

# In the Presence of the Past

## Interview with [Rupert Sheldrake](#)

**DJB:** *Rupert, what was it that originally inspired your interest in biochemistry and morphogenesis?*

**RUPERT:** I did biology because I was interested in animals and plants, and because my father was a biologist. He was a natural historian of the old school, with a microscope room at home and cabinets of slides, and so on. And he taught me a lot about plants, and I learned about animals through keeping pets. I was just very interested in biology. One reason I did biochemistry was because it was one of the very few sciences you could do which was still covering all of biology. Biochemistry covered plants, animals, and microorganisms. That appealed to me. It was a kind of universal biological science. I saw, of course, quite soon, that biochemistry was no way of understanding the forms of animals and plants, and I spent a lot of time thinking about how to make the bridge between embryology, plant development, and what was going on on the biochemical level. And this was the subject of research for some ten years that I did at Cambridge. ¶

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**DJB:** *Just so that everyone is familiar with your theoretical work, can you briefly define for us the basic intention behind, and the basic elements of, the **theory of formative causation**?*

**RUPERT:** The theory of formative causation is concerned with how things take up their forms, or patterns, or organiza-

tion. So it covers the formation of galaxies, atoms, crystals, molecules, plants, animals, cells, societies. It covers all kinds of things that have forms, patterns, structures, or selforganizing properties. ¶

You see, all these things organize themselves. An atom doesn't have to be put together by some external agency. It organizes itself. A molecule and a crystal are not assembled by human beings bit by bit, they spontaneously crystalize. Animals spontaneously grow. All these things are different from machines, which are artificially put together by human beings. ¶

So, what my theory is concerned with is self-organizing natural systems, and it deals with the cause of form. And the cause of all these forms I take to be organizing fields, formshaping fields, which I call morphic fields, from the Greek word for form. The original feature of what I'm saying is that the forms of societies, ideas, crystals and molecules depend on the way that previous ones of that kind have been organized. There's a kind of built-in memory in the morphic fields of each kind of thing. So the regularities of nature I think of as more like habits, than as things governed by eternal mathematical laws that somehow exist outside nature.

**RMN:** *Could you give a specific example of, and describe the **morphogenetic process** in terms of, the development of a well-established species, like a potato, for example?*

**RUPERT:** Well, the idea is that each species, each member of a species draws on the collective memory of the species, and tunes in to past members of the species, and in turn contributes to the further development of the species. So in the case of a potato, you'd have a whole background resonance from past species of potatoes, most of which grow wild in the Andes. And then in that particular case, because it's a

cultivated plant, there's been a development of a whole lot of varieties of potatoes, which are cultivated, and as it so happens potatoes are propagated vegetatively, so they're clones. ¶

So each clone of potatoes, each variety, each member of the clone will resonate with all previous members of the clone, and that resonance is against a background of resonance with other members of the potato species, and then that's related to related potato species, wild ones that still grow in the Andes. So, there's a whole kind of background resonance, but what's most important is the resonance from the most similar ones, which is the past members of that variety. And this is what makes the potatoes of that variety develop the way they do, following the habits of their kind. ¶

Usually these things are ascribed to genes. Most people assume that inheritance depends on chemical genes and DNA, and say there's no problem, it's all just programmed in the DNA. What I'm saying is that that view of biological development is inadequate. The DNA is the same in all the cells of the potato, in the shoots, in the roots, in the leaves, and the flowers. The DNA is exactly the same, yet these organs develop differently. So something more than DNA must be giving rise to the form of the potato, and that is what I call the morphic field, the organizing field. ¶

An example of how you'd test the theory would depend on looking at some change in the species that hadn't happened before, a new phenomenon, and seeing how it spreads through the species. So, for example, if you train rats to learn a new trick in one place, then rats of that breed should learn it more quickly everywhere in the world, just because the first ones have learned it. The more that learn it, the easier it should get.

**RMN:** *What about how the **morphic field** develops in a new system, like a newly synthesized chemical, or a drug? How would the field evolve around that?*

**RUPERT:** Well, the first time the chemical is crystallized, there won't be a morphic field for the crystals, because they would not have existed before. As time goes on, it should get easier to crystallize, because of morphic resonance from previous crystals. So, however the first pattern is taken --this is a question of creativity, but assume, for example, it's random--whenever the first lot of crystals crystallize that way, out of the other possible ways they could have crystallized, then that pattern will be stabilized through morphic resonance, and the more often it happens, the more likely it will be to happen again, through this kind of invisible memory connecting up crystals throughout the world. There's already evidence that new crystals, new compounds, do get easier to crystallize as time goes on.

**DJB:** *What are morphic fields made of, and how is it that they can exist everywhere all at once? Do they work on a principle similar to [Bell's Theorem](#)?*

**RUPERT:** Well, you could ask the question, what are any fields made of? You know, what is the electromagnetic field made of, or what is the gravitational field made of? Nobody knows, even in the case of the known fields of physics. It was thought in the nineteenth century that they were made of ether. But then Einstein showed that the concept of the ether was superfluous; he said the electromagnetic field isn't made out of ether, it's made out of itself. It just is. The magnetic field around a magnet, for example, is not made of air, and it's not made of matter. When you scatter iron filings, you can reveal this field, but it's not made of anything except the field. And then if you say, well maybe all fields have some

common substance, or common property, then that's the quest for a unified field theory. ¶

Then if you say, "Well, what is it that all fields are made of?" the only answer that can be given is space-time, or space and time. The substance of fields is space; fields are modifications of space or of the vacuum. And according to Einstein's general theory of relativity, the gravitational field, the structure of space-time in the whole universe, is not in space and time; it is space-time. There's no space and time other than the structure of fields. So fields are patterns of space-time. And so the morphic field, like other fields, will be structures in space and time. They have their own kind of ontological status, the same kind of status as electromagnetic and gravitational fields.

**DJB:** *Wait. But those are localized aren't they? I mean, you sprinkle iron filings about a magnet, and you can see the field around it. How is it that a morphic field can exist everywhere all at once?*

**RUPERT:** It doesn't. The morphic fields are localized. They're in and around the system they organize. So the morphic field of you is in and around your body. The morphic field around a tomato plant is in and around that plant. What I'm suggesting is that morphic fields in different tomato plants resonate with each other across space and time. I'm not suggesting that the field itself is delocalized over the whole of space and time. It's suggesting that one field influences another field through space and time. Now, the medium of transmission is obscure. I call it morphic resonance, this process of resonating. What this is replacing in conventional physics is the so-called "laws of nature," which are believed to be present in all places, and at all times. ¶

So, what is the substance of a law of nature? And how are laws of nature present in all places and at all times? These are the alternative questions to the idea of morphic resonance. It's not as if ordinary physics has something that's more "common sense" than morphic resonance; it has something that's less common sense. It has the idea of invisible mathematical laws, which are not material or energetic, yet present everywhere and always, utterly mysterious. Morphic resonance is mysterious, but it involves not a pattern imposed from outside space and time everywhere, but rather a pattern that can spread through space and time, by the process I call morphic resonance.

**RMN:** *You suggest that the hypothesis of formative causation does not refute orthodox theory but actually incorporates and complements it. How is this so?*

**RUPERT:** The orthodox theory in biology and in chemistry, and indeed in science, is the mechanistic theory of nature that says all natural systems are like machines, and are made up of physical and chemical processes. What I'm saying is that you can, if you like, think of aspects of nature as being machine-like, but this doesn't explain them. Nature isn't a machine. You and I are not machines. We may be like machines in certain respects. Our hearts may be like pumps, and our brains, in some sense, like computers. ¶

Mechanistic theory is providing machine analogies for nature, and it's true that you can look at some aspects of organisms in this machine-like way. But in other important respects, nature in general, and organisms in particular, are not machines or machine-like. So, what I'm suggesting is that the mechanistic theory is alright as far as it goes. Its positive content is alright when it tells us about the physics of nerve impulses, or the chemistry of enzymes; that's fine, this is useful information, and is part of the picture. ¶

If it says that life is nothing but things that can be explained in terms of regular ordinary physics, that already exist in physics textbooks, if it says life is nothing but that--and this is what most mechanistic biologists do say--then I think it's wrong, because it's too limited. It's taking a part of the picture, and assuming it's the whole. It's a half-truth.

**RMN:** *You've incorporated that into your theory, and just taken it to another level...?*

**RUPERT:** Yes. There are still enzymes and nerve impulses in the kind of world I'm talking about; all the things that are in regular biochemistry and biophysics are still there. What isn't still there is the assumption that these aspects of the process are all there is. To take an analogy, it's like trying to understand a building. If you want to understand a building, one level of looking at it is to say, well it's made of wood and other things, metal and frames, and so on. And then you can say we can measure, we can analyze the wood and other components. ¶

You can find out exactly what chemicals are in the wood, the exact molecular composition, the exact constituents of the whole building. But when you grind it up or break it down to analyze the parts, the form of the building, the structure of the room, the plan disappears when you're analyzing the constituents, especially if you have to knock it down to do that. And usually to analyze the chemical constituents within an organism, first you have to kill and destroy it. So the plan of the building is also part of the building, it's the formative aspect of the building, the form. And you'll never understand the plan of a building, its form or its function for that matter, just by analyzing the constituents. Although without the constituents, the wood and stuff, you can't have a building.

**DJB:** *What are the **implications** of the theory of formative causation? How do hypothetical morphic fields affect things like the sciences, the arts, technologies, and social structures?*

**RUPERT:** Well, I've written an entire book on this subject--*The Presence of the Past*--so it's difficult to answer it extremely briefly. But, first of all, it gives a completely different understanding of formative processes in biology and in chemistry. It gives a new understanding of instincts and behavioral patterns, as being organized by morphic fields. It gives a new understanding of social structure, in terms of morphic fields, and cultural forms, and ideas. All of these I see as patterns organized by these fields with an inherent memory. ¶

In the human realm, for example, it leads to the idea of a collective human memory on which we all draw, which is very like [Jung's](#) idea of the [collective unconscious](#). In terms of social groups, it gives rise to the idea that the whole social group is organized by a field. And that that field is not just an organizing structure in the present, but also contains a memory of that social group in the past, a group memory---and also, through morphic resonance, a memory of other similar social groups that have existed before. ¶

So, a football team, for example, will tune into its own field in the past. The individual players on the football team will be coordinated not just by observing each other, but by a kind of group mind that will be working when the game's going around. And this will in turn have as a kind of background resonance the morphic fields of other similar football teams.

**RMN:** *On the one hand it is reassuring that a certain pattern or order is being maintained, and yet options must be*



*available for change if that pattern ceases to function effectively. In what ways does nature supply the necessary conditions for this balance of repeatability and novelty?*

**RUPERT:** Well, the universe is not in a steady state; there's an ongoing creative principle in nature, which is driving things onwards. Cosmologically speaking, this is the expansion of the universe. If the universe had been in a steady state at the moment of the *Big Bang*, it'd still be at billions of degrees centigrade. We wouldn't be here. The reason we're here is because the Big Bang involved a colossal explosion, an outward movement of expansion of the whole universe, such that it cooled down, and virtually created more space for new things to happen. And in the ongoing evolutionary process, there's a constant destabilization of what's there through the fact that the universe is not in equilibrium. ¶

This ongoing process in the whole of nature in itself tends to break up old patterns, and prevent things just stopping where they were. You see it in the history of the earth, the ongoing evolutionary process, through the catastrophic changes that have happened to the earth through the impact of asteroids and so on. ¶

The cumulative nature of the evolutionary process, the fact that memory is preserved, means that life grows not just through a random proliferation of new forms, but there's a kind of cumulative quality. You start with single-celled organisms, and you end with complex multi-cellular ones, like there are today. New species arise usually when new opportunities appear, and the biggest bursts of speciation that we know about in the history of the earth are soon after great cataclysms, like the extinction of the dinosaurs, which create new opportunities, and all sorts of new forms spring up. Thereafter they tend to be fairly stable. So, quite often, the

reasons for creativity depend on accidents or disasters that prevent the normal habits being carried out.

**RMN:** *When a system hits an evolutionary dead end, an organism becomes extinct or an object obsolete. What happens to its field? Does it kind of just breakup and merge with other similar fields?*

**RUPERT:** Well, I think in a sense the ghosts of dead species would still be haunting the world, that the fields of the dinosaurs would still be potentially present ... if you could tune into them. If a dinosaur egg could be reconstituted, you could get them back again. I think that in the course of evolution these past forms do indeed reappear. They're known in the biological literature as atavisms, the process by which the forms, or patterns, or behaviors of extinct species reappear in living ones. Like babies being born with tails.

**DJB:** *Or parallel evolution?*

**RUPERT:** Well, parallel evolution would involve a similar process, but what I'm talking about is the influence of extinct species traveling across time and these features reappearing. Parallel evolution would be where you have the features of some species traveling across space, and similar patterns evolving somewhere else like, for example, the evolution of forms among marsupials in Australia that parallel those of placental mammals elsewhere.

**DJB:** *You said before that there could be a sort of collective memory, and you said that was analogous to Jung's notion of the **collective unconscious**. Do you think it's possible then that morphic fields are, or can be, actually conscious?*

**RUPERT:** I don't think that morphic fields are conscious. I think that some aspects of morphic fields could become con-

conscious in human beings. I think that the underlying patterns of mental activity that are ideas, thoughts, etc., depend on our morphic fields. I think they become conscious in us. But most of the collective unconscious, most of our habits, and most of the habits of nature, I think, are unconscious, and most of nature, I think, works much more like our unconscious minds than like our conscious minds. And after all, 90%, maybe 99%, of our own activity is unconscious. We don't need to assume that the kind of unconscious memories that we ourselves have are any different from the rest of nature. ¶

We needn't assume that just because we have some conscious memories, all of the memory of nature must be conscious. In fact, most of our memories are unconscious, as are most of our habits, like the habit of speaking English, for example, the way one speaks, one's mannerisms, one's accent, or the habit of driving a car. When you drive a car, you don't have to be conscious of every muscular movement, or everything you're doing. Those habits unfold spontaneously. And the more deep-seated biological habits, like the functioning of our bodies, and our heartbeat, and the way our guts are working are completely unconscious to most of us.

**DJB:** *In your book *The Presence of the Past* you offer the suggestion that **memories** are not actually stored in the brain, but rather they may be stored in an information field that can be accessed by the brain. If this should prove to be true, do you believe then that human consciousness, our personal memories and sense of self, may survive biological death in some form?*

**RUPERT:** Well, certainly the idea that memories aren't stored in the brain opens the way for a new debate or new perspective on the question of survival of death. Most people assume memories are stored in the brain, simply because this

is the mechanistic paradigm that's very rarely challenged. There's hardly any evidence for memory storage in the brain, as I show in my book, and what evidence there is could be interpreted better in terms of the brain as a tuning system, tuning into its own past. So that we can gain access to our own memories by tuning into our own past states. The brain is more like a TV receiver than like a tape recorder or a video recorder. ¶

If memories are stored in the brain then there's no possibility of conscious, or even unconscious survival of bodily death, because if memories are in the brain, the brain decays at death, and your memories must be wiped out through the decay of the brain. No form of survival in any shape or form, even through reincarnation, would be possible in such a scenario. That's one reason why materialists are so attached to the idea of memory storage in the brain, because it refutes all religions in a two line argument. But, in fact, there's very little evidence they're stored in the brain. ¶

So if they're not stored in the brain then the memories won't decay at death, but there'll still have to be something that can tune into them, or gain access to them. So could some tuning system, could some non-physical aspect of the self survive death and still gain access to the memories? That's the big question. I regard it as an open question. I myself think that we do survive bodily death in some form, and that some aspect of the self does survive with access to memories. And that's a personal opinion. The theory as such leaves this question quite open.

**DJB:** *Do you think there is a **morphic field for dreams, mystical experiences, and other states of consciousness?***

**RUPERT:** I think that any organized structure of activity-- which includes dreams and some mystical experiences, and

altered states of consciousness--any pattern of activity has a structure, and in so far as these mental activities or states have structures, then these structures could indeed move from person to person by morphic resonance. And indeed, in many mystical traditions, it's thought that people through initiation are brought into that particular tradition and resonate, or in some sense enter into communion with, or connection with, other people who followed in the tradition before. ¶

So, in Hindu and Buddhist lineages, you often get the idea that through initiation and the transmission of the right mantras, and so on, the initiate comes into contact with the guru, the teacher, and the whole line of those who'd gone before. There is a similar idea in Christianity, the idea of the communion of saints. Those who participate in the Christian sacraments, particularly the Eucharist, are in contact, not just with other people doing it now, or other people who happen to be around, but somehow in some kind of resonant connection with all those who've done the same thing before.

**RMN:** *What have your ideas been on the **hierarchical systems of morphic fields**, of the fundamental fields of nature or life, and the basic morphic fields that have influenced that, or the morphic fields of morphic fields? I've been wondering about that.*

**RUPERT:** I think all such fields are organized [holoarchically](#) or hierarchically. They're hierarchical in the sense of nested hierarchies. Cells are within tissues, and tissues are within organs, and organs are within your body. There's a sense in which the whole, the body and the mind, the whole of you, is greater than the organs in your body, and those in turn are greater than tissues, those in turn greater than cells, those in turn greater than molecules. The greater is a spatial context, the more embracing field. ¶

If you think about the way nature is organized, you can see the same pattern at every level. Our earth, Gaia, is included in the solar system, the solar system is in the galaxy, the galaxy within a cluster of galaxies, and ultimately everything is included within the cosmos. So you could say the most primal basic field of nature is the cosmic field, and then the galactic fields, and solar system fields, planetary fields, continental fields, and so on in this nested hierarchy. At each level the whole organizes the parts within it, and the parts affect the whole; there's a two-way influence.

**DJB:** *Do you think it's possible that morphic fields from the future may be influencing us, as well as those from the past? If not, why?*

**RUPERT:** Well, I think that is related to the question of creativity; how do new patterns come into being? There may possibly be some influence from the future. But the habitual fields, which I'm mainly talking about, are not influenced by the future, at least as far as this theory is concerned. It would be possible to have a theory that said the future and the past exerted equal influences, but that theory would be different from the one I'm suggesting, which is that the past is influencing the present through morphic resonance. If future and past influenced it equally, the theory would be virtually untestable, because we don't know what will happen in the future, so we wouldn't know what influences we'd be testing for. ¶

If the future influenced things as much as the past, then the experiments I'm suggesting, like rats getting better at learning something all around the world, shouldn't work. Rats should start off just as good as they continue, because they'll always be limitless numbers in the future, which would be influencing them. So this is actually a testable possibility. ¶

I think that habits and memories come from the past. This is just common sense. We have memories of the past, and we don't have memories of the future in the same way. Occasionally some people have pre-cognitive flashes. But we don't have memories of the future. We may have hopes, plans, desires, inspirations, insights, etc., but they're not memories in the same sense that memories from the past are memories. We don't get habits from the future, we get them from the past.

**RMN:** *Could the presence of the future be described as the potential state of the system, the virtual state, as it moves along the pathways or access routes towards it?*

**RUPERT:** Yes, I think so. I think there are two ways of thinking about it. One is there's a kind of aura around the present stretching out into the future, which is the realm of hopes, fears, possibilities, dreams, imaginings about what can happen. But then there's a further question, and a more fundamental one, as to whether the whole evolutionary process is being pulled from the future, rather than being pushed from the past. And the idea that it's all being pulled from the future is a very traditional view, and so is the idea it's being pushed from the past. ¶

The traditional Judeo-Christian view of history is that history is being pulled from the future, there's something in the future--which *Terence McKenna* calls the transcendental object, *Teilhard de Chardin* calls the omega point, what the *Book of Revelation* calls the new creation, what metanarians have thought of as the millennium. That some future state of perfection is drawing the whole cosmic evolutionary process towards itself in some mysterious way. And that, therefore, the whole cosmic evolutionary process has a kind of goal or purpose. Well that's a view which many people subscribe to,

and it's a view that lies at the root of the doctrine of progress, which dominates our whole society. ¶

So this view isn't just a philosophical view; in a secularized form, it dominates both capitalist and communist societies--the dream of a better future. Most traditional societies haven't had that dream, they haven't been motivated by that, they looked to the past for a model of the way things should be, how it used to be in the golden age. They haven't tried to create a new kind of future golden age. And our society represents an ambitious global attempt to do just that through conquering nature by means of science and technology. The inspirational basis for the destruction of the environment, the development of the tropical forests, etc., is this dream of a future state on earth that progress will lead us towards, where there's peace, prosperity, and plenty through man's conquest of nature. ¶

And many of us now think that dream is a kind of chimera, a vision that is utterly destructive in its consequences. But the fact is that it still comes from that same dream of a future pulling things along. I think all forms of western thought are under the influence of this particular attractor, as one could call it. The idea of a future goal attracting things towards it is utterly dominant in almost every area of western thought I know. The New Age communists with their millenarian vision--it's just part of our culture.

**RMN:** *Yeah, that leads on to the next question I have about how to use the concept of **attractors**, as expressed in the current research of dynamical systems, in the theory of formative causation.*

**RUPERT:** Well, the idea of attractors, which is developed in modern mathematical dynamics, is a way of modeling the way systems develop, by modeling the end states toward



which they tend. This is an attempt to understand systems by understanding where they're headed to in the future, rather than just where they've been pushed from in the past. So, the attractor, as the name implies, pulls the system towards itself. A very simple, easy-to-understand, example is throwing marbles, or round balls into a pudding basin. The balls will roll round and round, and they'll finally come to rest at the bottom of the basin. The bottom of the basin is the attractor, in what mathematicians call the basin of attraction. ¶

The basin is, in fact, their principal metaphor. So the ball rolls down to the bottom. It doesn't matter where you throw it in, or at what speed you throw it in, or by what route it takes--what this model does is tell you where it's going to end up. This kind of mathematical modeling is extremely appropriate, I think, to the understanding of biological morphogenesis, or the formation of crystals or molecules, or the formation of galaxies, or the formation of ideas, or human behavior, or the behavior of entire societies. Because all of them seem to have this kind of tendency to move towards attractors, which we think of consciously as goals and purposes. But, throughout the natural world these attractors exist, I think, largely unconsciously. The oak tree is the attractor of the acorn. So the growing oak seedling is drawn towards its formal attractor, its morphic attractor, which is the mature oak tree.

**RMN:** *So, it is like the future in some sense.*

**RUPERT:** It's like the future pulling, but it's not the future. It's a hard concept to grasp, because what we think of as the future pulling is not necessary what will happen in the future. You can cut the acorn down before it ever reaches the oak tree. So, it's not as if its future as oak tree is pulling it. It's some kind of potentiality to reach an end state, which is inherent in its nature. The attractor in traditional language is

the entelechy, in Aristotle's language, and in the language of the medieval scholastics. Entelechy is the aspect of the soul, which is the end which draws everything towards it. So all people would have their own entelechy, which would be like their own destiny or purpose. Each organism, like an acorn, would have the entelechy of an oak tree, which means this end state--entelechy means the end which is within it--it has its own end, purpose, or goal. And that's what draws it. But that end, purpose, or goal is somehow not necessarily in the future. It is in a sense in the future. In another sense it's not the actual future of that system, although it becomes so.

**RMN:** *Perhaps the most compelling implication of your hypothesis is that nature is not governed by eternally fixed laws but more by habits that are able to evolve as conditions change. In what ways do you think the human experience of reality could be affected as a result of this awareness?*

**RUPERT:** Well, I think first of all the idea of habits developing along with nature gives us a much more evolutionary sense of nature herself. I think that nature--the entire cosmos, the natural world we live in--is in some sense alive, and that it's more like a developing organism, with developing habits, than like a fixed machine governed by fixed laws, which is the old image of the cosmos, the old world view. ¶

Second, I think the notion of natural habits enables us to see how there's a kind of presence of the past in the world around us. The past isn't just something that happens and is gone. It's something which is continually influencing the present, and is in some sense present in the present. ¶

Thirdly, it gives us a completely different understanding of ourselves, our own memories, our own collective memories, and the influence of our ancestors, and the past of our society. And it also gives an important new insight into the im-

portance of rituals, and forms through which we connect ourselves with the past, forms in which past members of our society become present through ritual activity. I think it also enables us to understand how new patterns of activity can spread far more quickly than would be possible under standard mechanistic theories, or even under standard psychological theories. Because if many people start doing, thinking, or practicing something, it'll make it easier for others to do the same thing.

**RMN:** *And the way different discoveries are found simultaneously.*

**RUPERT:** Yes. I mean, that's another aspect. It will also mean things that some people do--will resonate with others, as in independent discoveries, parallel cultural development, etc.

**RMN:** *When you were talking about the individuals' destinies being ruled by some kind of morphic field of their own. Individuality--does that resonate through their ancestral heritage and their environment?*

**RUPERT:** Well, it was in a quite limited sense that I was using the term. When you're an embryo there's a sense in which the destiny of the embryo is to be an adult human being. There's a sense in which the growth and development of an embryo and a child are headed toward the adult state. That's a relation to time, of heading towards an adult or mature state that we share in common with animals and plants. This is a basic biological feature of our life. ¶

Then there's a sense in which there is a kind of biological destiny that's common to all animals--you know, having children and reproducing. Not everybody does it, but it's obviously pretty fundamental. Most people do it. If they didn't

we wouldn't have a population problem, and that's something that's pretty fundamental to the human species today. Then there's the more psychic, or personal, or spiritual kinds of destinies. Here one gets a whole variety of opinions as to what these are.

**RMN:** *Could you expand on that?*

**RUPERT:** The thing is that most of us aren't at all original. We mostly take on opinions from the available variety on the market, and when you come to the question of individual destiny, you know, there's several traditional theories. One is that when we die, that's it, everything just goes blank, and so the only purpose of life is to enjoy it while it's happening. There's nothing beyond. This is the classic materialist or Epicurean view of life. ¶

Then there are those who think that after death we go into a kind of underworld, and our destiny is to join the ancestors, and that basically we're just cycled back into a kind of eternally cycling pool of life. This is found in traditional societies where it's not believed that things change much over time, so the ancestors are constantly being recycled among the living, and they're a living force. But people don't have any individual destiny other than becoming merged with the ancestors. So that would be another option. ¶

Then there's the reincarnational theories, that you're reincarnated, and that the ultimate destiny is liberation from the wheels of reincarnation. The bodhisatva ideal in Buddhism is to become liberated and then help others to become liberated. But if you don't aspire towards that end, which is the ultimate human end, namely liberation, then through karmic activities and involvement with this life you'll simply be reborn and keep being reborn until you move towards this end or goal which may take many lifetimes to achieve. ¶

Then there's the view you find among Christians and Moslems, which is that there's another realm after this life in which you can undergo continued development or some further destiny, different destinies, depending on how you behave and what you want in this life. So, I mean there are many choices, and that's one of the areas in which choice or freedom comes in. We choose which of these kinds of destiny we want to align ourselves with. Or if we don't think about it or don't choose, then we just fall to the lowest common denominator.

**DJB:** *What types of **research experiments** do you think need to be done that would either prove or disprove the existence of morphic fields?*

**RUPERT:** Well, I outline quite a number of them in my books. There's a series of experiments that can be done in chemistry with crystals, in biochemistry with protein folding, in developmental biology with fruit fly development, in animal behavior with rats, in human behavior through studying rates of learning tasks that other people have learned before. So there's a whole range of tests, the details of which I suggest in my books, which could be done to test the theory in a variety of areas: chemistry, biology, behavioral science, psychology. Some of these tests are going on right now in some universities in Britain. There's a competition for tests being sponsored by the [Institute of Noetic Sciences](#), tests to be done by students. The closing date's in 1990. So these are just some of the tests that I'd like to see done to test the theory.

**DJB:** *Could you tell us about any **current projects** on which you're working?*

**RUPERT:** Well, I'm doing two main things at present. One is that I'm helping to coordinate

research on morphic resonance, organizing tests in the realms of chemistry and biology. And secondly I'm writing a book called *The Rebirth of Nature*. It's a book about the ways in which we're coming to see nature as alive, rather than inanimate, and how this has enormous implications: personally for people in their relationships with the world around them; collectively, through our collective relationship to nature; spiritually, the way this leads to a reframing or re-understanding of spiritual traditions, and politically through the Green Movement, which is now an influential political force, especially in Europe. Moving from the exploitive mechanistic attitude to a symbiotic attitude, we realize that we're not in charge of nature, we're not separate from nature and somehow running it. Rather we're part of ecosystems, and part of the world, and our continued existence depends on living harmoniously with the planet of which we're a part. It's an obvious thing, this Gaian perspective, but it hasn't been taken seriously in politics. But now it is being taken seriously, and so I would say the idea of nature as alive has become a very important force in our society through its political manifestations as well as its scientific ones.¶

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