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EDITED BY
Prashanth Prabhu,
All India Institute of Speech and Hearing (AIISH), India

REVIEWED BY
Marc Fagelson,
East Tennessee State University, United States

*CORRESPONDENCE
Hashir Aazh
info@hashirtinnitusclinic.com

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Defining tinnitus: a socratic and epistemological inquiry

Hashir Aazh *

Hashir International Specialist Clinics and Research Institute for Misophonia, Tinnitus and Hyperacusis Ltd, London, United Kingdom

Defining tinnitus using a Socratic approach poses a philosophical challenge: identifying features that are shared by all instances of tinnitus and only tinnitus. Existing definitions variously describe tinnitus as the perception of sound without an external source, a phantom auditory perception, or an auditory sensation without meaning. However, such formulations struggle to distinguish tinnitus from related phenomena such as dream sounds, auditory hallucinations, or involuntary musical imagery. This paper adopts a Socratic approach to examine tinnitus as a working concept, aiming not to impose a definitive definition but to expose the conceptual and empirical questions that must be resolved before one can be established. The analysis focuses on tinnitus as a first-person experiential phenomenon that is epistemically accessible primarily through self-report. Candidate features examined include occurrence in wakeful consciousness, persistence beyond fleeting moments, sound or sound-like character, absence of intrinsic semantic content, and the conditions under which tinnitus becomes experientially salient, including whether intrinsic unpleasantness plays a role. These features are treated as hypotheses rather than settled criteria. By analytically separating tinnitus itself from the meanings attributed to it, the distress it may evoke, and its impact on functioning, the paper formulates a series of research questions aimed at refining the definition of tinnitus through phenomenological, linguistic, and empirical investigation.

KEYWORDS

audiology, definition, epistemology, hyperacusis, tinnitus

1 Introduction

To define tinnitus is to confront a classical philosophical challenge. Socrates taught that a true definition must specify the features present in every instance of a phenomenon and absent in everything else. Applied to tinnitus, this means asking: what are the characteristics that all tinnitus has, and only tinnitus has? Yet this seemingly straightforward question gives rise to a complex scientific problem.

Tinnitus has been described in various ways, each reflecting a different understanding of the phenomenon. It is often conceptualized as a phantom auditory perception generated by internal neural processes rather than by external acoustic stimuli (Jastreboff, 1990, 1995). Other definitions emphasize perceptual qualities, describing tinnitus as the perception of sound without an external source or as an unspecified acoustic sound such as ringing, buzzing, or pulsations (Tyler et al., 1992; Baguley et al., 2013; Langguth et al., 2013; Tunkel et al., 2014). Further distinctions separate tinnitus linked to identifiable internal sound sources (i.e., somatosounds) from tinnitus without such vibrations, reflecting attempts to differentiate mechanical from neural origins (Tyler et al., 2007; Jastreboff and Jastreboff, 2000).

More recent formulations emphasize consciousness and meaning, defining tinnitus as the conscious perception of an auditory sensation without external stimulation

(Biswas et al., 2019) or as an auditory sensation without external stimulation or meaning (Noreña et al., 2021). De Ridder et al. (2021) refined this further, distinguishing between tinnitus, the awareness of sound without an external source, and tinnitus disorder, in which the experience becomes distressing.

These formulations reflect diverse clinical, mechanistic, and phenomenological aims. However, none can yet be said to satisfy the Socratic demand for a definition that captures what is shared by all cases of tinnitus and belongs to nothing else. Taken at face value, many existing definitions could equally describe musical dreams, involuntary musical imagery, or auditory hallucinations, each of which involves a consciously experienced, sound-like phenomenon without an external acoustic source. This overlap does not imply that such definitions are mistaken, but rather that they leave unresolved the question of what, if anything, uniquely distinguishes tinnitus from these neighboring experiences.

Several related questions therefore remain open. At what point does tinnitus become tinnitus: at the moment of conscious recognition, at the point of verbal report, through persistence over time, or only when the experience acquires some degree of aversive salience? Is tinnitus best understood as a form of auditory perception, or as a qualitatively different kind of internal, non-object-directed experience that is merely described in auditory terms due to linguistic limitation? These questions are not yet settled empirically or conceptually, and current definitions often presuppose answers to them rather than exposing them.

Accordingly, this paper does not aim to impose a definitive definition of tinnitus. Instead, it adopts a Socratic process of refinement to articulate a working definition that brings these unresolved conceptual and empirical questions into view. By examining tinnitus at the level of phenomenological experience and epistemic access, rather than its longitudinal burden or clinical impact, the paper seeks to identify candidate features that may be necessary for tinnitus to be recognized as tinnitus, while remaining explicit about where further empirical investigation is required before a stable definition can be claimed.

1.1 Why definition matters

Definitional uncertainty has practical effects, ranging from overestimating or underestimating the scale of the problem to misguiding resource allocation, policy development, and even undermining the credibility of epidemiological findings. Reported prevalence rates vary from 5 percent to 37 percent, largely because surveys rely on inconsistent definitions of tinnitus (Jarach et al., 2022). A coherent definition is therefore essential for producing more reliable prevalence estimates and for ensuring that survey items are interpreted consistently by participants.

A further complication arises from the frequent conflation of descriptions with definitions. Descriptions of tinnitus as buzzing, hissing, or ringing illustrate particular phenomenological presentations, but they do not identify the conceptual features that make tinnitus what it is. Descriptions or examples tell us how tinnitus appears in specific cases; a definition aims to identify the necessary and sufficient conditions that would apply to all cases of tinnitus and to tinnitus alone. This distinction echoes a classical philosophical challenge. In Plato's *Meno* (380 BCE), Socrates asks Meno to say what virtue is (Scott, 2006). Meno replies by listing different forms of virtuous behavior, such as the virtue of a man, a woman, a soldier, or a ruler. Socrates rejects these, insisting that they are merely examples of virtue and that what is needed instead is a definition of what virtue itself is. A definition, he argues, must specify what all instances of virtue have in common and what belongs to virtue alone. Similar exchanges occur when Socrates asks Cephalus and Polemarchus to define justice in Plato's *Republic* (380 BCE) (Plato, 1993). Because this paper is concerned with definition rather than description, distinguishing these tasks is critical for conceptual clarity.

It is necessary to distinguish the definition of tinnitus itself from the meanings individuals may attribute to it, and from the distress it may cause, since not everyone who experiences tinnitus is distressed by it (Davis and Refaie, 2000). Distress is understood here as the impact of tinnitus on mood or its interference with day-to-day activities such as work, daily tasks, leisure, rest, and sleep (Aazh et al., 2024). These dimensions are clinically and ethically significant and are central to the concept of tinnitus disorder, in which distress and functional impairment are defining features (De Ridder et al., 2021). They do not, however, belong to the definition of tinnitus as such. This paper therefore treats tinnitus as an experience that may exist in the absence of distress, while recognizing that tinnitus and distress can become strongly mutually reinforcing and together constitute a distinct focus for clinical and empirical investigation.

A simple analogy may help to clarify this distinction. When a person touches a hot object, there is an immediate sensory experience commonly described as burning. This experience has a particular qualitative character, intensity, and bodily localization, and it is recognized directly in consciousness before any interpretation occurs. Questions such as whether this sensation constitutes pain, what kind of pain it is, or what neural processes underlie it are matters for further investigation, but the experience itself can be distinguished from the meanings and reactions that follow. These may include thoughts such as "I should have been more careful," emotional responses such as fear or upset, and behavioral consequences such as seeking medical attention or withdrawing from activity. While these responses are important and may amplify, prolong, or otherwise modulate the overall experience, they are not part of what the burning sensation itself is; they are responses to it. In an analogous way, this paper distinguishes tinnitus as a direct experiential phenomenon from the distress it may evoke.

In practice, however, this analytic separation is rarely experienced so cleanly. Individuals who experience tinnitus are likely to conflate the perceptual phenomenon itself with the psychological and behavioral processes through which it is interpreted and managed. For patients, the sound, its meanings, and its consequences are lived as a unified experience rather than as analytically separable components. This experiential fusion is understandable and clinically important. The present paper, however, adopts a more foundational task: to clarify what tinnitus itself refers to prior to the emergence of distress. This distinction matters for research and communication alike. If tinnitus and its consequences are not clearly separated, neuroimaging and biomarker studies risk identifying correlates of anxiety, threat,

or attentional salience and attributing these findings to tinnitus *per se*. Likewise, defining tinnitus as inherently distressing may unintentionally reinforce the belief that its mere presence entails inevitable suffering, a message that can amplify fear and maladaptive appraisal. Treating tinnitus as analytically prior to distress therefore does not minimize the latter's importance; rather, it preserves conceptual clarity and allows more precise investigation of how and why tinnitus becomes a disorder for some individuals while remaining a benign perceptual experience for others.

It is important to acknowledge that the Socratic demand for a definition that captures what is shared by all instances of a phenomenon and belongs to nothing else may not be satisfiable for tinnitus. Socrates himself repeatedly encountered this limitation when attempting to define complex human phenomena such as justice, virtue, or piety, succeeding more readily with formal entities than with lived experience. The value of the Socratic method in such cases lies not in the production of a final definition, but in the questions it generates and the assumptions it exposes. Applied to tinnitus, the method functions less as a means of producing a final definition than as a way of identifying where and why attempts to define tinnitus encounter conceptual limits.

1.2 From perception of sound to sound-like experience

Is tinnitus best understood as a form of perception, and more specifically as the perception of sound? This question remains unresolved and has important implications for how tinnitus is defined and studied. In everyday language, patients rarely describe tinnitus by saying, "I perceive a sound." Instead, they commonly say, "There is a noise in my head," or "When I go into a quiet room, it is there." Noreña (2023) proposes that tinnitus, like chronic pain, may be felt rather than perceived, arising within consciousness without being directed toward an external source. These observations raise a broader conceptual question: do the ordinary linguistic categories used for auditory perception adequately capture tinnitus, or is tinnitus described as a sound primarily because language offers no more precise vocabulary for this kind of internal experience?

In philosophical and cognitive science terminology, perception is typically understood as an object-directed sensory representation, such as seeing an object or hearing a sound in the external world. By contrast, states such as hunger, pain, and bodily tension are classified as interoceptive, nociceptive, and proprioceptive experiences, respectively. These are internal phenomenal events that do not represent external objects. Whether tinnitus belongs to category of experience, despite its auditory resemblance, remains an open question. It is plausible that tinnitus is experienced as an immediate internal event rather than as an auditory perception in the strict philosophical sense, particularly insofar as it lacks an external object and does not function as a representation of the environment. Some accounts further suggest that tinnitus may reflect a phenomenal response to missing or degraded sensory input, especially in the context of hearing loss, where neural activity arises in the absence of an expected external signal (Salvi et al., 1990). However, these interpretations remain hypotheses rather than settled conclusions.

Importantly, the claim that tinnitus is not object-directed does not imply that it is unaffected by the environment. Environmental sounds, contexts, or situations may exacerbate tinnitus through attentional capture, threat appraisal, conditioning, or memory, particularly in cases linked to traumatic experience. In such instances, tinnitus may become strongly associated with external cues without thereby functioning as a perceptual representation of those cues. The experience is modulated by the environment, but it is not, in this sense, a perception of the environment itself.

The sound-like quality of tinnitus complicates this issue. Many individuals can produce an approximate acoustic match during pitch or loudness matching procedures, indicating that tinnitus shares certain perceptual features with sound. At the same time, such matches are often unstable and inconsistent, and they lack the precision and reliability of ordinary auditory thresholds. Moreover, psychoacoustic properties explain only a small proportion of the variance in tinnitus-related distress, indicating that tinnitus-related distress cannot be fully accounted for by loudness or pitch alone. When asked to describe their tinnitus, many individuals hesitate, and approximately one in five report being unable to describe it at all (Aazh et al., 2008). Others rely on metaphors such as static, a television switching off, or a waterfall, often acknowledging that these descriptions are approximations rather than literal accounts. Still others describe tinnitus not as a sound at all, but as pressure, vibration, tension, or a "feeling in the ear." These descriptions point to an experience that may be auditory-like without being straightforwardly auditory.

Such linguistic substitutions highlight the limits of ordinary language in capturing the phenomenology of tinnitus. A waterfall, for example, is not only heard but also felt as vibration, spatial presence, and bodily immersion. Tinnitus may share this diffuse, enveloping, and sometimes bodily quality, which challenges attempts to classify it as a simple auditory percept. The fact that "sound" remains the most commonly used descriptor may therefore reflect linguistic convenience rather than phenomenological accuracy.

Taken together, these observations suggest the need for systematic research examining whether tinnitus should be understood as sound, as a sound-like experience, or as a distinct category of internal sensation that is described in auditory terms by analogy. Rather than presupposing an answer, definitions of tinnitus should remain open to the possibility that "sound-like" is a provisional descriptor, marking an unresolved question about the nature of the experience itself.

An important empirical dimension of this question concerns how individuals themselves understand and categorize their tinnitus experience. It remains unclear what proportion of people who report tinnitus experience it primarily as a sound, and what proportion experience it as something else, such as pressure, vibration, tension, bodily sensation, or an indistinct internal presence that resists straightforward auditory classification. Current research rarely examines this distinction directly, often presupposing that tinnitus is a sound and structuring questionnaires and clinical interviews accordingly. As a result, the apparent centrality of "sound" in tinnitus descriptions may reflect methodological and linguistic constraints rather than the

phenomenology of the experience itself. Future research should therefore investigate how individuals categorize their tinnitus in their own terms, whether these experiential categories vary across individuals, or contexts, and whether a more appropriate experiential taxonomy can be developed. Such work could examine whether different categories correspond to distinct perceptual, attentional, or physiological profiles, thereby informing both definition and classification.

1.3 Temporal persistence and the threshold of notice

For how long must an experience persist for it to count as tinnitus? How can persistence be established if the individual is not aware of the experience? Does temporality itself constitute an ontological feature of tinnitus, or does awareness of persistence over time function instead as an epistemic gateway through which tinnitus becomes knowable? These questions highlight the difficulty of grounding the definition of tinnitus in duration alone. A fleeting squeak or hum lasting only seconds, or even a minute or two, is generally regarded as too brief to qualify as tinnitus. The experience must persist long enough to be noticed, remembered, and distinguished from momentary auditory artifacts or transient internal sensations. Tyler et al. (1992) proposed that tinnitus should last at least 5 min and occur more than once a week, representing an early attempt to operationalise this temporal requirement.

Building on this approach, Henry (2026) distinguishes several forms of ear or head noise based on duration and recurrence. These include transient ear noise, such as a sudden tone in one ear often accompanied by a sensation of ear fullness or temporary hearing change that resolves within minutes; temporary ear noise, which may follow exposure to loud sound, medication use, or medical conditions and typically resolves within days or weeks; and occasional ear noise, defined as ear or head noise lasting at least 5 min but occurring less than weekly. These are contrasted with intermittent tinnitus, in which the noise lasts at least 5 min and occurs at least weekly, and constant tinnitus, which can be perceived whenever the environment is sufficiently quiet. Such distinctions provide useful clinical and research benchmarks for separating fleeting phenomena from more stable experiences.

However, these temporal thresholds remain, to some extent, arbitrary. Most individuals cannot reliably discriminate between, for example, 4 and 5 min. It is plausible that a sound-like experience may persist without being consciously noticed or subsequently recalled, rendering it epistemically inaccessible even if it is present at the level of experience. In this sense, duration may describe not only how long an experience lasts, but also the conditions under which it becomes salient enough to enter awareness and to be identified as something distinct. The point at which an experience is no longer fleeting may therefore depend less on objective time than on its stability, recurrence, or experiential continuity. For this reason, the working definition adopted in this paper refers to tinnitus as an experience that *persists for more than fleeting moments*, rather than specifying a fixed temporal threshold. This formulation acknowledges the importance of persistence while remaining agnostic about precise durations, which are likely to vary across individuals and contexts.

Future research should examine how persistence is experienced and recognized, whether duration, recurrence, or continuity are most relevant for tinnitus identification, and how these temporal features interact with attention and awareness. Clarifying these issues is necessary before persistence can be treated as a stable definitional criterion rather than a provisional marker of epistemic access.

1.4 Necessary unpleasantness and the formation of tinnitus

Temporal persistence alone does not fully explain how a sound-like internal experience becomes tinnitus. As discussed above, duration allows an experience to be distinguished from fleeting or incidental phenomena, but persistence by itself does not guarantee conscious recognition. Many internal experiences may persist without being noticed, remembered, or classified as anything in particular. An additional factor therefore appears to be involved in explaining why some persistent sound-like experiences enter awareness and stabilize as tinnitus, while others remain part of unremarked physiological background activity.

One candidate factor is affective salience. This raises a central question: does tinnitus involve some degree of intrinsic unpleasantness, or is it ontologically possible for tinnitus to be entirely neutral or even pleasant? More broadly, what renders tinnitus experientially salient in the first place? Experiences tend to enter awareness not merely because they persist, but because they matter, at least minimally, to the individual. Internal sensations that are entirely neutral in valence are often filtered from consciousness and remain unclassified. By contrast, sensations that carry some degree of affective charge are more likely to be noticed, differentiated, and remembered. This principle is familiar from bodily experience more generally. Pain, itch, or discomfort may vary widely in intensity and consequence, yet all involve some degree of unpleasantness that contributes to their experiential salience. Importantly, unpleasant sensation must be distinguished from suffering. In pain phenomenology, and in Buddhist analyses in particular, unpleasant sensation and suffering are not equivalent. Suffering arises through cognitive appraisal, emotional elaboration, and meaning-making in response to an unpleasant sensation, rather than from the sensation alone. Cognitive appraisal does not operate on affectively neutral experiences; it elaborates upon experiences that already carry some degree of aversive tone. In this sense, unpleasantness may function as a precondition for suffering without being equivalent to it. Whether a similar distinction applies to tinnitus remains an open empirical and conceptual question.

Several possibilities therefore require investigation. It may be that only a subtype of tinnitus involves intrinsic unpleasantness, and that suffering arises primarily within this subgroup, while other tinnitus experiences differ qualitatively in their sensory or affective character. Alternatively, it may be that all tinnitus experiences involve some minimal degree of unpleasantness at the level of immediate sensation, and that differences in suffering arise predominantly through cognitive, emotional, and contextual processes rather than through differences in the tinnitus experience itself. A third possibility is that unpleasantness is neither uniform nor categorical, but varies along multiple dimensions related to the

qualitative properties of the tinnitus experience and the individual's broader sensory sensitivities.

Descriptions offered by individuals with tinnitus suggest that the experience often resembles sounds that are commonly regarded as unsettling or intrusive, such as distorted static, throbbing, screeching, or mechanical noises. Such sounds are frequently associated with malfunction, danger, or bodily intrusion, for example a broken machine, an alarm, or an instrument out of tune. Some tinnitus experiences resemble bodily sounds, such as heartbeats or internal pulsations, which may themselves be experienced as unsettling. Literary examples have long drawn on such sound qualities to evoke unease or disturbance. In *Portrait of a Lady*, T. S. Eliot describes a "dull tom-tom" hammering in the brain and a false note from cracked cornets (Eliot, 1915). In The Divine Comedy, Dante Alighieri depicts thunder rolling within the head and ears pierced by cries of pain (Kirkpatrick, 2004). In *Romeo and Juliet*, William Shakespeare contrasts the shrieking of mandrakes torn from the earth with the "silver-sweet" sound of a beloved voice (Shakespeare, 1597). These examples do not define tinnitus, but they illustrate a longstanding cultural recognition that certain sound qualities are experienced as intrinsically unpleasant.

At the same time, unpleasantness should not be understood as a categorical or universal property, analogous to a Kantian categorical imperative (Kant, 1790/2000). While many individuals may share broad similarities in the types of sound qualities that are experienced as unpleasant, substantial individual differences are likely. These differences may be shaped by sensory sensitivity, including conditions such as hyperacusis, and misophonia, as well as by learning history, context, and personal associations. A sound quality that is experienced as sharply unpleasant by one individual may be experienced as neutral, or mildly unpleasant by another. Unpleasantness, if it plays a role in tinnitus recognition, is therefore unlikely to be all-or-none and may instead reflect graded and multidimensional affective responses to the qualitative features of the experience. Importantly, in this context, such differences pertain to how the immediate qualitative features of the tinnitus experience are registered, rather than to the cognitive, emotional, or behavioral processes that may follow and give rise to distress or disruption in daily life.

Taken together, these considerations suggest that what has been described here as "necessary unpleasantness" should be treated as a working hypothesis rather than a settled definitional criterion. The hypothesis is not that tinnitus must be distressing but that some degree of affective salience at the level of immediate sensory experience may contribute to whether a persistent sound-like phenomenon becomes noticed, recognized, and stabilized as tinnitus. This affective salience may be graded, variable, and context-sensitive, and may fluctuate with physiological and psychological states such as fatigue, stress, or arousal, without thereby being reducible to suffering or distress. Future research should therefore examine whether tinnitus experiences differ systematically in their immediate affective qualities, which specific sensory characteristics are associated with aversive or salient responses, how individual differences and moment-to-moment states shape these responses, and whether unpleasantness is a prerequisite for tinnitus recognition or merely one common pathway among several.

1.5 Wakeful and non-semantic character of tinnitus

How is tinnitus different from auditory hallucinations, involuntary musical imagery, or the sounds experienced during dreaming, given that all may occur without an external acoustic source? Traditionally, the distinction has been drawn not simply on the absence of external stimulation, but on differences in the mode of consciousness and the structure of meaning involved. Tinnitus is commonly understood to occur in wakeful consciousness and to lack intrinsic semantic or representational content. By contrast, dream sounds, hypnagogic imagery, and auditory hallucinations typically arise in altered states of consciousness or involve recognizable voices, melodies, words, or symbolic content.

However, whether tinnitus is strictly confined to wakeful consciousness warrants closer scrutiny. In a preliminary study examining the perception of tinnitus during dreams, Aazh et al. (2021) found that a small proportion of patients seeking help for tinnitus or hyperacusis (5%) reported perceiving tinnitus in their dreams. Importantly, those who reported tinnitus in dreams had greater perceived impact on life. These findings suggest that, while uncommon, tinnitus-like experiences may intrude into dreaming in individuals for whom tinnitus is particularly distressing. This does not imply that tinnitus is ordinarily a dream phenomenon, but it indicates that the boundary between wakeful and non-wakeful experience may be more permeable under certain conditions.

A related challenge to a strictly non-semantic account of tinnitus arises in the context of trauma. Studies of trauma-exposed populations, such as refugees, have shown a strong association between tinnitus and post-traumatic stress disorder (PTSD) severity (Hinton et al., 2006). In this context, tinnitus may become tightly linked to traumatic memories, catastrophic interpretations, and culturally shaped threat associations. Importantly, Hinton and colleagues demonstrated that tinnitus-related trauma associations and catastrophic cognitions mediated the relationship between tinnitus severity and PTSD symptoms. This suggests that while tinnitus itself may lack intrinsic semantic content, it can become deeply embedded within networks of meaning, memory, and threat appraisal, particularly following traumatic experiences.

These findings highlight the importance of distinguishing between the immediate experiential character of tinnitus and the meanings that may become associated with it over time. Even in trauma-related tinnitus, the sound-like experience does not inherently represent a thought, message, or narrative. Rather, semantic and emotional significance appears to arise through associative learning, memory activation, and cognitive appraisal processes that operate on the experience. In this respect, tinnitus differs from auditory hallucinations involving voices or commands, where semantic content is intrinsic to the percept itself.

Taken together, these observations suggest that wakefulness and non-semantic character are best understood not as absolute criteria, but as default properties of tinnitus that admit important exceptions under specific psychological or neurocognitive conditions. The existence of tinnitus-like experiences during dreaming, and the embedding of tinnitus within trauma-related meaning systems, does not invalidate the conceptual distinction between tinnitus and other auditory phenomena. Instead, these

cases help clarify where the boundaries of tinnitus lie and where further empirical work is needed.

Accordingly, the working definition proposed in this paper treats tinnitus as a predominantly wakeful, non-semantic, sound-like experience, while remaining open to the possibility that these characteristics may vary in atypical cases or under conditions of heightened salience, distress, or trauma. Rather than excluding such cases, the definition highlights them as critical areas for future research, necessary for determining whether wakefulness and non-semantic character are necessary features of tinnitus or merely common ones.

2 Excluding identifiable internal acoustic sources

Do tinnitus experiences that have an identifiable internal acoustic source differ in their neural processing from those for which no such source can be found? How can we be confident that the absence of an identifiable internal source means that no source exists at all? When defining tinnitus, should we distinguish it ontologically from bodily sounds, or somatosounds, or is this distinction primarily pragmatic rather than conceptual?

In clinical practice and research, tinnitus is commonly distinguished from external sounds and from identifiable internal acoustic generators. Conditions such as pulsatile tinnitus, palatal myoclonus, or other sound-producing vascular or muscular activities are often separated from tinnitus because they involve measurable internal sources. Similarly, sound-like sensations induced by deliberate electrical stimulation, such as those associated with cochlear implants, are typically treated as distinct phenomena. This separation has clear practical value for mechanism research, diagnostic pathways, and treatment evaluation (Tunkel et al., 2014; De Ridder et al., 2021).

However, whether the absence of an identifiable internal acoustic source should be treated as a defining feature of tinnitus raises deeper conceptual difficulties. First, the inability to identify an internal acoustic source does not entail that no such source exists; it may instead reflect current technological or methodological limitations. As diagnostic techniques advance, phenomena previously classified as source-less may later be shown to involve subtle mechanical, vascular, or micromechanical generators. Defining tinnitus by the absence of an identifiable source therefore risks building provisional ignorance into the definition itself. In this respect, our current understanding of tinnitus resembles the condition of Plato's allegory of the cave: both patients and those who study/treat tinnitus are constrained by partial knowledge, interpreting shadows cast by limited tools and concepts. Recognizing this limitation is not a weakness but a necessary epistemic stance, reminding us that present definitions must remain open to revision as the boundaries of understanding expand.

Second, even if internal acoustic sources were identified in some or all cases currently labeled as tinnitus, it does not follow that the experience of tinnitus would thereby cease to be tinnitus. From the perspective of first-person experience, what matters is not whether a source exists, but how the phenomenon is apprehended. A sound-like experience may be consciously recognized as tinnitus regardless of whether its causal origin is later shown to involve an internal generator. At the level of experience, the presence or absence of an internal acoustic source may be phenomenologically irrelevant.

Third, it remains unclear whether the central neural processes associated with tinnitus differ between cases with and without identifiable acoustic sources. While there may be little or no corresponding acoustic-driven activity at the level of the inner ear or auditory nerve, it is plausible that the brain-level activity underlying the tinnitus experience, particularly within auditory cortical and related networks, could be similar across both categories. If this were the case, the experiential and cognitive consequences of tinnitus would be indistinguishable, and defining tinnitus in terms of source exclusion would fail to track what is experientially or clinically salient.

Taken together, these considerations suggest that excluding identifiable acoustic sources is better understood as a pragmatic clinical distinction rather than an ontological criterion. While separating tinnitus from sound-producing conditions may be useful for diagnosis, classification, and treatment planning, it does not provide a secure foundation for defining what tinnitus is. For this reason, the present account does not treat the absence of an identifiable internal acoustic source as a necessary condition for tinnitus. Instead, the definition is grounded in the characteristics of the experience itself, remaining agnostic about underlying mechanisms and open to future empirical revision.

3 Act of report

Tinnitus is known primarily through self-report, except in a small subset of cases with identifiable internal acoustic sources, a category that may expand as diagnostic technologies advance. For the majority of individuals in whom no internal acoustic source can be identified, physiological, neural, or behavioral correlates may accompany tinnitus, but no current method provides a specific or reliable biomarker capable of identifying *tinnitus per se* independently of self-report. This is because such correlates may reflect downstream processes, such as attentional engagement, emotional response, or associated coping behaviors, rather than the immediate tinnitus experience itself.

In this context, the term *tinnitus per se* refers to the direct, first-person experience of a sound-like phenomenon as it appears in consciousness, prior to its elaboration through attention, emotional appraisal, or behavioral response. While such elaborative processes often accompany tinnitus and may increase its likelihood of being noticed or reported, they are conceptually distinct from the experiential event itself. As developed further below, tinnitus may be recognized, articulated, or reported to varying degrees, and in some cases may remain minimally salient or unreported despite being present at the level of experience.

Several unresolved questions follow from the claim that tinnitus is known primarily through self-report. Can an individual have tinnitus without ever noticing or reporting it, and if so, in what sense would such an unnoticed state count as tinnitus at all? What distinguishes a tinnitus experience that is consciously recognized yet never communicated to anyone from one that is verbally reported, whether to a clinician, family member, friend,

or even within an online forum? Is there a meaningful difference between spontaneously reporting tinnitus and acknowledging it only when asked, and how does either differ from seeking help for tinnitus-related difficulties? These distinctions raise a deeper philosophical issue: is report merely an epistemic gateway through which tinnitus becomes known to others, or is conscious recognition and report an ontological condition for tinnitus to exist as tinnitus? In psychophysiological terms, perception can occur without awareness; unattended sounds may influence mood or attention even when the listener remains unaware of hearing them. By analogy, one might posit an unrecognized tinnitus-like activity. Yet such an experience would be unknowable to others and, arguably, even to the individual themselves.

Evidence for the possible existence of unnoticed tinnitus arises from two complementary lines of observation. The first comes from classic and replicated studies examining auditory experience under conditions of near silence. In a seminal study, Heller and Bergman (1953) asked adults with normal hearing and no reported tinnitus to sit in a sound-treated booth and provide written descriptions of any sounds they perceived during a 5-min observation period. Importantly, participants were not informed that the sounds might originate from their own auditory system, nor were they instructed to attend specifically to tinnitus. Despite this, approximately 95 percent reported perceiving humming, buzzing, or ringing sensations. These findings were later replicated by Tucker et al. (2005), who reported that 64 percent of participants experienced ringing, buzzing, or pulsing sensations within minutes of silence, again in the absence of any identifiable acoustic source.

Two important caveats are required when interpreting these findings. First, what participants reported in these studies may not constitute tinnitus. Rather, such experiences may fall within the categories of transient, temporary, or occasional ear or head noise (Henry, 2026), as distinguished earlier, becoming perceptible only under conditions of markedly reduced external stimulation. On this interpretation, silence-exposure studies may primarily reveal fleeting auditory phenomena rather than tinnitus as typically defined in clinical or epidemiological contexts.

Second, even if these experiences are phenomenologically similar to tinnitus, they may arise through general perceptual and cognitive mechanisms that operate across sensory domains. A parallel can be drawn with research demonstrating how expectation, attention, and meaning-seeking can generate compelling perceptual experiences in the absence of corresponding external input. In the well-known "White Christmas" study by Merckelbach and van de Ven (2001), participants were asked to indicate when they believed they heard Bing Crosby's *White Christmas* embedded in white noise. Although the song was never presented, nearly one-third of participants reported hearing it, illustrating how ambiguous sensory input can give rise to vivid perceptual experiences shaped by expectation rather than stimulus.

By analogy, reports of tinnitus-like sounds in silence may reflect a readiness to detect, or construct signal under conditions of reduced sensory input, rather than the unmasking of latent tinnitus *per se*. However, if such experiences are nonetheless taken to fall within the category of tinnitus, these findings raise a further possibility: that tinnitus may exist without being noticed or recognized in everyday contexts, becoming salient only under specific environmental or attentional conditions. In such cases, tinnitus may be experientially present yet epistemically inaccessible outside the conditions that bring it to awareness.

The second line of evidence comes from studies of deafness: individuals with congenital deafness rarely describe tinnitus, whereas a substantial proportion of those with acquired deafness do (Lee et al., 2017; Eggermont and Kral, 2016). If similar internal activity were present from birth, it might never be recognized as tinnitus, remaining phenomenologically unformed and epistemically silent.

Taken together, these observations suggest that tinnitus, as a definable entity, presupposes conscious recognition of its presence, which may or may not be followed by the act of saying "there is a sound." It is through such recognition, and through report when it occurs, that tinnitus becomes epistemically accessible, communicable, and real within human knowledge.

The act of reporting can occur in degrees. Some individuals mention it only when asked, others describe it spontaneously, seek understanding, or request treatment, and some never report it at all. The reporting levels outlined in Table 1 are intended as heuristic positions along a continuum of epistemic accessibility, rather than as discrete or mutually exclusive categories. Individuals may move between levels over time, or occupy more than one level depending on context, salience, and situational demands. Importantly, these levels do not map directly onto the degree of tinnitus unpleasantness or distress, but instead describe how and when tinnitus becomes articulated, communicated, or acted upon. Future research should examine whether the characteristics of tinnitus differ when cases are categorized according to the degree of reportability.

All levels of report in Table 1 presuppose that, if present, the tinnitus experience persists beyond fleeting moments. Transient sound-like sensations reported only briefly under experimental conditions, such as during silence-exposure studies, do not necessarily meet this criterion and therefore do not map straightforwardly onto the reportability levels. The levels of report should also not be interpreted as implying graded degrees of unpleasantness. While affective salience may influence whether tinnitus is noticed or articulated, no inference can be made that tinnitus at higher levels of reportability is more unpleasant than tinnitus at lower levels, or that tinnitus at lower levels is affectively neutral. Whether unpleasantness varies systematically with reportability, or operates independently of it, remains an open empirical question.

As shown in Table 1, the R0 category, defined by the absence of recognition or articulation, encompasses several epistemically indistinguishable possibilities. In some cases, tinnitus may genuinely be absent. In others, a tinnitus experience may be present and meet the experiential conditions proposed in this paper, such as persistence beyond fleeting moments and some degree of affective salience, yet fail to achieve stable conscious recognition. In such cases, the experience does not consolidate as a distinct, named, or reportable phenomenon, even to the individual themselves. As a result, the absence of report at this level cannot be taken as evidence for the absence of tinnitus. A further possibility within R0 is that the individual notices the experience but does not conceptualize it as tinnitus, lacks the language to identify it as such,

TABLE 1 Degrees of report in tinnitus and their epistemological significance.

Degree of report	Description	Possible contexts	Epistemological status
R0: no recognition or no articulation	The individual does not report tinnitus.	Absence of tinnitus; tinnitus present but below stable conscious recognition; lack of conceptual; or linguistic framework; habituation; contextual irrelevance; or deliberate non-disclosure.	Epistemically indeterminate. It cannot be determined whether tinnitus is absent, unrecognized, unclassified, or consciously withheld.
R1: recognition when asked	The person recognizes and acknowledges tinnitus when specifically asked about it, without having spontaneously mentioned it beforehand.	Population surveys, structured questionnaires, medical history taking, or conversations where tinnitus, or related topics are introduced by others.	Indicates that tinnitus becomes recognizable when attention is explicitly directed toward auditory experience. At this level, only limited inference can be made regarding prior awareness or ongoing salience. Recognition may reflect either the articulation of a pre-existing but previously unremarked experience, or the formation of conscious awareness at the moment of questioning itself.
R_2: spontaneous report	The individual mentions tinnitus without prompting, either incidentally or deliberately.	Everyday conversation, unprompted disclosure during clinical encounters, personal narratives.	Indicates that tinnitus has achieved stable experiential recognition independent of external prompting. At this level, awareness is sufficiently consolidated that tinnitus is noticed and articulated without directed attention, supporting the inference that recognition precedes its communication.
R3: help-seeking for understanding	The individual seeks input to understand or make sense of the tinnitus experience, without explicitly requesting symptom relief or treatment.	Audiology, or ENT consultations for explanation, or reassurance; discussions with healthcare professionals, peers, or online communities focused on understanding tinnitus.	Indicates sustained recognition and salience of the tinnitus experience, accompanied by a motivation to interpret or contextualize it. This level reflects increased cognitive engagement with tinnitus but does not permit inference regarding distress.
R4: help-seeking for relief	The individual seeks intervention with the explicit aim of reducing, managing, or alleviating the tinnitus experience.	Specialized tinnitus services, audiology clinics, ENT services, mental health services, or other therapeutic settings focused on symptom management.	Indicates sustained recognition and salience of the tinnitus experience, accompanied by an explicit intention to alter, reduce, or manage the experience itself rather than merely to understand it. This level permits inference that tinnitus has acquired sufficient experiential significance to motivate active intervention, without specifying the presence, degree, or source of distress.

or does not regard it as relevant to mention. In these instances, tinnitus may function as a precursor state to later recognition if attention is subsequently drawn to it, but some individuals may never transition to explicit recognition or articulation (R_1 and R_2). This may include individuals who have never encountered the concept of tinnitus, those with congenital deafness who lack an auditory reference framework, individuals who have experienced tinnitus from birth and therefore lack experiential contrast, or individuals with cognitive or communicative limitations that prevent the experience from being categorized or named. Finally, some individuals may consciously recognize that they experience tinnitus but nevertheless choose not to report it. This may occur for personal, social, or contextual reasons, such as fear, stigma, uncertainty about significance, a belief that nothing can be done, or concern that talking about the experience may render it more salient or intrusive.

Across all R0 cases, tinnitus remains epistemically inaccessible to others and may be unstable, indeterminate, or deliberately unarticulated even at the level of first-person awareness. More fundamentally, R0 illustrates a core epistemic limitation: the absence of recognition or report cannot reliably distinguish between the absence of tinnitus and the presence of tinnitus that has not yet, or may never, become consciously recognizable or communicable. It is important to clarify that R0 partly lies outside the working definition of tinnitus proposed in this paper. The working definition presupposes conscious recognition of the experience as tinnitus, whereas R0 is intended to mark the epistemic boundary at which tinnitus may be absent, experientially present but not yet recognized as tinnitus, or consciously recognized but deliberately unarticulated.

R_1 raises a subtle epistemological question: does questioning merely elicit an already recognized experience, or can it actively constitute awareness of tinnitus as tinnitus? In some cases, individuals may have had a pre-reflective sound-like experience that was present but unclassified, becoming recognized as tinnitus only at the moment of inquiry. In other cases, the experience may have been consciously recognized but regarded as insignificant and therefore unarticulated. The distinction between these possibilities cannot be resolved from self-report alone. This ambiguity reflects a broader epistemological phenomenon in which certain forms of knowledge emerge only through questioning in the moment rather than existing as fully formed propositions in advance. As captured succinctly by the singer and songwriter Taylor Swift in her song champagne problems, “sometimes you just don’t know the answer ’til someone’s on their knees and asks you” (Swift, 2020). In this sense, R1 does not necessarily indicate either the prior presence or absence of tinnitus awareness, but rather the moment at which experience becomes linguistically and conceptually crystallized. Recognition when asked therefore marks an epistemic threshold rather than a stable experiential state. An affirmative response indicates that tinnitus can be acknowledged in that moment, but it does not establish whether the experience was previously salient, clearly recognized, or conceptually formed prior to being queried. As a result, responses obtained in surveys

or clinical histories indicate that tinnitus can be acknowledged when queried, but provide limited information about whether, how, or with what salience it was experienced outside the context of questioning.

Taken together, R_2, R3, and R4 represent successive forms of epistemic engagement with tinnitus rather than graded levels of unpleasantness. R_2 reflects stable experiential recognition and articulation of tinnitus without external prompting. R3 reflects a shift toward interpretive engagement, in which the individual seeks to understand, contextualize, or make sense of the experience. R4 reflects a further shift in which the individual seeks to alter or reduce the tinnitus experience itself or to manage its impact on their life. Importantly, these transitions should not be assumed to reflect differences in the intrinsic qualities of tinnitus, such as unpleasantness or persistence, nor differences in its impact on daily life. Individuals may move from recognition to interpretation or intervention for a variety of reasons, including curiosity, uncertainty, precautionary health-seeking, or normative beliefs about seeking care. Whether movement between R_2, R3, and R4 corresponds to systematic differences in tinnitus characteristics, affective salience, temporal properties, contextual factors, or broader psychological and situational variables remains an open empirical question and a priority for future research.

4 Conclusions

This paper has approached the problem of defining tinnitus as a Socratic inquiry. Rather than asking what causes tinnitus, it has asked what tinnitus is, and what features would need to be shared by all instances of tinnitus, and only tinnitus, for a defensible definition to be possible.

Within this framework, the definition proposed here is explicitly a working definition rather than a definitive one. On a provisional basis, tinnitus may be described as the consciously recognized experience of a non-semantic, sound or sound-like event in wakeful consciousness that persists beyond fleeting moments and becomes experientially salient. Each element of this formulation is treated as a hypothesis rather than a settled criterion, intended to highlight where further empirical clarification is required. The purpose is not to impose conceptual uniformity on a heterogeneous experience, but to test which experiential features, if any, consistently constrain how tinnitus is recognized, reported, and distinguished from neighboring phenomena.

Several conceptual distinctions remain central to this inquiry. First, tinnitus is treated as a direct phenomenal experience rather than as an object-directed auditory perception. Second, experiential salience, including possible intrinsic unpleasantness, is examined as a candidate condition for recognition rather than as a proxy for distress. Third, report is understood as an epistemic act that renders tinnitus communicable to others without reducing its existence to verbal articulation. By contrast, tinnitus-related distress, understood here as its impact on mood or its interference with day-to-day activities, is treated as conceptually downstream of the definition and therefore outside the definitional scope of tinnitus itself.

Future research should therefore focus on empirically testing these candidate features using phenomenological, linguistic, and experimental methods. Whether such work ultimately converges on a stable definition or reveals principled limits to definition, the Socratic approach remains valuable in clarifying what tinnitus is, how it is known, and where the boundaries of the concept lie.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

HA: Conceptualization, Resources, Writing – original draft, Writing – review & editing.

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The author(s) declared that generative AI was used in the creation of this manuscript. Generative AI (ChatGPT, OpenAI) was used solely for language refinement, stylistic editing, and formatting assistance. All intellectual content, arguments, interpretations, and conclusions are entirely the author's own. The author reviewed and verified the accuracy and integrity of the final manuscript in full.

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