

Aware in Deep Sleep: The case of Lucid Dreamless Sleep

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Sleep and Wakefulness

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Background questions



Are all mental phenomena during sleep considered 'dreams'?

Can we find other sort of conscious phenomena during sleep apart from 'dreams'?

If so, which sort of phenomena appears during dreamless sleep?



Trends in Cognitive Sciences

CellPress

Opinion

Does Consciousness Disappear in Dreamless Sleep?

Jennifer M. Windt,¹ Tore Nielsen,² and Evan Thompson^{3,*}

Dreamless Sleep: Sleep phenomena that cannot be classified as dreams since they lack the immersive character of dreams

**a. Non-Immersive Imagery
and Sleep Thinking
Experiences**

**b. Perceptual Experiences and
Bodily Sensations**

**c. 'Selfless' States and
Contentless Sleep Experiences**

"Any mention of sleep
experience lacking subjective
immersion, imagistic and
propositional content" (p. 873).

Research questions



What are 'Selfless' States
and Contentless Sleep
Experiences exactly?

**How can we explain the
phenomenology of these
experiences?**





1.

Lucid Dreamless Sleep
(LDS) in the philosophical
literature

1.2. Lucid Dreamless sleep in the *Advaita Vedānta*.

‘The **sleep of ignorance**, which we call "deep sleep," is a great darkness" We experience the sleep of ignorance as a void or blank, in which there is no sense of self and no consciousness. [...] sleep in which there is **neither clarity nor sense of self**" (Rinpoche, 1998: 115)

- Deep sleep as a state of consciousness that's based on an **absence**

(Patanjali, Yoga Sutras I:2)

- Nothing to cognise, but this experience is remembered upon awakening.

Felt absence (Thompson, 2015)

1.2. Lucid Dreamless sleep in the *Advaita Vedānta*.

Awareness devoid of content

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1.3. Lucid Dreamless sleep in the *Tibetan Buddhism*

Awareness of awareness itself

“sleep of clarity. It occurs when the body is sleeping but the practitioner is neither lost in darkness nor in dreams, but instead abides in **pure awareness**. Clear light is defined in most texts as the unity of **emptiness and clarity**. It is the pure, empty awareness that is the base of the individual.” (Rinpoche, 1998:115)

· Deep sleep can be **lucidly witnessed**. Practice of Sleep Yoga (Rinpoche, 1998)

1.3. Lucid Dreamless sleep in the *Tibetan Buddhism*

“The present realization in limpid deep sleep is called the “**clear light**” [...] ‘in the interval following the cessation of daytime appearances and prior to the arising of dream appearances, **the clear light** manifests and may be recognized’ (Padmasambhava, 2008:204-205)

“The essence of deep sleep is, in fact, **great luminosity, the true nature of mind**. It is utterly bright and utterly vivid. It is a dense clarity, and because its clarity is so dense, it has a blinding effect on the confused mind” (Ponlop, 2006:86)

1.3. Lucid Dreamless sleep in the *Tibetan Buddhism*

Awareness of clarity/light

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1.4. Lucid Dreamless sleep in Western Philosophy

“it is a condition for but still more basic than minimal phenomenal selfhood. It can be described as subjective only because it involves phenomenal experience; yet, **it does not involve the additional experience of being a self**, or a separate entity having the experience” (p.18)

“As lucid dreaming gives way to lucid dreamless sleep experience, minimal phenomenal selfhood shades into **pure phenomenality**, in which phenomenal experience is characterized **only by its temporal structure**.” (p.22)

1.4. Lucid Dreamless sleep in Western Philosophy

Awareness of nowness

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1.4. Lucid Dreamless sleep in Western Philosophy

LDS sleep as **Pure temporal experience** (Windt, 2015)

- LDS: Dissolution of any sense of self: No self-other distinction.
- LDS: No sense of location.
- Only '***pure subjective temporality***'. The experience of '***nowness***'

1.5. Summary

LDS as:

- Bare awareness
- Pure-Awareness.
- Awareness of the clear light
- Awareness of nowness
- ...



2. Pilot study

Awareness during dreamless sleep

2.1. Call for Participants

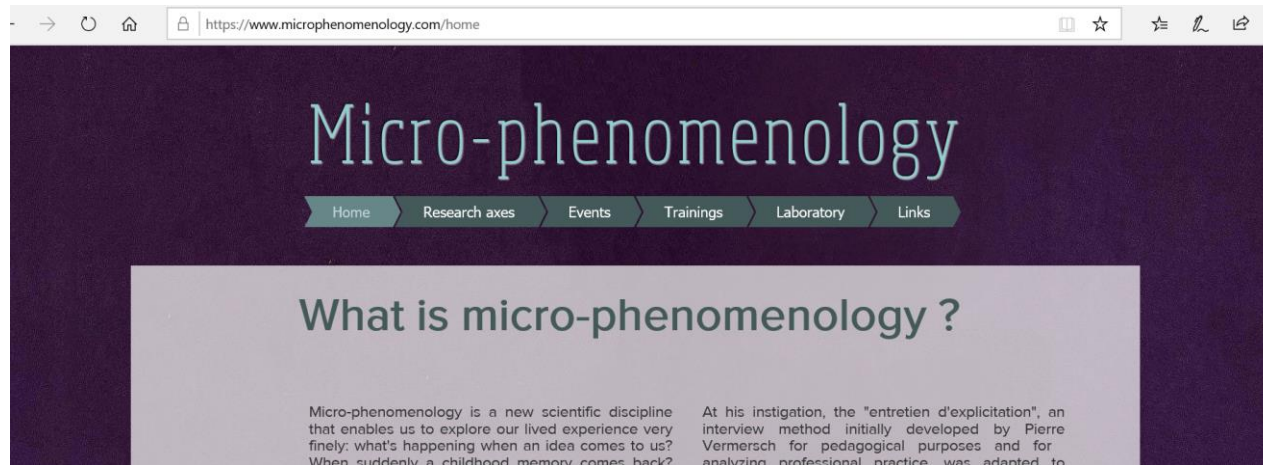
- Social media: Twitter (personal and CSPE), Facebook (IASD)
 - Word-of-mouth
 - Requirements:
 - *'individuals that recall episodes of awareness during sleep in the absence of dreams and that are willing to share their experiences in a 1:1 interview'*
 - BPS guidelines: No recent history of mild/major mental disorder, no medication that affects CNS, no sleep disorder
-

2.1. Call for Participants

- Screening Questionnaire:
 - Demographic data
 - Medical information
 - Sleep quality and experiences
- Participant selection and interviews

2.2. The Micro-Phenomenological Interview (MPI)

Initially developed by Pierre Vermersch (1994) and adapted by Claire Petimengin in the realm of Cognitive Science (Petitmengin, 1999, 2006; Bitbol and Petitmengin, 2017)



2.2. The Micro-Phenomenological Interview (MPI)

From **the content** of a particular experience to **the processes** that unfolded during that particular experience (Petitmengin, 2006; 2014)

2.2. The Micro-Phenomenological Interview (MPI)

- From **the content** of a particular experience to **the processes** that unfolded during that particular experience (Petitmengin, 2006; 2014)
- **Applications:**
 - The genesis of intuition (Petitmengin-Peugeot 1999),
 - Epileptic seizures (Le Van Quyen & Petitmengin, 2002; Petitmengin, 2005; Petitmengin et al., 2006),
 - The Rubber-Hand Illusion (Valenzuela et al. 2013)
 - Dissolution of self-boundaries (Ataria, Dor-Ziderman and Berkovich-Ohana, 2015).

2.3. Methodology study

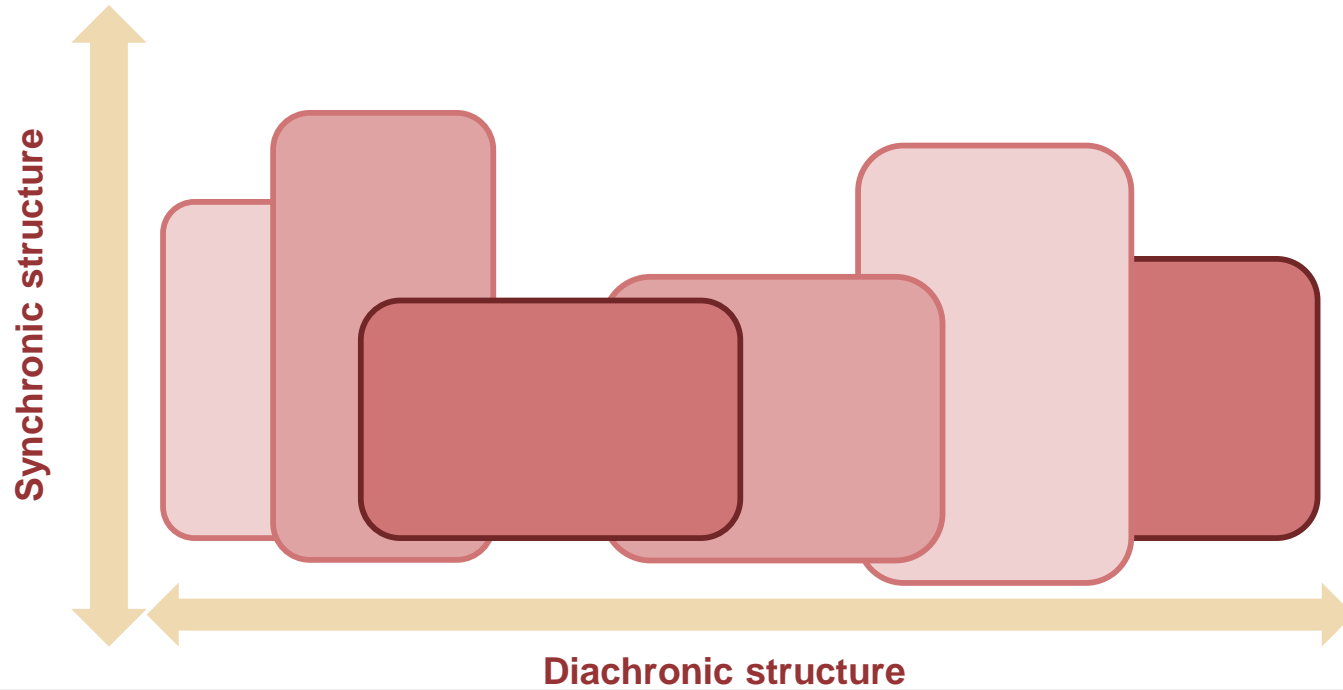
- Screening questionnaire
- **Pre-Interview**
 - Quick memorizing task (list of words)
- **Main Interview**
 - Description of a specific experience of awareness in dreamless sleep
- **Post-Interviews**
 - Participant's questions

Average total: 1h30min

2.4. Participants

- N= 4
- Mean age: 49
- Nationalities: North American, British, New Zealand
- No current history of mental illness nor sleep disorders
- Previous experience of meditative practices (Vipassana, mindfulness, breathing practices)

2.5. Analysis procedure



2.6. Overall results





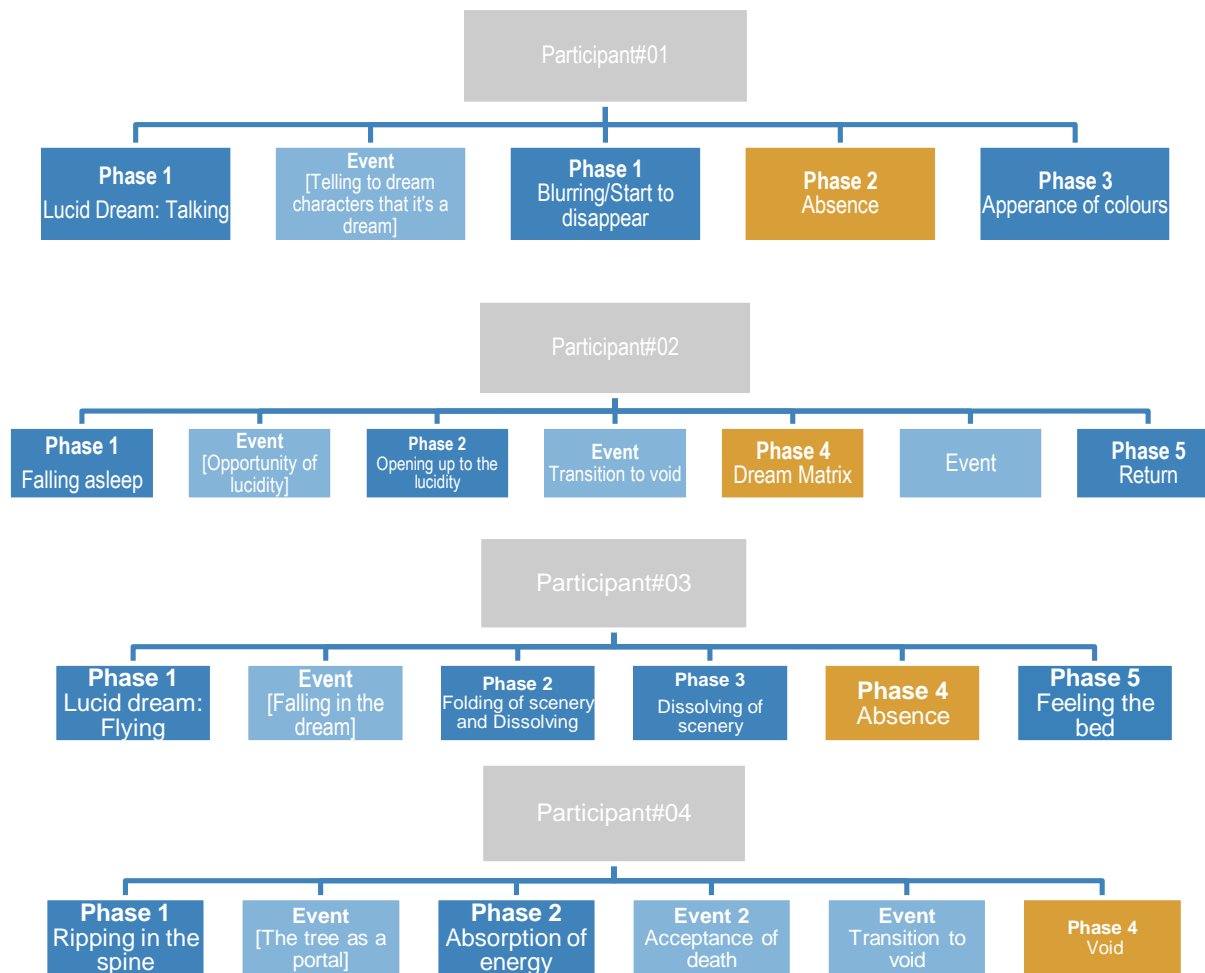


Diagram 1. Diachronic evolution of the experience of Awareness in absence of dreams for all participants

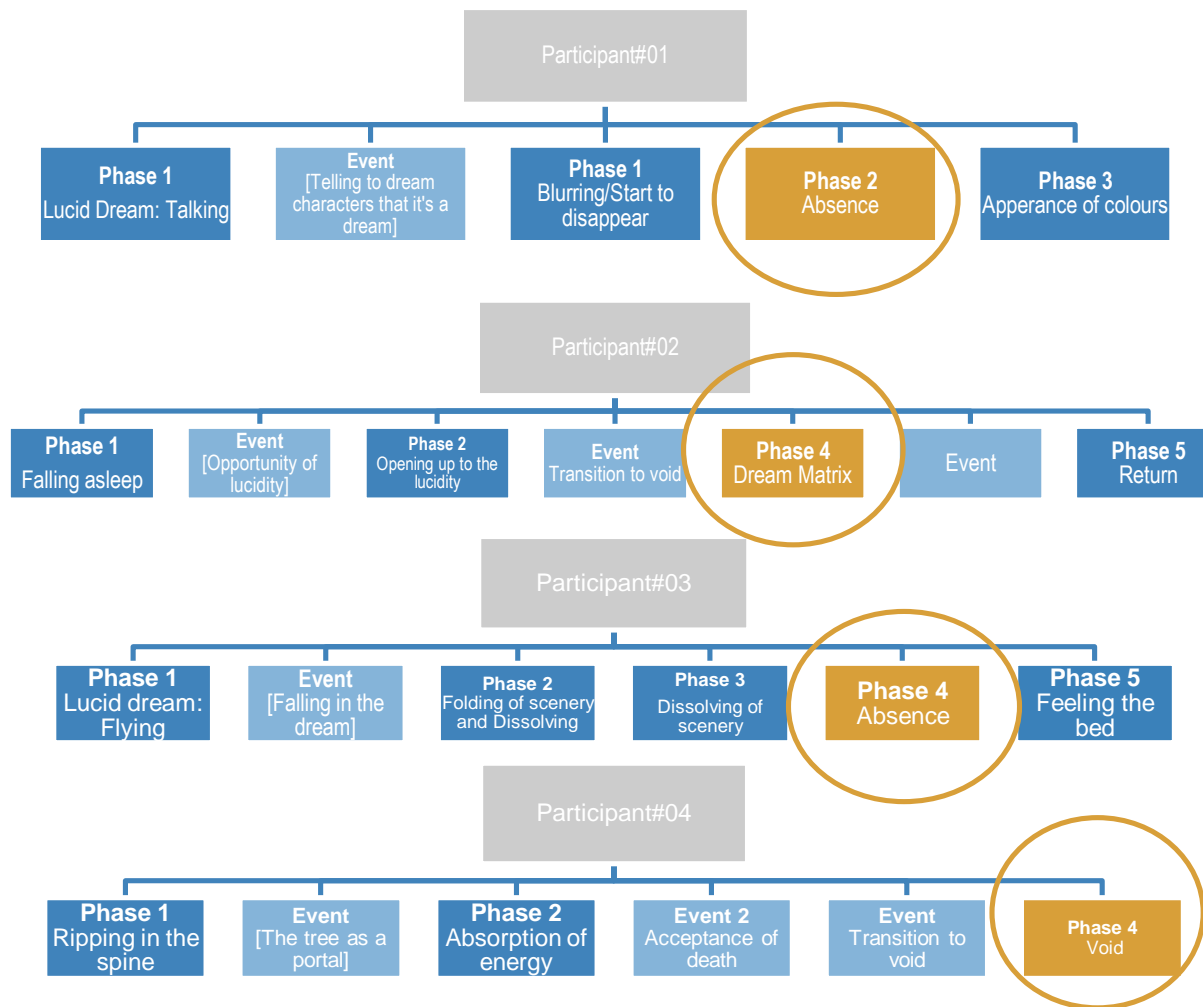


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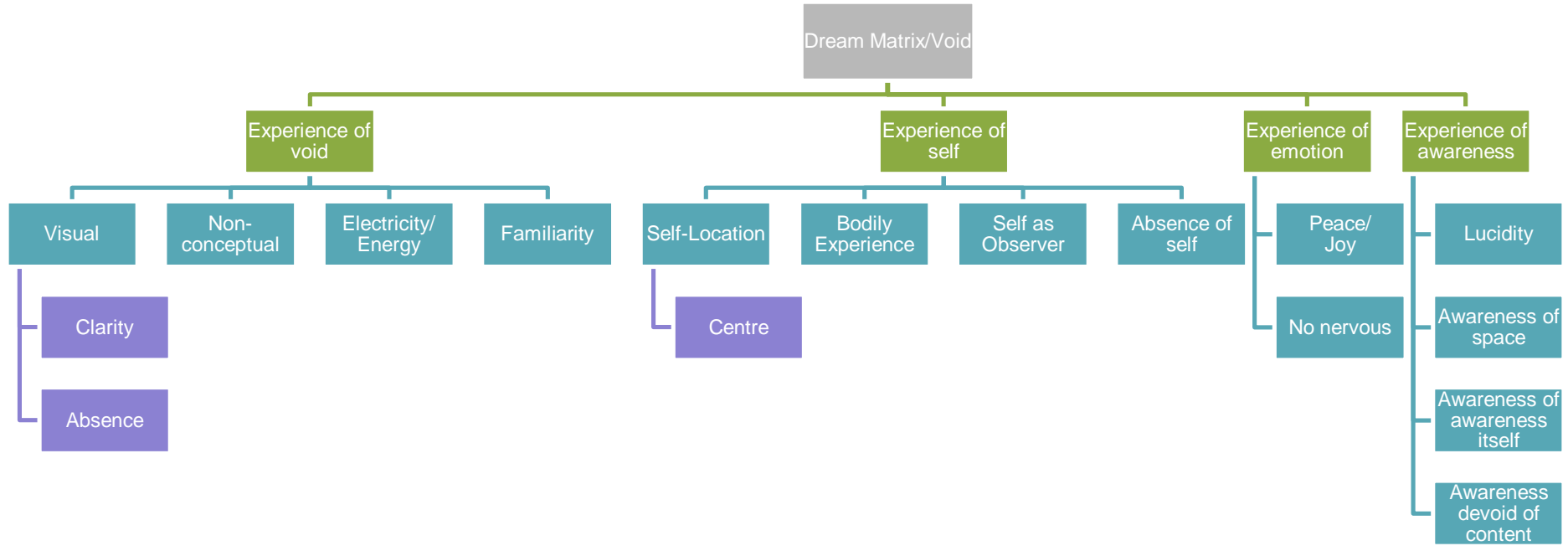


Diagram 2. Synchronic aggregation and classification of experiences while in Dream Matrix/Void for all participants

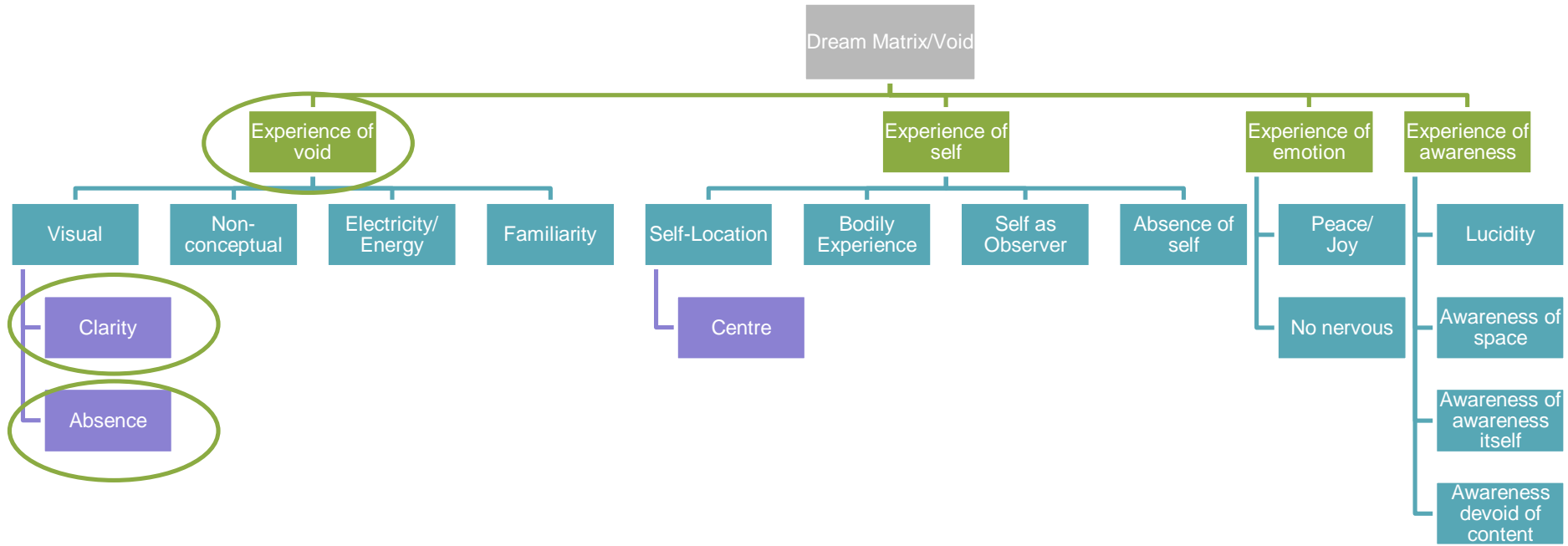


Diagram 2. Synchronic aggregation and classification of experiences while in Dream Matrix/Void for all participants

Table 2. Synchronic categories of Experience of Void/Dream Matrix for all participants

Visual		
	Clarity	Absence
P#01		(106) there wasn't any scenery (x2) (97) it couldn't feel it was around me anymore. (102) there's nothing around it. (103) There's no other space around me (115) There's no dream (x2) (116) it didn't seem any place to go (153) It seems like the fluid-nothingness went on for a while
P#02	(29) there's a sense of clarity . Things are very clear. (53) Sometimes there's this visual or just blackness but also there's this clarity (49) there's a clarity that this light (50) Just clarity	(23) I can't see any visuals . (24) like vibrant blackness . (30) there are no images . (31) rich vibrant blackness. (25) something related with a computer's screen like the lights are coming through the black
P#03	(96') it wasn't the absence of light, but it was very light . (97) It wasn't that I could imagine that if I switched the light it would be different,	(12) [I dropped into] nothing . (13) A space of nowhere (20) some kind of space. (21) not like the sky or the stars, it was like a void (22) it was very dark (96) It was very black but not in a way that is the opposite of light ; (104) the absence at all [by an image dream]
P#04		(133) The whole environment changes and there's a darkness . (136) You're in a massive dark space, but it's like the vacuum space (194) In this space, the dream matrix appears and appears to the energy. (190) You got the void and within this space there's the void. It's a different experience but it exists within the space.

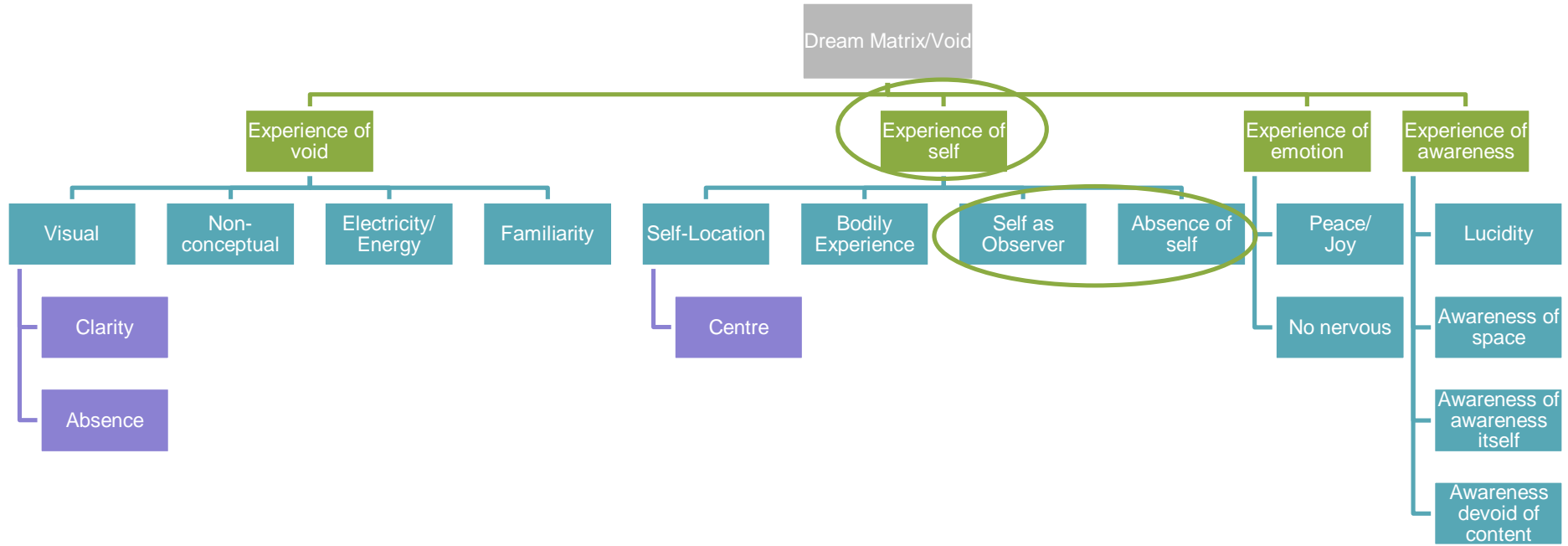


Diagram 2. Synchronic aggregation and classification of experiences while in Dream Matrix/Void for all participants

Table 3. Synchronic categories of **Experience of Self** in Void/Dream Matrix for all participants

	Observer	Absence
P#01		
P#02	(39) there's a sense of an observer	(34) but there's not a typical sense of the self. (35) There's not a story going on, like 'me' having this experience
P#03		
P#04	(139) You're watching it, you're observing it. (140) don't really know what you're observing because you aren't really there...	(7) I don't have any awareness of me. (8) There's no awareness of me, there's just pure thoughts. (134) You don't have scenes of yourself whatsoever. (135) There's no scenes of self, no scenes of human, no scenes of being.

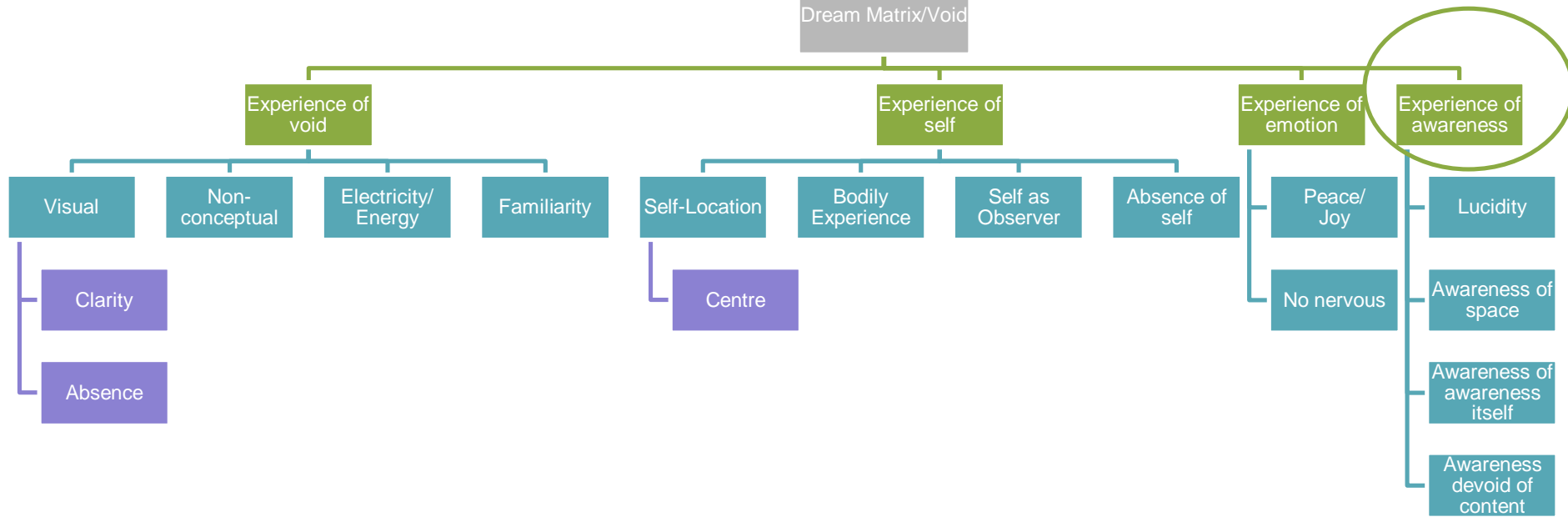


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Table 4. Synchronic categories of **Experience of Awareness** in Void/Dream Matrix for all participants

	Lucidity (includes the indexical 'I')	Awareness of Awareness itself (doesn't include indexical)	Awareness devoid of content
P#01	(16) I was still lucid [and knew I was dreaming and]		
P#02		(36) the experience is having itself . (38) the experience presenting itself (90) it's recognised (40) awareness of awareness being aware . (43) it seems like a duality thing, but it doesn't feel like that.	(55) But well, when I say awareness you can say, 'oh, there's awareness of emptiness', but sometimes, it's like emptiness and awareness it's the same , there's no 'being' being aware of emptiness, it's emptiness is awareness
P#03	(15) I was aware of my consciousness and my thoughts, (93) I realised I was awake inside the dream was still very present (95) The experience of being aware of my consciousness		
P#04	(153) start having the thoughts of: <i>'this is pure image, It's pure energy'</i> .		(15) You are experiencing it. It's pure experience . (143) and start to have an awareness...isn't you, it's just an awareness . (144) It's like if we were going to drop a mind in a computer and whatever we drop into the computer it's what left.



3. What is LDS sleep?

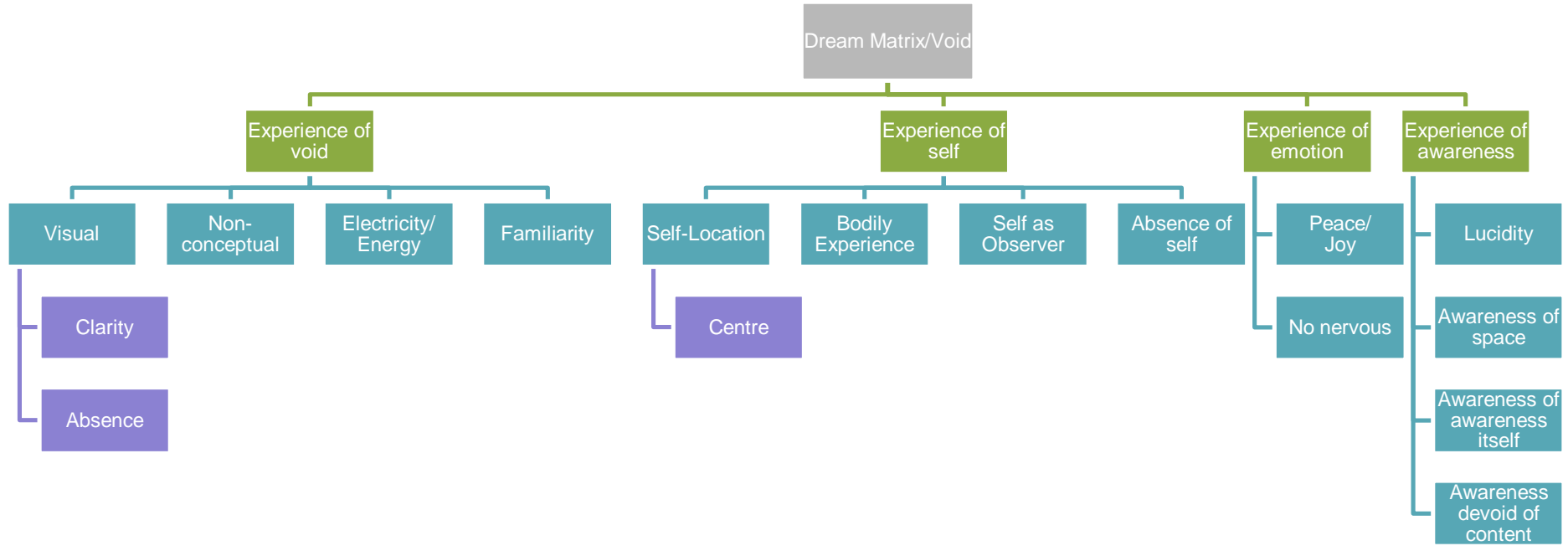
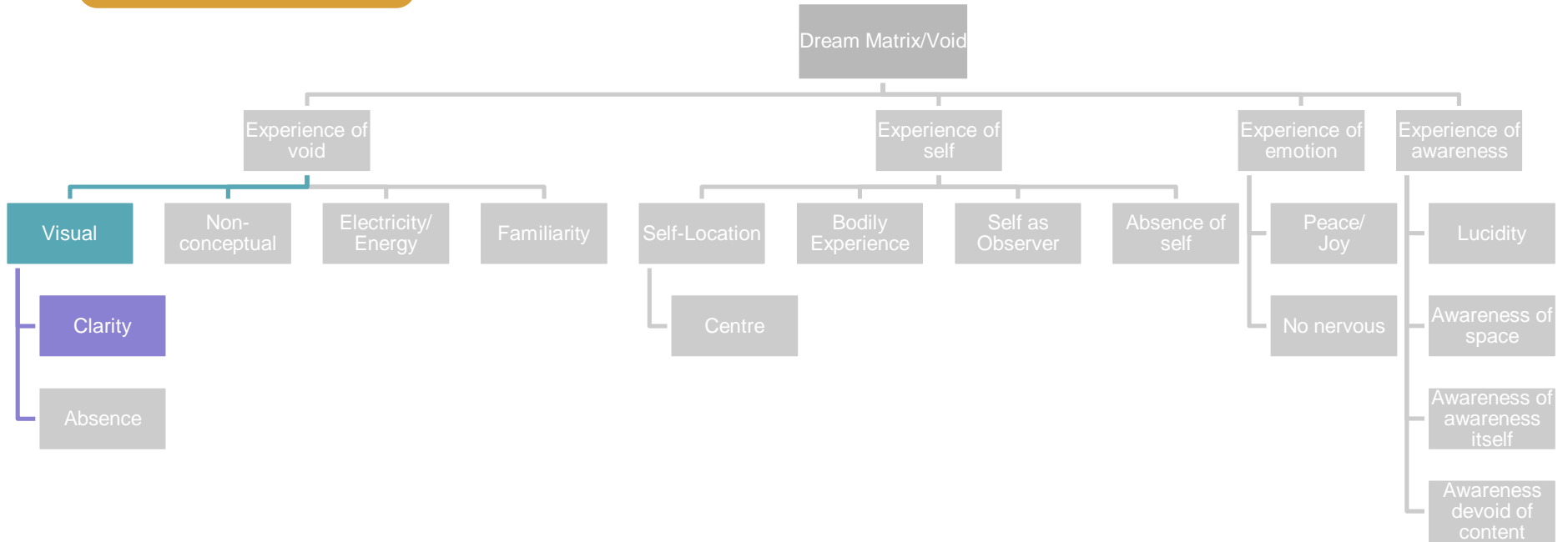


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Experience of clarity?



Experience of
clarity?

Dream Matrix/Void

Experience of
void

Experience of
self

Experience of
emotion

Experience of
awareness

Visual

Non-
conceptual

Electricity/
Energy

Familiarity

Self-Location

Bodily
Experience

Self as
Observer

Absence of
self

Peace/
Joy

No nervous

Lucidity

Awareness of
space

Awareness of
awareness
itself

Awareness
devoid of
content

Centre

Clarity

Absence

Experience of
absence?

Experience of
clarity?

Dream Matrix/Void

Experience of
void

Experience of
self

Experience of
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space

Awareness of
awareness
itself

Awareness
devoid of
content

Centre

Clarity

Absence

Experience of
absence?

Experience of self?

Experience of clarity?

Awareness of something?

Dream Matrix/Void

Experience of void

Experience of self

Experience of emotion

Experience of awareness

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Centre

Clarity

Absence

Experience of self?

Experience of
absence?

Awareness devoid of
content?

3.1. Awareness devoid of content

- “Any mention of sleep experience **lacking** subjective immersion, imagistic and **propositional content**” (Windt, Nielsen and Thompson, 2016:873)
- “During episodes of LDS, an inner experience of **bare awareness** accompanies dreamless deep sleep.” (Metzinger, forthcoming: 14)
 - No minimal self
 - No intentionality
 - No content

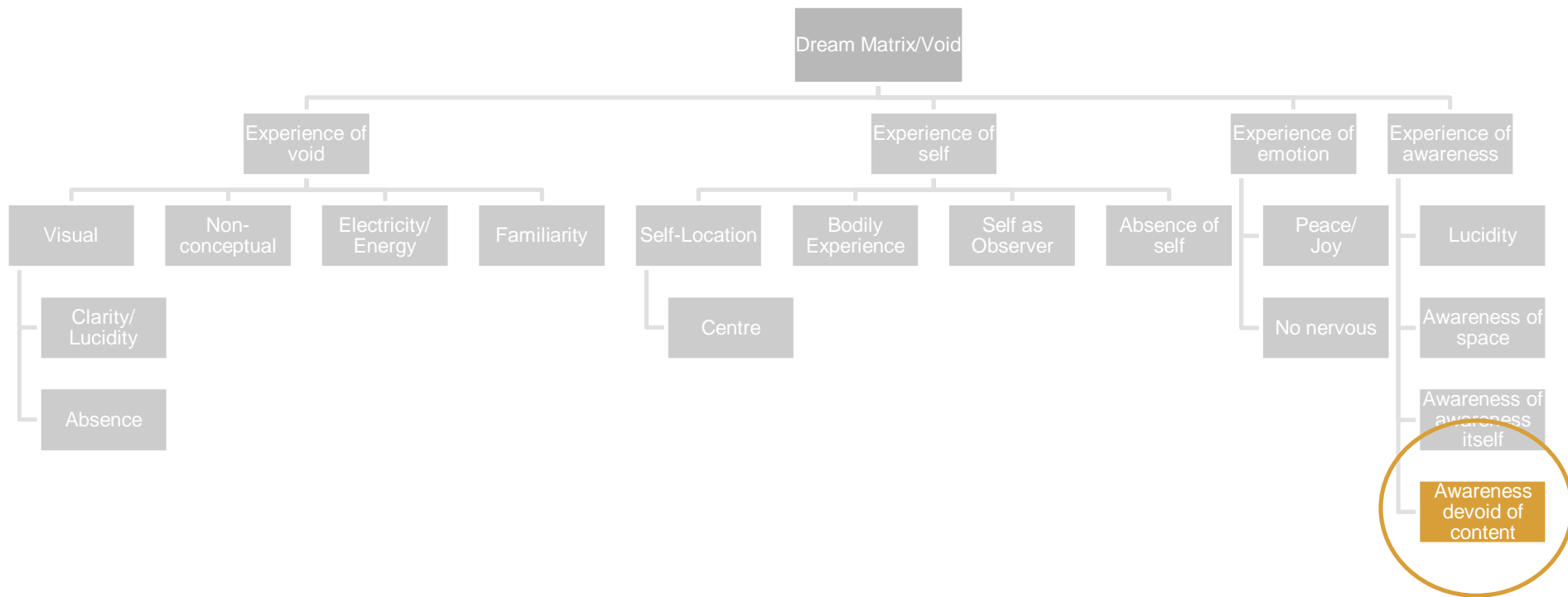


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Future directions

- Are descriptions of LDS in the literature actually descriptions of LDS or something else?
- Can LDS be described as pure phenomenality/bare awareness or should be described as something else?

Thanks!

Any questions?

Ask! Or contact me at

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