

Defining Advanced Meditation

A Conceptual Foundation for a Comprehensive Contemplative Science beyond
Mindfulness Meditation, Basic Meditation, and Other Non-Meditative Consciousness-
Altering Practices

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Abstract: This article proposes a definition of advanced meditation which in concise form is the states, stages, and endpoints that arise with the maturation and mastery of awareness skills. Advanced meditation involves experiential and structural mental changes, sometimes radical, to volition, affect, cognition, and self-related processing in the direction of effortlessness, intentional control, self-attenuation, diachronic and synchronic integration, content minimization, structural expansion, and increased meta-awareness. Advanced meditation goes beyond basic meditation and constitutes a central part of the third wave of scientific research into the nature and effects of meditation. In addition to this concise definition, we also provide extended definitions of advanced meditation to enable, guide, and supports scientific inquiry, meditation training, and engagement with the public on topics including mental health, wellbeing, and flourishing. Several contextual issues are also discussed relating to the distinction between basic and advanced meditation, problems related to duration-based criteria in defining meditative expertise, and the demarcation of advanced meditation in relation to conventional mindfulness meditation, postural and movement-based yoga, breath-work practices, and substance-induced alterations of the mind (e.g., psychedelics).

Introduction

Meditation is increasingly popular in the west and increasingly subject to scientific enquiry into the physical and emotional benefits that may accrue. Many people have exposure to meditation through clinical mindfulness programs, apps, and community-based training. Yet for most their exposure is only to basic meditation, that is what someone would typically perform and experience if they have never meditated, have only meditated a few times, or are taking their first mindfulness meditation course. However, there are certain radical and non-ordinary *states* (Sparby & Sacchet, 2024; Vohryzek et al., 2025; Yang, Sparby, et al., 2023; Yang, Potash, et al., 2025) *stages* (Grabovac et al., 2026; Sparby & Sacchet, 2025b; Yang, Chowdhury, et al., 2025), and *endpoints* (Lutterveld et al., 2024; Shinozuka et al., 2025a; Sparby & Sacchet, 2026; Yang, Kadambi, et al., 2025) that may, as skills develop and mature, arise from continued meditation practice.

While these *states*, *stages*, and *endpoints* are subject to growing scientific enquiry in what has been termed third wave of meditation research (Lieberman & Sacchet, 2026a; Sparby & Sacchet, 2025a), there is still no general synthesis, classification, and definition of what these phenomena entail. We therefore build on our previous work that provided a *general* definition of meditation (Sparby & Sacchet, 2022) to synthesize, classify and define these radical and non-ordinary states as *advanced* meditation and to distinguish them from *basic* meditation based on skill level and phenomenology. In doing so we provide a theoretical scaffold for systematic research into these understudied aspects of human experience. Figure 1 orients the reader to the general structure of the definition of advanced meditation and covers the domains of basic and advanced meditation.

Overview of Advanced Meditation Definition

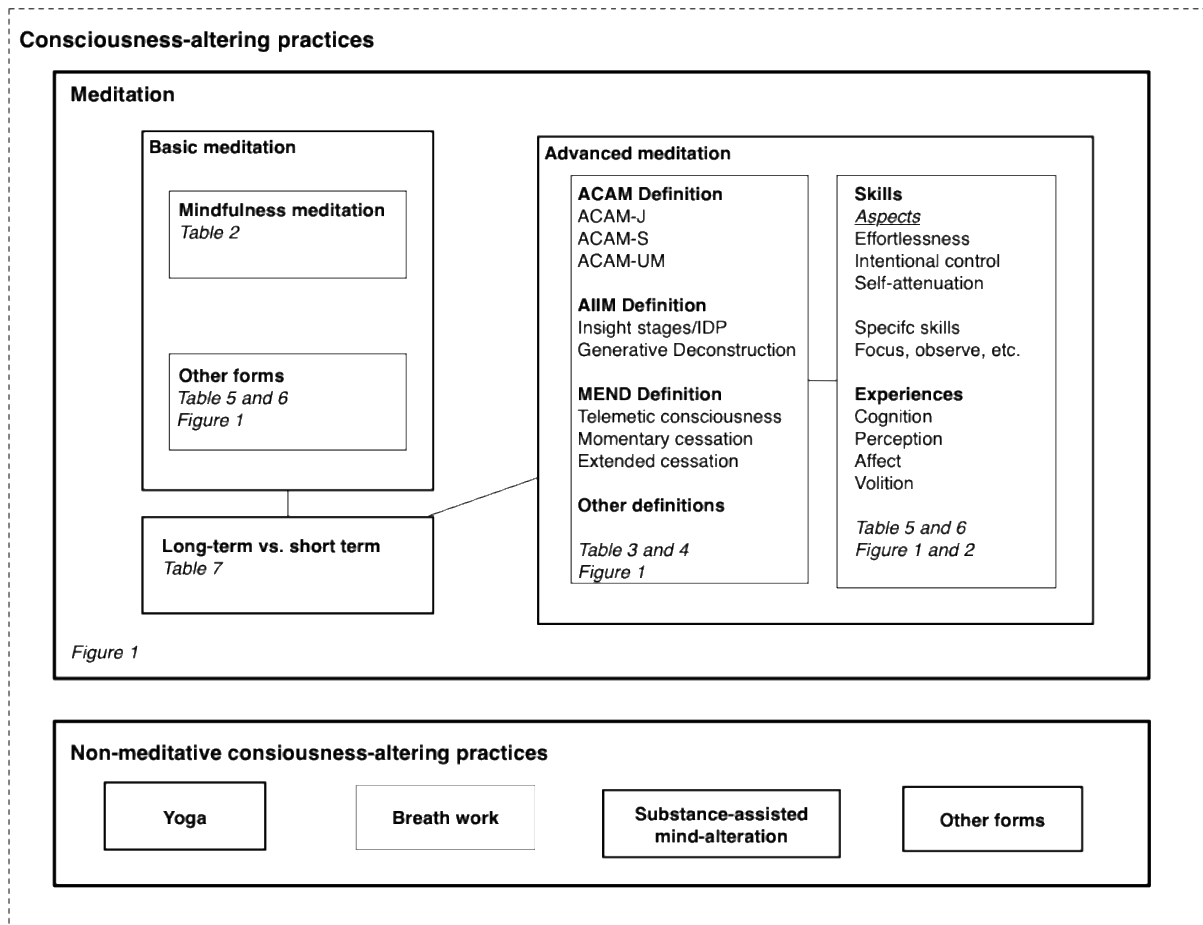


Figure 1. Overview of the definition of advanced meditation. This table gives an overview of the different aspects of the proposed definition of advanced meditation. Advanced meditation is understood as a mind-altering practice different from other kinds such as postural yoga, breath work, etc., and also different from basic forms of meditation such as mindfulness meditation. Advanced meditation itself is characterized by skill-based experiential changes related to but distinct from long-term practice.

Basic Meditation and Advanced Meditation

Although there are many forms of basic meditation, the most well-defined and systematically taught method and thus the most useful initial comparator, is mindfulness-based stress reduction (MBSR). While MBSR was originally inspired by Buddhist meditation and is seen to be compatible with it, certain elements of that tradition, such as maps of meditative development – stage-based overviews how the process of meditation unfolds – are not included in it and even rejected as potentially detrimental to practice and instead aspects such as stress reduction and clinical applicability were strongly emphasized (Kabat-Zinn, 2011; Sparby & Sacchet, 2025b). The explicit reference to and training of these states, stages, and

endpoints is central to what distinguishes advanced meditation from basic forms of meditation such as mindfulness. Basic meditation including MBSR may nonetheless transition into advanced meditation, for example when focused attention transitions from interrupted focus to continuous focus. These kinds of distinctions have been present in contemplative traditions for thousands of years, for example, in the yogic tradition, this transition corresponds to proceeding from *dhāraṇā* to *dhyāna* (Rose, 2018).

While basic and advanced meditation may be understood as parts of a continuum, certain developmental transitions from basic meditation to advanced can still be clearly identified. For a novice meditator, a person who is taking their first meditation course, has only meditated a few times, or has not developed their skill significantly, meditation is typically effortful. It requires repeatedly recognizing mind-wandering, restarting the meditation process when mind-wandering occurs, as well as, for example, intentionally releasing reactions to painful sensations and managing tiredness. As skill develops, meditation may become effortless (Ehmann, Sezer, Treves, et al., 2025a; Sparby, 2019b), mind-wandering may cease completely (Feruglio et al., 2021; Sparby & Sacchet, 2024), and the mind may, especially in the context of concentration meditation, be filled with bliss (Sparby & Sacchet, 2024; Yang, Sparby, et al., 2023; Yang, Potash, et al., 2025). Such states of advanced concentration absorption meditation (ACAM) are described across Buddhist, Hindu, Christian, and other contemplative traditions (Fisher, 2022; Rose, 2018; Sparby, 2019b). Advanced meditation includes several other components such as advanced investigative insight meditation (AIIM), and meditative endpoints (MEND). MEND includes momentary and extended cessations (EC), as well as telematic consciousness (TC). In EC consciousness goes offline, followed by deep and profound peace and release of habitual negative mindsets (Laukkonen et al., 2023; Yang, Kadambi, et al., 2025). TC is intended as a unifying scientific term encompassing a variety of profound, cross-tradition endpoints where the subject-object distinction dissolves into a deep absorption in metacognitive, inherently reflective hyperawareness. All of these terms will be elaborated on below. Table 1 presents an overview of the relationship between mindfulness meditation and advanced meditation as conceived in the present article.

Features	Mindfulness meditation	Advanced Meditation
<i>Branding</i>	Mindfulness and adaptations in other languages	Advanced meditation, specialized courses on specific components
<i>Practices</i>	Sitting meditation	Intensive and prolonged sitting meditation

	Walking meditation Yoga postures Transience of emotions Informal practices Other	Special postures Non-stop practice (continual practice when not sitting, e.g. when eating, walking, sleeping etc.) Special trainings (<i>jhāna</i> , high speed systematic noting, Mahamudra, six yogas, etc.)
<i>Qualities</i>	Present-moment focus View thoughts as events Approach orientation Self-regulation Compassion Wisdom Equanimity	Same as mindfulness meditation in more intense forms, e.g., uninterrupted and intense focus, compassion, and equanimity, deconstruction of mental events
<i>Timeframe</i>	8-week courses, flexible implementation	Regular extended practice, retreats, strong determination sitting, night practice
<i>Instruction</i>	Instructors embody mindful qualities. Adheres to protocol and boundaries	Instruction based on handbooks, fellow practitioners, and traditional teachers. Progress may be self-assessed, community or teacher-assessed
<i>Theories</i>	Stress Intervention impact Face theory (explanation of central concepts to participants)	Same, including traditional contemplative theories and theories of consciousness (predictive coding, active inference, integrated information theory, etc., and theories of adult human development
<i>Developmental maps</i>	Rejected	Employed
<i>States</i>	Not cultivated	ACAM, <i>shamatha</i> , <i>tukdam</i> , etc.
<i>Stages</i>	Not conceptualized/assessed	AIIM, insight stages, <i>bhumis</i> , etc.
<i>Endpoints</i>	Not cultivated	Telemetic consciousness, cessations (momentary and extended)

Table 1. Comparison between mindfulness meditation and advanced meditation. This table compares central aspects of mindfulness and advanced meditation, highlighting differences and similarities.

Advanced meditation need not be conceived of as essentially distinct from mindfulness meditation but rather as incorporating many of its fundamental features. Advanced meditation *can* be a further development of mindfulness meditation but can also develop from other basic forms of meditation. The components of mindfulness meditation is based on a recent study by Doug Oman (Oman, 2023).

Long-term Practice vs. Advanced Meditation

A central challenge for defining advanced meditation is to clarify how it relates to meditation expertise as determined by duration. Novice meditation programs such as Mindfulness-Based Stress Reduction (MBSR) involve interventions that last less than thirty hours over eight weeks (Goyal et al., 2014). Duration-based criteria such as long-term/short-term and regular/non-regular are also in use (Epel et al., 2016; Pauly et al., 2021; Schlosser et al., 2019) and several studies have investigated the effects of long-term practice by now (Ehmann, Sezer, Keller, et al., 2025; Ehmann, Sezer, Treves, et al., 2025b, 2025c; Ehmann, Sparby, et al., 2025; Sezer & Sacchet, 2025), but long-term practice does not equal expertise in advanced states, stages, or endpoints. Indeed, it's entirely possible to meditate for extended periods of time without experiencing any significant changes to the states, stages, and endpoints one experiences (Brasington, 2015; Sparby, 2019a; Yates et al., 2015).

Understanding differences between long-term and advanced practice might be compared to how sleeping more does not necessarily lead to an automatic increase in the capacity for lucid dreaming, even though the number of dreams may increase with more sleep and are one of the conditions for lucid dreaming. Analogous to basic and advanced meditation, dreams and lucid dreams are related and yet distinct. A similar analogy exists in other domains, including skill-based acquisition. For example, it is possible to have had thousands of hours playing an instrument or operating a car without being a master musical performer or competition racecar driver. Basic meditation creates entry points into advanced meditation and increased duration may increase the number of entry points, but something more is required for the entry to be realized, such as fundamental shifts in skill level, one's direct understanding of how the mind functions, and release of habitual behavioral, affective and cognitive patterns.

Hence, there is reason to distinguish between not only the effects of *short-term* and *long-term* meditation, but also between *basic* and *advanced*. While long-term and advanced meditation are likely to be associated and empirical results may correlate among them, a steady meditation practice throughout many years does not necessitate experiencing states, stages, and endpoints. Distinguishing advanced and long-term meditation is required for the empirical investigation of associations between meditation duration, on the one hand, and the emergence of advanced states, stages, and endpoints, on the other. This a milestone that contemplative science has not yet, until now, meaningfully addressed (Lieberman & Sacchet, 2026a).

Non-meditative Consciousnesses-Altering Practices

Furthermore, there is on-going research on effects not only of mindfulness meditation, but also other related practices such as postural and movement-based yoga, breath-work practices, and psychedelics and the use of mind-altering substances. Such practices may result in altered experiences comparable in some ways to those of advanced meditation and may exhibit similar neural and psychological effects (Wright et al., 2024; Wright et al., 2025). To distinguish advanced meditation from such practices and to enable a research-informed comparison, a definition is needed.

Contemplative Science and Advanced Meditation

Distinguishing differences in skill and experience between basic and advanced meditation is vital for the science of advanced meditation, an emerging subfield of contemplative science (Dorjee, 2016; Sparby, 2017; Wallace, 2007) and the focus of the third wave of meditation research (Lieberman & Sacchet, 2026a; Sparby & Sacchet, 2025a, 2025b). This subfield, which arguably at first started emerging with publications on advanced states experienced by long-term Buddhist practitioners (Lutz et al., 2004), integrates multiple disciplines including phenomenology, psychology, and neuroscience, draws from different contemplative traditions and schools, and aims to investigate effects of different forms of advanced meditation including those reported in diverse meditative traditions. The investigation explores certain changes to the structure and content of human experience, including in relation to associated domains such as physiology and mental health (Ehmann et al., 2026; Sparby et al., 2025, 2026, 2026). Without a clear distinction between basic and advanced meditation, it becomes difficult, or even impossible, to meaningfully and rigorously test a range of potentially impactful hypotheses. These hypotheses span, for example, from the broad claim that advanced practices yield distinct and stronger mental health benefits than basic forms of practice, to more specific proposals that advanced practices produce particular neural and psychological effects.

The study of advanced meditation may also inform the development of central theories of consciousness in modern science (Lieberman & Sacchet, 2025), such as predictive coding (Clark, 2019), active inference (Tal et al., 2026) global neuronal workspace theory (Baars, 1997; Mashour et al., 2020), integrated information theory (IIT) (Tononi, 2004), and higher-order thought theory (Rosenthal, 1986). Advanced meditation reveals that consciousness is expressed in various states, stages, and endpoints, that a comprehensive

theory of consciousness must account for and explain (Lieberman & Sacchet, 2026b). To enable this explanation, advanced meditation, its forms, and related experiences, needs to be clearly defined. Our previous studies have shown that there is a wide variety of advanced meditative states (Sparby & Sacchet, 2024), stages (Sparby & Sacchet, 2025b), and endpoints (Sparby & Sacchet, 2026), necessitating the creation of demarcation criteria and taxonomies for each. Empirical research on advanced meditation is already impacting the discussion of single theories of consciousness, for example, active inference (Tal et al., 2026). predictive coding (Laukkonen & Slagter, 2021), as well as challenging certain theories and supporting others (Shinozuka et al., 2025b; Yang, Potash, et al., 2025). Without a clear definition of advanced meditation and its related states, stages, and endpoints, this work will have difficulty accumulating commensurable empirical findings and will fail to realize its full potential for impact.

Previously Proposed Definitions of Meditation, ACAM, AIIM, and MEND

A primary function of defining advanced meditation in science is to guide and inform research, including in the domains of phenomenology, psychology, and neuroscience, among others, including but not limited to epidemiology and clinical and development science. Furthermore, a definition of advanced meditation may support meditation teaching and public communication and media. In prior manuscripts we have provided general definitions of meditation without distinguishing between basic and advanced forms (Sparby & Sacchet, 2022, 2025b). That work may now be developed to include this distinction. We have also developed specific definitions of different advanced forms of meditation, including diverse states (Sparby & Sacchet, 2024), stages (Grabovac et al., 2026; Yang, Chowdhury, et al., 2025), and endpoints (Sparby & Sacchet, 2026), as well as deconstruction of the hierarchical generative processes of phenomenal experience (Tal et al., 2026; Wright et al., 2023) which we include here in the definition of advanced meditation. An overview of the most recent and robust developments of these definitions is presented in Table 2. Here we provide a definition of advanced meditation that includes advanced concentration absorption meditation (ACAM) advanced investigative insight meditation (AIIM), and meditative endpoints (MEND). These are linked through the concept of skill development, specifically both skill maturation and mastery.

As is often the case in science, these definitions should be regarded as proposals and may evolve as the field of advanced meditations continues to develop and ultimately mature.

For example, ACAM may be specified into further forms such as ACAM-J (*jhāna* from the Buddhist tradition), ACAM-S (*samādhi* states from the yogic tradition), and ACAM-U (*unio mystica* in the Christian tradition). Defining more specified forms of ACAM will enable more nuance in scientific inquiry until relations across tradition have been clarified. Hence, while these definitions are thus inherently amendable and potentially incomplete, they provide important scaffolding for current research and enable next steps for this nascent field.

Term	Proposed Definition
Meditation	“Meditation [is] the deliberate engagement in one or more of a set of mental activities such as attention, observation, and imagination, the cultivation of which is performed not only for its intrinsic value but also to realize different secular and non-secular aims internally related to the practice itself.” As cited in Sparby & Sacchet, 2025, and further developed from Sparby & Sacchet, 2022.
ACAM: Advanced concentration absorption meditation, traditionally	“[ACAM, also called <i>jhāna</i> (ACAM-J), <i>samādhi</i> (ACAM-S) and <i>unio mystica</i> [ACAM-U] are sequentially ordered states of (a) intentional, effortlessly stable concentration and aware absorption in which (b) negative mind states are reduced or completely absent, while (c) factors including bliss, peace, and formless aspects are developed and refined, and (d) the mind is inclined towards mental rejuvenation, psychological and philosophical insight, and meditative endpoints” (Sparby & Sacchet, 2024).
AIIM: Advanced investigative insight meditation.	Intentional, effortless, close analysis of phenomena and personal identity that recognizes them both as continually being generated and dissolved, leading the meditator through a process of decomposition (Grabovac et al., 2026) and beneficial psychological changes in the proximity of negatively valenced experiences, before finally settling in equanimity (Sparby & Sacchet, 2025).
MEND: Meditative endpoints.	Meditative endpoints can arise from ACAM/AIIM or other advanced meditation and take the form of either telematic consciousness (TC), momentary cessations, and extended cessations (EC). TC may be described as intrinsically low in content (“pure”) structurally expansive (“non-dual”), ultimate, realized, endpoint awareness. During extended cessations (EC) consciousness completely halts, and upon its return distinct aftereffects occur such as a distinct perception of ego-formation, deep peace, and lasting psychological changes. Both TC and EC may lead

	to persistent changes to consciousness toward reducing suffering and human flourishing (Sparby & Sacchet, 2026).
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Table 2. Overview of proposed definitions. This table contains recent developments of definitions of advanced concentration absorption meditation (ACAM), advanced investigative insight meditation (AIIM), and meditative endpoints (MEND), which are central components of the proposed broader definition of advanced meditation.

We have now indicated what the components of advanced meditations are, how it may differ from basic and mindfulness meditation and other mind-altering practices, as well as suggesting that advanced meditation ought to be distinguished from long-term meditation. In the following we consider definitional theory before developing a substantive definition of advanced meditation to unify the previously proposed component definitions. Finally, we discuss issues relating to the distinction between advanced and non-advanced meditative and consciousness-altering practices.

Definitional Theory

The definition of advanced meditation is intended to provide increased conceptual clarity in the field of contemplative science and in particular third wave meditation research (Lieberman & Sacchet, 2026a; Sparby & Sacchet, 2025a). Defining with purpose requires first understanding the nature, importance and limitations of definitions. The nature of definitions and related problems such as categorizing natural kinds have been intensely discussed, not only in philosophy (Cartwright, 1999) and psychology (Rosch & Lloyd, 1978), but also in biology (Sites & Marshall, 2004). There are several central problems for providing a definition of *anything*. What constrains the *definiens* (the definition provided) of a *definiendum* (that which is to be defined)? How is a *definiens* not an arbitrary collection of terms? How are *definiens* and *definiendum* not tautological? How does one respond to further complex problems such as that positive attributions are always tied to what they are negations of (*omnis determinatio est negatio*), that providing a fully comprehensive *definiens* requires infinite knowledge, and that that any *definiens* will rely on certain implicit categories such as *being*, *negation*, *unity*, *necessity*, and *contingency*, all of which may be philosophically contentious (Sparby, 2014)?

Our approach to defining advanced meditation is based on philosophical metaphor suggested by the highly influential 20th century analytic philosopher Ludwig Wittgenstein. In

section 67 of his book *Philosophical Investigations*, Wittgenstein puts forth the metaphor of a rope in order to describe how features may be united without a single underlying substance (Wittgenstein, 1953). He emphasizes that a cohesive definition may arise from a structural interrelation between parts rather than a specific common quality. A rope consists of different threads; no single thread runs continually through the whole rope and yet one single rope emerges from the parts. Single threads reflect the form of the whole and may also potentially be replaced and yet the overall structural cohesion of the rope is a function of the cohesion of the threads. We use Wittgenstein’s analogy of threads to indicate how distinct components of advanced meditation — such as ACAM, AIIM, and MEND— may also form a cohesive whole, and share several structural features such as effortlessness, involve similar and interrelated activities, and follow similar trajectories.

Our definition of advanced meditation can be adapted for use in various scientific contexts, while still emphasizing key features of advanced meditation that make it distinguishable from basic forms of meditation such as mindfulness, simple focused attention, and open monitoring, as well as practices such as postural yoga, psychedelic use, and breath work. Using this scaffolding for a definition of advanced meditation, we find a balance between the key features of meditation while also leaving room for ambiguity related to specific practices, states, stages, and endpoints, as well as borderline and hybrid cases – and provide a definition that may develop as research continues to emerge and mature. For a more elaborate account of definitional theory and Wittgenstein’s rope analogy, including an overview of advantages and disadvantages of different approaches to defining advanced meditation, see Supplement 1.

The term “advanced meditation” may be regarded as a pragmatic, intended to point to important and understudied shifts happening within and across different contemplative traditions. There is more inclusive view (Sparby & Sacchet, 2026) stating for example the liberation experienced even in the most basic forms of meditation – for example when one releases an unhelpful thought or view – is not different in kind than the ultimate liberation experienced in advanced meditation. Still, there may be relevant differences in terms of depth, stability, impact, etc. that the distinction between basic and advanced meditation help point to for research purposes, teaching and public communication.

The Proposed Definition of Advanced Meditation

Here we present the general features of the proposed definition and elaborate on them in the subsections below entitled *The Structure and Qualities of Advanced Meditative States, Stages, and Endpoints* and *Skill Development*. What we propose is that advanced meditation consists of states, stages, and endpoints that arise with the maturation and mastery of awareness skills. As skills develop, meditation evolves from deliberate, repeatedly reinitiated efforts to an effortless dynamic, or automatization and flow, in which the practice may sustain itself rather than relying on an agent reflectively maintaining practice. These changes (see Table 4 for an overview) involve both an aspect of *intentional control* and *self-attenuation*. In basic meditation, the mediator needs to deliberately align and re-align attention to the aim of the activity; in advanced meditation, attention starts to be aligned to the aim of the activity by the activity itself. This is what is sometimes referred to as “effortlessness”, which may be understood as an integration of intentional control and self-attenuation that comes in degrees. For example, learning to ride a bicycle initially requires effort to find balance, but once the skill is learned the skill has been learned, automatization is established (Logan, 1988). While no consciousness agency or effort is typically required, sometimes intentional balancing will be required, which is also the case in advanced meditation (Sparby, 2019b). Effortlessness may also be described as a kind of “doing of non-doing”, which involves both intentional control (doing) and self-attenuation (non-doing), and may be tuned toward either. The development of intentional control involves being able to initiate, stop, increase and decrease various experiences that one previously had little or no control of, or were even controlled by. The development of self-attenuation involves dissolving fixed ego-identity, including the way it hijacks attention, toward peripheral and spacious awareness, intuitive rather than deliberative action, and in the most extreme cases a complete absence of self.

Effortlessness, Intentional control, and Self-attenuation as Fundamental Aspects of Advanced Meditative Activity

These three – effortlessness, intentional control, and self-attenuation – may be regarded as fundamental dimensions of skill-development in relation to advanced meditation. The maturation of these skills leads to the emergence of ACAM, AIIM, MEND, and potentially other forms and aspects of meditation yet to be articulated. These states, stages, and endpoints *initially* emerge in a way that lacks intentional control. As the meditative activity

becomes increasingly automatized, the process of advanced meditation takes over and leads into new states and stages of consciousness. Hence, during the initial emergence of new structures of consciousness, there is an emphasis on self-attenuation. The experiences emerge in unpredictable ways that involve little or no control. The meditative process itself draws the meditator into a new set of experiences with their own inherent, developmental, both linear and non-linear, trajectories. However, as the meditative skill grows into mastery, intentional control re-appears in the form of being able to initiate the states of ACAM and the stages of AIIM intentionally, in sequence, in reverse, or potentially invoking a specific stage/stage, at will.

MEND events such as telemetic consciousness (TC) and extended cessations (EC) may also, as skill matures, be invoked intentionally, although this may be understood as the most advanced form of practice. TC and EC are both complex topics and we can only outline some general aspects here. TC refers to an extremely refined – low in content and yet reflexively aware – form consciousness that is not separate from phenomena. It may appear in the context of deep and prolonged meditation practice, but also spontaneously. EC involves potentially long periods of absence of consciousness awareness followed by extreme clarity, peace, selflessness, and deep bliss. Full maturation of meditative skill hence means, perhaps paradoxically, that one acquires a capacity for radical self-attenuation. The acquisition of this capacity may be regarded as a maturation of what was already present in the initial shift in effort toward effortlessness that characterizes the first shift into advanced meditation.

In the following, we will first consider the general structure of the states, stages, and endpoints of meditation before going into skill development that leads to their emergence. The definition of advanced meditation that we propose is presented in Table 3. We provide two versions, one that is concise and one that is elaborate, the latter of which provides more detail regarding what is implicit in the former.

Scope	Definition
<i>Concise</i>	Advanced meditation consists of states, stages, and endpoints that arise with the maturation and mastery of mental activity skills.

<i>Elaborate</i>	Advanced meditation consists of structural changes of mental awareness activities toward effortlessness, intentional control, and self-attenuation that lead to the emergence of absorption concentration states unfolding along a trajectory of bliss, stillness, and equanimity, stages of investigative insight that deconstruct phenomena and self-experience while cultivating equanimity, and other trajectories such as generative ones. These processes culminate in the meditative endpoints of telematic consciousness and extended cessations that lead to persistent psychological change toward human flourishing and the cessation of mental distress.
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Table 3. Concise and elaborate definition of advanced meditation. This table presents concise and elaborate definitions of advanced meditation. There may be trajectories of states and stages yet to be articulated that may be included in future iterations of the definition. The concise and elaborate definitions are consistent with each other; the elaborate definition provides a further specification of the concise one. The concise version may be useful in public communication or to avoid repetition of details, while the elaborate one may be useful in academic contexts or when details matter.

The Structure and Qualities of Advanced Meditative States and Stages, and Endpoints

Superficially, the expression “advanced meditation” may function as an umbrella term for practices that go beyond basic meditation and notably the ubiquitous and well-studied MBSR practices, to the more specific states (ACAM), stages (AIIM), and endpoints (MEND) of meditation. On closer investigation, certain shared features of these components may become apparent, which justifies them being entwined in the shared definition of advanced meditation. Before analyzing the shared structural features, we outline the distinctive features of each component.

While we focus on ACAM and AIIM as precursors of MEND, there may be other trajectories meditative development that may be articulated and included in future versions of the definition. For example, generative practices – practices in which mental or physical events are actively produced or modified – such as loving-kindness meditation, mantra meditation, and walking meditation, may unfold in a distinct way and yet be comparable to ACAM and AIIM. While more research is needed, generative practices based on loving-kindness seem to appear across traditions – as *bhakti* in Hinduism (Pechilis, 1999), stations of love in Sufi mysticism (Schimmel, 2011), and unfolding of agape-love in Christian mysticism (McGinn, 2006). Furthermore, we understand open awareness practices such as “non-dual awareness” (NDA) to be implicit in the unfolding of concentration and observation-based practice leading to TC. Hence, open awareness and similar practices may be regarded as a kind of meta-practice (Sparby & Sacchet, 2022), a practice of a set of

awareness modalities such as emptiness, clarity and pervasive care, or as attempted direct engagement with a MEND similar to the claims made for MPE (Metzinger, 2024). The three trajectories of ACAM, AIIM, and generative practices align well with other suggested taxonomies, such as attentional, constructive, deconstructive practices (Dahl et al., 2015; Haudry et al., 2024; Schlosser et al., 2022). However, in the following we focus on ACAM and AIIM as they currently represent relatively well-articulated *advanced* meditation trajectories supported by ongoing research.

Different forms of ACAM exist, including *samādhi* states in the yogic tradition (ACAM-S), *unio mystica* in Christian mysticism (ACAM-U), and different versions in Sufi and Jewish mysticism (Fisher, 2022; Rose, 2018). In the Buddhist tradition, they are called *jhāna* (ACAM-J), which may be numbered one to eight, and are increasingly investigated conceptually (Sparby & Sacchet, 2024; Yang, Sparby, et al., 2023) and empirically (Yang, Chowdhury, et al., 2023; Yang, Potash, et al., 2025). Since ACAM-J has a particularly strong research foundation, we focus our account of ACAM on it here, while acknowledging that different features may be emphasized in different accounts. Consistent with our earlier discussion on development of effortlessness, we note that J1 requires some deliberate direction of attention that is attenuated in J2-J8. ACAM-J is characterized by stable focus that synthesizes each moment of experience, creating continuity and absorption (J1). The synthesis leads to the unfolding of a series of experiences of unification that proceed from effortless intense bliss and happiness, a kind of peak experience, (J2) to contentment (J3) and increasing mindfulness, peace, and equanimity (J4). Further potential refinements of consciousness may ensue. Minimal and yet expansive structural features of experience (minimal expansive spatiality [J5] and minimal expansive consciousness [J6]) may come into focus, before very subtle states of awareness arise (absence perception [J7], liminality perception [J8])) while other contents of experience (e.g. sensory input, thoughts, affect) are muted or disappear completely.

Advanced investigative insight meditation (AIIM) consists of a close and effortless observation of phenomena while the meditator proceeds through specific stages. These are sometimes referred to as the stages of insight in the Theravāda Buddhist tradition (Sparby & Sacchet, 2025b) and in our scientific work we often refer to them as insight stages (IS) which we have articulated in depth through the Insight Development Process (Grabovac et al., 2026). While analyzing each moment of experience and identifying them as discontinuous, a sequence of experience-patterns unfold, beginning with a constellation of what are sometimes reported as intense or peak experiences (typically somatic, energetic, but potentially also

visual and auditory) that lead to a dissolution of self-identity and a progression through a set of negatively connoted stages (periods of foundational instability in which, e.g., emergent instability, persistent instability, or visceral instability are experientially predominant) that untangles experiential fixations, before ending in a state of disidentified phenomenological integration (Grabovac et al., 2026), that can include peace and equanimity. AIIM proceeds through different frames of reference, which in the Buddhist tradition may include body, emotions mind, and dharms (here interpreted as perceptual construction of self and reality). As practice deepens the focus may shift from discrete phenomena to observation of the generative process for those phenomena (Wright et al., 2023, Tal et al., 2026).

The two preceding paragraphs reveal several structural similarities between ACAM and AIIM. Both start with near automatic mental activity before proceeding to a peak experience and then to an untangling and simplification of content, until a state of equanimity is reached. This process may also be understood as a structural expansion in that the separation between subject and object dissolves. Differences include that ACAM is generally tuned toward focus, synthesis, continuity, and pleasant experiences (Sparby & Sacchet, 2024) whereas AIIM is generally initially tuned toward observation, analysis, discontinuity, and unpleasant experiences (Grabovac et al., 2026). However, ACAM and AIIM may be conceptualized as moving from focused awareness towards expansive awareness and toward the same point of neutral or equanimous experience. Furthermore, ACAM relies on some degree of observation to maintain focus, while AIIM requires some degree of focus for its close observation of phenomena. Some subtle unpleasantness may also be part of ACAM since the progression through the states of ACAM involves recognizing how pleasant experiences are ultimately unsatisfactory. Similarly, AIIM may be pleasant, especially in the early stages, leading up to and during the initial peak experience as well as later experiences of decomposition (Grabovac et al., 2026). Hence, while different, ACAM and AIIM are intertwined and indeed ACAM may become a subject for AIIM among some advanced meditators. In the following, we will use the term “milestones” when speaking generally of major points of change along meditative development toward MEND.

Both ACAM and AIIM proceed toward MEND. MEND come in two versions, which have already been mentioned, namely TC and EC. MEND are either events or persistent. MEND events may last for a shorter or longer time, while persistent MEND consists of psychological changes that endure after MEND events. Traditional literature may refer to MEND as impossible to conceptualize coherently, regarding the endpoint of meditation as paradoxical or ineffable (Sparby & Sacchet, 2026). This is reflected in the potential for

describing MEND as either consisting of extreme absence of consciousness or presence of extreme awareness. TC may be regarded as an extreme cultivation of continuity and hence a full maturation of what is inherent in ACAM, though often practiced by establishing non-dual or open awareness.

TC involves an absorption in metacognitive awareness and the attenuation of subject/object structure (Rinpoche, 2013). This attenuation may come about in various ways including attenuation of subject, attenuation of object, identification of subject with object, attenuation of the process of conceptualization of objects, and attenuation of the process of forming of conceptualizations into relationships. Each of these may give different experiences of TC, just as ACAM J1-J8 give different experiences, and these may be variously named in different traditions as non-separation, non-duality, emptiness, *rigpa*, unitive experience, oneness with God or the holy spirit, or merging Atman and Brahman. Each of these experiences may also vary subtly in ‘flavor’ depending on the weighting of attention to different aspect of awareness and the degree to which other generative processes have been attenuated.

One well developed description of TC from the Tibetan traditions is of an ever-present, self-same awareness (“ground *rigpa*” as in Tibetan Dzogchen (Dalai Lama, 2020)) that experiences even the discontinuous manifold of phenomena as an expression of itself (“effulgent *rigpa*”), and yet is also beyond the distinction between continuity and discontinuity (“all-embracing *rigpa*”) (Dalai Lama, 2020). Although less studied than ACAM-J, phenomena such as *rigpa* need not be seen as ineffable, but may be subject to scientific hypothesizing under our definition of advanced meditation.

EC may be regarded as an extreme cultivation of discontinuity that also incorporates continuity, in the sense that during it, consciousness goes offline, while after it, persistent changes emerge. EC and TC are unified by being endpoints of meditative processes, while also sharing similar ways of entry and aftereffects. However, these aftereffects, we speculate, may be tuned more toward either the persistent flourishing of positive attributes such as generosity, compassion, and wisdom (TC) (Powers, 2007), on the one hand, and persistent absence of negative mindsets that lead to suffering (EC), on the other (Laukkonen et al., 2023).

While ACAM and AIIM involve some degree of activity, in the context of MEND, one may rather characterize them as ways of being where beneficial qualities and attitudes of mind have become habitual and detrimental qualities and attitudes have become dishabituated (Sparby & Sacchet, 2026). The effects of the meditative activities hence have become

persistent in MEND. There are also cases where MEND-practice involves some amount of effort, such as practice aimed at achieving TC and EC duration mastery, which is the ability to stay in either TC or EC for a set amount of time, despite the tendency for these experiences to be integrated then either attenuate or cease. As outlined here, the structural and qualitative changes to awareness of advanced meditation may be understood as consisting of various developmental trajectories of ACAM and AIIM, without excluding the possibilities that study of other forms of meditation may identify other development trajectories, all nonetheless proceeding toward MEND that represent the culmination of these processes. Furthermore, traditions may also include post-MEND instructions and practice to increase expression, depth, and virtuosity after MEND (Avila, 2004; Dorje, 2009; Roshi & Hori, 2004).

Skill Development and Maturation

As indicated above, advanced meditation is closely connected to the development and maturation and mastery of certain basic mental activities or skills. We have given a systematic account of these meditative activities elsewhere (Sparby & Sacchet, 2022), including focusing on or observing given objects of consciousness or producing certain inner images, feelings, thoughts, and so on. These activities may be regarded as unified by the meta-awareness that is presupposed to initiate and maintain advanced meditation, which may also be understood as a background telematic consciousness implicit in all awareness activity.

Each meditative activity will proceed through specific developmental shifts, such as focusing on becoming effortless, the release of thoughts becoming automatic, the body schema becoming malleable, et cetera. These shifts reflect varying degrees of not only effortlessness but also tuning towards either self-attenuation (when relying on given objects; perception requires receptivity and absence of self-activity) or intentional control (when relying on generated objects; generation initially requires an active self). However, since all cognition involves some degree of constructive activity, all experience will contain an aspect of something given – where the subject is receptive – and something generated – where the subject is active – and hence background growth in intentional control may be expected to parallel growth of self-attenuation, and vice versa. Furthermore, the developmental meditative shifts may also appear in the experiential domains within which the activities are present and may differ in ways that reflect whether the mode of mediating emphasizes ACAM or AIIM. See Table 4 and 5 for an overview of such shifts both on the level of activity and experience. Note that these tables do not describe specific practices, but certain

mental activates involved in them. Specific practices such as for example deity yoga, ngondro, and analytic meditation, can described in terms the activities listed below and hence the way they move from basic to advanced practice is multilayered, happening within several domains of mental activity. The examples activities listed below are also not exhaustive. For example, “produce” does not only mean cultivating a sense of loving kindness but can also include for instance producing specific thoughts or a mantra.

	Basic	Advanced	
Activity		Milestone(s)	Endpoint(s)
<i>Focus</i>	Placing and sustaining attention on the breath, or on gross movements such as walking, with effort	Effortless focus, ACAM 1-8	Signless absorption (Analayo, 2023)
<i>Release</i>	Letting go of negative thoughts	Automatic dropping of negative thoughts and attitudes	Absence of evaluative thoughts and associated reactions
<i>Observe</i>	Noticing the connection between thoughts, emotions, and sensations	AIIM: Arising and passing away of stages of insight, noticing precursors of individual phenomena	Telemetic perception (perception devoid of subject/object structure), cessation
<i>Move</i>	Adjusting or putting the body in specific positions	Body schema malleability (CITE Jes Golden's paper)	Dissolution of body boundaries (Nave et al., 2021)
<i>Imagine</i>	Imagine lights, figures	Color control (Woollacott et al., 2024)	Form control
<i>Produce</i>	Cultivate a sense of loving-kindness	Effortless presence of loving-kindness	Loving-kindness as stable baseline of being
<i>Awareness</i>	Becoming aware of body, emotions, and thoughts	Subtle, pre-reflexive awareness	Very subtle awareness
<i>Metacognition</i>	Recognition of mind-wandering, hindrances, and non-beneficial mind states	Awareness of the entire generative process, momentary telemetic consciousness	Stable telemetic consciousness

Table 4. Basic and advanced meditative activities. This table presents an overview of the difference between basic and advanced mental activities during meditation. Milestones represent major points of developmental change while endpoints represent a developmental culmination.

	Basic	Advanced	
Experiential Domains		Milestone(s)	Endpoint(s)
<i>Thoughts</i>	Identification of thoughts	Noticing proto-thoughts	Discursive thought absent (as in deep ACAM-J (Sparby & Sacchet, 2024); EC) or presence of thoughts without distraction (TC)
<i>Mind-wandering</i>	Episodic mind-wandering	No mind wandering. Distraction may still emerge	No distractions
<i>Perception</i>	Tuning in, deemphasizing	Awareness of perceptual processing, decoupling of concept and percept, deconstruction	Complete pacification, telematic perception
<i>Affective</i>	Detaching from negatives, learning to cultivate positives	Strong attenuation of negative emotions and reactions. Autogenetic bliss and peace	Complete absence of negative emotions. Morphogenetic conversions (e.g. desire into bliss, anger into clarity (Sparby, 2022)).
<i>Volition</i>	Effortful	Effortless (emerging mastery)	Intentional control (full mastery)

Table 5. Expressions of basic and advanced meditation in different experiential domains. This table presents an overview of phenomenology in different cognitive, affective, and cognitive dimensions during basic and advanced meditation.

Advanced modes of fundamental meditative activities such as focusing may be understood as consisting of changes, or, more specifically, reversals of intentional, willful activity into modes that are effortless, automatized, and habitual. The reversal connected to the activity of observation consists of a transition from analyzing and deconstructing phenomena to experiencing the dissolution of the self, specifically constructed identities, which hence leads to overall self-attenuation. In activities that involve producing or generating objects (including for example feelings, internal images, and thoughts), the shift consists of the ability to control (e.g. increase, decrease, adjust, shape) the object as well as making it present to consciousness. As this generation becomes effortless, self-attenuation may also take place, based on realizations of how malleable self-identity may become. These

claims can be tested empirically to provide potential further confidence and evidence for, and refinement of, the framework.

Advanced meditation may also be seen, on the level of activity, to be defined as specific forms of structural reversals and expansions of activities and experience. As advanced meditation unfolds, one no longer meditates – one is, in a sense, “being meditated”. The structural reversal of meditative experiences represents a strong attenuation of the self. The ordinary structure of consciousness, where the boundary between self and world appears clear, no longer holds. This shift in boundary may be regarded as aspects of what is traditionally referred to as awakening, non-dual awareness, and so on. Each shift into an advanced mode of a meditative activity (as indicated in Table 5 and 6) may be regarded as exemplifying an attenuation of self in the way just indicated that move through different milestones toward realization of increasingly deep autonomy. Indeed, as advanced meditation progresses, intentional control, an aspect of autonomy, deepens. What meditation influences and controls attention in basic meditation (e.g. mind-wandering due to affects, impulses, and sensory input) starts to come under volitional control as advanced meditation emerges. With mastery, the meditator may initiate and proceed through ACAM and/or AIIM in the way they wish. MEND may also come under volitional control, although such a level of mastery appears to be very rare.

Aspects of advanced meditative development may be noticed in the simplest meditative activities. For example, attempting to remain focused on the meditation object relies on metacognitive awareness. Through continued effort, metacognitive awareness becomes increasingly activated and draws into the foreground. As meditative practices deepen awareness, the pre-reflective co-constitution of subject and object comes into view. Not only is it realized that self-identity is malleable, it is also realized that whatever one would wish to be is shaped by past experiences and ideals for the future, which again is reflective of non-separation from the whole world-system within which subjective awareness arises (Bernstein et al., 2025). Hence, basic meditation and simple meditative activities foreshadow later, more advanced developments.

When approaching MEND, one’s understanding of fundamental features of phenomena may change deeply, and these changes may also exhibit a reversal. Intensely identifying the impermanence of phenomena may lead to an experience of encountering something fundamental that is not impermanent or rather something “transcendent”, namely that which lies beyond the distinction of permanence and impermanence, and which may only be possible to describe through the application of paraconsistent logic (Priest, 2020).

Regardless of the ontological and epistemological status of what such experiences may be pointing to – a question we take an ontologically neutral view of here – the thorough investigation of how phenomena involve suffering may lead to what may simply be termed a domain of experience free from suffering.

As the mind becomes quiet, the stage is set for the attenuation of autonomic subject/object categorization, allowing metacognitive awareness to be observed directly, which as it emerges strongly constitutes TC. Clearly seeing how phenomena are not one's self may lead to direct observation of the perceptual processes that lead to the construction of experience, including the sense of self. Attenuation of the conceptualization process may lead to a sense of emptiness, attenuation of the perceptual contraction around the self may lead to a sense of spaciousness, attenuation of the sense of biographical separation may lead to a sense of nonduality, and so on. The clear uncovering and observation of attention as a primitive process of the mind may lead to absorptions in attention itself. . Sometimes that which is revealed in this way is referred to as pure awareness (Forman, 1997; Metzinger, 2024). This attenuation of subject/object distinctions combined with weighting of attention onto awareness or deconstructed perceptions is that we elaborate and term TC, indicating a MEND that involves metacognitive and inherently reflective hyperawareness. As TC – a previously ever-present background awareness – draws into the foreground, it may be experienced as fundamental reality. While generative practices may focus explicitly on cultivating positive affects and attitudes, the encounter with TC is traditionally seen to bring with it a natural flourishing of positive mental capacities, such as generosity, compassion, and wisdom (Powers, 2007). Mastery of TC involves the ability to volitionally set up and have TC remain in the foreground.

Another way of approaching MEND is through the cultivating the cessation of consciousness. EC may initially start as short, moments of consciousness fully stopping (momentary cessation or MC), resulting in the mind-system going through radical changes due to the temporary release of subtle and ongoing reinforcement of negative mental and behavioral habits. That process may come under intentional control as skill matures. With practice, the duration of the cessations can increase, giving rise to EC if combined with concentration skill development, which has even deeper impact on the mind and behavioral patterns. While consciousness is completely subdued during EC, mastery includes developing volitional control when to start EC and how long they may last.

See Figure 2 for an overview of the different dimensions of activity development and how they relate to the different forms of emergent states, stages, and endpoints. See Figure 3

for an overview of the relationship between basic and advanced meditation with regard to skill development and emergent states, stages, and endpoints.

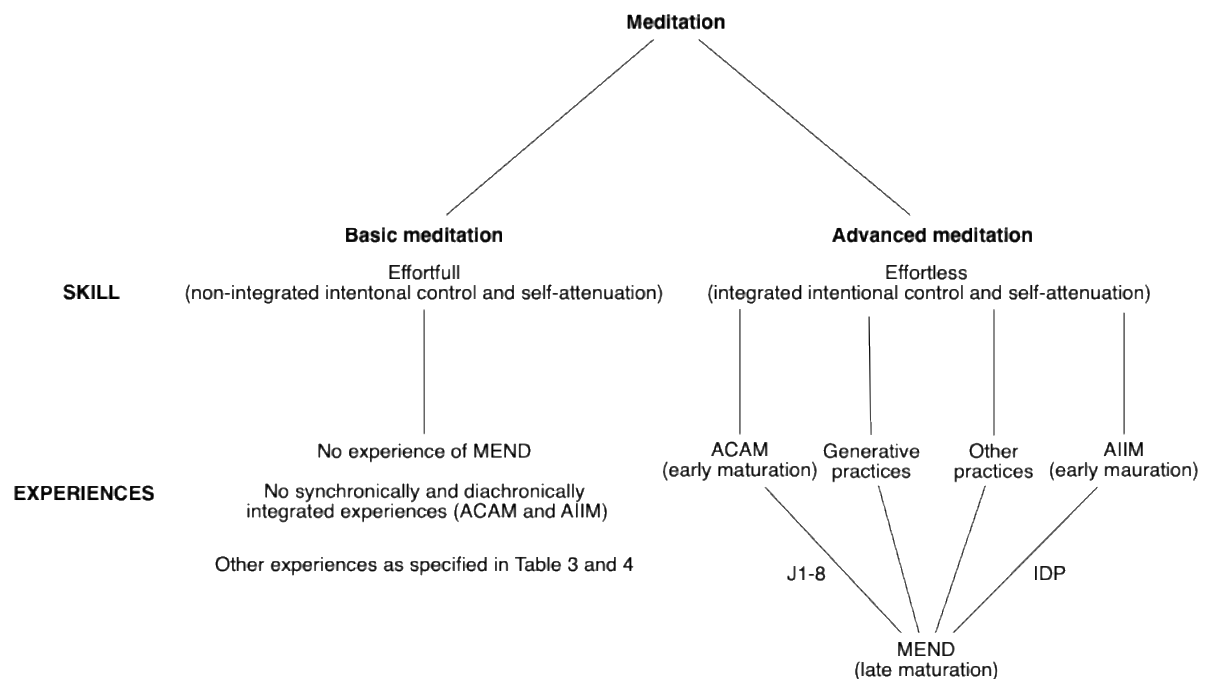


Figure 2. Taxonomy of Basic and Advanced Meditation. This figure presents basic and advanced meditation as species of meditation and shows how they are distinguished in relation to skill and the phenomenology of states (ACAM, J1-8), generative practices (e.g. loving-kindness, mantra meditation, visualization), other practices, and stages (AIIM and insight development process (IDP)), and endpoints (MEND). Diachronic and synchronic integration means that parts of meditative process – e.g., attention, affect and volition – are coordinated so that they function together as a whole oriented toward an end rather than counteracting each other.

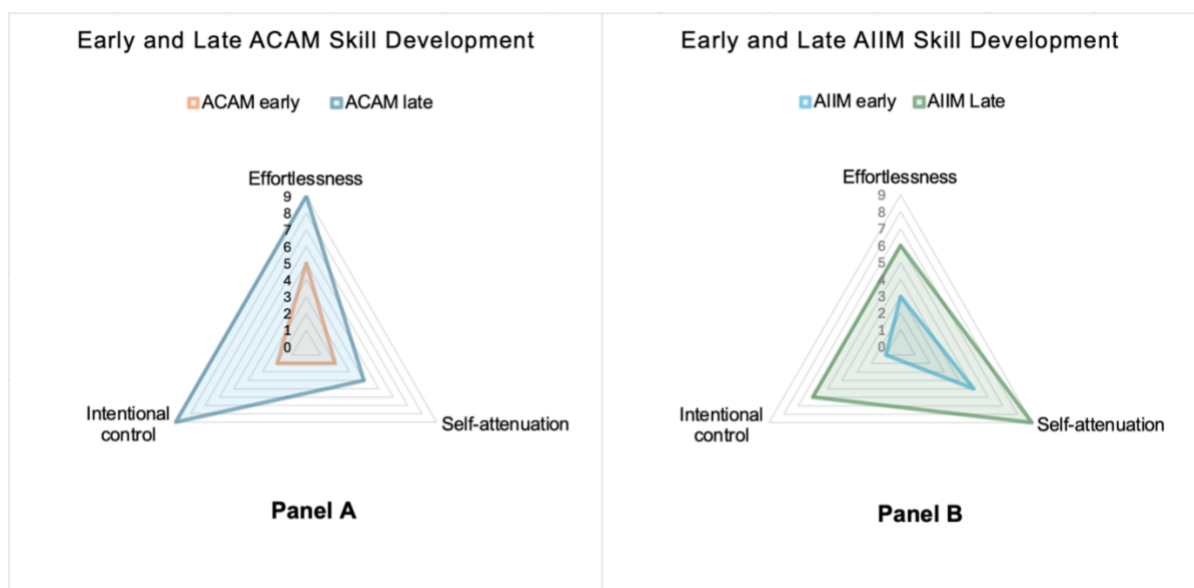


Figure 3. Dimensions of early and late AIIM (Panel A) ACAM (Panel B) skill development. This figure provides an overview of the different early and late developments of ACAM (Panel A) and AIIM (Panel B) skill dimensions, effortlessness, intentional control and self-attenuation. Intentional control is emphasized and matures earlier in ACAM than in AIIM, while self-attenuation matures earlier in AIIM than in ACAM.

Discussion

We define advanced meditation as consisting of states, stages, and endpoints that arise with the maturation and mastery of awareness skills. In the following, we address several identified challenges for defining what advanced meditation consists of: (1) Identifying what is common to the forms of advanced meditation and what differentiates them; (2) the demarcation between advanced meditation and basic meditation beyond mindfulness; (3) issues relating to duration-based criteria for advanced meditation; and (4) the distinction between advanced meditation and other related practices and psychedelics.

Common and Distinguishing Features of Forms of Advanced Meditation

Our answer to the challenge of how to provide a demarcation between basic and advanced meditation is to point to certain transitions in the phenomenology of meditation. On the level of experience, these transitions consist of such changes as listed in Table 4. These changes can include, for example, that thoughts start dissolving automatically, that body boundaries become malleable, or that bliss and peace become autogenetic. Such changes may be specified more concretely in the form of ACAM and AIIM, which are constituted by related and yet distinct synchronically and diachronically integrated sets of experiences proceeding toward MEND. Diachronic and synchronic integration is high when different parts of the mind that constitute the meditative process function as a whole proceeding toward an endpoint in a way that is mutually reinforcing rather than mutually inhibiting (see Supplement 2 for an elaboration of the ideas of synchronic and diachronic integration). On the level of skill, the transitions have the quality of shift toward effortlessness, which may be analyzed as having two aspects, namely intentional control and self-attenuation. This structural change or skill metamorphosis is a central defining feature of advanced meditation as developed here.

How many forms of advanced meditation are there? At least as many as there are fundamental meditative activities. Hence, advanced meditation may be specified according to

which activity constitutes the main one during a practice. However, forms of advanced meditation may also be understood as constellations of related activities that unfold according to a certain pattern. ACAM and AIIM are such constellations that are becoming increasingly well-specified in current meditation research, each centered around their respective primary activities, *focusing* (ACAM) and *observing* (AIIM). While distinct, ACAM and AIIM unfold according to an overarching pattern: effortless practice reaches an early peak experience and then proceeds to a simplification and dissolution of content as well as untangling of attachment patterns, which at the same time is an expansion of awareness toward equanimity and meditative endpoints. These three – skill metamorphosis, a fundamental developmental pattern, and the ultimate aim – may be regarded as the three unifying structural features of advanced meditation. They are the threads that together constitute the rope. If we zoom in on each thread, further threads are likely to be discovered, such as the fundamental activities, experiences, variations in developmental trajectories and endpoints, and so on. Each thread will resemble the rope that they hold together and that are holding them together.

The Distinction between Basic and Advanced Meditation

Basic and advanced meditation are connected through certain fundamental activities of mind. However, basic mediation is characterized by continual interruption and breakdown of these activities, while advanced meditation embodies them through effortless action. This does not mean that advanced meditators are not interrupted at times, especially early in a process of cultivating access. However, for advanced meditators, once momentum is built, the meditative activity typically continues on its own with only minor or no interruptions, although this is influenced by such factors as identified in Figure 1. A difference between a basic and advanced meditator is that the latter knows how to build momentum and can reliably produce such momentum.

This is not to say that a basic meditator cannot experience phenomena connected to advanced meditation. At times, they may experience some degree of effortlessness, increasing control over their mind, and selflessness. This may be connected to baseline levels of stress or other factors that influence meditative deepening (see Figure 3). Basic meditators may also experience episodes wherein advanced meditation phenomena occur such as energetic experiences, deep joy, insights, sensory pacification, deep emotional release, and absence of attachment. However, such episodes will be rare, surprising, and disconnected in the sense of having low synchronic and diachronic integration. In advanced meditation these

experiences are common, well-known, and synchronically and diachronically integrated. Furthermore, for a novice, such episodes may be very inspiring, but also disruptive as well as potentially destabilizing. The advanced meditator will be accustomed to such experiences, and may have been changed by them through repeated encounters. As mastery grows, they may also be reliably reproduced.

It could be asked why some of the endpoints listed in Table 4, like TC, are often regarded as the central endpoint and not others, like color control. We suggest that TC encompasses more and is more fundamental than color control and similar endpoints, since awareness and meta-cognition are central preconditions for control. Color control can also be seen as grounded in the dissolution of the subject/object structure (CITE paper in development). Hence, we hypothesize that an ordering of endpoints is possible according to which is more encompassing, fundamental, and grounding, while this relies on clarifying how the central endpoints of EC and TC relate to each other (Sparby & Sacchet, 2026) .

The Distinction between Long-Term and Advanced Meditation

The proposed definition of advanced meditation removes duration as a criterion for advanced meditation. In principle, it is possible to practice for a short amount of time (e.g., less than the typical ca. 30 hours over 8 weeks of MBSR programs (Goyal et al., 2014)) and still experience advanced meditation. It is also possible to practice regularly for a long time (far more than ca. 30 hours over 8 weeks) without experiencing advanced meditation. Hence one may speak of short-term basic meditation practitioners, short-term advanced practitioners, and so on (Ehmann, Sezer, Treves, et al., 2025b; Schlosser et al., 2019; Sezer & Sacchet, 2025) (see Table 6 for an overview).

Form/Duration	Short-term	Long-term
Basic	Short-term basic meditator	Long-term basic meditator
Advanced	Short-term advanced meditator	Long-term advanced meditator

Table 6. Distinctions between short-term, long-term, basic, and advanced meditators. This table gives an overview of different possible combinations of the experience-level of meditators based on the criteria form (basic/advanced) and duration (short-term/long-term).

Various terms like “expert” or “advanced practitioner” may be narrowed down in the context of the present research program to one who has access to advanced *meditation*, even though such an advanced meditator still they may require creating specific conditions for evoking states, stages, and endpoints. The degree of *mastery* of advanced meditation may be defined as having access to advanced meditation regardless of external conditions and the ease with which the necessary internal conditions may be cultivated. Advanced meditators may in some rare cases report only a few hundred hours although the average tends to be much higher, and can be as high as over 50,000 hours (Ehmann et al., 2026). This indicates that time is a factor related to access of advanced meditation but that it may also be achieved within a short amount of time, and this there is not a clear one-to-one relation between time and advanced meditation. There is ongoing research on dose-response in meditation, and while clinically relevant effects may begin from 160 hours of practice, daily meditation minutes have been shown to moderate well-being and mental health outcomes (Bowles & Van Dam, 2025).

It may be expected that duration is a factor that influences the probability of experiencing advanced meditation, either in the sense of session length and lifetime meditation hours. However, we hypothesize that duration is only one among many factors that influences the probability of experiencing advanced meditation, and certain states and endpoints, like TC, may appear spontaneously, while time may be required to stabilize it as a realization. The process of opening access to advanced meditation is generally not random and may be influenced by a set of underlying mechanisms. These mechanisms have yet to be clearly identified and may involve complex interactions, and hence limit ourselves to refer to probability in the context of the present high-level analysis. Other influencing factors are likely present, such as individual factors, contextual factors (e.g. loud environment), sleep quality, quality of instruction, et cetera. For an overview of this idea of factors influencing the probability of experiencing advanced meditation please see Figure 4.

Hypothesized Influencing Factors

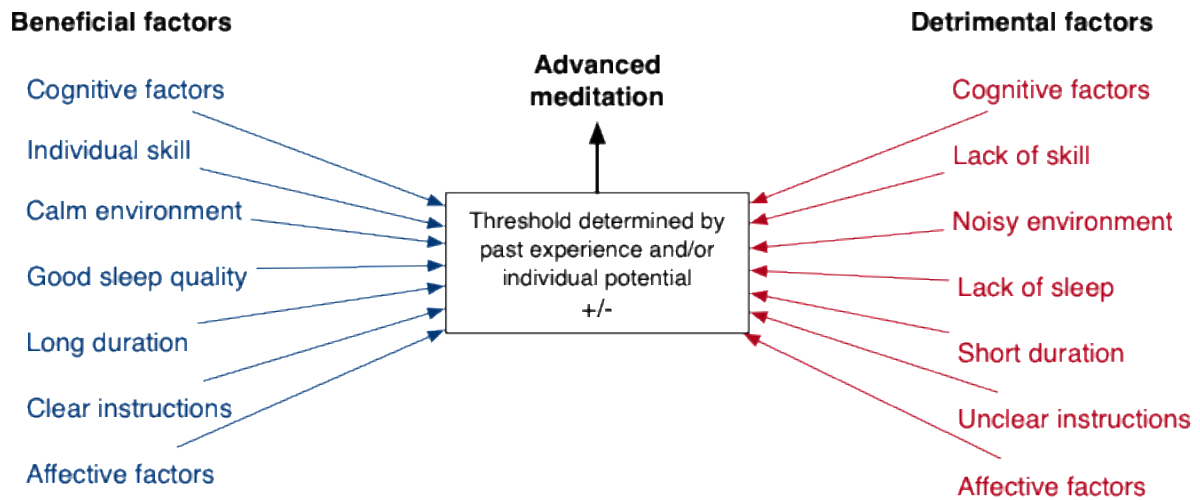


Figure 4. Hypothesized influencing factors. This figure provides an overview of hypothesized factors influencing the process of experiencing advanced meditation.

It is important to note that advanced meditation does not necessarily unfold immediately when an advanced practitioner starts meditating. As noted above, the potential for accessing advanced meditation is part of what defines an advanced practitioner and their level of mastery.

Certain mediative practices like Transcendental Meditation (Travis, 2014; Travis & Shear, 2010; Travis & Wallace, 1997) and practices that focus on the meditative endpoint open awareness/*rigpa* (Bertelsen et al., 2013; Dalai Lama, 2020; Sparby & Sacchet, 2026) may represent ways of immediate access to advanced meditation by sacrificing intentional control. For example, TM may represent a more direct route to MEND by employing a form of mantra meditation that effectively halts cognitive processing while supporting non-attachment, an aspect of self-attenuation. MEND, or *transcending* in TM terminology (Travis, 2014), may arise more rapidly than through ACAM and/or AIIM, but mastery over the process is not achieved. Intentional control must be trained in addition, which introduces effort into the process, making non-attachment or internal release more challenging. A specific learning process that leads to a harmonization of intentional control and self-attenuation needs to take place before intentional control over MEND is achieved.

The Distinction between Advanced Meditation and other Practices such as Postural Yoga, Breath-Work and Substance-Assisted Mind-Alteration (e.g., Psychedelics)

There are many different ways of altering consciousness toward increased well-being and mental health including practices such as postural yoga (Cramer et al., 2013), and chanting/breath-work (Malviya et al., 2022). These practices involve altering consciousness through external means such as holding postures and regulating breathing patterns. Other external methods of altering consciousness include the use of substances, such as psychedelics (Luoma et al., 2020) and other psychoactive substances (e.g., stimulants, depressants, opioids, dissociatives, cannabinoids, etc.). Advanced meditation differs from all of these movement and breath practices and substances because it is internally generated. External means may be seen as an alternative way of introducing similar effects to those that can be experienced in advanced meditation. We speculate that certain ‘external’ practices may induce mental effects by imitating the effects that the mind has on the body through meditation. For example, holding postures in yoga while encountering resistance may train willpower and equanimity (Gard et al., 2014), imitating the immovability of the body in deep meditation. As another example, in ACAM breath cessations may be experienced. Holding the breath in breath-work would be an imitation of this, potentially leading to similar effects as ACAM, such as reducing thoughts. Phenomenologically, there may be experiential overlap between such external or internal approaches, but there is a difference in that advanced meditation is more autonomous, trains the mind directly, and does not rely on external support. It thus can be hypothesized that these factors may explain differences among practices in the range, potency, and consistency of effects across internal and external practices.

Traditionally, practices such as yoga and tai chi tend strongly toward a consistent developmental funnel: somatic and breath-based practices tend to progress into the domain of conventional meditation practices. Tai chi and qigong naturally transition into the stillness of Taoist internal alchemy or *neidan* (Pregadio & Skar, 2000) and the absorption practice of "sitting and forgetting" or *zuowang* (Ma, 2023), leaving physical movement behind entirely. Likewise, postural yogic practice and breathwork are structurally designed to progress to sensory withdrawal (*pratyahara*), and deep meditative absorption (McKibben, 2025). Hence, while distinct, external practices may converge with advanced meditation as they progress and internalize.

Conclusion

We define advanced meditation as specific development of mental skills that lead to the experience of states, stages, and endpoints, which involve temporary and lasting changes to consciousness. Core aspects of skill development include effortlessness, intentional control, and self-attenuation. As basic meditation transitions into advanced, certain overarching tendencies in the kind of changes that occur can be identified. In basic concentration meditation, attention needs to be repeatedly placed on the object. In advanced meditation, the object itself may be experienced to become an attractor. One starts by doing meditation, but then, at one point, meditation starts to be done to oneself. This kind of shift leads to ACAM and involves learning to intentionally control mental states and phenomena. Observation of phenomena may also become an effortless following of how phenomena arise and pass away. At one point, as one is noticing how the self arises and passes away, the mind merges with that which remains by passing away. This would be a fruition or TC MEND-event. One may also develop exceptional awareness of moment-to-moment discontinuity, which may lead to the complete absence of awareness. This is then a cessation event, which, when combined with advanced concentration skills, leads to EC. Both TC and EC may lead to radical and persistent reduction of suffering and increased human flourishing.

These developments represent certain ways that advanced meditation may unfold. We expect considerable variation in *how* this unfolding may be experienced, and many further ways of exploring advanced meditation. The present article provides a robust, state-of-the-art definition of advanced meditation that enables a more comprehensive understanding of meditation that promises to have considerable impact in how we understand and facilitate mental health, well-being, and deep peace.

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Supplement 1: On Theories of Definition and Wittgenstein's Rope Analogy

The goal of this article is to define advanced meditation to support and guide scientific inquiry, meditation training, and public communication. The definition need not be rigid or exhaustive but draw on family resemblances between observed effects and experiential features to form a consistent picture. Flexibility of definition is especially valuable in contemplative research, which is an interdisciplinary field that combines phenomenology, neuroscience, and psychology, among others.

A critique of Wittgenstein's rope analogy could be that it presupposes that on some basic level there needs to be continuous threads that provide cohesion to the whole. The analogy simply moves the problem to the parts. What provides cohesion to the threads? One could answer that in the context of the rope, it is the rope and the interrelationship between the parts with each other and the parts with the whole that provide cohesion. One could also add that it is the intention of the person in interaction with physical laws that grounds the existence of the rope. In other words, the rope is also a manifestation of a greater context. Indeed, the rope as a whole is a kind of thread, and is hence similar to the parts, while the whole rope gives meaning to the parts as threads of a rope. The rope and its threads are interconnected and mirror each other on a structural level while also implicitly mirroring the greater context of its own emergence.

Understood in this way, the rope analogy provides a guideline for the present definition of advanced meditation: there will be identifiable similarities between advanced meditation as such and its particular forms. If we investigate its parts closely, we will find the whole and if we investigate the whole we will find the parts. The particular definition that is proposed will also be shaped by the greater context of its emergence. This context includes not only the particular people providing it, but also physical, mental, social and cultural dynamic, interrelated and evolving networks of existence.

To restate the purpose of the definition, our aim is to develop a definition of advanced meditation that adequately differentiates it from basic meditation and other related practices, while also indicating what is common to advanced forms of meditation, on the one hand, and what differentiates the particular forms. The definition should serve emerging contemplative science research as well as aid meditation training, education, and public communication.

Definition component	Length or duration of practice	Structural changes of meditative activities	Achievement of states or endpoints	Stage development
<i>Advantages</i>	Listed in previous studies, correlation with advanced practice	Distinguishes between long-term and advanced practice, focus on phenomenology	Can occur within study session, ease of access can indicate mastery	Stable and compatible with traditions
<i>Disadvantages</i>	No focus on phenomenology or mastery, imperfect recall	Stability, ability to measure	May not be stable, leaves out key elements, may not be differentiable against psychedelics or other mind-altering activities	Complex to measure, reconciliation between traditions

Table 1. Advantages and disadvantages of definition components. This table presents an overview over different advantages and disadvantages of potential components of a definition of advanced meditation, such as duration, phenomenology, and endpoints.

Supplement 2: Synchronic and Diachronic Integration

The table below exemplifies differences between ACAM and basic focused attention. ACAM exhibits high diachronic (sequential) and synchronic (across experiential domain) integration. Integration means, in this context, the coordination of parts so that they function as a whole rather than cross-purpose. Diachronic integration means either continual absence or presence of experiential domains that allow for and support the unfolding specific trajectories such as affective increase, peak, and pacification such (joy–bliss–contentment–peace) or sensory transformations such being pulled into satiating bliss that leaves the mind energized, stable and clear. Diachronic integration means that concurrent experiential domains interact in ways that allow for and support the overall unfolding of the ACAM states. For example, effortless sustained attention supports the continued absence of thoughts while the absence of thoughts supports the continual effortless focus as well as the increase of absorption in a single object, which again supports maintaining concentration.

In basic focused attention, the mind is much less integrated in the way specified above. One is caught up in distractions and mind-wandering, merges with unintended objects, and thoughts are only silent for a few seconds at the time. No clear diachronic or synchronic integration is apparent. Still, there may be moments in which experiences typical for advanced meditation occur in lighter or softer versions, such as when the mind becomes still for a longer while, when there is some emergent joy, and piloerection (goosebumps) could occur, which is connected to the unfolding of blissful energetic sensations in the early ACAM states.

See Table 1 for an overview of high synchronic and diachronic integration in ACAM-J1 and low integration in basic concentration meditation, where a meditator continues to focus on a single object such as the breath, which is also called focused attention (FA) meditation.

Basic meditation (FA)	FA moment T1	FA moment T2	FA moment T3	FA moment T4
Concentration (interrupted)	Mostly mind-wandering	Distracted	Moments of sustained attention	Distracted
Absorption (merger with both intended and unintended object)	Merged with unintended object	Some sinking into object	Soft merger with intended object	Merged with unintended negative object

Thoughts (often present interrupted by peace)	Some thoughts	Several thoughts	Momentary absence of thoughts	Several thoughts
Affect (highs and lows with sequential unfolding)	Unrest	Momentary, light bliss and piloerection	Some contentment and joy	Strong negative emotion
Advanced meditation (ACAM)	ACAM-J1 moment T1	ACAM-J1 moment T2	ACAM-J1 moment T3	ACAM-J1 moment T4
Concentration (stable)	Effortlessly sustained attention	Some fluctuation of concentration	Mostly effortlessly sustained attention	Mostly effortlessly sustained attention
Absorption (merger objects)	Merged with object	Merged with object	Merged with object	Merged with object
Thoughts (most stable absence)	Thought absent	Micro-level thought	Thought absent	Thought absent
Affect (stable positive affect)	Bliss and joy	Bliss and joy	Bliss and joy	Bliss and joy

Table 1. Contrast between basic FA meditation and ACAM-J1. Blue colors indicate examples of high integration in specific experiential domains while orange indicates low integration. Darker colors indicate stronger manifestation of the indicated qualities and structures. “T” stands for “time” and indicates typical moment in time during either focused attention meditation (FA) or ACAM-J1 chosen at random.