS, DARWIN, AND ACTION RESEARCH

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Abstract

Mathematician Ralph Abraham recounts memories of Dave Loye, Riane Eisler, Ervin Laszlo, the General Evolution Research Group, and their 37-year partnership.

Keywords: General Evolution Research Group; Partnership; Domination; Chaos; Charles Darwin

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INTRODUCTION

David Loye was hard at work on new book projects when he passed away on January 25, 2022. What he had already achieved was enormous, and I will comment here on his work during the time I knew him, from mid-1985 through mid-2021. These years of friendship and collaboration were of great value to me. He exerted crucial influence on my work as a mathematician. Here are some of the highlights, seen through my mathematical lens.

David produced many books, but one of these, *The Evolutionary Outrider: The Impact of the Human Agent on Evolution, Essays Honouring Ervin Laszlo* (1998) is the primary source for this memoir. Four chapters of this book are especially relevant here, three

by David and one by his wife, social scientist Riane Eisler. I was also represented in this book with a chapter on the social significance of the World Wide Web.

BEFORE THE GENERAL EVOLUTION RESEARCH GROUP, 1960-1980

In the 1960s, I had decided that my mathematical work must be useful in regard to world problems. This was in the ambiance of the Cold War, ongoing since 1947. In the 1970s, I began my focus on computational studies of chaotic dynamical systems. I embraced catastrophe theory because of its broad applicability in the sciences.

In 1980, I tried to work with research groups in the biological sciences but suffered disappointments stemming from politics of large grants. I temporarily gave up my focus on world problems.

MEETING DAVID LOYE, RIANE EISLER, AND ERVIN LASZLO, 1985

In 1985 I received a phone call out of the blue from David Loye, then a stranger. He said he was a social scientist living nearby in Carmel, and that evolution theorist Ervin Laszlo was visiting from Italy and would like to meet me. I was teaching full time then, so we agreed that they would drive to Santa Cruz, where I lived, for a short meeting. David soon arrived with his partner Riane Eisler, and Ervin. We had lunch and talked for a long time. It appeared that they had a major project in mind in connection with world problems, and I was intrigued. Maybe it was too early to give up on my desire to do useful math. I had not tried working with social scientists, so I signed on. Doing good was back on the table. I soon learned that in the 1970s Ervin had been involved in the Club of Rome, famous for the book *The Limits to Growth* (Meadows et al., 1972), and this was part of the stimulus for the new project.

The project involved the assembly of a group of scholars in many disciplines to generate ideas for the future of humanity. Cultural evolution was a central theme. First steps

were already underway following a meeting in Budapest in 1984. (For the full story, see Loye, 1998, chapter 3, and the website, thedarwinproject.com/).

THE BEGINNING OF THE GENERAL EVOLUTION RESEARCH GROUP, 1986

Our meeting in Santa Cruz resulted in my invitation to a further meeting of the new group at the Salk Institute in La Jolla, California, hosted by Jonas Salk himself, in March 1986. Besides David, Riane, Ervin, and myself, geologist John Corliss and several others attended. The main outcome of this event was the adoption of the name General Evolution Research Group, or GERG, and the founding of our journal, *World Futures: The Journal of General Evolution*, with Ervin as editor.

The meeting with Salk was followed by a series of further meetings in Florence, Bologna, Prague, and other European cities, during which the size of the group grew substantially. The journal also thrived, and I published several articles there, from 1990 through 2011. The genesis of GERG was recounted by David in Chapter 3 of *The Evolutionary Outrider* (1998).

PARTNERSHIP STUDIES, 1987

One of our ideas for GERG was a series of books, the first of which was Riane's masterwork, *The Chalice and the Blade: Our History, Our Future* (1987), which founded partnership studies as a field. This book carried on the copyright page the inscription, "A Catalyst Book of the General Evolution Research Group and the Center for Partnership Studies." A similar reference to GERG was inscribed in my book, *Chaos, Gaia, Eros: A Chaos Pioneer Uncovers the Three Great Streams of History*, written in 1988 and published in 1994.

Partnership Studies and Cultural Transformation Theory, the two themes of *The Chalice and the Blade*, have been developed extensively by Riane, but David's creativity was manifest in both themes.

Partnership and Dominator Models

The Introduction to *The Chalice and the Blade* says:

One result of re-examining human society from a gender-holistic perspective has been a new theory of cultural evolution. This theory, which I have called Cultural Transformation theory, proposes that underlying the great surface diversity of human culture are two basic models of society. The first, which I call the *dominator* model, is what is popularly termed either patriarchy or matriarchy--the *ranking* of one half of humanity over the other. The second, in which social relations are primarily based on the principle of *linking* rather than ranking, may best be described as the *partnership* model. (Eisler, 1987, p. xvii)

Cultural Transformation Theory

Quoting again from the Introduction to *The Chalice and the Blade*:

Cultural transformation theory further proposes that the original direction in the mainstream of our cultural evolution was toward partnership but that, following a period of chaos and almost total cultural disruption, there occurred a fundamental social shift ... from a partnership to a dominator model. (p. xvii)

These two themes remained central to David Loye's thinking throughout his career.

CHAOS THEORY, 1991

Another pillar in David's evolution followed from the chaos revolution of the 1960s and 1970s. News of this development in the mathematics of dynamical systems came

indirectly from me, by way of my brother Fred Abraham, a psychologist (Abraham, 1990).

Together, David, Fred, and neuropsychologist Allan Combs founded the Society for Chaos Theory in Psychology and Life Sciences (SCTPLS) in 1991 to further the applications of chaos theory. Chaos theory studies mathematical objects called chaotic attractors and bifurcations. The latter have many important applications to the social sciences which now abound in the literature of this society. One of these applications is fundamental to Cultural Transformation Theory, as indicated in the preceding quote.

THE DARWIN PROJECT, 1994

Sometime around 1994 David discovered the second half of Darwin's theory of evolution, and this became one of his main preoccupations. In a series of books, he excavated Darwin's lost theory, which had been buried by Darwin's heirs (Loye, 2007). The first half of the theory, based on the crucial idea of the survival of the fittest, became the dogma of evolution theory over the years. Meanwhile the lost second half, based on the crucial idea of love, championed the evolution of the moral sense. David felt that exhuming Darwin's theory of love could help save the world, and thus would fit the overall program of GERG. To further this initiative, he founded the Darwin Project, which I joined many years ago.

ACTION RESEARCH, 1998

Another central theme of David's work, related to GERG, partnership, chaos, and Darwin, was his expanded version of psychologist Kurt Lewin's idea of action research (1948).

Kurt Lewin

Lewin was born in Poland, earned a PhD in Gestalt psychology in Berlin during World War I, and moved to the US in 1933. He founded two major action research institutes,

the Commission on Community Relations of the American Jewish Congress, and the Research Center for Group Psychology at the Massachusetts Institute of Technology in 1945. He is remembered as one of the founding fathers of social psychology and social engineering.

Around 1970 I became interested in Lewin's seminal work on topographical psychology. Dynamical systems theory was in a crisis, and I was searching for applications from which to find a new direction for future research. Lewin had suggested that psychological dynamics was guided by a vector field on a behavior space, under which stable behaviors were represented by attractors of the vector field. In addition to his field theory, Lewin introduced the concept of action research in 1944, after 10 years of development. He wrote about it in an article in 1946, and in his 1948 book *Resolving Social Conflicts*.

Lewin reacted to his life experience of anti-Semitism —the death of his mother in a Nazi gas chamber, his escape from Hitler in 1933 —with a special interest in racism and minority relations. He participated in a 1946 workshop for the Connecticut Interracial Commission; it was in the context of his field work in Connecticut that he honed the action research idea into an effective method of social work and a remedy for racism.

Action research, like all scientific research, involves repetition of the hermeneutic cycle: modeling, testing, modeling, and so on. This aspect of Lewin's work had a great effect on my own work. In my book *Chaos, Gaia, Eros* (1994), I wrote:

Lewin's contact with the hermeneutical tradition of [philosopher Wilhelm] Dilthey in Berlin led to his development of social psychology and action research, which branched from hermeneutics, courageously carrying out the hermeneutic program in the practical context of social psychology. (p. 16-17)

David Loye

After our meeting in 1985, David gave me a signed copy of his book, *The Healing of a Nation*. The inscription is dated November 21, 1985. The book was honored with the Anisfield-Wolf Book Award for best scholarly book on race relations. It was dedicated to the memory of Kurt Lewin and civil rights activist W. E. B. Du Bois.

The book is divided into Part One: The Years of Sickness and the Search for Therapies, and Part Two: Healing the Nation. The latter comprises six chapters of remedies, two devoted to Kurt Lewin. These two chapters comprise about ten percent of the entire book, and remain the best source I know for Lewin's life and ideas. They are the main resource for this section, along with David's chapter 12 in *The Evolutionary Outrider*, titled "Evolutionary Action Theory: A Brief Outline." David was obviously aware of Lewin's action research and its applications early in his career. But by 1998 he had significantly extended the idea, and it played an important role in all his thinking. The terms active human agent, evolutionary action theory, active moral agent, and moral action appear throughout his work.

His presentation of this extended theory comprises Chapter 12 of *The Evolutionary Outrider*. Therein he wrote:

In psychology, the action-research approach coupled with the field theory of Kurt Lewin remains the most advanced statement of the perspective of action-oriented theory. In evolutionary theory, general evolution theorist Ervin Laszlo is the pioneering exponent of this perspective. (p. 170)

David's extension of action research involves the second half of Darwin's legacy: Moral sensitivity exerts an influence on evolution by determining which options to promote by human activity. Ervin Laszlo's 1987 book, *Evolution: The Grand Synthesis*, is a brilliant development of this idea in the context of a complete history of evolutionary systems thinking from the Greeks forward.

AFTER THE GENERAL EVOLUTION RESEARCH GROUP, 2000

Due to the proximity of Riane and David's home in Carmel, California to my home in Santa Cruz, my personal relationship with them developed into a lasting and supportive friendship. As time went on, the vitality of GERG diminished. Riane was primarily occupied with the very successful Center for Partnership Studies, its journal, and many important lectures worldwide. Meanwhile, David settled into his major focus on the second half of Darwin's theory, the related Darwin Project, and his series of books on Darwin beginning in 2007. I continued my applications of chaos theory in various fields.

CONCLUSION

Collecting the key events of this story into a chronological list, we have:

1984: Ervin's pre-GERG meeting in Budapest

1985: My meeting with David, Riane, and Ervin

1986: Group meeting with Jonas Salk, founding of GERG and the *World Futures* journal

1987: Riane's book, *The Chalice and the Blade*; Ervin's book *Evolution, the Grand Synthesis*

1994: My book, *Chaos, Gaia, Eros: A Chaos Pioneer Uncovers the Three Great Streams of History*.

1991: Creation of the Society for Chaos Theory in Psychology and Life Sciences

1992: David's first publication on moral sensitivity

1994: Beginning of David's Darwin Project

1998: David's editing of the book *The Evolutionary Outrider*

2007: David's first book on Darwin's lost theory

David's career spanned an enormous spectrum of the social sciences, systems thinking, and integrative studies. His creativity was spectacular, his influence enduring. He was

the epitome of partnership, cooperation, and human action. He performed his teachings, walking the talk and leaping over boundaries.

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