ABSTRACT
In Hoffmeyer view three-way interactions are everywhere, and he provides many examples in his book ranging from biology to consciousness. I would also point out that insistence on a one-way chain of mindless transitions cannot explain the origination problem of mind, and it ultimately leads to a meaningless search back to the beginning of time in a futile search to find the answer to David Albert's ready-state paradox. To his credit Hoffmeyer makes mention of Gödel and his incompleteness theorem, and including the issues of a deeper subjectivity and self-referral. But what Hoffmeyer is describing is Panpsychism, though he does not mention it as such, and he gives not mention of the works of early philosophers beyond Pierce. A.N. Whitehead's process metaphysics is strangely missing from the references. I found Hoffmeyer version of reality to be less agreeable with the atheistic pancephism supported by D.S. Clarke (see "Panpsychism and the Religious Attitude"), though Hoffmeyer says little about the issue of a God. You can find this book at Amazon http://www.amazon.com/Signs-Meaning-Universe-Advances-Semiotics/dp/0253332338/ref=cm_cr-mr-title.

Key Words: semiotics, signs of meaning, three-way interaction, consciousness, God.

In the preface Hoffmeyer's writes: "The semiosphere is a sphere just like the atmosphere, the hydrosphere, and the biosphere. It penetrates to every corner of these other spheres, incorporating all forms of communication: sounds, smells, movements, colors, shapes, electrical fields, thermal radiation, waves of all kinds, chemical signals, touching, and so on. In short, signs of life.... We tend to overlook the fact that all plants and animals - all organisms, come to that - live, first and foremost, in a world of signification."

Hoffmeyer observes that the process that gives birth to these communications cannot be explained in mere mechanistic terms that remove the subject. The concept of "not" is fundamental to communication, and this "not" sets up an exclusion that permits a frame of reference. Speaking of birth of the universe, Hoffmeyer writes on page 3 that: "... this nothing exploded and became something.... so far so good, but why was the matter not evenly distributed? Why is the same amount of matter and energy not found everywhere throughout the universe?" It can not be the case that cosmic evolution unfolded only as a by-product of cosmic expansion.

And on page 5 Hoffmeyer writes: "If we then ask what this nothingness is or was we are actually denying our denial and to some extent re-creating the universe. Nothing becomes not-something which, it follows, must be something.... only by being conceived of can nothingness exist."

On page 8 Hoffmeyer reviews French psychoanalyst Jacque Lacan's work on childhood development, and writes: "this process (development) also involves an alienation or denigration of the child's self, since its self is just what it does not encounter, but an image of itself reflected in the other. So we see a fundamental split in our perception of the self, the egocentric interior and the not-self or "outside".

Correspondence: Stephen P. Smith, Ph.D., Visiting Scientist, Physics Department, University Of California at Davis, CA
E-mail: hucklebird@aol.com
Though Hoffmeyer does not say it, this is the same split that has brought us Descartes dualism, and Teilhard de Chardin’s within and without. But Hoffmeyer does indicate that: "... it is this split, this fundamental yearning, that endows the world with signification, that makes us desire it. ... So the not-rule is the very first requirement for making any sense of this world. And if we then look more closely at what lies behind this not-rule, we will see that we are dealing with something quite fundamental." Hoffmeyer presents a Gestalt diagram to make his point, showing a white circle on a black background. Hoffmeyer writes: ".... the boundary is not part of the world unless someone chooses to picture it." Looking at the same Gestalt diagram I can ask my own questions: Are we the inside looking out? Or are we the forgetful outside looking in? These questions are symmetrical and cannot be answered directly. If these questions cannot be answered how can we be so sure that mind is contained in the brain? Or for that matter can we be sure that Teilhard's interior is not really the forgetful without, and this his exterior not really the all-knowing within? Nevertheless, I agree with Hoffmeyer that it is here we find conflict and the creativity that springs forward. And it is on this background, this not-something that we find the birth of the universe and the answer to the first ready-state (see Chapter 6 of David Albert’s book "Time and Chance").

In Chapter 2 Hoffmeyer takes up the topic of forgetting. He writes: "not everything is remembered, only those things that are of significance. ..... Inheritance testifies to the past ... Every single life-form in existence today has, lodged inside its genetic material, the sinuous trail of its evolutionary past harking all the way back to the dawn of life - while it is itself busy incorporating the experiences of today into the future.... forgetting holds the key to life’s knack of incorporating the present into the future.... living systems carry out a selection process, forgetting somewhat more of what is unimportant than of what is important." And speaking of DNA, Hoffmeyer refers to it as a code description of the self, and only the fertilized egg is capable of reading/interpreting this code and building an organism.

To his credit, Hoffmeyer writes much (starting on page 16) on the work of C.S. Pierce: "The great thing Pierce perceived was that any form of logic which is based on two-factor, dyadic, relations is too limited.... it cannot be made to branch out. ... A network can be arrived at by combining three-factor relations, triads... Valid thought always presupposes a relation between three things.... This could be, for example, cause and effect plus the observer who connects these two."

To connect Pierce's three factor sign relations to a DNA strand, Hoffmeyer writes on page 20: "Embryogenesis, or ontogenesis, is a sign operation in the sense that a one-dimensional DNA inscription containing - as mentioned above- a coded version of its parents is converted into a three-dimensional organism of flesh and blood. The genome (the sum total of an individual's genetic material) is therefore a sign vehicle, or even better: a set of sign vehicles, referring to the construction of an organism, the ontogenetic trajectory. The question is, for whom? Who, in this case, is the someone who can interpret the sign?... It is the fertilized egg cell which is responsible for the deciphering or interpretation. As the egg gradually interprets the genome it splits up into billions of cell lines, becoming, in other words, an organism."

The DNA is therefore incomplete in a cause and effect world of one-way dyadic transitions. There needs to be something that interprets and represents and object of some kind, and this is minimally a three-way interaction.

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Here are some of Hoffmeyer's closing remarks:

"From a biosemiotic point of view life is not something that ever has a beginning."

"Evil, too, presupposes an ability to empathize."

"The tendency to make mistakes lies at the root of all true development in this world."

"Signification and fallibility being two inseparable sides of the same elementary phenomenon."

"We wish to live in the present, yet we carry the traces of the past within us. In some respects these traces stretch back over fifteen billion years and, in their inner form, our cells contain information that is at least three billion years old. The arches and vaults of the brain harbor memories going back hundreds of millions of years. And half a million years ago humanity's existential drama was started to take shape."

I am happy to give Hoffmeyer's book a strong recommendation for reading. I wrote a similar book, "Trinity."

References