for artificial consciousness with an illustrative application to field theories



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Research under the Co-Sentience Initiative

The "Actor Framework"

More semantic

Content engine Action space 7 aspects we need 4. Boundary transit 2. Complexity driver 3. Boundary builder consciousness theories to specify to More structural help us with artificial 1. Minimum condition minds

Framework aspects: Assessing artificial consciousness

<u> 1</u>2

7. Moral actor

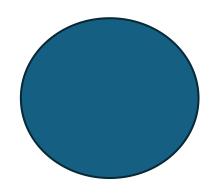
More semantic 7. Moral actor 7. Moral actor 5. Content engine 6. Action space 2. Complexity driver 3. Boundary builder 4. Boundary transit 1. Minimum condition

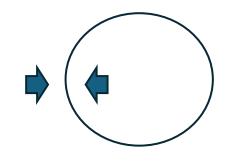
Framework aspects:
Assessing artificial consciousness

The "Actor Framework"

#	Aspect	Central question for a theory to answer				
1	Minimum What is the minimum condition(s) that leads to the minimal 'experience					
	condition	minimal 'experiencing entity'?				
2	Complexity	What mechanism(s) results in entities that have more complex experiences?				
	driver					
3	Boundary What defines the boundary where one experience / experiencing					
	builder	and another begins?				
4	Boundary	How does information transit these boundaries?				
	transit					
5	Content	What defines the content of those experiences?				
	engine	(perceptions, valence, modelling, reasoning, etc.)				
6	Action space	What actions can the system take at the level corresponding to conscious				
		experiences?				
7	Moral	What types of sophisticated moral actors are possible or probable given the				
	actor	kinds of complex entity that might occur under this theory?				

Why field theories?









Experiential unity

Boundaries for consciousness

Evolutionary motivation

Human agency

+ Growing evidence for ephaptic and quantum effects in brain function

Assessing 21 field theories

Theory	1. Minimum Condition	2. Complexity Driver	3. Boundary Boulder	4. Boundary Transit	5. Content Engine	6. Action Space	7. Moral Actor	High aspects (level 3+)
Pockett (EMF)	3	0 2	3	4	0 2	n/a	0 0	3
Fingelkurts (OA)	3	3	3	0 2	0 2	0 2	0 1	3
McFadden (CEMI)	0 2	0 2	3	0 3	0 2	3	0 0	3
Keppler (ZPF)	0 2	■ 3	3	● 3	0 2	0 2	© 0	3
Jibu et al. (QBD)	3	0 2	3	3	0 2	1	© 0	3
Jones (Realist Field)	0 2	3	0 2	0 3	0 2	0 2	0 1	2
Ward & Guevara (Thalamus)	0 2	0 2	3	3	0 2	2	€ 0	2
Meijer & Geesink (Semi-Harmonic)	3	6 2	0 2	0 3	<u>0</u> 1	2	0 0	2
Cacha & Poznański (Biophoton / Quantum)	3	2	3	0 2	0 2	0 0	0 0	2
Cavaglià et al. (Holographic)	3	0 2	0 1	3	0 1	0	© 0	2
LaBerge & Kasevich (Apical Dendrite)	2	0 2	2	3	0 2	0 2	0 0	1
Hunt & Schooler (GRT- EM variant)	2	0 2	2	3	0 2	6 1	© 0	1
John (Global Field)	2	0 2	2	■ 3	0 2	1	€ 0	1
Bond (Coherence Field)	2	0 2	0 2	0 3	0 2	1	0 0	1
Reggia (Complex-Valued EMFs)	3	0 1	0 2	0 2	0 2	0 1	0 0	1
Strupp (EIFT)	1	0 2	2	3	0 1	1	0	1
Detmar (Adaptational)	0 2	0 2	0 2	0 2	0 2	0 2	0 1	0
Sheldrake (Morphic)	0 1	0 2	0 2	0 2	0 2	2	0 0	0
Beaudoin (Energy Info)	2	0 2	2	0 2	0 2	1	0	0
Barrett (Field-IIT)	2	0 2	0 2	0 2	0 1	© 0	© 0	0
Hennacy (Biofields)	0 2	0 1	0 2	0 2	0 1	© 0	0 0	0

Co-Sentience Initiative

Intuitions matter Insights drive updates

We need better theories

Foundational progress is possible













AI safety To discuss our live/future projects: chris@cspres.co.uk