

# PAUL KAMMERER AND THE LAW OF SERIALITY

## THE LOST PARADIGM OF COINCIDENCE

John Townley and Robert Schmidt

The Austrian Paul Kammerer (1880-1926) proposed a remarkable theory of coincidence which he called 'seriality'. Long neglected since his death and large replaced in the public mind by the Jungian concept of 'synchronicity', a reassessment of his proposal is long overdue. John Townley and Robert Schmidt, authors of a book-length study of Kammerer and his ideas, (*The Middle Kingdom*, Hindsight Press, forthcoming), guide us through the man's ideas and their various possible applications.

On the afternoon of 23 September 1926, the body of a well-dressed man in a dark suit was found on the slopes of the Schneeberg, a mountain near Vienna, Austria. He was sitting propped up against a rock face, a pistol gripped in his right hand (even though he was left-handed), and had been shot once through the left temple. A suicide note was on the body, and three others had been distributed to friends and relatives - all were typed, not hand-written. Astonishingly, without further investigation it was declared a suicide, and the case was closed.

The event effectively closed the last chapter on the dispute about how evolution proceeded, and closed along with it was the opportunity for science to explain the mysteries of what was later to be labelled 'synchronicity', along with a host of Fortean, occult, and other seemingly unexplainable phenomena. That was because the man on the mountain was world-renowned scientist Dr Paul Kammerer, the last of the Lamarckian biologists, and formulator of the "law of seriality." His primary reputation was for unique and often irreplicable experiments that appeared to prove the inheritance of acquired characteristics in animals, anathema to neo-Darwinian evolutionists, and which earned him bitter enemies among their ranks. The fact that he was also a successful musician and composer and an admired member of Viennese high society also fueled resentment among his academic peers. The summer before his death he had been the subject of a scandal in which someone tampered with one of his experiments, invalidating it and leaving

him open to charges of possible fraud. Despite this, he had been given an appointment to head the Soviet Union's most prestigious biological institute, and had been packing up his laboratory to move when his body was found.

But as history quickly buried the biological work of this remarkable scientist (his neo-Darwinian colleagues even expunged his name from scientific biographies), it also banished to obscurity his elaborate work on the phenomenon he called 'seriality,' put forth in his book *Das Gesetz der Serie* (The Law Of Seriality) published in 1919. In this work, Kammerer catalogued and classified hundreds of coincidences (spatial or temporal 'series' of events) he had collected over the years, dividing them into a variety of types, orders and categories in a somewhat Linnaean morphology. Then he proposed a direct, causal way of explaining how they came about. Unfortunately, all of it was done away with a single gunshot.

But Kammerer was not the only scientist mulling over the mysteries of odd coincidences during the years just before and after World War I. So was Carl Gustav Jung, who later published his ideas about the subject using the now-popular buzzword 'synchronicity'. Although clearly influenced in his thinking by Kammerer's work, he went his own route which took the phenomena out of the physical and scientific world and dubbed it 'acausal'. In Jung's view, synchronicity has primarily to do with events meaningful to the observer and which are not connected in any other way except that they happen at the same time. They come, essentially, from some other

dimension (specifically, "a realm of *a priori* orderedness") than the ones we know and do not obey the normal rules of causality. The result has been that we now often dismiss unusual events as "just synchronicity," as if that were an explanation, when it isn't one at all - nor did Jung intend it to be.

A further refinement of this 'acausal' causation came later with Rupert Sheldrake's 'morphic resonance', another more 'scientific' attempt to explain the same sort of phenomena. However, Sheldrake's 'morphs', patterns that unite and encourage new synchronistic phenomena, also come from out of thin air - and indeed live there, rather like the shadows on Plato's cave wall.

Kammerer's more concrete ideas never got out of the original German (until our recent translation) and were dealt another blow by science writer Arthur Koestler when he wrote *The Roots Of Coincidence* and a brief biography of Kammerer called *The Case Of The Midwife Toad* in the early 1970s. In both he mentions seriality theory, praises it as important, but then dismisses it as being seductive but acausal - he clearly misunderstood the work. Although it is long and at times difficult, it repeatedly insists on following established causal principles, though the manner in which they apply is more similar to the very latest developments in fractal, chaos, and complexity theories than anything Koestler would have had to draw on to better understand it. Einstein, on the other hand, even reading it at the time of its publication, found the seminal concepts in the work "by no means absurd".

Kammerer's rigorous and analytical approach is immediately evident at the beginning where he classifies and orders 'serial' events before going on to explain their interaction. It is clear he is grappling with a complex problem just from the way he divides up the way series can manifest:

1. A. Simple series (first order).  
B. Series sequence (higher order).  
C. Power series (higher degree).
2. A. Spatial or simultaneous series.  
B. Temporal or succedent series.
3. A. Dependent series.  
B. Collateral series.
4. A. Pure series.

- B. Hybrid or mixture series.
5. A. Single-rowed series.  
B. Multi-rowed series.  
a. Parallel series.  
b. Polytomic series.  
aa. Diverging series.  
bb. Converging series.
- C. Correlation series.
6. A. Segmental or metameric series.  
B. Bilateral or symmetry series.
7. A. Motion series.  
B. Rest series.
8. A. Quantity series.  
B. Quality series.
9. A. Equivalence or identity series.  
B. Similarity or affinity series.
10. A. Homology Series.  
B. Analogy series.
11. A. Row or direct series.  
B. Crossing or inverse series.
12. Opposition or contrast series.
13. Alternating or exchange series.  
A. Alternating series.  
B. Cyclic or circular series.  
a. Cyclical series.  
b. Phasic series.  
c. Periodic series.

Kammerer illustrates his categories with abundant examples of coincidences, many of which seem utterly banal and not worth examination, while others are noticeably bizarre. Where most observers would only notice spectacular coincidences, Kammerer sees an evolution from the barely coincidental to the powerfully unusual, all connected by a hidden structure. After first classifying the types and levels by which coincidental events may be ordered, he then proceeds to propose mechanisms that would explain them scientifically in a direct, causal manner. In the process, he proposes three physical principles upon which the behaviour of complex systems in the everyday world depend, and which take elementary Newtonian laws and apply them not just to physical bodies but to systems of interconnected elements and events.

It is quite obvious to the everyday observer, for instance, that certain types of systems have lives of their own that are more than the sum of their parts and display ongoing qualities even when all of their components have changed. Companies, for

instance, or ships - and any kind of bureaucracy. It is as if they have their own kind of inertia and tend to sustain and renew themselves robustly, even in the face of serious assault or damage.

Kammerer calls this quality persistence, the application of physical inertia at the systems level. This inertial quality increases the longer a system stays together, as its environment adapts to it and tends to sustain it from without as well as within. Every part within and surrounding it gains the stamp of the system over time through this process, from the most dense physical parts right up to the lightest, informational parts. When the system finally does break apart, for whatever reason, the pieces travel on along their own paths, carrying with them the stylistic, spatial, and vectoral hallmarks of the experience. Although the visible whole is gone, it lives on in its separate pieces which no longer appear to have anything to do with it, but which continue to evolve and form their own systems. The original has, in fact, not died, but simply passed from the bandwidth where we can recognize it and has become part of the 'background' environment. As in the case of a fractal, self-similar parts of the original whole have been formed but at a size or place where we cannot see it.

Nevertheless, the parts continue to evolve, and themselves break up and reform, until one day some of them run into each other again and surface - often in several different places at the same time, since the same time frame and vectors are involved - and suddenly *an unexplained coincidence arises*, at least so it appears to the outside observer. In fact, of course, everything is proceeding according to nature's laws and what was previously invisible and its origins forgotten has suddenly surfaced to our view. Nothing mysterious here, only complex beyond our ability to see or keep track of.

In developing the concept of persistence and why it should not be overcome and dispersed by entropy, Kammerer enlists two subsidiary concepts, also adaptations of simpler physical laws and also intuitively obvious. He calls them *imitation* and *attraction*.

Imitation is familiar to all. It is a wrap-around term for various types of behaviour we sometimes call mode-locking or entrain-



Fig. 1 - Paul Kammerer

ment - the tendency of larger, stronger, more energetic systems to bring smaller, weaker, less energetic systems under their sway and become more like them. It is the tendency to achieve equilibrium: Newton's Third Law applied to systems. It covers everything from why the moon presents only one face to the earth to why women's menstrual cycles are drawn into sync with that of the dominant female in their environment. In Kammerer's view, neighbouring forms and processes tend to become increasingly alike over time. Physical stuff takes a long time, depending on how malleable it is, but information, having no mass, can adapt almost instantly, transferring form and accompanying function down the line to perpetuate and transform earlier situations which then pop up mysteriously as coincidents as they re-evolve into our view.

Attraction is defined as the tendency for like forms and processes to cluster - everybody knows birds of a feather flock together, right? (so do fish, before raining down from the sky!). Kammerer proposes it as a fundamental principle. In a way, it is the counterbalance to imitation, as where things are already alike, equilibrium is already achieved, at least in part, and change then becomes the only option. Combined with imitation, it suggests a condition of swing-

shift reality for systems in general which is very much what leading-edge Belgian chemist and thermodynamicist Ilya Prigogine suggests in his 'swing theory' of open systems, which he proposes to explain the obvious reverse entropy of so much of the observable universe.

What is implied by Kammerer's threefold approach to seriality is virtually a 'Law of Conservation of Information' (our phrase, not Kammerer's) which suggests that at whatever rate its apparent dispersal, *no information is lost*. It only vanishes from our bandwidth of perception, to reappear in altered but often recognizable form down the road. Even where things appear to have come to a complete halt, the very energy and information lost in the race toward equilibrium are stored in adjacent systems and come back in evolved form to rejuvenate the original into new life - which suggests that these adjacent systems are simply part of a functioning larger one that contains them all.

In the case of information at least, as has been previously suggested by information theorists like Claude Shannon, entropy may well be largely in the eye of the beholder, defined by artificial limits imposed by the observer. This kind of approach to the apparent loss of information is also reflected in recent developments of chaos theory where phase-space diagrams and fractal dimensioning reveal order that was previously assumed to be lost.

Kammerer's view, and ours, is that virtually none of it is lost, and it is the type of order and the surroundings in which it is buried that hold the key to where it will burst forth in the future. Whereas chaos, fractal, and information theory tend to be specific and applicational, Kammerer's approach is more universal and embracing, an attempt to tie them all together based on the framework of a paradigm that vanished before it could get a hearing. Its implications allow application of these very much later developments upon a much broader scale than their current proponents have had the imagination (or perhaps audacity) to suggest.

**S**tarting from the simplest observations and then generalizing from them, Kammerer came up with a world-view

we are only now catching up with and upon which many facets of science can draw for further growth. The concept of virtually limitless amounts of form and information imbedded in the environment, in constant motion, and mostly out of our view has wide-ranging implications in a variety of now-troublesome areas.

**HISTORY** - They say that history repeats itself, and this may be true in an even deeper sense than commonly understood. Human history may in fact be a veritable theatre of seriality. Dramatic events that affect large numbers of people and break down the prevailing causal structure - wars, catastrophes, etc. - free many events so that the natural attraction and affinity of events can allow them to reconfigure serially, thus creating a riot of coincidence.

However, such large scale events also have a great amount of inertia. A great many people experience very similar, intense experiences, not just internally, but the environment itself undergoes a very radical and specific restructuring. When it is over (indeed, as it is happening), these structures branch and effectively go underground, to recombine and surface later in perhaps familiar, perhaps unfamiliar guises, but nevertheless related reincarnations (so to speak). If they should retain their warlike habit, it could mean the onset of hostilities that the best of peacemakers could not avert, being ignorant of the real source.

Thus, seriality could account for much of the history subsequent to these events. It is even possible that seriality is the dominant principle in history, the only way of seeing the overall correlation of causes and events. If so, it would be most important to learn to recognize the various ways in which series become temporarily unrecognizable, only to resurface later.

As for theories of history, instead of singling out a certain type of cause, say, economic, or a cyclical view of the history of nations based on developmental causal models, or seeing history as the unfolding of the Hegelian Idea, we should perhaps only employ these causes as restraining features on the serial process, which may itself be the real nerve of the historical process.

**ANTHROPOLOGY** - There were striking similarities in the implements and technologies of various peoples around the globe in paleolithic and neolithic times, who also shared the habit of building large stone monuments in similar configurations (both sky-oriented and otherwise). These include the stone builders of the Red Clay people around the arctic rim, neolithic northern European peoples, the cultures of Egypt and the Middle East, Southeast Asia and the South Pacific, South America, Africa, and, according to some, legendary Atlantis. These similarities have given rise to much speculation concerning the spread of various peoples around the globe in those ancient times, guided by the general assumption that they must have started in one place and spread out to the rest of the world.

However, according to the serial view,

these similarities may have arisen independently through the medium of persistence causality. They may be regarded as simultaneous serial imitations of some common event, well back in the common history of the different peoples when they were all the same stock, in which case little could be inferred about the spread of the peoples from the artifacts. Alternatively, according to the laws of analogical seriality, the common event could even have been some relatively global, inanimate event such as a mountain-raising episode. The imitation of the forces involved in this originating event could manifest as an impulse to erect stone monuments, not necessarily arising as a clear intention in the mind of an individual, but subliminally organizing the efforts of a community.

If this is true, all kinds of 'ancient astronaut' and 'mystic Egyptian' theories

## Appendix 1 - KAMMERER'S WORLD VIEW

"I do not want to be a victim of the tragic fate, to finally recant a life consecrated to the clarification of natural occurrences by sinking into the darkness of mysticism; at most I want rather to plunge down into its depths, in order to lift as much of its solid foundation as possible into the light. To free hitherto occult things from mysticism, not to hide things that have already been illuminated behind a mystical veil: that is my goal and task." - P.K.

**I**magine yourself swimming in the ocean in the midst of a pod of whales: big ones, small ones, moms, dads, and babies. The only evidence you see of them are their dorsal fins above the surface, an occasional rolling back or tail fin, and periodic spout-

ing. From what you see around you, what can you conclude? If you know whales and whale behaviour, you can deduce quite a bit. If you had never seen or heard of whales, you might easily be led to some seriously wrong conclusions. As you see the fins appear above the surface, their location appears to be random - here, there and everywhere, without much pattern. Every now and then two or more will appear and reappear simultaneously in a succession of places. Is it a random occurrence, or is there an underlying causal pattern? Statistically, it would seem to be random, but if you know whales you easily conclude that it is several animals swimming together, perhaps for the purpose of mating, a mother caring for its young, or just companion-

ship, whereas the rest of the fin appearances were random. Even if you didn't know whales, but had the reasonable experience with animals that most of us share, you would probably come to a similar conclusion. By bringing a lifetime of experience to the situation, our human software easily makes the association, but if you were a computer, even a supercomputer, without that background, you would almost certainly conclude on a statistical basis alone that the patterns you saw were random and unconnected.

As a human, the conclusion you made is highly unscientific, however, because it is purely speculative. You don't know exactly why those whales are swimming together, if indeed they are, so you have no right to logically draw the

may be laid to rest, and warring anthropologists and archaeologists may bury the hatchet in the knowledge that at least in part, they all are right.

#### ANIMAL BEHAVIOUR OR ETHOLOGY -

The category of strange, unexplained phenomena has come to be called Fortean after the writer Charles Fort (1874-1932), who along with others like Sir Arthur Conan Doyle, Bernard Heuvelmans, Willy Ley, and Ivan Sanderson collected voluminous lists of strange happenings and coincidences that seemed too bizarre to admit to ordinary explanations. These include frog and fish falls from the sky, multiple sightings of unusual animals, strange meteorological phenomena, and so on.

A number of modern examples have been cited to support Rupert Sheldrake's theories of

'morphic resonance', a kind of updated version of the ideal shadow-forms in Plato's cave manifesting in physical reality on Earth. For instance, little birds called blue tits seemed to learn how to open milk bottles on people's steps all over England simultaneously, even though they were of different sub-species with non-overlapping ranges and thus could not have taught each other to do it. It just occurred to them all at once, which Sheldrake attributes to their sensitivity to some newly-formed etheric morph. Similarly, when rats are taught to perform a maze in Los Angeles, their unconnected counterparts in the U.K. suddenly can do it with ease. According to Kammerer's plan, that's completely logical. When an idea's time has come, it literally and figuratively has - it just surfaces all over the place, following its masked antecedents. Of course, this is why people

conclusion, however correct it may be. Your problem, of course, is you are on the surface and the whales are under the water. Most of the information you need to come to a proper conclusion is simply not within your view. You aren't equipped to see the whole picture. If you were, you would conclude that none of the fin appearances were random as the whales swim together as a whole pod, constantly interacting physically and vocally.

More than that, the whales are also reacting to you splashing about, so some of what you think is random is actually order you are producing yourself without even knowing it. You are haplessly part of the experiment, so to speak. None of it is random - it is all interconnected, but you simply

cannot see it.

Despite knowing little about the situation, you still come up with an instinctual analysis of the matter that is at least partially correct, albeit 'unscientific', which is more than a computer can do. Moreover, you don't give it a second thought, any more than seeing three Alaska license plates on the same day. You are used to presuming the rest of the iceberg from its tip, because humans do that sort of thing so well.

Kammerer's world-view is similar: he depicts us as swimming in an infinitely complicated sea of interrelated 'sea-monsters'; complexes of materials and forces which constantly change in shape and scale, only a small part of which we are equipped to 'scientifically' observe or analyze,

but which aeons of evolution have prepared us to handle in ways we often do not consciously recognize. It is a universe in which no energy or matter, or *information* is lost, and which does not run down at the end with a whimper but continually reorganizes itself eternally.

Like countless waves crossing in the sea, localized patterns merge, interpenetrate, recombine, resize and then resurface again with subtle changes in a never-ending dance of relatedness and familiarity. Events of the past, long reabsorbed and dispersed, recongeal from their parts in a timely and lawful manner and then go on to transform themselves and once more pass out of our view. We, inseparably in the middle of it all, can only behold it with wonder and join in the dance.

invent the same thing at the same time, independent of each other - it surfaces in the information matrix in multiple places, but flourishes only in the most fecund spot.

**GAMBLING** - Well, don't look to win the lottery right away, but perhaps you should reconsider the direct use of probability and statistics. Seriality tells us what will tend to happen in an individual context if it is not impeded by outside forces, rather than what will happen for the most part if we average out the effects of a multitude of individual causes. After all, the gambler is right next to the serial process, seeing the individual causes involved, and making a short term prediction about whether an event tends to recur. In this regard seriality may be compared to chaos theory, which can in principle determine what will issue next, employing for that purpose a deterministic law that produces events that appear stochastic and random, hitherto subject only to probabilistic law.

The successful gambler does all this intuitively, by the direct but subconscious perception of the serial process. He knows instinctively when the complex of people and objects at the table momentarily comprise a system isolated from the rest of the environment, so that its serial tendencies will not be impeded by other forces intervening. He senses when the cards represent the 'inertial centre' of this system itself, and then follows the run of cards. He reads not just the cards, but the people, the music, etc., and knows when some apparently unimportant and unrelated event signals the end of the isolation of the system, and the breaking of the streak. Then he folds. If he is very canny, he may even know how to do things to make his luck, how to give a certain twist to the serial process, etc.

This same kind of pattern is commonly intuited by successful professionals in a variety of areas in which science now applies (or attempts to apply) only probability and statistics - the stock market, politics, and advertising demographics, to name just three of the most obvious.

**GHOSTS & APPARITIONS** - If one of the principal actors in a highly persistent series is entirely removed from the system, the system

will tend to replace it with a substitute as best it can.

A similar argument might account for many of the reports of ghosts, particularly the regularly recurring variety. When someone who is at the centre of a highly persistent event complex is suddenly removed, the system may try to restore the presence of that person when the time comes round for an intense peak in the serial process. The system may assemble fog, light reflections, various naturally occurring noises, even plant suggestions in the minds of the observers in an effort to achieve a perfect repetition of the initial event.

**MANTIC & ORACULAR DEVICES** - One of the most subtle types of seriality is that of correlated series. These result when the individual members of two independent trains of events come together in step with one another and act as if there was a single series with two common unlike features in the repetition. It is a case of two independent series imitating a given, single series, and is a kind of mimicry on the part of nature. This is not to say that these correlations are illusory. They are not. They are merely imitations of imitations.

Most of these correlations would be quite short lived. For example, it may happen that you stub your toe three times on a given day, and each time an ambulance is passing. However, the apparently random sequences produced by mantic devices such as tarot and the I Ching seem to have a strong tendency to correlate with events of a characteristic kind.

**SACRED PLACES** - In any system there may be certain islands of stability which are left relatively untouched by the continual transformation that forces the remaining bodies to wander all about their 'world'. Here we suppose that there are certain regions that remain virtually unchanged for long periods of time. We might say that these island subsystems have a rather low capacity for spatial adjustment, for mingling their contents with the outside environment. The full range of seriality would have free play within these islands due to the heightened spatial and

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# APPENDIX 2 - GETTING LOST IN A SERIES

The varying structures of seriality are simple in their essence, but as individual components in an event begin to move about, switch on or off, or trans- pose, the resulting picture

can get quite dizzying, as Kammerer only begins to suggest in the somewhat blinding diagram A - below - which illustrates his first classification:

order). A repetition of the same or similar things done twice or more than twice.

**B. Series sequence (higher order).** A combination of two or more simple series in which one of their

## 1.A. Simple series (first

Ausgangsserie	Anhangs- oder Nebenserie		
Serie 1. Ordnung (1. Potenz)	Serie(n) 2. Ordnung (3. Potenz)	Serie(n) 3. Ordnung (6. Potenz)	Serie(n) 4. Ordnung (12. Potenz)
I $\begin{pmatrix} a_1 \\ b_1 \\ c_1 \end{pmatrix}$ II $\begin{pmatrix} a_2 \\ b_2 \\ c_2 \end{pmatrix}$ III $\begin{pmatrix} a_3 \\ b_3 \\ c_3 \end{pmatrix}$	IV $\begin{pmatrix} a_4 \\ d_4 \\ e_4 \end{pmatrix}$ V $\begin{pmatrix} a_5 \\ d_5 \\ e_5 \end{pmatrix}$ VI $\begin{pmatrix} a_6 \\ d_6 \\ e_6 \end{pmatrix}$	VII $\begin{pmatrix} d_7 \\ j_7 \\ k_7 \end{pmatrix}$ VIII $\begin{pmatrix} d_8 \\ j_8 \\ k_8 \end{pmatrix}$ IX $\begin{pmatrix} d_9 \\ j_9 \\ k_9 \end{pmatrix}$	X $\begin{pmatrix} j_1 \\ v_1 \\ w_1 \end{pmatrix}$ XI $\begin{pmatrix} j_2 \\ v_2 \\ w_2 \end{pmatrix}$ XII $\begin{pmatrix} j_3 \\ v_3 \\ w_3 \end{pmatrix}$
		VII $\begin{pmatrix} a_7 \\ l_7 \\ m_7 \end{pmatrix}$ VIII $\begin{pmatrix} a_8 \\ l_8 \\ m_8 \end{pmatrix}$ IX $\begin{pmatrix} a_9 \\ l_9 \\ m_9 \end{pmatrix}$	X $\begin{pmatrix} l_1 \\ z_1 \\ A_1 \end{pmatrix}$ XI $\begin{pmatrix} l_2 \\ z_2 \\ A_2 \end{pmatrix}$ XII $\begin{pmatrix} l_3 \\ z_3 \\ A_3 \end{pmatrix}$
		VII $\begin{pmatrix} i_7 \\ n_7 \\ o_7 \end{pmatrix}$ VIII $\begin{pmatrix} i_8 \\ n_8 \\ o_8 \end{pmatrix}$ IX $\begin{pmatrix} i_9 \\ n_9 \\ o_9 \end{pmatrix}$	X $\begin{pmatrix} m_1 \\ B_1 \\ C_1 \end{pmatrix}$ XI $\begin{pmatrix} m_2 \\ B_2 \\ C_2 \end{pmatrix}$ XII $\begin{pmatrix} m_3 \\ B_3 \\ C_3 \end{pmatrix}$
		IV $\begin{pmatrix} b_4 \\ f_4 \\ g_4 \end{pmatrix}$ V $\begin{pmatrix} b_5 \\ f_5 \\ g_5 \end{pmatrix}$ VI $\begin{pmatrix} b_6 \\ f_6 \\ g_6 \end{pmatrix}$	X $\begin{pmatrix} n_1 \\ D_1 \\ E_1 \end{pmatrix}$ XI $\begin{pmatrix} n_2 \\ D_2 \\ E_2 \end{pmatrix}$ XII $\begin{pmatrix} n_3 \\ D_3 \\ E_3 \end{pmatrix}$
		VII $\begin{pmatrix} g_7 \\ p_7 \\ q_7 \end{pmatrix}$ VIII $\begin{pmatrix} g_8 \\ p_8 \\ q_8 \end{pmatrix}$ IX $\begin{pmatrix} g_9 \\ p_9 \\ q_9 \end{pmatrix}$	X $\begin{pmatrix} o_1 \\ F_1 \\ O_1 \end{pmatrix}$ XI $\begin{pmatrix} o_2 \\ F_2 \\ O_2 \end{pmatrix}$ XII $\begin{pmatrix} o_3 \\ F_3 \\ O_3 \end{pmatrix}$
		VII $\begin{pmatrix} h_7 \\ r_7 \\ s_7 \end{pmatrix}$ VIII $\begin{pmatrix} h_8 \\ r_8 \\ s_8 \end{pmatrix}$ IX $\begin{pmatrix} h_9 \\ r_9 \\ s_9 \end{pmatrix}$	X $\begin{pmatrix} p_1 \\ H_1 \\ J_1 \end{pmatrix}$ XI $\begin{pmatrix} p_2 \\ H_2 \\ J_2 \end{pmatrix}$ XII $\begin{pmatrix} p_3 \\ H_3 \\ J_3 \end{pmatrix}$
	IV $\begin{pmatrix} c_4 \\ h_4 \\ i_4 \end{pmatrix}$ V $\begin{pmatrix} c_5 \\ h_5 \\ i_5 \end{pmatrix}$ VI $\begin{pmatrix} c_6 \\ h_6 \\ i_6 \end{pmatrix}$	X $\begin{pmatrix} q_1 \\ K_1 \\ L_1 \end{pmatrix}$ XI $\begin{pmatrix} q_2 \\ K_2 \\ L_2 \end{pmatrix}$ XII $\begin{pmatrix} q_3 \\ K_3 \\ L_3 \end{pmatrix}$	
	VII $\begin{pmatrix} i_7 \\ t_7 \\ u_7 \end{pmatrix}$ VIII $\begin{pmatrix} i_8 \\ t_8 \\ u_8 \end{pmatrix}$ IX $\begin{pmatrix} i_9 \\ t_9 \\ u_9 \end{pmatrix}$	X $\begin{pmatrix} r_1 \\ M_1 \\ N_1 \end{pmatrix}$ XI $\begin{pmatrix} r_2 \\ M_2 \\ N_2 \end{pmatrix}$ XII $\begin{pmatrix} r_3 \\ M_3 \\ N_3 \end{pmatrix}$	
		X $\begin{pmatrix} o_1 \\ P_1 \\ P_1 \end{pmatrix}$ XI $\begin{pmatrix} o_2 \\ P_2 \\ P_2 \end{pmatrix}$ XII $\begin{pmatrix} o_3 \\ P_3 \\ P_3 \end{pmatrix}$	
		X $\begin{pmatrix} l_1 \\ R_1 \\ S_1 \end{pmatrix}$ XI $\begin{pmatrix} l_2 \\ R_2 \\ S_2 \end{pmatrix}$ XII $\begin{pmatrix} l_3 \\ R_3 \\ S_3 \end{pmatrix}$	

Diagram A



features (transverse component) is always taken over into the series that follows and is repeated there.

**C. Power series (higher degree).** All of the series of the first order that issue from a common series as their origin by means of a changeover of components.

In diagram A - previous page - things start out simple and very soon become horrendously complex. In the first series on the left (Series 1), there is simple repetition of an event with three components a, b, and c. It could be, for example, on day one(I) you run into a strange man(a) wearing a Tyrolean hat(b) and carrying a brass-headed walking stick(c). Nothing of note. On day two(II), it happens again - same guy, same hat, same stick. An interesting coincidence.

On day three(III), there

he is again. Is he following you, or what? Day four(IV), you see him again for the fourth time(a4), but he's wearing a bowler(d1) and carrying an umbrella(e1). The coincidence-series is over.

Or is it? Just down the block you spot a different guy(f1) who's wearing a Tyrolean hat(b4) and carrying a briefcase(g1), and around the corner there appears a fellow(h1) wearing a fedora(i1) and carrying a brass-headed walking stick(c4)! Your original experience has split into three.

Two more times(V, VI) you see all three in this new form, and then each of those transforms into two different versions with shared elements - canes, umbrellas, sticks, various hats, and who knows what else. By the fifteenth repetition, what you see may not appear to noticeably resemble your first coincidence, yet it is directly linked.

We began with an arbitrary starting place, however, which made it much simpler than it really is.

Diagram B - below - is a modest effort to show that we reached that starting place as a result of other elements shuffling themselves along until we showed up at that place and time. In fact, one could start at any one of the modules in diagram A and go off in any direction and still find things to be connected. Wherever you are, things are moving in all directions, overlapping and developing both in time (longitudinally, left to right in the diagram) and space (transversely, up and down in the diagram). You, of necessity, are always in the middle of it all, confused by the blinding complexity of it all, yet sensing there is some sort of order here if only you could pull back, God-like, enough to see it.

Zweitvorhergehende Serie (-2)	Erstvorhergehende Serie (-1)	„Ausgangsserie“ des Schemas S. 57 (+1)
$-V \begin{pmatrix} 8_1 \\ 9_1 \\ D_1 \end{pmatrix} -IV \begin{pmatrix} 3_1 \\ 8_1 \\ C_1 \end{pmatrix} -III \begin{pmatrix} 3_1 \\ 9_1 \\ D_1 \end{pmatrix}$	$-II \begin{pmatrix} 3_1 \\ v_1 \\ a_1 \end{pmatrix} -I \begin{pmatrix} 3_1 \\ v_1 \\ a_{-1} \end{pmatrix} 0 \begin{pmatrix} 3_1 \\ v_1 \\ a_0 \end{pmatrix}$	
$-V \begin{pmatrix} 0_1 \\ 8_1 \\ C_1 \end{pmatrix} -IV \begin{pmatrix} 0_1 \\ 9_1 \\ D_1 \end{pmatrix} -III \begin{pmatrix} 0_1 \\ 8_1 \\ D_1 \end{pmatrix}$		
$-V \begin{pmatrix} 1_1 \\ 8_1 \\ E_1 \end{pmatrix} -IV \begin{pmatrix} 1_1 \\ 9_1 \\ C_1 \end{pmatrix} -III \begin{pmatrix} 1_1 \\ 9_1 \\ D_1 \end{pmatrix}$	$-II \begin{pmatrix} 1_1 \\ z_1 \\ b_1 \end{pmatrix} -I \begin{pmatrix} 1_1 \\ z_1 \\ b_{-1} \end{pmatrix} 0 \begin{pmatrix} 1_1 \\ z_1 \\ b_0 \end{pmatrix}$	$I \begin{pmatrix} a_1 \\ b_1 \\ c_1 \end{pmatrix} II \begin{pmatrix} a_1 \\ b_1 \\ c_1 \end{pmatrix} III \begin{pmatrix} a_1 \\ b_1 \\ c_1 \end{pmatrix}$
$-V \begin{pmatrix} 1_1 \\ 8_1 \\ U_1 \end{pmatrix} -IV \begin{pmatrix} 1_1 \\ 9_1 \\ U_1 \end{pmatrix} -III \begin{pmatrix} 1_1 \\ 9_1 \\ U_1 \end{pmatrix}$		
$-V \begin{pmatrix} 0_1 \\ 8_1 \\ W_1 \end{pmatrix} -IV \begin{pmatrix} 0_1 \\ 9_1 \\ W_1 \end{pmatrix} -III \begin{pmatrix} 0_1 \\ 9_1 \\ W_1 \end{pmatrix}$	$-II \begin{pmatrix} v_1 \\ \omega_1 \\ c_1 \end{pmatrix} -I \begin{pmatrix} v_1 \\ \omega_1 \\ c_{-1} \end{pmatrix} 0 \begin{pmatrix} v_1 \\ \omega_1 \\ c_0 \end{pmatrix}$	
$-V \begin{pmatrix} 1_1 \\ 8_1 \\ \omega_1 \end{pmatrix} -IV \begin{pmatrix} 1_1 \\ 9_1 \\ \omega_1 \end{pmatrix} -III \begin{pmatrix} 1_1 \\ 9_1 \\ \omega_1 \end{pmatrix}$		

Diagram B

temporal persistence. Perhaps this is a factor in the 'magical' character of many of the ancient sacred places.

**ASTROLOGY** - And last, but not least, the old bugaboo that has been hanging around for centuries and engaged some of our greatest scientific minds (Brahe, Kepler, Copernicus, Galileo, Cardano, Paracelsus), and was instrumental in the birth of much of modern astronomy, mathematics, medicine, and psychology. It has fallen on hard times, because laboratory science cannot find 1). proof that it works consistently, and 2). a physical basis for its operation.

We see different processes at work here, which partly accounts for some of the confusion surrounding it. First of all, there is a strictly causal side to astrology, for which the evidence has steadily been accumulating. The planets apparently regulate solar activity in various ways, producing the variations in the solar wind which have such pronounced consequences on the Earth and its life. Furthermore, a mechanism has been proposed (by astronomer Percy Seymour) by which the planets can have a direct effect on the Earth: they can distort the Earth's magnetosphere by gravitation, thus affecting the geomagnetic field of the Earth itself.

From here on the linkages so far proposed become a bit implausible. We would suggest an application of Kammerer's imitation hypothesis here - namely, that the fluctuating gravitational influence causes fluctuating geomagnetic cycles which tend to mode-lock other large Earthly systems such as land and water tides, weather, geological cycles, etc. These, over the aeons, continue to mode-lock

smaller systems, not as a single homogeneous unit, but singly by planet depending upon the nearest associated frequencies or resonances (just as different crystals lock onto different radio wavelengths). Over millions of years, multiple series of integrated systems are set up and continually reinforced. So, it should not be surprising when certain events surface in sync with the return of a given planet to a given position (a transit).

Another process involved in astrological phenomena is just Kammerer's persistence, and it explains the natal horoscope. Seriality takes effect after a system has fully come into independent being. At the moment of birth, a baby becomes an independent system, and effectively removes itself from any further endemic influence of the planets as a subset of its mother's system. It has, so to speak, locked them out, and its internal cycles will continue to persist with the pattern of planetary cycles prevailing at that moment, which will presumably have an influence on its personality. Furthermore, from that time on the planets can be used as indicators of the cresting and superposition of the internal cycles in the person.

These are just a handful of fields where seriality may shed light. Others include epidemiology, evolution, weather, homeopathy, probability, and on and on. By connecting the original ideas of Paul Kammerer with more recent concepts and updating the application of his thought as we are trying to do, a host of mysteries and their logical explanations may come to light. Despite the latest advances in complexity theory and the like, Kammerer's work and our applications of it still outdistance the pack. Perhaps this brilliant, but long-disparaged scientist may yet have his day.