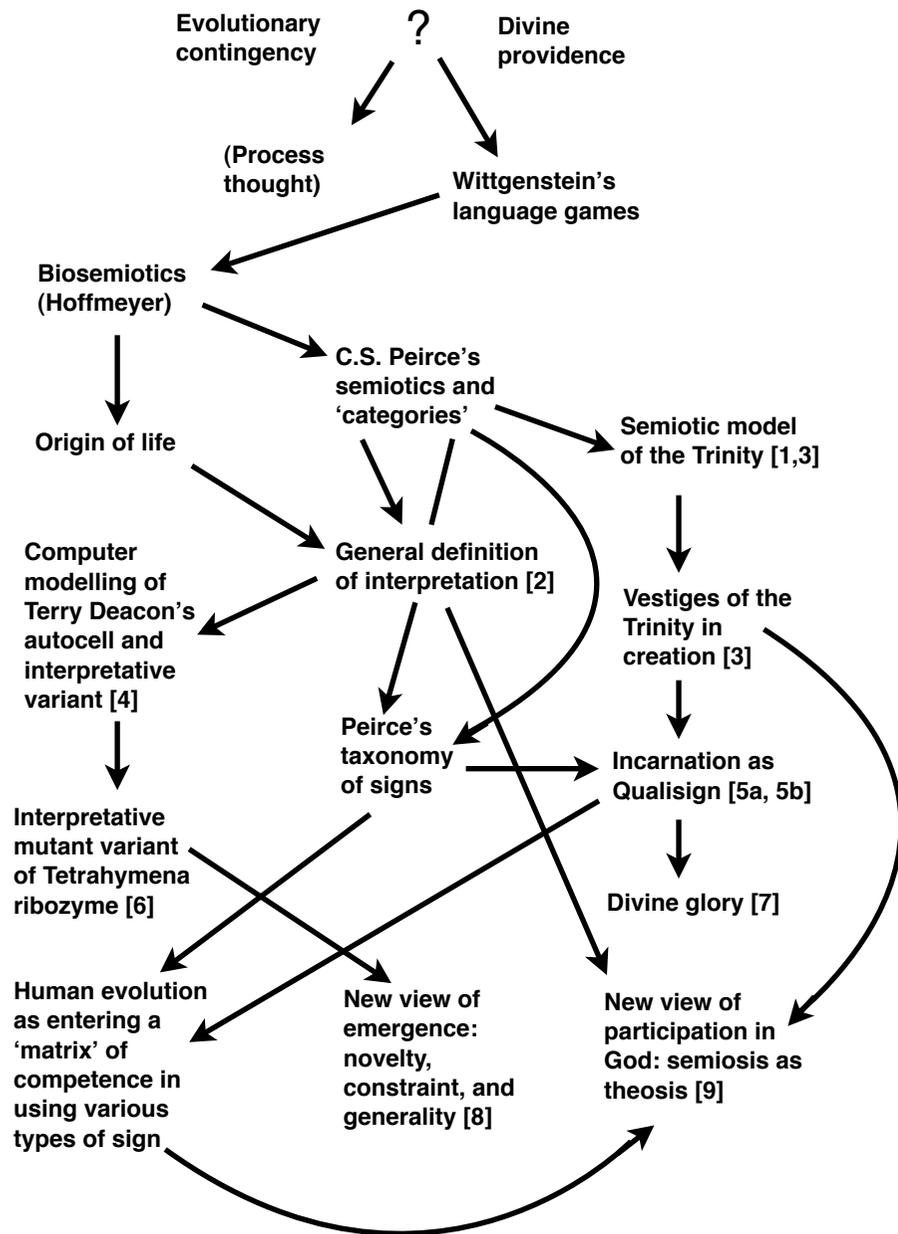


# Creative Mutual Interaction in Action: Christopher Southgate and Andrew Robinson

## ISSR/AAR 21 November 2015



### Key publications (numbered in diagram opposite)

Book: Andrew Robinson, *Traces of the Trinity: Signs, Sacraments and Sharing God's Life*, Cambridge: James Clark & Co (2014).

[1] Andrew J. Robinson. Continuity, Naturalism and Contingency: A Theology of Evolution drawing on the Semiotics of C.S. Peirce and Trinitarian Thought. *Zygon*, 39 No. 1 (2004): 111-136

[2] Robinson, A. and Southgate, C., 'A General Definition of Interpretation and its Application to Origin of Life Research'. *Biology and Philosophy*. Volume 25, number 2 (2010): 163-181.

[3] Andrew Robinson, *God and the World of Signs: Trinity, Evolution and the Metaphysical Semiotics of C.S. Peirce*, Leiden: Brill (2010).

[4] Leong Ting Lui, Z. Ron Yang, Andrew J.N. Robinson, Christopher C.B. Southgate, 'Interpretation and the Origin of Life', *Biological Theory*, Vol. 5, No. 2 (2010): 112-116.

[5a] Andrew Robinson and Christopher Southgate, "Incarnation and Semiotics: A Theological and Anthropological Hypothesis. Part 1: Incarnation and Peirce's Taxonomy of Signs," *Theology and Science* Vol. 8, No. 3 (2010): 265-282.

[5b] Andrew Robinson and Christopher Southgate, "Incarnation and Semiotics: A Theological and Anthropological Hypothesis. Part 2: Semiotics, Anthropology, and Religious Transformation," *Theology and Science* Vol. 8, No. 3 (2010): 283-302.

[6] Niles Lehman, Tess Bernhard, Brian C Larson, Andrew JN Robinson and Christopher CB Southgate. 'Empirical demonstration of environmental sensing in catalytic RNA: evolution of interpretive behavior at the origins of life'. *BMC Evolutionary Biology* 2014 14:248 (open access).

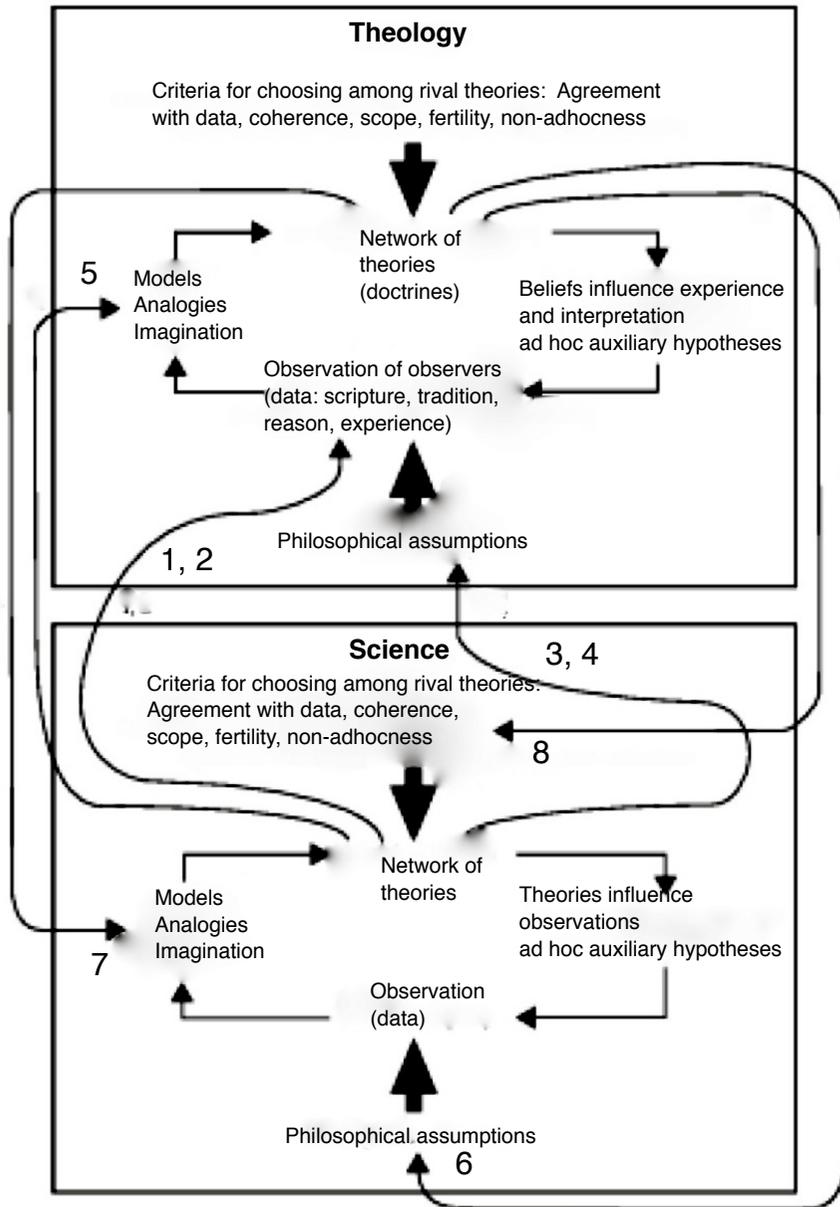
[7] Christopher Southgate, 'Divine Glory in a Darwinian Age', *Zygon*, Vol. 49, No. 4 (2014): 784-807.

[8] Andrew Robinson. Chance and the Emergence of Purpose: A Peircean Perspective. *Philosophy, Theology and the Sciences* 2015 (2), 194-215.

[9] Andrew Robinson. Representation and Interpretation as the Basis of Participation in the Trinity. *Religions* 2015, 6(3), 1017-1032 (open access).

# Creative Mutual Interaction in Action: Christopher Southgate and Andrew Robinson

## ISSR/AAR 21 November 2015



Opposite: 'The Method of Creative Mutual Interaction', redrawn from Robert John Russell, *Time in Eternity: Pannenberg, Physics and Eschatology in Creative Mutual Interaction*, University of Notre Dame Press 2012, p. 73.

*Path 1.* Theories in physics can act directly as data that places constraints on theology. So, for example, a theological theory about divine action should not violate special relativity.

*Path 2.* Theories can act directly as data either to be "explained" by theology or as the basis for a theological constructive argument. Thus  $t = 0$  in standard big bang cosmology was often explained theologically via *creation ex nihilo*.

*Path 3.* Theories in physics, after philosophical analysis, can act indirectly as data for theology. For example, an indeterministic interpretation of quantum mechanics can function within philosophical theology as making intelligible the idea of non-interventionist objective divine action.

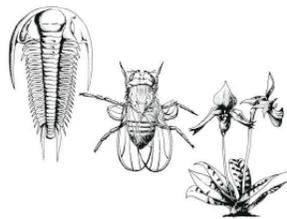
*Path 4.* Theories in physics can also act indirectly as the data for theology when they are incorporated into a fully articulated philosophy of nature (e.g., that of Alfred North Whitehead).

*Path 5.* Theories in physics can function heuristically in the theological context of discovery, by providing conceptual or aesthetic inspiration, etc. So biological evolution may inspire a sense of God's immanence in nature.

*Path 6.* It is now abundantly clear that theological ideas based in the doctrine of *creation ex nihilo* provided some of the philosophical assumptions such as contingency and rationality that underlay and fed into the birth of scientific methodology.

*Path 7.* Theological theories can act as sources of inspiration in the scientific "context of discovery," that is, in the construction of new scientific theories. An interesting example is the subtle influence of atheism on Hoyle's search for a "steady state" cosmology.

*Path 8.* Theological theories can lead to "selection rules" within the criteria of theory choice in physics. For example, if one considers a theological theory as true, then one can delineate what conditions must obtain within physics for the possibility of its being true. These conditions in turn can serve as motivations for an individual research scientist or group of colleagues to choose to pursue a particular scientific theory.



Available  
Online

www.springerlink.com

Volume 25 · Number 2 · March 2010

Springer

### Definition of purpose

A purpose P is:

- a general type of outcome or effect
- which explains the existence of something, Q,
- because Q is selected for its having effects of general type P.
- (where P is not constitutively related to Q)<sup>1</sup>

### Definition of interpretation

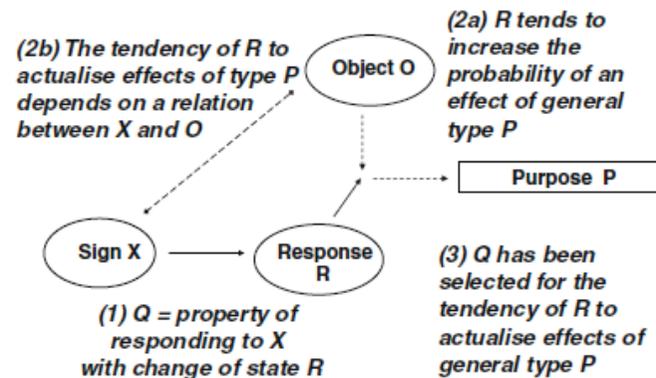


Fig. 1 Diagrammatic representation of definition of interpretation

Robinson, A. and Southgate, C., 'A General Definition of Interpretation and its Application to Origin of Life Research'. *Biology and Philosophy*. Volume 25, number 2 (2010): 163-181.

A response, R, of an entity is a proper interpretation of X as a sign of O if and only if:

1. The entity has a property, Q, of undergoing change of state  $\Delta S$  in response to some X, where R is any actual instance of such a response;
2. (a) R tends to increase the probability of an effect of a certain general type, P; (b) This tendency of R depends on a relation between X and O, where the occurrence of X does not necessarily imply the occurrence of O;
3. The property Q has been selected for the tendency of instances of R to actualise effects of general type P.

# Creative Mutual Interaction in Action: Christopher Southgate and Andrew Robinson

## ISSR/AAR 21 November 2015

Lehman et al. *BMC Evolutionary Biology* 2014, 14:248  
<http://www.biomedcentral.com/1471-2148/14/248>



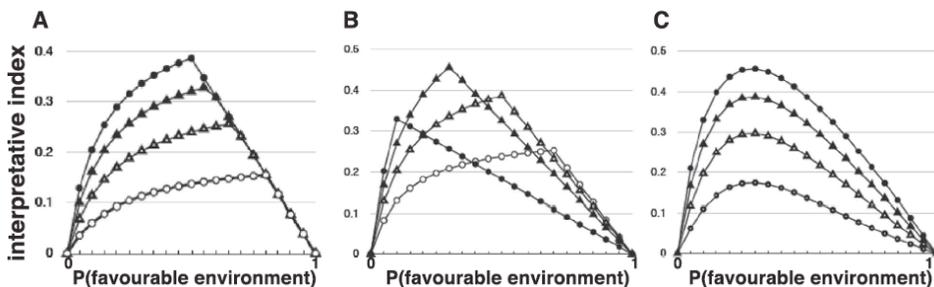
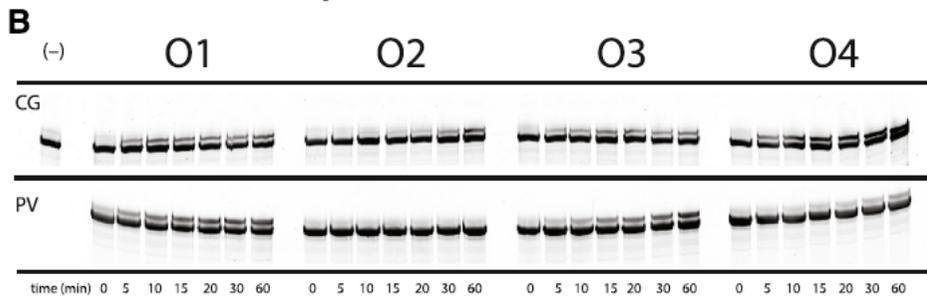
RESEARCH ARTICLE

Open Access

Niles Lehman, Tess Bernhard, Brian C Larson, Andrew JN Robinson and Christopher CB Southgate.

‘Empirical demonstration of environmental sensing in catalytic RNA: evolution of interpretive behavior at the origins of life’. *BMC Evolutionary Biology* 2014 14:248

	Favorable 25mM Mg <sup>2+</sup>	Unfavorable 0.5 mM Mg <sup>2+</sup>
State A 10mM Ca <sup>2+</sup>	O1	O2
State B no Ca <sup>2+</sup>	O3	O4



### Semiosis as Theosis (from Religions 2015, 6(3), 1017-1032)

Participation in God occurs when we interpret the incarnate Word as a sign of the Father. In doing so we are adopting, or, better, being adopted into, the place occupied by the Spirit within the divine life. That is because, as we have seen, within the divine life it is the Spirit who interprets the Word. When, as creatures, we interpret the Word, it is we who are adopted into that role of interpreter. Just as the divine Spirit interprets the eternal Word as a perfect representation of the Father, so we finite creatures now likewise interpret the incarnate Word as the image of the invisible God.

We may say, then, that we participate in God’s life when we respond to the Word with appropriate feelings, thoughts, or actions. [...] And since interpretative responses potentially involve the whole of our being — thoughts, feelings and actions — participation in God engages our whole self, not just our intellect, and includes practical involvement with the world around us.

Participation in God’s life through the interpretation of signs is not limited to our adoption, as interpreters of the Word, into the place of the Spirit. Crucially, as I have already noted, in any interpretative response the interpreter is always changed in the process. It follows that within the eternal life of the Trinity, when the Spirit interprets the Word the Spirit must be ‘changed’, and hence become a *new* sign available for further interpretation. But within the perfection of the divine life the Spirit cannot become a sign of anything less than the perfect goodness and love of the Father, otherwise the divine being would be continually degraded in living its own life. Therefore we may infer that the Spirit, in interpreting the Word, must continually generate new likenesses of the Word. That is not to say that a multiplicity of Words is generated within God’s life, but that the intra-Trinitarian dynamic may be understood as a continual magnification and glorification of the Word.

A consequence of this way of picturing the life of the Trinity and our participation in it is that it offers a context in which to understand the scriptural claim that by responding to the Word we are progressively transformed into a closer likeness to the Word (e.g., 2 Corinthians 3: 18). For if the Spirit’s interpretation of the Word must, by virtue of the logic of the intra-divine dynamic of perfect representation and interpretation, result in further expressions of the Word, so, if we properly interpret the Word as a sign of the Father, we must be incrementally changed into likenesses of the Word.

In short, the processes of creaturely responses to the Word — in thoughts, feelings and actions — are the basis of our adoption into the place of the Spirit and our transformation into a likeness of the Word. [...] Or, one might say, *semiosis is theosis*: the dynamic of representation and interpretation is participation in God.