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FORMATIVE CAUSATION: THE STRANGE DRIVING FORCE

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[Note: *I first heard of* ***Rupert Sheldrake*** *while interviewing Maxwell Jones, in Phoenix, Arizona, for his autobiography. Max had become acquainted with Sheldrake through his association with Marilyn Ferguson from her book,* The Aquarian Conspiracy, *and her Mind/Brain Newsletter. Max gave a dinner party for a number of professors from the local university, some colleagues at the jail where he was consulting, a visiting professor from Johns Hopkins, and his lifelong colleague, Joy Tuxford. During the dinner, Max referred to Sheldrake's concept of morphic resonance and morphic fields, attempting to relate them to Jung's collective unconscious. Max's efforts received mixed reactions, mostly as being rather outlandish. There was even some laughter, but Max persisted in his bid to relate the two concepts. It wasn't long thereafter while I was volunteering for New Dimensions Radio, that the tall, lanky, disheveled biologist, with a sheaf of papers, appeared for an interview. I was skeptical at first, but as the interview progressed, highlighted by his accounts of the Japanese one hundredth monkey, the British blue tit raiding milk from bottles on doorsteps, and experiments with learning language, I became interested enough to later buy his book,* The New Science of Life. *Then John and I held several seminars discussing his work and challenges which formed the basis of this article for FATE Magazine.*]

The theory itself is simple; its implications profound. Memory is inherent in nature. Animals, plants, and minerals are bound by memory with others of their kind, through which each member draws on the experiences, shape, and order of previous generations. And in turn, each individual contributes to the pooled memory of the species. Which is a rather roundabout way of saying that Jung was correct in his theory of the collective unconscious. The theory of formative causation, however, goes one step further and suggests that the laws of nature are more like habits, subject to change and evolution, than they are timeless laws. Therefore the basis of organization within the universe is that of memory, which is cumulative. The organization itself is composed of morphic fields or "M" fields.

Simply put, a morphic field is "a field within and around a morphic unit which organizes its characteristic structures and pattern of activity." And morphic resonance is the influence of previous structures of activity on subsequent generations of a particular form.[1]

There are two views of the universe: the eternal (static) model, and the evolutionary model. The eternal model maintains that the universe obeys certain fundamental laws which govern the form and behavior of all matter and energy: life evolves, but physical reality does not.

The evolutionary model, on the other hand, postulates that the universe is the result of a creative process. According to this model, fifteen billion years ago the universe began with a primordial explosion,the

"Big Bang," and the galaxies have been flying apart ever since. Eventually they will slow down, and the process will reverse itself in the "Big Crunch." Formative causation compliments this second view of the universe because it allows for growth through experience.

Unlike genetic memory, which is based on chemicals and "inherited information," formative causation involves a new kind of connection across time and space. In other words, members of a species are *directly likned* with past members through time and space. The cumulative information of a species is not stored in genes, though genes are vital to the structure of an organism, and allow it to tune in. But the information itself is "stored" elsewhere: in the "M" fields.

Dr Sheldrake, who first wrote about the theory in *A New Science of Life* (1981), likens the idea to a TV set. In order to receive the right channel, a TV has to have the right components. Change the components and you change the reception. Genes are the components of plants and animals. But the information that organisms gather from the past, which their form and instincts express, isn't carried in the genes, no more than a program is stored in a TV's componenets. Rather the information is received directly through morphic resonence. Simply put, the brain is a kind of tuning device that "tunes into" past memories, both personal and collective.

Certain kinds of behavior are instinctive, such as grasping and sucking; others are acquired or culturally conditioned. But if the theory of formative causation is true, then it should be easier to learn things if people previously learned them. For instance, it should be easier for a child to learn to ride a bicycle today than it was a century ago. Likewise, it should be easier for someone to use the computer than it was twenty years ago, and so on. The cumulative memory of the species gives the individual an advantage.

To test the theory, a number of experiments were carried out, using language as the means of gauging the level of difficulty people had in learning something new. If the theory were correct, the older the language, the easier it would be to learn, because of the number of people who had spoken it down through the centuries. The tests were based on the idea that words that had been read by millions of people may be linked to morphic fields hence making it easier for people who are unfamiliar with a language would find it easier to learn real words in that language than false ones.

Selecting 48 three-letter words from the Hebrew Old Testament, then scrambling each word to make a meaningless anagram, the words (96 in all) were shown to students in random order. The students were asked to guess the meaning of the words and to write down the first English word that came to mind. As it turned out, the students felt more confident about their guesses regarding the real words even though they had guessed the wrong meaning.

A similar experiment was done with Persian, using two pairs of real and scrambled words. Again the real words were produced more accurately than the fake ones. Those conduction both experiments concluded that the results agreed with the idea of morphic resonance.

An experiment using nursery rhymes was also carried out. It was suggested that English-speaking people could be asked to learn two short rhymes in Turkish, one a traditional nursery rhyme, known to millions of Turks, the other a new rhyme made by rearranging the words in the genuine nursery rhyme. Both rhymes would be written out phonetically so that someone who

didn't know the language could read it.

Dr Sheldrake took up the suggestion, but used Japanese instead of Turkish. A third rhyme was added, however, one that was sheer gibberish. The results were astonishing. The traditional Japanese nursery rhyme was easier to learn than the new one; and the new one was easier to learn than the meaningless one. All of which leads to the question: Are common words more recognizable because of morphic resonance?

Clearly there cannot yet be a definitive answer. More experiments are needed. But those already conducted show great promise.

Of course "M" fields are not restricted to language. Behavior itself also seems to be influenced by formative causation. A case in point is the British blue tit, whose fondness for cream had caused many a housewife great annoyance.

The case of the blue tits is perhaps the best-documented example of the spontaneous spread of a new habit. In Britain, milk is still delivered to the doorstep every morning. The birds attack the bottles within minutes of delivery, pecking open the foil bottle caps and drinking up to two inches of milk. There are even reports of flocks of tits "following the milkman and drinking from the bottles on the cart while he's busy delivering milk."[2]

In his book, *The Presence of the Past*, Dr Sheldrake notes that the range of tits is no more than a few miles from their breeding place (fifteen miles is exceptional), leading him to conclude that the "new appearance of the habit more than fifteen miles from where it had previously been recorded probably represents new discoveries by individual birds."[3] As time went on, the habit accelerated to the point where there were some 89 sightings throughout the British Isles of similar behavior, apparently independently discovered by individual tits.

The habit of raiding milk bottles was not confined to Britain, however. Holland, Sweden, and Denmark also experienced the tits fondness for milk. In Holland, milk bottles virtually vanished during World War II, yet as soon as deliveries resumed in 1947, the tits began their raids, starting in many different places at once. Now, the interesting thing about this is that few if any tits "that had learned the habit before the war could have survived to this date." Dr Sheldrake quotes a report by R.A. Hinde and J. Fisher in *British Birds* as offering one possible explanation: "The initial discovery of the bottle as a source of food may be a logical consequence to the feeding habits of tits. They appear to have an inborn tendency to inspect a great variety of conspicuous objects which contrast with their surroundings, and to test their palatibility... [The] hammering action with which the foil caps are punctured is very similar to a motor pattern used in opening nuts, and the tearing action often used on cardboard tops is similar to a movement used in tearing bark from a twig."[4]

Formative causation compliments this suggestion. For, as Sheldrake explains, the "M" field was progressively reinforced by "the cumulative effects of morphic resonance from previous milk-drinking tits, and consequently enabled both the discovery and the passing on of the habit by imitation to take place even more readily."[5] Morphic resonance, he concludes, would help explain both the spread of the habit and its reappearance in Holland in 1947.

Birds, of course, are not the only animals susceptible to the influences of morphic resonance. The case of the hundredth monkey is already well known.

It was observed that a troup of monkeys that inhabited an island off southern Japan began to wash their root vegetables (sweet potatoes and such) before eating. The practice apparently began with one monkey, and rapidly spread throughout the entire group. Nothing puzzling about that: obviously the monkeys picked up the habit directly from each other, since imitatation follows observation. What astonished scientists, however, was that the same habit began spontaneously in a group of monkeys of the same species miles away on another island. Now, because of distance and geography, there could have been no direct communication between the two groups. Yet both discovered the benefits of washing vegetables at the same time. No one can explain this phenomenon, and no conventional theory, other than that of morphic resonance, can adequately account for it either.

If the theory of formative causation is correct, then science will have to reassess its concept not only of time and space, but of the whole evolutionary process. The notion that time is linear, that events have a finite duration, that history is just that – history – becomes less absolute in the context of Dr Sheldrake's ideas. More to the point, and of greater significance to the ordinary person, are the implications of formative causation and morphic resonance in personal lives.

The more technology advances, the more complex and complicated the world becomes, the more impersonal society grows, the less our lives seem to matter in the overall scope of events. Our individual contribution is diminished to naught by the hugeness of the modern world. The global village has become an impersonal urban sprawl. The accelerated speed at which life is lived has caused whole nations to go to extreems: the super rich versus the super poor; super powers versus the super weak; first world versus the third world. Hundreds of millions live lives of quiet desperation. This is the result of a mechanistic view of the world and all things in it. For the mechanistic philosophy reduces life to heap of nuts and bolts, to be mainpulated and organized according to the laws of logic and reason.

The theory of "M" fields and formative causation, on the other hand, takes into account the animistic view: that the world and all living beings are organized by non-material souls or psyches. And if, as Dr Sheldrake maintains, each member of a species contributes to the pooled memories of the group, then no life, however "low," however brief, is insignificant. Nothing is lost in the detritus that results from the rush of daily events. For, according to the ancient animistic philosophies, "the *anima mundi*, the soul of the world, and the souls of all beings within it were immutable." Therefore the experiences of each and every living thing play a vital part in the evolution of its particular species.

That being the case, Jung's theory of the collective unconscious and the individual's contribution to it would not only pertain to humans but to animals as well, and (if the theory of "M" fields is correct) even to such things as rocks and crystals. Jung saw the collective unconscious as a kind of inherited collected memory, which expressed itself in recurrent patterns in dreams and myths. Jungian analyst Marie-Louise von Franz took the concept further by suggesting that below the personal unconscious lies a "group unconscious" (family, clan, and so on), and below that is a "common unconscious" (large national groups), and still further below that an unconscious common to all humanity. Here the universal archetypal structures are contained.[6] Each archetype, you might say, is a morphic unit, with

its own resonance whitch influences the conscious mind through images and metaphors such as the hero, the wizard, the maiden, the crone, etcetera.

Perhaps the most exciting aspect of morphic fields is that they are inherently creative. The creativity expressed within a morphic field doesn't contradict its habitual aspect, however. As Sheldrake points out, "habits could hardly be viable without some degree of creative adaptability." Morphic fields contain goals that are habitual; but the fields also contain creativity as a means of achieving those goals. Once the goals have been reached and habits become established, the fields' inherent creativity is reduced: variations that might later occur in a given genus or species are simply adaptions of the ancestral form.

This creativity would be one explanation for the sudden appearance of certain "mutations" or new forms through morphogenesis – "the coming into being of form"; and in the world of ideas it would account for "inspiration" or the sudden insight everyone has experienced at least once in their lives. It certainly would go a long way towards explaining those quantum leaps and break-throughs science has recorded throughout history. For if morphic fields contain goals, and these fields influence and are influenced through morphic resonance, then it stands to reason that the *conscious* goals or needs of a species would initiate or inspire a response in the fields thereby changing them. Such changes in turn would resonate back into the species, sparking a similar change in it.

The implications of this "chain reaction" for the modern world are manifold and profound, especially in the post cold war era when so many "forms" both fundamental and radical are contending for the upper hand. Nowhere is that contest more fierce than in the realm of religion. The New Age movement and the subsequent exploration of consciousness are perceived as a direct threat to the established churches – and indeed to the establishment as a whole. But what has been discovered, or perhaps re-discovered is the more accurate word, by the New Age philosophies is the interconnection between all souls, all sentient beings, at a level that "old time" religion has either lost touch with or ignored.

Certainly New Age consciousness has jolted the traditional psychiatric and medical worlds into considering the benefits of holistic and alternative approaches to health care. Such practices as acupuncture, dream therapy, and meditation are but a few of the many procedures that were taboo not too long ago but are now commonly prescribed for all sorts of maladies, as Bill Moyers showed in his series, *Healing and the Mind*.

But it is on the personal level that morphic resonance might be of greatest benefit, not only for those of us with alzheimer's disease or other brain dysfunctions, but also for children with learning disabilities. For, rather than relying on the individual to make progress on his or her own, a *collective group effort* would perhaps facilitate a speedier recouperation through morphic resonance.

References

1. Sheldrake, R. *A New Science of Life*. Los Angeles: Tarcher, 1981. p 37.
2. *Ibid*., p 177.
3. *Ibid*., p 177-8.
4. *Ibid*., p 178, 180.
5. *Ibid*., p 180.
6. *Ibid*., p 252.