

# An Introduction to *Operational Constructivism*

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# *We know by Living in Two Worlds*

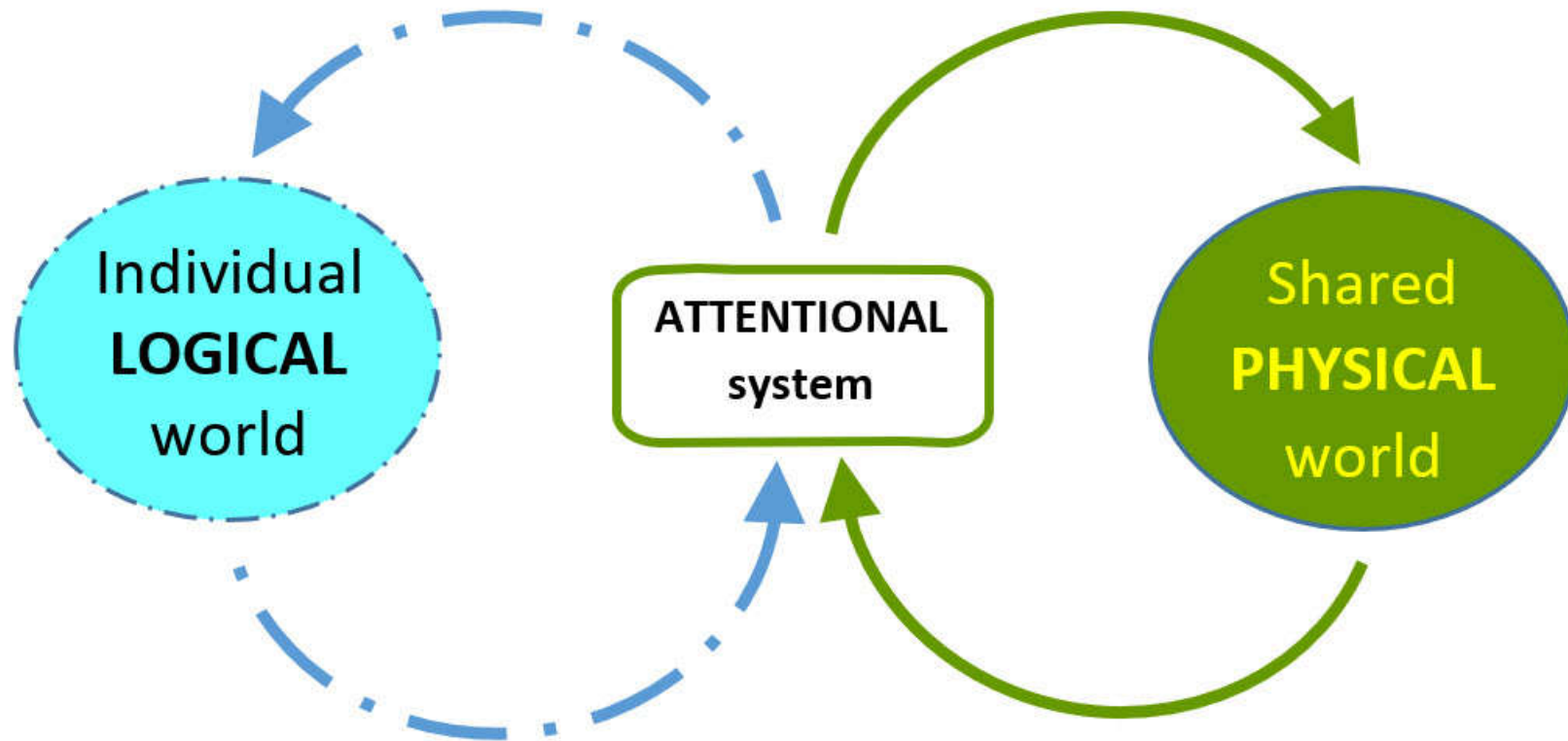


Fig. 1 Two-Worlds Model of how we know (M. Bettoni, 2022)

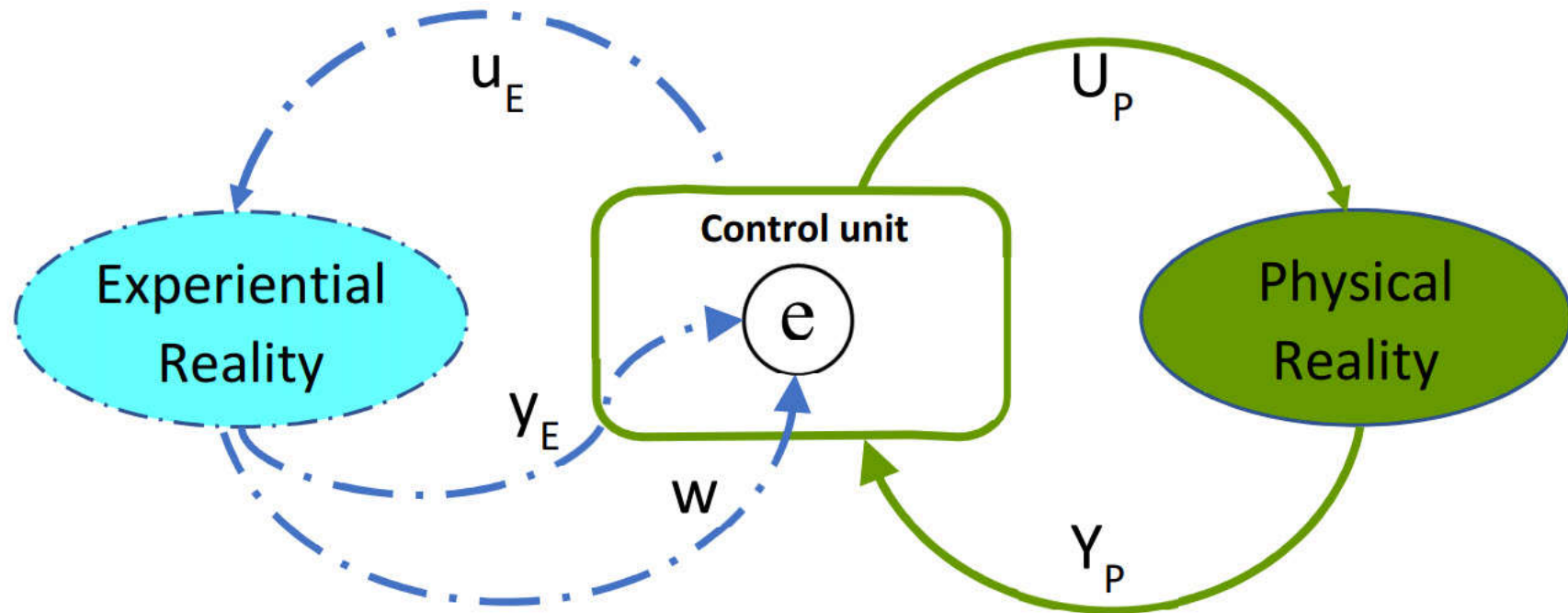
**World 1**  
constructed individually

**World 2**  
existing & shared

# Manifesto of Operational Constructivism

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| <ol style="list-style-type: none"> <li>1. <b>OWN WORLD.</b> Although we share the same environment, each of us lives in his <u>own world</u> (thank you A. Schopenhauer).</li> <li>2. <b>COPERNICAN REVOLUTION.</b> In this own world, that every human being <u>constructs</u> for her/himself, the objects conform to her/his knowing (thank you I. Kant).</li> <li>3. <b>OPERATIONS.</b> For constructing you need operands, operations and schemata (thank you S. Ceccato): together they form a faculty of <u>mental constructs</u>, not a faculty of representations.</li> <li>4. <b>AUTOPOIESIS.</b> This faculty of mental constructs works in an <u>autopoietic</u> way (thank you H. Maturana): the outcomes of constructing extend that same faculty, which constructed them (outcome-function dualism).</li> <li>5. <b>SELF-ORGANIZATION.</b> In this way, in the course of doing, a self-organizing, intelligent <u>system</u> comes into being (thank you J. Piaget), a whole of compared and connected <u>mental constructs</u> (thank you I. Kant).</li> </ol> | <ol style="list-style-type: none"> <li>6. <b>VIABILITY.</b> In this system priority belongs to <u>viable</u> mental constructs, i.e. those which stand the test of doing (thank you E. von Glasersfeld).</li> <li>7. <b>INNER WORLD.</b> Hence, this own world, is an <u>inner world</u>, made of mentally constructed objects, events, human beings, relationships, social interactions, etc.: all things that each of us constructs by her/himself.</li> <li>8. <b>OUTER WORLD.</b> The <u>outer world</u> (physical world) provides material for the construction of mental constructs and is used as environment for testing their viability.</li> <li>9. <b>EXPERIENCE.</b> From the coupled control of the outer and inner world (controlled processes) by means of thinking (control unit) arises <u>experience</u>.</li> <li>10. <b>KNOWLEDGE.</b> The own world in which each of us lives, is hence primarily an experiential world (thank you E. von Glasersfeld) and <u>knowledge</u> is the logic of this experience.</li> <li>11. <b>RESPONSIBILITY.</b> Consequently, the <u>responsibility</u> for knowledge, belongs to the bearer of experience (thank you H. von Förster).</li> </ol> |
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# *Truth is Viability*



Cybernetic Model of Viability

A coupled system of two processes controlled by one control unit. Abbreviations: Y = controlled variable; w = set point variable; e = control deviation; U = manipulated variable; index E = Experiential reality; index P = Physical reality.