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# Delving into depth: an empirical investigation of the ordinary concepts of depth and profundity

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## Abstract

We sometimes say about certain things (such as philosophical questions) that they are ‘deep’ or ‘profound’. But what does it mean exactly? Surprisingly, philosophers have been quite silent on this topic and there is neither consensual nor prominent conceptual analysis of ‘depth’. After surveying different proposals that have tried to capture depth in terms of explanatory depth, subject matter, emotional impact, understanding or complexity, we present the results of three studies in which we combine qualitative and quantitative methods to investigate the everyday concept of ‘depth’. Our results suggest that depth and profundity are generally characterized as (i) something with a meaning, (ii) that stimulates cognitive activity, to (iii) promote epistemic progress about (iv) important issues, thus (v) having an emotional impact. Based on these findings, we propose a first characterization of the ordinary concepts of depth and profundity.

**Keywords** Depth · Emotions · Experimental philosophy · Folk concept · Profundity

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## 1 Introduction

One reason newcomers are attracted to philosophy is that they hope philosophy will provide them with *profound* thoughts and reflections, or will allow them to ponder on *deep* questions. But what exactly does it mean for something to be ‘deep’ or ‘profound’ in this sense? Given the frequent association of philosophy with depth and profundity in people’s mind, one might expect philosophers to have an answer (or at least a plethora of competing answers) to this question. However, as surprising as it may seem, philosophers have been rather silent on this topic. Rather, depth and profundity seem to be treated with suspicion, as pitfalls one should avoid, or as an attempt to confuse one’s interlocutor. As members of the Vienna Circle once wrote: “Neatness and clarity are striven for, and dark distances and unfathomable depths rejected. In science there are no ‘depths’; there is surface everywhere” (Neurath et al., 1929).

Still, several philosophers have tried to characterize what it means for something to be deep or profound. One early example is William Hazlitt (1826/1930) who, in his essay “On Depth and Superficiality”, attempts to define depth in terms of *explanatory depth*: something deep is something that fosters understanding by providing a unified explanation for a wide array of phenomena. For example, Hazlitt writes that:

Depth consists then in tracing any number of particular effects to a general principle, or in distinguishing an unknown cause from the individual and varying circumstances with which it is implicated, and under which it lurks unsuspected.

As an example, he gives Newton’s unification of the laws of motion. In a more recent attempt at defining depth, Kekes (1990), begins by giving a similar account:

Depth involves discerning an underlying unity among apparently complex and unrelated phenomena. It is to see the same phenomena as many others also see, but to penetrate below their surface and construct a theory or a vision, depending on the subject-matter, that leads to a possible understanding of the reality of which the appearances are manifestations. It is to possess a perspective, an organizing view that provides the foundation of understanding of what was previously problematic, even if no one recognized its problems; like Einstein on relativity, Spinoza on freedom, Marx on history, Hume on causality, Freud on the unconscious, Nietzsche on morality, or Darwin on evolution. (1990:440)

However, Kekes does not stop there, as he adds a second criterion: depth is about something that is “important to us”:

The essential feature of these perspectives is that they provide a possible way of understanding a very sizable segment of the world that is, in some respect, important to us (...) Consequently, we should think of depth as having cognitive, emotive, and action-guiding aspects, rather than attempt to treat them, in isolation from one another, as being different forms of depth. (1990:440-441)

This connects to a second way of characterizing depth: in terms of its *subject matter* and its *importance* to us. As such, something deep is *about something important*.

But, for Kekes, that is not all there is to depth: according to him, there is also a third, *emotional* aspect to depth. Unfortunately, not much has been written about what it feels like to experience something as ‘deep’. One exception is a series of works by Cova and colleagues, which have emphasized the connection between the experience of depth and feelings of ‘being moved’. In a first series of studies, they found that, the more people were ‘moved’ or ‘touched’ by short statements (e.g. “A river cuts through a rock, not because of its power but its presence”), the more they tended to rate them as ‘deep’ or ‘profound’ (Cova et al., 2018). In a second series of studies, they found that people who were more frequently and easily moved were also more likely to rate such statements as ‘deep’ (Cova & Boudesseul, 2023). Finally, in a third series of studies, they found that participants were more likely to rate instrumental music as ‘deep’ and ‘profound’ when they felt moved (Cova et al., 2024).

But what does it mean to feel ‘moved’ or ‘touched’? There has been a lot of research from both philosophers and psychologists on the topic in the past decade, and the consensus view is that feelings of being moved (or touched) constitute a specific type of emotion, characterized both by warm and pleasant feelings and a tearful phenomenology. When one feels moved, one feels like crying because of something beautiful or positive (Zickfeld et al., 2019). There is, however, a debate on what exactly elicits feelings of being moved. Some theorists have defended that feelings of being moved are specifically elicited by the spectacle of strong social relationships (Seibt et al., 2017). Others have argued that feelings of being moved can be elicited by any ‘core value’, that is: any value that is important to us (Cova & Deonna, 2014). A synthesis view could be that what moves us is what is ‘dear’ to us, what we are ‘attached’ to, and that this encompasses both concrete individuals we are socially related to and abstract values (Cullhed, 2020).

However, apart from these studies on the relationship between judgments of depth and profundity and feelings of being moved, empirical investigations about people’s understanding of depth and profundity have been scarce. One exception is a recent line of research in social psychology about what makes people fall for “pseudo-profound bullshit”, which focuses on studying what leads participants to rate nonsensical, AI-generated statements as ‘profound’ (Pennycook et al., 2015). But researchers involved in this research program are generally content with asking participants to rate how ‘deep’ or ‘profound’ they consider certain statements to be, without bothering to investigate how they interpret these terms and what they mean by that. Thus, there is a dearth of empirical data about what people express when they claim that something is ‘deep’ or ‘profound’.

This is why, in this paper, our main goal is to fill this gap by investigating what people mean when they say that something is ‘deep’ or ‘profound’—that is: the *ordinary* concepts of ‘depth’ and ‘profundity’. Indeed, talks about ‘depth’ and ‘profundity’ are not confined to philosophical debates or psychology experiments, but can be found in ordinary language: ‘deep’ and ‘profound’ are often used to describe ideas, and ways of expressing them. A quick search on the Internet will thus show that people like to compile lists of ‘deep’ or ‘profound’ quotes, among which many sentences

by famous philosophers.<sup>1</sup> Relatedly, ‘deep’ and ‘profound’ are also used to describe thinkers (in expressions such as “a deep thinker”). However, beyond ideas and people who have them, terms such as ‘deep’ or ‘profound’ are also used to describe works of art, in a generally praiseworthy way (except when they are used ironically to mock pieces of art that strive to be deep but only succeed in being pretentious). For example, people will praise books for being profound<sup>2</sup> and will produce rankings for their favorite “deep movies”.<sup>3</sup>

But what exactly do people want to express or convey when they claim that something is deep or profound? This is the question we sought out to answer in the three studies we present in this paper, and in which we try to identify the main features of the ordinary concepts of ‘depth’ and ‘profundity’.

### 1.1 Why should we care about the everyday concepts of ‘depth’ and ‘profundity’?

Now, one might wonder why philosophers should care about the ordinary concepts of ‘depth’ and ‘profundity’. Indeed, it could be argued that there is a difference between ordinary concepts and the type of concept philosophers are interested in. For starters, one could point to the fact that philosophers are generally interested in concepts that can be defined using necessary and sufficient conditions, while psychological studies suggest that ordinary concepts are fuzzier and built around prototypes or exemplars (Machery, 2009).<sup>4</sup> Moreover, philosophers often develop concepts to serve particular theoretical purposes, rather than paraphrasing ordinary concepts. As such, it is not clear what is the philosophical relevance of investigating the everyday concepts of ‘depth’ and ‘profundity’.

However, in the case of ‘depth’ and ‘profundity’, it seems that the (few) existing philosophical attempts at defining them have precisely tried to capture the everyday experiences and evaluations that are commonly expressed through the ordinary concepts of ‘depth’ and ‘profundity’. Thus, even if the ordinary and philosophical concepts of ‘depth’ and ‘profundity’ are bound to be different, it seems that the philosophical concepts cannot stray too much from the ordinary concept to fulfill their intended role. Facts about ordinary concepts will thus both guide and constrain philosophical analyses of ‘depth’ and ‘profundity’. That such philosophical analyses try to capture the same phenomenon that is expressed through ordinary concepts can be illustrated by two examples drawn from philosophical aesthetics, which is the field in which ‘depth’ and ‘profundity’ have been the most debated.

The first example is Savile’s attempt at defining depth (Savile, 1982). Savile’s main goal is to provide an explanation of what allows certain works of art to stand the test of time. The reason why Savile is interested in depth is that, according to him,

<sup>1</sup> See for example <https://www.brainyquote.com/topics/deep-quotes> for ‘deep’ and <https://quotlr.com/quotes-about-profound> for ‘profound’.

<sup>2</sup> <https://www.goodreads.com/shelf/show/profound>.

<sup>3</sup> [https://www.reddit.com/r/flicks/comments/17d3pu6/what\\_films\\_do\\_you\\_consider\\_deep/](https://www.reddit.com/r/flicks/comments/17d3pu6/what_films_do_you_consider_deep/).

<sup>4</sup> Though philosophers are increasingly open to philosophical analyses that are not cashed out in terms of necessary and sufficient condition. For an example in the case of the concept of ‘art’, see Gaut (2000) and Dutton (2009).

it is part of the explanation: works that are ‘deep’ are more likely to stand the test of time. From Savile’s own admission, when he speaks about ‘depth’, he speaks about a widespread aesthetic experience that is commonly expressed through evaluations of works of art as ‘deep’. Here is how Savile opens his chapter on depth:

Not all understanding displayed in the arts retains our attention over time, but some do so better than others. This is particularly true of that art which, on account of some understanding it makes available to us, we call profound (1982:126)

It is clear that Savile’s intent is to produce a (philosophical) concept of ‘depth’ that captures the main features of the experience expressed by the ordinary concept of depth. For example, he objects to Hazlitt’s definition of depth in terms of explanatory power by arguing that this definition would entail that we should evaluate the ‘depth’ of works of art in the same way we evaluate scientific theories. However, according to Savile, this conclusion is at odds with our ordinary practices and the way we naturally assess depth.

On the basis of such arguments, Savile provides an account of depth and profundity that limits ‘depth’ to instances of art that bring us a certain type of *understanding* about the human condition:

we arrive now at a very different description of what profundity in art might be than was previously offered. It is that where we find a subject treated which is identifiable as man himself - even when restricted in the ways just mentioned - we shall have a profound work of art if it is one that displays a deep understanding of its subject (1982:140-141)

But this definition is not stipulative: its aim is to capture the property of works of art we refer to when we evaluate them as ‘deep’ in ordinary language.

The second example is the current philosophical debate on the profundity of pure instrumental music. This debate, which is probably the most important debate on the nature of depth in the contemporary philosophical literature, was started by Kivy (1990). In line with accounts such as Kekes’ or Savile’s, which begin by defining depth in terms of a work of art’s subject-matter, Kivy claims that a profound work of art must be *about* “something profound (which is to say, something of abiding interest or importance to human beings)”, such as “deep philosophical and moral matters” (1990:203). However, as Kivy points out, it seems that one consequence of this definition of ‘profundity’ is that pure instrumental music cannot be profound, as it is not about anything. Kivy admits that he finds that puzzling, as he cannot help but experiencing certain pieces of instrumental music as ‘profound’:

I find myself at present, then, unable to refrain from thinking that some musical works are profound yet unable, as well, to provide any rational grounds for my thinking it. So if you ask me, now, what my justification is for thinking the Well-Tempered Clavier profound, the only response that comes readily to mind is that notorious misquotation: “Play it again, Sam.” (Kivy, 1990:218)

And indeed, after Kivy, many equally puzzled philosophers have tried to save the intuition that pure instrumental music can be profound by arguing that pure instrumental music can in fact be *about* something and have an important subject-matter (Davies, 2002; Dodd, 2014; Levinson, 1992; White, 1992). However, this puzzlement would be absurd if the philosophical concept of profundity was not intended to capture the everyday experience of profundity.

That the philosophical concept of profundity is constrained by the ordinary concept of profundity can also be shown by the fact that some have rejected Kivy's definition of profundity on the ground that it does not align with our ordinary understanding and experience of profundity. For example, Nanay (2021) opposes Kivy by putting forward an account of profundity that emphasizes *complexity* in opposition to clarity, rather than subject matter. According to him:

what makes a work profound is not that it is about something profound, but that it actively challenges any straightforward interpretative activity (while at the same time nudges you to keep on trying to interpret it)" (Nanay, 2021:344)

Nanay insists that his account constitutes an 'experiential' approach to profundity, meaning that "it aims to explain when a work is profound in terms of the effect it has on us" (2021:349). For Nanay, experiencing something as 'profound' comes with a specific phenomenology, that can be described as the opposite of feeling of fluency:

if profundity is a matter of the frustration of any straightforward interpretative strategies, then the experience of profundity is the opposite of the experience of fluency. In fact, one way of summing up my account of profundity is that profound works actively work against the fluency of processing (2021:352)

But, most importantly, Nanay defends his account of profundity against competing accounts by highlighting how his account better matches our ordinary use and understanding of profundity. For example, he writes that:

Another odd feature of literary profundity is that it is more likely to happen in some genres than others. Profound comedy is rare as is profound thriller. Again, this is not explained by the profundity of subject matter as there is no reason why comedies or thrillers could not address profound subject matter (and treat them in an exemplary manner).

But these genre differences are easier to explain if we endorse my account of profundity. It is very clear and obvious what comedies and thrillers want to achieve: they want to make us laugh or be scared, respectively. They do not challenge our straightforward interpretative activity (and they cannot really do so while also remain bona fide comedies or thrillers). (Nanay, 2021:348)

Here, Nanay's argument is that his account of profundity better matches our everyday experience of it: comedy and thriller are less often experienced as profound than other genres. Such an argument would be irrelevant if philosophers did not want their philosophical concept of profundity to capture the everyday experience of profundity.

And, as we have seen, most contemporary philosophical debates on depth and profundity are eager to better understand and capture this everyday experience. This is why, even if the ordinary and philosophical concepts of ‘depth’ and ‘profundity’ are bound to be different, the latter is still constrained by the former, to the extent that it tries to capture and clarify the everyday experiences or evaluations that are expressed by the ordinary concepts.

## 1.2 Methodological limitations of the our studies

Given the relevance of the ordinary concepts of ‘depth’ and ‘profundity’ to current philosophical debates about ‘depth’ and ‘profundity’, our aim here is to empirically investigate these concepts. However, as we pointed earlier, our investigation is the first of its kind: there is, to this day, no other attempt at empirically investigating these concepts. Since we are starting from scratch, we cannot build on prior attempts at defining these concepts that we could put to the test. This is why we decided to adopt an exploratory approach by directly asking participants to explain what they mean by ‘deep’ or ‘profound’ (in Studies 1 and 2) then asking them to rank explanations of these concepts designed on the basis of their open-ended answer (in Study 3).

This exploratory approach has the advantage of allowing us to capture features of these concepts that might not have been predicted or theorized by philosophers (while using vignettes would have limited us to test the relevance of features that were already theorized as relevant), but it also has certain limitations that we need to acknowledge.

First, the methodology we adopt in our study does not allow us to determine what kinds of concepts ‘depth’ and ‘profundity’ and what their structure is. Are they ‘classical’ concepts, which could be defined in terms of necessary and sufficient conditions? Are they ‘prototypical’ concepts? Or are they structured around a set of exemplars? We won’t try to answer these questions here, as our main aim is rather to determine what makes something ‘deep’ or ‘profound’—that is: to identify the component features of the concepts of ‘depth’ and ‘profundity’. We will summarize the different component features we identify under the form of a tentative representation of these concepts as prototype concepts, but we won’t make any claim about their structure.

Second, as long as we don’t know that the concepts of ‘depth’ and ‘profundity’ are prototype concepts, it is possible that participants will mention certain features without them being necessarily part of the target concept. Thus, if we asked participants to explain what they mean by ‘game’, they would probably mention the fact that games are ‘fun’ quite often. However, it is not clear that ‘being fun’ is part of the ordinary concept of game, since most people will recognize the fact that some games aren’t fun (after all, we have all played Monopoly). According to classical accounts of concepts, this property would not be part of the concept ‘game’ (though, according to prototype theories, it would be).

For example, Malle and Knobe (1997) investigated the “folk concept of intentionality” by asking them to explain what they meant when they said that somebody performed an action *intentionally*. Based on participants’ answers to this question, they identified four components of intentionality: desire, belief, intention and awareness. The “intention” component was the most frequent, and it can be taken as suggesting

that, according to the folk concept of intentionality, an action is intentional when it is intended. However, later studies by Knobe (2003) showed that most people consider foreseen side-effects of actions as intentional, even if they are neither desired, nor intended. As such, most recent attempts at defining what it means for an action to be intentional have left aside the requirement that what is intentional should be intended (Cova, 2016). Thus, one potential shortcoming of our approach is that it can capture stereotypical features which are not necessary for the category. Such features would not be part of the concept if the concept turned out to have classical rather than prototype or exemplar structure. However, stereotypical features associated with words inform the inferences people make, even when these features are not part of the intended concept (Fischer, 2020). More generally, the 'salient' features that come to mind first when hearing or reading a word have been argued to be even more important than necessary or sufficient features (Reuter, 2024).

A third, opposite shortcoming is that this kind of approach can fail to capture certain key component features of the concept because these are not salient to participants. To take the same example, Malle and Knobe (1997) observed that their list of components did not include "skills" while this component was predicted as relevant by several philosophical accounts of intentionality. Thus, they ran a follow-up study using vignettes to manipulate the presence of "skills" and found that whether the agent performed the action skillfully made an important difference to whether participants considered the action intentional. They thus added "skills" as a fifth component of the folk concept of intentionality, even if participants did not mention it when directly asked to explain their concept.

Given these limitations, it is clear that the work presented in this paper should be taken only as a first approach to the everyday concepts of 'depth' and 'profundity' that will require to be supplemented by further research. Still, we took steps to compensate for the two shortcomings we identified. To compensate for the second shortcoming (picking up features that are not component features), we asked participants in Study 3 to rate to which extent each identified feature was necessary or merely optional. Component features of a concept are not always necessary (nor sufficient), but we hoped that drawing participants' attention on the necessity (or lack thereof) of each feature would allow us to identify which features were most likely to be features stereotypically associated with the concept rather than component features of the concept. To compensate for the third shortcoming (missing key features that are not salient to participants), we asked participants in Study 3 to rate the relevance of features they might not have mentioned in Studies 1 and 2 but that have been suggested as important by past philosophical analyses of 'depth' and 'profundity'. Indeed, through our survey of the literature, we could identify at least five candidate features: (i) explanatory depth, (ii) important subject-matter, (iii) emotional impact, (iv) new understanding, and (v) complexity.

## 2 Transparency and openness

All materials, data and analysis scripts can be found at [osf.io/2nqbw/](https://osf.io/2nqbw/)

The studies reported in the manuscript have received the approval of University of Geneva's ethical board (project name: "Being moved as a predictor of feelings of profundity").

### 3 Study 1

In Study 1, we sought to investigate people's conceptions of depth and profundity using open-ended, qualitative methods. We asked participants to explain in their own words, what it means for something to be deep and profound, and to provide examples of things they found deep or profound.

#### 3.1 Methods

212 US residents recruited through Prolific Academic completed our survey (127 men, 83 women, 2 others;  $M_{\text{age}}=26.60$ ,  $SD_{\text{age}}=8.33$ ).

The survey was divided in two parts. The first part was dedicated to probing participants' conceptions of what makes life meaningful, and was composed of four open-ended questions (explain what is a meaningful life, explain what is a meaningless life, remember and describe a moment in which you felt your life was meaningful, remember and describe a moment in which you felt your life was meaningless). We won't discuss this part of the study here, as it is the focus of another manuscript (Fuhrer & Cova, 2024). The second part, the one with which the current manuscript is concerned with, was dedicated to probing participants' conceptions of what it means for something to be deep. Participants were presented with the three following open-ended questions:

- (A) Sometimes, we say of certain things (works of arts, sentences, theories, etc.) that they are "deep" or "profound". Now, imagine that someone who does not properly understand English (or is in the process of learning it) asks you what it means for something to be "deep" or "profound". How would you explain to this person what it means for something to be deep or profound? (Please, understand that you are not asked about a concrete example of something you personally find "deep" or "profound", but about what you take the expressions "deep" and "profound" to mean.)
- (B) If you had to describe what is the opposite of finding something "deep" or "profound", how would you describe it? Try to give a few adjectives that would describe this kind of things. (Please, understand that, once again, you are not asked to give a concrete example of things that are neither deep nor profound).
- (C) Have you ever experienced something as "deep" or "profound"? Please, describe this experience and the object/situation you found "deep" or "profound".

Question (A) asks participants for their *explanation* of depth/profundity. Question (B) asks them to describe what is the *opposite* of depth/profundity. Finally, Question (C) asks them to provide an *example* of something deep/profound.

After question (C), participants were asked to remember their *feelings* during the occasion they remembered. They were then presented with 21 emotional labels and asked to indicate for each of them to which extent they experienced the corresponding feeling (on a scale from 1 = "Not at all" to 7 = "Very strongly"). The full list of labels can be found in "[Supplementary Materials](#)".

Finally, participants were asked to provide information about them (age, gender, native language, country of birth and country of residence, profession, education, religious beliefs, political orientation). For exploratory purposes, participants were also asked to fill the Geneva Sentimentality Scale, a measure of participants' disposition to feel moved (Cova & Boudesseul, 2023).

### 3.2 Procedure

To analyze questions (A) to (C), three coders went through participants' answers several times. First, coders went through participants' answers to create categories in which participants' answers could be classified. Coders then compared their suggestions to compose a collective list of categories, together with their definitions. A sample of categories with their definitions for participants' answers to question (A) can be found in Table 1.

Then, coders went through participants' answers a second time and coded for each answer and each category whether the answer fell into this category (0=no, 1=yes). The same answer could fall into several categories. Once coding was completed, we used Light's kappa to estimate inter-rater reliability within each category. Light's Kappa can take any value between -1 and 1, with 0 indicating the level of agreement that would be obtained if coders answered randomly. We used 0.60 as a threshold for satisfactory agreement. When agreement for one of several categories was not sufficient, coders compared their answers and the nature and definition of categories was modified. Coders then coded answers once again using the modified categories, and inter-rater agreement was evaluated again. The process was repeated several times, until satisfactory inter-rater agreement was reached for most categories and, more importantly, for the most frequent categories (as agreement for infrequent categories tends to be very fragile).

### 3.3 Results for explanations (Question A)

The full list of categories for this answer can be found in "[Supplementary Materials](#)" (Appendix A). After excluding answers that fell into the EXCLUSION category (see Table 1) because their answers were incomprehensible, irrelevant or copied from the Internet, we were left with 185 participants. Inter-rater agreements and proportion of relevant answers for each category are presented in Table 2.

Inter-rater agreement was satisfactory ( $\kappa=0.684$ ). As one can see, something deep was mainly defined as something that elicits strong emotional reactions (34.1%), that has a meaning (30.8%), that stimulates thought (27.0%), and that has a hidden side (27.0%).

**Table 1** Sample of categories for participants' answers to Question A (Study 1)

Category	Definition	Example
EXCLUSION	The participants give irrelevant or incomprehensible answers, or have manifestly not understood the question (e.g. participants think the task is to explain how they would explain without using words) OR Participants copy answers from the internet instead of giving their own	<i>I'd always believed that a life of quality, enjoyment, and wisdom were my human birthright and would be automatically bestowed upon me as time passed. I never suspected that I would have to learn how to live—that there were specific disciplines and ways of seeing the world I had to master before I could awaken to a simple, happy, uncomplicated life</i>
MEANING	The participants say that something “deep” is something that has a meaning, signification, interpretation, or something that contains a message or something to communicate, something that is not empty	<i>Something that requires to think about it to understand it, something that has more than one meaning</i>
FEEL	The participants say that something “deep” is something that brings them an emotional experience or something that makes them feel (more), that touches them or something linked to passion	<i>Something is "deep" or "profound" when it touches you, when you can feel that personally, like it is talking to you somehow</i>
THINK	The participants say that something “deep” is something that makes them think (more, a lot, for a long time) or engage them in an intellectual activity, that makes them realize things, changes their mind or their point of view, brings new perspective or creative thinking	<i>Something deep helps you to reflect or find the answer to something</i>
HIDDEN	The participants say that something “deep” is something that is hidden under the surface, under the appearance, that is beyond the obvious, that contains more layers than it appears or than it appears at first sight, something that is not shallow or not obvious, something that has a history or something that can be discovered after some research, thinking or inquiry	<i>Something is deep if it has a hidden meaning that you must investigate and understand with your knowledge on the matter</i>

### 3.4 Results for opposite (Question B)

The full list of categories for this answer can be found in "[Supplementary Materials](#)" (Appendix B). After excluding answers that fell into the EXCLUSION category, we were left with 190 participants. Inter-rater agreements and proportion of relevant answers for each category are presented in Table 3.

Inter-rater agreement was satisfactory ( $\kappa=0.784$ ). As one can see, the opposite of something deep was mainly defined as something shallow or superficial (54.7%), that has no meaning or message (31.1%), that has no epistemic value (20.5%) or no value at all (28.9%), and that is simple and lacks complexity (24.7%).

**Table 2** % of participants' answers falling into each category according to each coder (Question A)

	Coder 1 CS	Coder 2 FC	Coder 3 LF	Total	IRR
FEEL	33.5%	33.5%	30.8%	34.1%	0.885***
*Awe	1.1%	1.6%	1.6%	1.7%	0.865
*Touched	15.7%	16.2%	7.6%	15.7%	0.637*
MEANING	35.7%	29.2%	21.6%	30.8%	0.640***
THINKING	30.8%	21.6%	27.0%	27.0%	0.713***
HIDDEN	26.5%	25.9%	28.1%	27.0%	0.771***
COMPLEX	14.6%	13.0%	8.1%	11.4%	0.567
RICHNESS	20.0%	14.1%	9.7%	13.5%	0.169
INTENSITY	13.5%	15.1%	6.5%	11.9%	0.557
EPISTEMIC VALUES	8.1%	14.6%	10.8%	10.8%	0.563
MATTER	9.2%	10.8%	3.8%	8.6%	0.532
CHANGE	8.6%	7.0%	6.5%	7.6%	0.764
PERSONAL	6.5%	11.3%	10.8%	7.6%	0.317
BIG TOPIC	5.4%	4.9%	4.3%	4.3%	0.651
TRANSCENDENCE	2.2%	3.2%	2.2%	1.6%	0.641
NEW	2.2%	2.2%	0.1%	1.1%	0.426
<i>Total Inter-rater agreement: 0.684***</i>					

The *Total* column indicates the % of participants' answers for which *at least* two coders coded the answer as falling into the corresponding category. The *IRR* column indicates inter-rater agreement, assessed using Light's Kappa (Study 1). Sample of categories for participants' answers to Question A (Study 1)

**Table 3** % of participants' answers falling into each category according to each coder (Question B)

	Coder 1 CS	Coder 2 FC	Coder 3 MMB	Total	IRR
SHALLOW	54.7%	53.2%	56.3%	54.7%	0.901***
NO MEANING	31.1%	30.5%	29.5%	31.1%	0.817***
NO OTHER VALUE	27.4%	31.1%	29.5%	28.9%	0.696***
SIMPLE	23.7%	25.8%	26.3%	24.7%	0.712***
NO EPISTEMIC VALUE	26.3%	17.9%	17.9%	20.5%	0.779***
MUNDANE	16.3%	17.9%	17.4%	15.3%	0.717**
NO EMOTION	11.1%	13.7%	12.6%	12.6%	0.854*
NO IMPACT	12.6%	15.8%	8.4%	12.1%	0.555
NO HIDDEN MEANING	9.5%	15.8%	10.0%	10.5%	0.621
PRETENTIOUS	2.6%	4.7%	3.7%	3.2%	0.556
NEGATIVE EMOTIONS	4.2%	2.1%	3.2%	2.6%	0.593
<i>Total Inter-rater agreement: 0.784***</i>					

The *Total* column indicates the % of participants' answers for which *at least* two coders coded the answer as falling into the corresponding category. The *IRR* column indicates inter-rater agreement, assessed using Light's Kappa (Study 1). Sample of categories for participants' answers to Question A (Study 1)

### 3.5 Results for examples (Question C)

The full list of categories for this answer can be found in "[Supplementary Materials](#)" (Appendix C). After excluding answers that fell into the EXCLUSION category, we were left with 186 participants. Inter-rater agreements and proportion of relevant answers for each category are presented in Table 4.

**Table 4** % of participants' answers falling into each category according to each coder (Question B)

	Coder 1	Coder 2	Coder 3	Total	IRR
	CS	MMB	LF		
ART	35.5%	35.5%	34.9%	35.5%	0.961***
*Music	10.2%	11.3%	9.1%	10.8%	0.901
*Plastic arts	11.3%	14.0%	10.8%	10.8%	0.781
*Narrative arts	14.0%	15.1%	14.5%	15.6%	0.826*
EMOTIONAL EXPERIENCES	25.8%	32.2%	23.7%	28.5%	0.702***
*Moved/Touched	7.5%	8.1%	7.5%	8.1%	0.899
BONDS	19.9%	22.6%	12.4%	17.7%	0.604
INTELLECTUAL PROGRESS	17.7%	17.2%	13.4%	13.4%	0.456
THINKING ABOUT OWN LIFE	14.5%	14.5%	7.5%	12.4%	0.574
SIGNIFICANT LIFE EVENTS	13.4%	12.9%	10.8%	12.4%	0.764***
*Birth	4.3%	4.3%	4.3%	4.3%	0.913
*Wedding	1.1%	1.1%	1.1%	1.1%	1.000
*Death/Loss	4.3%	4.3%	3.8%	4.3%	0.954
NEVER	10.8%	10.8%	10.8%	10.8%	1.000***
STORY OF PERSONAL EXPERIENCE	8.6%	4.8%	9.7%	7.0%	0.495
BIG TOPIC	9.1%	9.7%	5.4%	7.0%	0.459
SPIRITUALITY	4.3%	4.8%	5.4%	4.8%	0.922
SCIENCE	2.7%	4.8%	3.8%	3.8%	0.492
NOVELTY	3.8%	5.4%	4.8%	3.8%	0.637
*Experience of other cultures	1.1%	1.1%	2.2%	1.1%	0.549
ACHIEVEMENT	3.8%	2.2%	5.4%	3.8%	0.406
NATURE	2.7%	3.2%	3.8%	3.2%	0.885
DIFFERENT STATES OF CONSCIOUSNESS	2.7%	3.8%	2.7%	3.2%	0.817
OCCUPATION	1.1%	1.1%	0.5%	0.5%	0.608
<i>Total Inter-rater agreement: 0.762***</i>					

The *Total* column indicates the % of participants' answers for which *at least* two coders coded the answer as falling into the corresponding category. The *IRR* column indicates inter-rater agreement, assessed using Light's Kappa (Study 1). Sample of categories for participants' answers to Question A (Study 1)

Inter-rater agreement was satisfactory ( $\kappa=0.762$ ). As one can see, art was the most cited category (35.5%). Then came emotional experiences (28.5%) and social bonds and moments spent with loved ones (17.7%). Interestingly, 10.8% of participants reported having never experienced something as deep or profound. In line with Cova and colleagues' hypothesis (Cova et al., 2018), we used a Welch t-test to determine whether, compared to other participants, participants who reported having *never* experienced something as deep had a lower tendency to be moved (as measured through the Geneva Sentimentality Scale). We found a significant difference in this direction:  $\Delta=0.53$ ,  $t(22.39)=2.29$ ,  $p=0.032$ .

### 3.6 Results for emotions

After excluding participants who fell into the EXCLUDE and NEVER categories, we computed the means and standard deviations for each of the emotion labels. The three highest-rated emotion labels were being moved ( $M=5.30$ ), being touched ( $M=5.10$ ), and feeling enlightened ( $M=4.98$ ). (For a fuller account of the results, see Appendix G in "[Supplementary Materials](#)".)

## 4 Study 2

In Study 2, our aim was to use the categories identified in Study 1 to analyze answers from a new sample, to assess the generalizability of our results. For all three qualitative questions, we selected the categories that were either (i) most frequent or (ii) most interesting from a theoretical point of view, and we applied them to the answers collected in Study 2.

For Question C (the one asking for an example), we also asked participants to rate how deep and profound the item described was, then to rate their agreements with statements corresponding to different features identified in Study 1, to quantitatively assess which features were more predictive of attributions of depth and profundity.

In Study 1, questions about depth and profundity were asked after a series of questions about what it means for a life to be meaningful (and meaningless). It is possible that this presentation order might have influenced participants' answers to questions about depth and profundity (e.g. by making the MEANING category more salient). To prevent this kind of issue, participants in Study 2 were only asked questions about depth and profundity.

### 4.1 Materials and methods

256 US residents recruited through Prolific Academic completed our survey. After exclusion based on four attention checks, we were left with 227 participants (111 men, 112 women, 4 others  $M_{\text{age}}=35.26$ ,  $SD_{\text{age}}=12.34$ ).

Participants were presented with the same three open-ended questions as in Study 1: (A) a question about the *explanation* of depth/profundity, (B) a question about the *opposite* of depth/profundity, and (C) a question about an *example* of something deep/profound. The order of questions (B) and (C) was randomly counterbalanced.

Just after question (C), participants were asked to remember their *feelings* during the occasion they remembered. They were then presented with 22 emotional labels and asked to indicate for each of them to which extent they experienced the corresponding feeling (on a scale from 1="Not at all" to 7="Very strongly"). The full list of labels can be found in "[Supplementary Materials](#)".

Participants were also presented with 10 *appraisals* about the instance of something deep/profound they remembered and asked for each of them to rate the extent to which they had the following experience (on a scale from 1="Not at all" to 7="Very strongly"). Two appraisals measured the extent to which participants found said instance deep or profound ("I felt the object/situation I described was deep", "I felt

the object/situation I described was profound”). The other eight corresponded to the most common explanations given by participants in Study 1 about why they found something deep (e.g. “I felt like the object/situation had an important message to convey”). The full list of appraisals can be found in Table 8.

Also, we sought to investigate which individual differences predicted the frequency with which participants experienced things as deep or profound. First, participants were asked to answer the following question: “How often do you have the experience that something (an object or a situation) is “deep” or “profound”?” on a scale from 1 = “Never” to 8 = “Once a day”. Then, participants were asked to fill the Geneva Sentimentality Scale, a 4-item measure of Faith in Intuition, and a 4-items measure of Need for Evidence (Garrett & Weeks, 2017). They were also asked to rate how much they considered themselves to be a critical thinker (Schöpfer et al., 2024). Results for these measures are reported in Appendix K in “[Supplementary Materials](#)”.

Finally, participants were asked to provide the same kind of information about themselves as in Study 1.

## 4.2 Results for explanations (Question A)

Three coders went through participants’ answers to rate whether each answer fell into each category. The full list of categories retained from Study 1 can be found in Table 5. After excluding answers that fell into the EXCLUSION category, we were left with 221 participants. The proportion of answers falling into each category according to at least two different coders, along with inter-rater reliability can be found in Table 5.

Inter-rater agreement was satisfactory ( $\kappa=0.713$ ). ‘Depth’ was mainly characterized as something that makes one think (37.1%), has a meaning or message (32.6%), triggers emotional reactions (31.2%) and has epistemic value meaning that it brings knowledge or understanding (27.1%). ‘Depth’ was also characterized as something with hidden meaning (22.6%), something intense (19.0%), complex (18.6%) and rich (15.8%). Participants also emphasized that ‘depth’ had to speak to us at a personal level (15.4%), of things that matter to us (8.6%), and that it could change and transform us (15.8%).

## 4.3 Results for opposite (Question B)

Three coders went through participants’ answers to rate whether each answer fell into each category. The full list of categories retained from Study 1 can be found in Table 6. After excluding answers that fell into the EXCLUSION category, we were left with 222 participants. The proportion of answers falling into each category according to at least two different coders, along with inter-rater reliability can be found in Table 6.

Inter-rater agreement was strong ( $\kappa=0.868$ ). As in Study 1, the opposite of depth was mainly characterized as “shallow”, “superficial”, or “surface-deep” (65.8%). This is not surprising, as these are semantic opposites of “depth” and “profundity”. But what does it mean for something to be superficial? Participants mainly characterized it as being simple (42.8%), without much value, either epistemic (22.5%) or non-epistemic (32.4%), and trivial or mundane (25.7%). Additionally, some participants emphasized absence of meaning (16.7%) or hidden meaning (13.1%), and

**Table 5** Description of each category used for coding participants' answers to Question A, along with % of answers falling into each category and inter-rater agreement (Study 2)

Category	Definition	%	IRR
THINK	The participants say that something "deep" is something that makes them think (more, a lot, for a long time) or engage them in an intellectual activity, changes their mind or their point of view, brings new perspective or creative thinking <i>e.g. "I think I see it as when something is very meaningful and intriguing, it makes you want to sit down, dig deeper into your brain and think more about it."</i>	37.1%	0.746***
MEANING	The participants say that something "deep" is something that has a meaning, signification, interpretation, or something that contains a message or something to communicate, something that is not empty <i>e.g. "Deep or profound can refer to an idea with several layers of meaning. When the listener interprets these layers and finds application within their own current state of existence, it creates a feeling of richer connection to the author and the universe. It would be like reading a code and deciphering the true meaning(s) of the message."</i>	32.6%	0.707***
FEEL	The participants say that something "deep" is something that brings them an emotional experience or something that makes them feel (more), that touches them or something linked to passion <i>e.g. "I believe something being deep or profound means that it has a personal emotional meaning to you. If something really triggers your core emotions then I would consider it deep or profound"</i>	31.2%	0.887***
*Awe	The participants mention awe (or something similar) <i>e.g. "Something profound or deep is something that is thought provoking. It inspires feelings of awe and contemplation or reflection. If it makes you pause for a moment, and consider yourself or your place in the universe, it is deep or profound."</i>	2.7%	0.862
*Moved/Touched	The participants mention being moved or touched <i>e.g. "It is something that involves a lot of meaning, emotions, it moves you. Some things can bring you a small portion of sensations. They have a small impact on us. Other things are more complex. They impact us in a bigger level. These things can be classified as deep and profound."</i>	3.2%	0.861
EPISTEMIC VALUES	The participants say that something "deep" is something that has intellectual value, that has a value related to knowledge and/or truth: it is intelligent, true, interesting, insightful, clever, wise, it can teach you something OR something that brings them (deep) knowledge, wisdom, understanding, insight, revelation, realization or answers <i>e.g. "The term 'profound' connotes a sense of depth, intensity, and significance that is rare and impactful. It offers insight and deeper understanding of a complex issue when something is said to be profound."</i>	27.1%	0.582***

**Table 5** (continued)

Category	Definition	%	IRR
HIDDEN	The participants say that something “deep” is something that is hidden under the surface, under the appearance, that is beyond the obvious, that contains more layers than it appears or than it appears at first sight, something that is not shallow or not obvious, something that has a history or something that can be discovered after some research, thinking or inquiry <i>e.g. “If something is “deep” I see it as having many layers of meaning and complexity that go beyond simple surface understanding. It is like calculus vs. an addition problem. Profound, to me, is an extra dimension that signifies importance and revelation, a concept that would not be obvious to everyone.”</i>	22.6%	0.589**
INTENSITY	The participants say that something “deep” is something long, imposing, impressive, intense, powerful, extreme, that has a big impact <i>e.g. “For something to be deep or profound it must have great insight and be very intense or intriguing.”</i>	19.0%	0.584
COMPLEX	The participants say that something “deep” is something that is difficult or hard to understand or interpret, something that only the wise person or the elite can understand, that has a background, reserved for an elite, capable of understanding <i>e.g. “When we say that something is “deep” or “profound”, it means that it has a very complex and meaningful message or idea behind it that takes a lot of thinking and understanding to fully comprehend. It’s like a puzzle that you have to figure out by looking at all the pieces and how they fit together.”</i>	18.6%	0.730***
RICHNESS	The participants say that something “deep” is something that is thick, rich, has many different meanings, or something that contains a lot of elements <i>e.g. “I would say something deep or profound has a lot of meaning below what is being said or displayed. There are layers to the imagery and to the figurative language that are trying to display something.”</i>	15.8%	0.745**
CHANGE	The participants say that something “deep” is something that makes them feel different, that changes or transforms them, that has an effect on them (positively or negatively), sometimes in the long run, something that has a long-lasting impact or something that makes them question their beliefs <i>e.g. “Deep and Profound are lessons or experiences that will leave you with a lot to think about afterward. They are things that can change someone’s priorities in life, or make their life seem different than how they viewed it before.”</i>	15.8%	0.699*

**Table 5** (continued)

Category	Definition	%	IRR
PERSONAL	The participants say that something “deep” is something that speaks at personal level to the person experiencing them as deep: either because it is linked to private or intimate topics, personal achievements, personal beliefs or something that hits their identity; or something that makes them think about their own life, about what has meaning for them, about the meaning of their life <i>e.g. “For me personally, something that is deep or profound means it touches you on a deep personal level. It could be something that resonates with you personally and you understand or infer a meaning that really speaks to you or even changes you.”</i>	15.4%	0.672*
MATTER	The participants say that something “deep” is something important, relevant, that they care about, that matters, that is essential <i>e.g. “If something is deep or profound, to me that means it is something with great meaning, and great importance.”</i>	8.6%	0.566
NEW	The participants say that something “deep” is something that is new, unique or creative <i>e.g. “I think to be deep or profound, you have to share thoughts that most people don't hold in commonplace. You have to have a viewpoint that is truly unique and worth sharing with the world. Your knowledge is something that is helpful to others and moves conversations forward.”</i>	8.6%	0.535
BIG TOPIC	The participants say that something “deep” is something linked to questions, reflections or discussions about important issues touching the human condition and the place of human beings in the world and the universe (e.g., about life, world, humankind, etc.) <i>e.g. “When something is deep or profound it makes a person really think. It is not surface level, but requires effort to be understood. It may raise questions about humanity or large topics that make us consider the universe and our place in it.”</i>	5.8%	0.746
TRANSCENDENCE	The participants say that something “deep” is something that is bigger than them (e.g. that has a divine or holy dimension), something transcendent, unimaginable or that is beyond comprehension <i>e.g. “I would say something profound is anything that evokes intense emotion or amazement. It might even be something that is too great to understand, like someone might say that God is profound, or the universe is profound. It's vast, expansive, and amazing, but it's beyond what most of us can comprehend”</i>	3.2%	0.480

a lack of impact (13.5%) and emotional impact (9.0%). Where positive characterizations of depth emphasized the affective aspects (see previous section), negative characterizations mainly focused on the cognitive aspects, emphasizing the lack of interest and cognitive stimulation.

**Table 6** Description of each category used for coding participants' answers to Question B, along with % of answers falling into each category and inter-rater agreement (Study 2)

CATEGORY	Definition	%	IRR
SHALLOW	The participants mention something that is basic, shallow, frivolous or superficial, that is all appearances, that stays at the surface level, that is not serious <i>e.g. "Opposites of deep and profound to me would be shallow and superficial"</i>	65.8%	0.831***
SIMPLE	The participants mention something simple, that can be discovered or understood on the first try, something that requires no intellectual effort, something quick or easygoing <i>e.g. "I guess the opposite of the expressions above would be simple and easy to understand?"</i>	42.8%	0.840***
NO (NON EPISTEMIC) VALUE	The participants mention something that has no importance and no value (that is insignificant, useless, disposable, irrelevant, easily ignored, something that is not worth thinking about or spending time on) OR participants mention something dull, boring, lackluster, uninteresting, bland, flat OR participants stress negative moral values by mentioning something narcissistic, pretentious, vulgar or materialistic. (Warning! Only non-epistemic values should be taken into account here.) <i>e.g. "The opposite of something profound could be described as meaningless, flat, boring, surface level, or even void"</i>	32.4%	0.726**
MUNDANE	The participants mention something mundane, that everyone knows / is aware of, something trivial, ordinary, normal, obvious or unsurprising <i>e.g. "The opposite of deep or profound is something that's mundane, ordinary, or expected. You don't give a second thought to it. You know what to expect, you know exactly what you're looking at, you know how to interpret it."</i>	25.7%	0.843***
NO EPIS-TEMIC VALUE	The participants mention something stupid, silly, ignorant, mindless, thoughtless, false, fake, falsified, something that does not make them think, that does not teach them something new, that has no intellectual value <i>e.g. "Something the opposite would show little to no knowledge of a subject. To really not know something would be quite the opposite"</i>	22.5%	0.724***
NO MEANING	The participants mention something that has no background history, no deeper intention, no purpose, no message, no content or no deeper plan, something empty, hollow, pointless, that does not say anything <i>e.g. "The opposite of deep or profound would be simple or basic or sometimes even meaningless. Something that does not provoke any further thinking or introspection."</i>	16.7%	0.752**
NO IMPACT	The participants mention something that has no effect or impact on them, on their desires and beliefs, on their way of acting or thinking, something that is small, weak or not intense OR something that does not stand the test of time, that is ephemeral, fleeting, without staying power, easily forgotten <i>e.g. "Common things that do not impact us as human beings. Things that are ordinary that do not affect us or make us think beyond that particular moment."</i>	13.5%	0.606*

**Table 6** (continued)

CATEGORY	Definition	%	IRR
NO HIDDEN MEANING	The participants mention something explicit, straightforward, face value, that has only one possible interpretation <i>e.g. "The opposite would be something that shows all it has to offer on first glance, and any further investigation into it rewards you with no new thought provoking ideas or inferences."</i>	13.1%	0.811*
NO EMOTION	The participants mention something that generates no affect, that they do not care about, that they have no connection with (at a personal level) <i>e.g. "Things that aren't deep or profound might be silly, unimportant, or trivial. It's not to say they're not interesting, but they don't have an intense or long-lasting emotional/psychological effect on a person."</i>	9.0%	0.793
NEGATIVE EMOTIONS	The participants mention something that generates negative emotions or disagreement, something that is incongruent with their beliefs, something they do not like <i>e.g. "something which is disgusting and unbearable, something you wouldn't want to experience again"</i>	1.4%	0.548

#### 4.4 Results for examples (Question C)

Three coders went through participants' answers to rate whether each answer fell into each category. The full list of categories retained from Study 1 can be found in Table 7. After excluding answers that fell into the EXCLUSION category, we were left with 226 participants. The proportion of answers falling into each category according to at least two different coders, along with inter-rater reliability can be found in Table 7.

Inter-rater agreement was strong ( $\kappa=0.759$ ). As in Study 1, art was the most-cited category (28.8%), with science far behind (6.2%). Just after came moments of intellectual progress (19.9%), emotional experiences (17.7%) and social bonds (17.7%). 4.9% of participants declared having never experienced anything as deep. As for Study 1, we compared their scores on the Geneva Sentimentality Scale with those of other participants. Participants who never experience depth had significantly lower scores on the scale:  $\Delta=0.89$ ,  $t(11.24)=3.43$ ,  $p=0.005$ .

#### 4.5 Results for appraisals

After excluding participants who fell into the EXCLUDE and NEVER categories, we computed the means and standard deviations for each of the appraisals labels. Results are presented in Table 8. Most appraisals were above the midpoint, with the exception of "difficult to understand" ( $M=3.45$ ). Looking at correlation between each appraisal and the 'depth' and 'profundity' appraisals, the best predictors of depth and profundity ratings were (i) whether the object/situation had an important message to convey, (ii) whether it made the participant think hard, (iii) whether the participants understood what really mattered in life, and (iv) whether it deeply changed the participant. Whether the object/situation was difficult to understand did not significantly predict 'depth' or 'profundity' appraisals.

**Table 7** Description of each category used for coding participants' answers to Question C, along with % of answers falling into each category and inter-rater agreement (Study 2)

CATEGORY	Definition	%	IRR
ART	The participants mention art and culture in different forms <i>e.g. "I find poems to be deep and profound. I like reading them and feeling what the author is portraying"</i>	28.8%	0.878***
*Music	Participants mention music <i>e.g. "I have found works of music profound for their use of rhetorical elements and relevance to worldly issues"</i>	5.8%	0.946
*Plastic arts	Participants mention plastic art, such as paintings, sculpture, architecture <i>e.g. "when I visit Europe for the first time, checking the architecture was something so profound. I couldn't get enough of it. Just the fact that some of those buildings were older than my own country, made me eager to learn more and more about them and helped me experience the visit in a more profound way"</i>	5.8%	0.883
*Narrative arts	Participants mention narrative arts: literature, movies, TV series, theater, opera, narrative video games <i>e.g. "Watching the original Matrix movie. It blew my mind and seriously made me wonder about the entire world we live in."</i>	17.7%	0.844***
INTELLECTUAL PROGRESS	The participants mention having the experience that something allowed someone to make intellectual progress by realizing or understanding something new (gaining knowledge, insight, understanding, learning, seeing through things) <i>e.g. "I remember a time when a professor explained to me that sometimes we can know of something even though it has never existed. The example being that of a square. In reality nothing is ever perfectly square, there are always imperfections of squares that we cannot see that makes them never truly exact. Yet we all understand what a square is, having never seen one. To me this was deep thinking and made me question my understanding of shapes and other known quantities such as colors."</i>	19.9%	0.597**
EMOTIONAL EXPERIENCES	The participants mention an emotional experience <i>e.g. "GRIEF. My dad passed away in February of last year, and it kinda feels like that part of my heart will never heal. As a person who has been depressed most her life, I've had my fair share of deep valleys, but grief is more than just being sad—it's a tumultuous nightmare of all the worst emotions."</i>	17.7%	0.600*
*Moved/Touched	The participants mention being moved, touched <i>e.g. "Yes, I have felt connected to the entire world. Sometimes art will move me to tears."</i>	2.2%	0.722

**Table 7** (continued)

CATEGORY	Definition	%	IRR
BONDS	The participants mention social relationships OR caring experiences directed towards others OR sharing, discussing, spending time with people considered to be significant relationships (e.g. lovers, family, friends, pets, a person they admire), moral or altruistic action (solidarity), or they mention group experience (the mere mention of relatives is not enough) <i>e.g. "The love that is felt towards somebody that I have had a romantic interest in and gotten to know really well. It was so intense and deep, so overpowering and made me change how I saw them and many of my relationships as a whole. It changed the meaning of the word "love" in many ways for me."</i>	17.7%	0.632**
SIGNIFICANT LIFE EVENTS	SIGNIFICANT LIFE EVENT: The participants mention significant events in their life <i>e.g. "Graduating college after working hard and struggling through pandemic"</i>	15.5%	0.801**
Birth	The participants mention becoming a parent or adopting (talking about a child or a pet) or a relative becoming a parent <i>e.g. "Watching my sister give birth to my niece was a profound moment, getting to see the miracle of life happening was amazing and something you don't get to see every day."</i>	6.2%	0.974
Wedding	The participants mention a wedding (their own or someone else's) <i>e.g. "my wedding ceremony. it was more meaningful than I expected it to be."</i>	0.4%	1.000
Death/Loss	The participants mention a death, a loss or a grief <i>e.g. "My father was very ill a few months ago, the prospect of his death made me consider existence."</i>	7.1%	0.836
BIG TOPIC	The participants mention debates, interrogations or general insights about difficult questions (about the afterlife, aliens, universe, etc.) that touch on the place of human beings in the universe or human condition OR philosophical or existential reflections <i>e.g. "I can't think anything in specific. The only thing that ever comes close to that is realizing the depth of the universe, and how meaningless our struggles, lives, and planet are in comparison. I had a existential crisis for like a month after that."</i>	13.3%	0.587
SPEECH	The participants mention as deep the content of something someone said or wrote, e.g. someone sharing their personal experience, giving advice, giving a speech, proverbs, quotes (not just having a conversation) <i>e.g. "My personal "profound" moment comes when I read online the phrase "do what others aren't today so that you can accomplish what they are not tomorrow", or something along those lines. It means to do things that people hate but are beneficial so that you can eventually have these benefits available to yourself while they struggle without them"</i>	11.5%	0.631

**Table 7** (continued)

CATEGORY	Definition	%	IRR
INTROSPECTION	The participants mention thinking or understanding something about themselves or about their own life <i>e.g. "I guess I recently had to go to the hospital and had a near-death experience that made me reevaluate my life priorities."</i>	7.5%	0.564
SCIENCE	The participants mention science (in the broadest sense), or scientific books, scientific studies, mathematics, geometry, etc <i>e.g. "Yes, all the time. Reading about discussions about cosmology, astrology, astrophysics and quantum mechanics and our understanding of is something that makes me really think. Our understanding of the universe (or lack thereof, because of its vastness) is something I think about often and sends me down a rabbit hole of existential thinking. It's the subject of our existence and our place in this universe that is so profound"</i>	6.2%	0.768
NEVER	The participants claim that they never had such an experience <i>e.g. "I can't really say I have ever experienced something like that. At least, nothing that I can remember."</i>	4.9%	0.936
SPIRITUALITY	The participants mention a religious experience, their relationship with God, practices such as worship or pray, or religious books <i>e.g. "I frequently have deep conversations or religious experiences"</i>	4.4%	0.843
NATURE	The participants mention nature (experiences related to nature, its beauty) <i>e.g. "I visited the Mariposa valley in California, and it was home to some very large Sequoia trees. Taking a hike among them and feeling their size relative to my own, feeling their age relative to my own, was all very deep and beautiful. Nature is incredible."</i>	4.0%	0.774
DIFFERENT STATES OF CONSCIOUSNESS	The participants mention altered states of consciousness, whether as a result of substance use (alcohol, drugs) or practices such as meditation <i>e.g. "Taking shrooms led to a sense of deep abiding connection with the world around me, seeing the earth as a whole as an interconnected organism that breathes and moves with every individual human being just a tiny spec upon a greater whole."</i>	2.7%	0.886
ACHIEVEMENTS	The participants mention personal success or progress (e.g., realizing dreams) or professional progress (e.g., getting through school, getting a job, doing something important at work), or the fact that a situation was negative and has improved <i>e.g. "Graduating college after working hard and struggling through pandemic"</i>	1.3%	0.525

**Table 7** (continued)

CATEGORY	Definition	%	IRR
OCCUPATION	The participants mention their non-professional occupation (e.g., sport or game) <i>e.g. "Many things can be deep or profound. It often depends on your own understanding, view, or interpretation of an event. A baseball game can be deep if you see things in it that pertain to your life at the time. Reading a book can be a profound experience, even if the writing itself wasn't intended to be. I don't recall any specific event, I just know I've had a few in my lifetime."</i>	0.4%	0.131

**Table 8** Mean and standard deviations for each appraisal (Study 2). For Study 2, we computed Pearson correlations between appraisal ratings and participants' ratings of the 'depth' and 'profundity' appraisals

Appraisal ( <i>the object/situation was...</i> )	M (SD)	Deep	Profound
Deep	6.07 (1.22)	-	0.54***
Profound	6.09 (1.15)	0.54***	-
Complex	5.23 (1.81)	0.33***	0.28***
Difficult to understand	3.45 (2.03)	0.08	0.03
Understood what really mattered in life	5.28 (1.70)	0.42***	0.38***
Understood sthg new and important	5.72 (1.45)	0.34***	0.33***
Had an important message to convey	5.79 (1.40)	0.45***	0.43***
Had a hidden meaning	4.50 (1.93)	0.32***	0.22***
Made me think hard	5.68 (1.49)	0.41***	0.42***
Deeply changed me	5.46 (1.62)	0.48***	0.39***

## 4.6 Results for emotions

After excluding participants who fell into the EXCLUDE and NEVER categories, we computed the means and standard deviations for each of the emotion labels. The four highest-rated emotion labels were being moved ( $M=5.79$ ), being touched ( $M=5.28$ ), awe ( $M=5.28$ ) and feeling enlightened ( $M=5.35$ ). We also computed Pearson correlations to investigate which emotions best predicted 'depth' and 'profundity' appraisals. Feelings of being moved were the best predictors in both cases, followed by feelings of being touched and (in the case of 'profundity' appraisals) feelings of being enlightened. (For a fuller account of the results, see Appendix G in the "[Supplementary Materials](#)".)

## 5 Interlude: are 'depth' and 'profundity' the same thing?

Studies 1 and 2 have allowed us to identify a certain number of dimensions relevant to 'depth' and 'profundity'. However, the results of these studies also raised one question we did not anticipate: are 'depth' and 'profundity' the same concept? We began our research assuming that they were, mainly because the philosophical literature treats them interchangeably, and because other languages, such as French,

only have one term for both constructs (e.g. ‘profond’). Nevertheless, the correlation between participants’ ratings of ‘depth’ and ‘profundity’ was only  $r=0.53$  in Study 2, and several participants commented that they interpreted both terms differently:

Deep = this usually relates more to size and volume. In this case, it is a metaphor (or comparison) that means a subject has a lot of information that you can find by "digging"; Profound = this is used to describe a concept or intellectual experience that is so powerful it changes you, or has the power to.

When a statement is complex and multi-layered. That typically shows an unusual degree of insight into the given subject. Additionally although similar I tend to view deep and profound as being two different concepts. With deep more emphasizing the complex and multi-layered side of things while profound being more about the cutting insight

I think the difference between deep is adverb and profound is a verb I guess [sic]

To get a better grasp at the difference between ‘deep’ and ‘profound’, we looked at both terms and their collocates in the *Corpus of Contemporary American English* (see Reuter & Baumgartner, 2024 for a detailed presentation of this resource). Results for collocates that are nouns are presented in Table 9.

Looking at Table 9, a difference between the two terms is immediately obvious: while ‘profound’ is mainly used to describe *intellectual* and *psychological* phenomena, ‘deep’ is also used to describe *physical* objects (e.g. a hole, a sea, an ocean). To simplify a bit, it could be said that ‘deep’ is polysemous, since it can be used to

**Table 9** List of the 20 most frequent NOUN collocates for ‘deep’ and ‘profound’ in the *Corpus of Contemporary American English*

Deep			Profound		
NOUN	MIT	Frequency	NOUN	MIT	Frequency
breath	7.90	9431	effect	5.19	996
water	3.28	2514	impact	5.80	731
understanding	4.96	1705	change	4.35	699
voice	3.43	1474	implication	6.63	382
space	3.38	1392	sense	3.59	341
foot	3.12	1378	difference	3.58	276
level	2.47	1174	influence	5.02	240
end	2.12	1080	question	2.02	232
south	3.54	1063	experience	2.92	220
sleep	4.86	1051	loss	3.80	199
pocket	4.73	992	consequence	4.68	176
sense	2.39	898	understanding	4.09	154
root	4.69	881	shift	4.98	140
trouble	3.48	824	truth	2.94	136
cut	4.19	819	insight	5.10	133
hole	3.90	808	respect	4.10	127
inch	4.32	791	transformation	5.54	112
sea	3.55	763	knowledge	2.89	107
ocean	4.36	740	statement	2.62	94
meaning	4.03	678	meaning	3.77	94

Column ‘MIT’ indicates the ‘mutual information score’, a measure of the co-occurrence of both terms. Column ‘Frequency’ indicates the number of occurrences in the corpus

describe both physical and intellectual and psychological depth, while ‘profound’ is mainly used to speak of intellectual and psychological profundity. However, what we want to know is whether intellectual and psychological ‘depth’ is distinct from intellectual and psychological ‘profundity’, or whether both terms capture the same features. Since corpora do not distinguish the physical meaning of ‘deep’ from its intellectual and psychological meanings, this is not a question that can properly be addressed using corpus analysis. This is why we decided to conduct a third study, to directly investigate whether participants tend to define ‘depth’ and ‘profundity’ differently.

## 6 Study 3

In Study 3, our goal was to compare participants’ understanding of ‘deep’ and ‘profound’ by having them rate different explanations of the concept based on the categories identified in Studies 1 and 2 and through our literature search.

### 6.1 Materials and methods

290 US residents recruited through Prolific Academic completed our survey. After exclusion based on two attention checks, we were left with 286 participants (144 men, 138 women, 4 others  $M_{\text{age}}=36.51$ ,  $SD_{\text{age}}=12.97$ ). Participants were randomly assigned to one of two conditions: *depth* ( $N=139$ ) and *profundity* ( $N=147$ ). For participants in the *depth* condition, all questions were phrased using ‘deep’. For participants in the *profundity* condition, all questions were phrased using ‘profound’.

First, participants were presented with 12 explanations of what it means for something to be ‘deep’ or ‘profound’ (depending on the condition). Explanations were based both on the categories identified in Studies 1 and 2 and the categories identified through our literature search (e.g. “Something deep/profound is something that has a meaning, a message to convey”). The full list of explanation can be found in Table 10. Participants were asked to *rate* the explanation on a scale from -3=“A very bad definition” to 3=“A very good definition”. (Participants were asked about “definitions” rather than “explanations” because test subjects found the idea of “explaining a term” less colloquial and natural than the idea of “defining a term”. Results of an additional study presented in Appendix L in "[Supplementary Materials](#)" suggest that participants interpret “definitions” and “explanations” of terms in roughly the same way.)

Second, participants were presented a second time with the same explanation and asked to pick the one that constituted “the *best* definition.”

Third, participants were presented a list of 12 features (based on the 12 explanations) and asked to indicate whether each feature was *necessary* (or *needed*) for something to be ‘deep’ or ‘profound’ (e.g. “For something to be deep/profound, it needs to have a meaning, a message to convey”). For each feature, participants had to select either “TRUE (Necessary)” or “FALSE (Not necessary)”.

**Table 10** Participants’ answers to Study 3 for all three questions (definition ratings, best definition, and necessary features) for the *depth* and *profundity* conditions

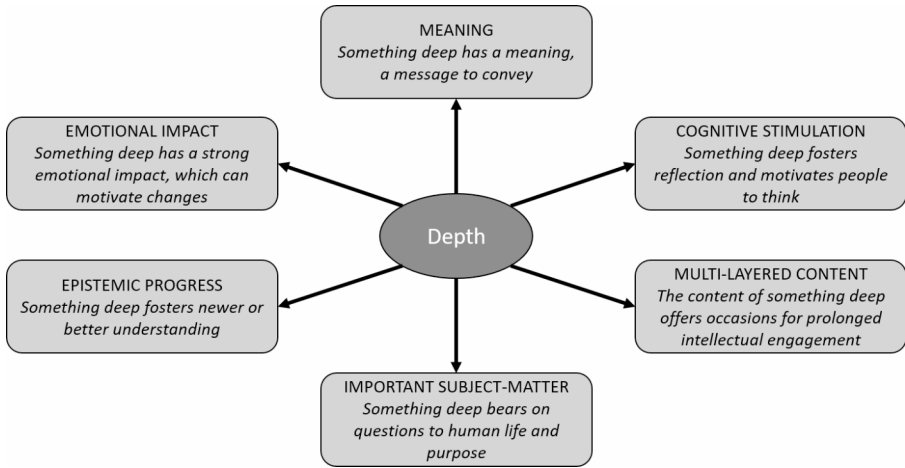
Definition	Rating		Best		Necessary	
	Deep	Profound	Deep	Profound	Deep	Profound
Something that has a meaning, a message to convey	<i>1.58</i> <i>(1.30)</i>	<i>1.43</i> (1.19)	6.5%	4.1%	84.9%	82.3%
Something that pushes people to think harder, to reflect	<i>1.91</i> <i>(1.07)</i>	<i>1.56*</i> <i>(1.39)</i>	<b>15.1%</b>	<b>16.3%</b>	82.7%	82.3%
Something difficult to understand, that requires a lot of efforts to be grasped	<i>0.80</i> <i>(1.57)</i>	<i>-0.10***</i> <i>(1.57)</i>	6.5%	1.4%	40.3%	19.0%***
Something rich and complex, with a lot to unpack	<i>1.90</i> <i>(1.23)</i>	<i>1.40**</i> <i>(1.32)</i>	<b>22.3%</b>	8.2%	77.0%	56.5%***
Something the true meaning and significance of which is hidden	<i>0.73</i> <i>(1.62)</i>	<i>0.12**</i> <i>(1.69)</i>	6.5%	0.6%	54.7%	33.3%***
Something that provides new insight and understanding about its subject-matter	<i>1.50</i> <i>(1.12)</i>	<i>1.56</i> (1.18)	9.4%	<b>20.4%</b>	65.5%	67.3%
Something that bears on important matters and questions regarding human life and human condition	<i>1.55</i> <i>(1.23)</i>	<i>1.46</i> (1.34)	<b>17.3%</b>	<b>15.0%</b>	64.0%	53.1%
Something that bear on matters relevant to one's life goals, values and ideals	<i>0.76</i> <i>(1.49)</i>	<i>0.72</i> (1.48)	2.9%	3.4%	39.6%	44.9%
Something that has an impact on people and motivates them to change	<i>0.91</i> <i>(1.27)</i>	<i>1.29*</i> (1.37)	2.9%	6.1%	40.3%	48.3%
Something that provides an unifying explanation to many different phenomena	<i>0.24</i> <i>(1.47)</i>	<i>0.60*</i> (1.51)	2.2%	2.7%	27.3%	24.5%
Something that has a strong emotional impact (for example, because it is moving or touching)	<i>1.64</i> <i>(1.25)</i>	<i>1.51</i> (1.44)	8.6%	<b>21.1%</b>	61.2%	63.3%
Something fun and amusing, which makes people laugh	<i>-1.55</i> <i>(1.59)</i>	<i>-1.51</i> (1.60)	0.0%	0.7%	7.2%	5.4%

Results in italics are those significantly above the midpoint (0 for the 'rating' column, 50% for the other columns). For the 'rating' column, \* indicates significant differences between the two conditions, as tested using Welch t-tests. For the 'necessary' column, \* indicates significant differences between the two conditions, as tested using Chi-square tests. \**p*<0.05, \*\**p*<0.01, \*\*\*<0.001

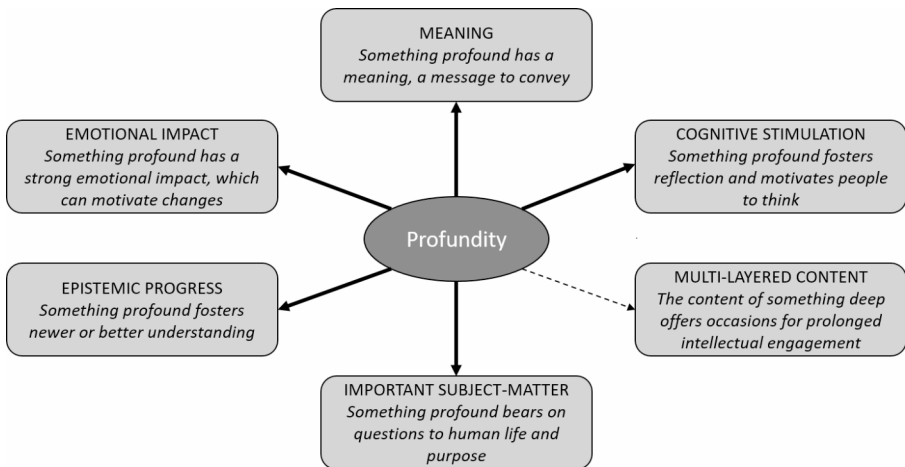
Results in bold indicate explanations considered as "best" by more than 10% of participants

### 6.2 Results

Results for all three questions are presented for each condition in Table 10. Answers to the 'rating' and 'necessary' questions suggest that people’s interpretation of ‘deep’ does not differ much on the following features: whether something conveys a message, motivates people to think, is about important subject matters that touch on the human condition, provides insight, and elicits powerful emotion response. However, there were significant and systematic differences between the two conditions when it came to richness, complexity and hidden meaning: those features were more closely associated with ‘depth’ compared to ‘profundity’. As a result, the ‘best’ explanations for depth focused on the intrinsic features of the object (in particular its richness)



**Fig. 1** A representation of the ordinary concept of ‘depth’ as a prototype concept. Bolded arrows indicate components that were deemed necessary by a majority of participants in Study 3



**Fig. 2** A representation of the ordinary concept of ‘profundity’ as a prototype concept. Bolded arrows indicate components that were deemed necessary by a majority of participants in Study 3, dashed arrows those that were not

while the ‘best’ explanations for profundity focused on its psychological impact on the subject (emotional reactions and feeling of insight). In both cases, participants emphasized the object’s ability to elicit reflection and the presence of an important subject matter.

These results can thus be summarized in the following way: “depth” and “profundity” share many common features, but depth has additional features, as it requires the object to be rich in content, in a way that fosters exploration and reflection beyond the first impression (Figs. 1, 2).

## 7 Conclusion

### 7.1 Summary of the results

In three studies, we combined qualitative and quantitative methodologies to investigate the ordinary concepts of ‘depth’ and ‘profundity’. As we have seen in the Introduction, philosophical analyses of profundity cluster into five main components, namely: (i) explanatory depth (Hazlitt, 1826/1930; Kekes, 1990), (ii) important subject-matter (Kekes, 1990; Kivy, 1990), (iii) emotional impact (Cova et al., 2018; Kekes, 1990), (iv) insight or new understanding (Savile, 1982), and (v) cognitive challenge (Nanay, 2021). Our results confirm the relevance of components (ii), (iii) and (iv) but speak against the relevance of cluster (i) and (v).

Indeed, the results of our studies suggest that ‘depth’ and ‘profundity’ share many key features:

1. In line with the idea that depth and profundity depends on something’s subject-matter, the first important component is the presence of a *meaning or message*. For the explanation question, the MEANING category was among the most frequently cited in Studies 1 and 2. In Study 2, the appraisal “had an important message to convey” was among the best predictors of the ‘depth’ and ‘profundity’ appraisals. And, in Study 3, more than 80% of participants considered that the presence of a message was necessary for both ‘depth’ and ‘profundity’. This means that something deep *conveys a certain message*.
2. The second important component is *cognitive stimulation*. In Studies 1 and 2, the THINKING category was among the most frequently cited. Moreover, in Study 2, the appraisal “makes me think hard” was among the best predictors of the ‘depth’ and ‘profundity’ appraisals. Finally, in Study 3, more than 80% of participants answered that something ‘deep’ or ‘profound’ is something that pushes people to reflect and think. As such, it seems that something ‘deep’ is something that stimulates reflection. Interestingly, this component is not frequently mentioned in the literature, though the idea that depth should be cognitively challenging comes close.
3. The third component is *epistemic progress*. In Studies 1 and 2, participants mentioned EPISTEMIC VALUES as a reason to find something profound and, for the example question, INTELLECTUAL PROGRESS was often cited as an instance of something deep. In Study 2, ‘depth’ and ‘profundity’ ratings significantly correlated with appraisals involving the participants “understanding” something (and, looking at emotions, feelings of being enlightened were among the best predictors of ‘depth’ and ‘profundity’ appraisals). Finally, in Study 3, two thirds of participants answered that something ‘deep’ or ‘profound’ needed to provide some insight and understanding into its subject matter.

Thus, something deep must not only lead people to engage in cognitive activity: this activity must foster new or better understanding of a certain subject matter. This idea that “understanding” is central to depth was already present in Hazlitt or Kekes’ approach, as well as in Savile’s suggestion that deep art brings new understanding.

However Hazlitt and Kekes tried to capture this idea by imposing some kind of generality constraint: something deep fosters understanding by reducing several phenomena to a moral general principle. This generality constraint appears nowhere in the responses we collected, and it might not be the best way to capture the epistemic component of ‘depth’. This is shown by the fact that, in Study 3, only one quarter of participants answered that something ‘deep’ or ‘profound’ required to provide an unifying explanation for different phenomena.

4. This leads us to the fourth component: *subject-matter*. In response to the explanation question, participants in Studies 1 and 2 mentioned things that MATTERED, that had a PERSONAL connection to them, or that bear on BIG TOPICS, connected to human condition and the place of humans in the universe. In Study 2, ‘depth’ and ‘profundity’ ratings were significantly predicted by appraisals that include references to what is ‘important’ and what ‘really matters in life’. And in Study 3, more than half of the participants answered that something ‘deep’ or ‘profound’ had to touch on important matters and questions regarding human life and human condition. Moreover, explanations in terms of important subject matters were among the “best definitions” for both ‘depth’ and ‘profundity’ in Study 3. This suggests that participants consider that something deep typically bears on matters important to the ends of human life, as suggested by Kekes and Kiviy.

This might explain why participants are more likely to cite ART rather than SCIENCE as instances of something deep: though SCIENCE can fulfill the three previous criteria (meaning, cognitive stimulation, and epistemic progress), it is much less likely to fulfill this one. Thus, most participants’ mentions of SCIENCE were accompanied by some realizations about their life or human condition in general. For example:

#23 - Reading about discussions about cosmology, astrology, astrophysics and quantum mechanics and our understanding of is something that makes me really think. Our understanding of the universe (or lack thereof, because of its vastness) is something I think about often and sends me down a rabbit hole of existential thinking. It's the subject of our existence and our place in this universe that is so profound.

#54 - One thing I saw was documentary about black holes, and how in hundreds of trillions of years the universe will be devoid of life and stars and only the black holes will remain, it blew my mind thinking about how short a human life when compared to scale of the universe. the fact we are no even blink in the long long history that is universe to me is, profound in some ways.

5. The subject matter of depth and profundity can probably explain their fifth and final component: *emotional impact*. Indeed, the FEEL category was among the most often-cited categories for the explanation question in both Studies 1 and 2. Explanations in terms of emotional impact were also among the “best definitions” for ‘profound’ in Study 3, and more than 60% of participants considered that emotional impact was a necessary condition for both ‘depth’ and

‘profundity’ Moreover, our data confirmed a close connection between feelings of being moved/touched and the experience of depth: they were often mentioned by participants (Study 1), they correlated highly with ‘depth’ and ‘profundity’ appraisals (Study 2), and participants who reported having never experienced ‘depth’ scored lower on the Geneva Sentimentality Scale (see "[Supplementary Materials](#)").

That feelings of being moved or touched should play a central role in the experience of depth is no surprise given the characterization we just gave of depth. Indeed, we characterized something deep as something that fosters reflection and understanding about topics central to one’s life. But, as we saw in the introduction, it has been claimed that feelings being moved or touched are elicited by ‘core values’, i.e. values that are central to one’s life. On this account of this emotion, it is unsurprising that there should be a close link between being moved and depth.

The importance of feelings of being moved (and related emotions) in the experience of depth and profundity might partly explain Nanay’s observation that profundity is less likely to occur in literary genres like comedy or thriller, as these genres are more likely to trigger different emotions (respectively: laughter and fear). That does not mean that comedies cannot be deep or profound in the sense that they display other components of depth and profundity (such as leading readers to reflect on important subject-matters and thereby fostering speculation). But it might explain why these genres are less likely to *feel* deep and profound, as they might be lacking an important part of the experiential component of depth and profundity.

In connection with the emotional impact, some participants also mentioned a *motivational impact*. In Studies 1 and 2, an important share of participants mentioned how depth can CHANGE someone, which contrasted with superficiality which had NO IMPACT. In Study 2, feelings of motivation were among the highest-rated emotions, and significantly correlated with ‘depth’ and ‘profundity’ ratings. Moreover, the appraisal “deeply changed me” was among the best predictors for ‘depth’ and ‘profundity’ ratings. And, in Study 3, around 40% of participants answered that motivating to change was a necessary component of ‘depth’ and ‘profundity’.

This component can be seen as an effect of emotional impact: emotions are by their very nature motivating. If something deep is something the content of which leads one to reflect and gain new understanding about something important to one’s life, then we should expect this newfound enlightenment and the emotions that accompany it to have a certain impact on one’s life and behavior.

So far, we have mentioned the components common to ‘depth’ and ‘profundity’. However, the results of Study 3 suggest that ‘depth’ has certain features that it doesn’t share with ‘profundity’. The most prominent one is that something deep has to be ‘rich’, with a lot to unpack (77% of our participants considered it to be a necessary feature in Study 3). Similarly, participants were more likely to consider that the presence of a hidden meaning is necessary for ‘depth’, compared to ‘profundity’. The basic idea common to these two features is that something ‘deep’ has more to offer than what is immediately apparent on the surface. It must have enough content to sustain a prolonged cognitive engagement.

Does it mean that something deep must defy interpretation and be difficult to understand, in the way Nanay (2021) stresses it? Not necessarily: in Study 2, there was no significant correlation between ‘depth’ and ‘profundity’ ratings and whether the remembered instance was “difficult to understand”. Moreover, “difficult to understand” was the lowest-rated appraisal, and the only one below the midpoint. And in Study 3, the explanation of depth in terms of difficulty was among the lowest rated, while less than half of participants considered difficulty to be necessary for ‘depth’. Thus, against Nanay, it seems that difficulty is far from being the main defining trait of ‘depth’.

Still, the COMPLEX category was often cited in both Studies 1 and 2, and the appraisal “complex” was a significant predictor of ‘depth’ and ‘profundity’ ratings in Study 2. Moreover, in Study 3, the “best definition” of depth was the one in terms of richness and complexity. How are we to explain this apparent inconsistency?

The answer is the following: during our coding, it became apparent to us that participants used terms such as “complex” in two different senses. On the one hand, “complex” can mean “difficult to understand”, “intellectually challenging”. This is the sense Nanay emphasized. However, it can also mean something like “multi-layered” or “rich of content”. In this second sense, something complex is something that has a lot of content to offer, numerous facets to explore.<sup>5</sup> To distinguish both senses, we created the RICHNESS category alongside the COMPLEX one, but were still forced to code participants who simply mentioned complexity without explaining what they meant by that in the COMPLEX category.

Thus, it seems to us that our results are best explained by considering that participants take complexity in the second sense (richness), but not in the first sense (difficulty) to be crucially relevant to ‘depth’. Again, this is in line with the idea that something deep should offer ground for prolonged engagement—something that an object with a lot of content is more likely to offer.

Thus, based on these considerations, we can offer a representation of the folk concept of depth as if they were prototype concepts, by bringing together the main features people associate to ‘depth’ and ‘profundity’ to create an image of what it would look like to instantiate all the core component features of ‘depth’ and ‘profundity’ (see Figs. 1 and 2).

## 7.2 Limitations and future directions

However, this representation is tentative as our proposal suffers from limitations that should be taken into account in further research. For example, our investigation was limited to the English language and to United States residents. But “depth” and “profundity” have equivalents in other languages, such as French (“profond”) or German (“tief”). It is not clear how our account would fare when applied to other languages. Moreover, our experimental approach mainly relies on components identified by (i) past philosophical accounts, and (ii) participants’ open-ended answers. As such, we might have missed some components that elude either. Finally, our exploratory

<sup>5</sup>As our colleague Angela Abatista puts it: what is *complex* is not necessarily *complicated*.

account does not yet settle the question of what structure the concepts of interest have.

Still, our results already provide enough ground to assess existing philosophical accounts of ‘depth’ and ‘profundity’ (to the extent that these accounts seek to capture and systematize the same kind of experience and evaluation that are expressed by the ordinary concepts). As we discussed, our results suggest that accounts in terms of explanatory depth (such as Hazlitt’s) or difficulty (such as Nanay’s) stray too far from the ordinary concept. On the contrary, our results suggest that accounts that focus on the presence of an important subject matter, on the ability to bring new insight and understanding, and on the emotional impact are closer to the ordinary concept. Our results also suggest features that have not been emphasized yet, such as the ability to lead people to think and reflect and, in the case of ‘depth’, the presence of rich content and multi-layered content that offers renewed opportunities for intellectual engagement.

Finally, our results suggest that the ordinary concepts of ‘depth’ and ‘profundity’ bring together many different features. As a consequence, a philosophical analysis of these concepts might choose to break down these concepts in a variety of simpler concepts, rather than trying to capture this vagueness. For example, one could choose to distinguish ‘deep’ as ‘conveying a message about important subject matters’ from ‘deep’ as ‘rich enough to encourage and foster reflection’ and ‘deep’ as ‘able to provide insight that triggers emotional and motivational changes’. Making such fine-grained distinctions might help answering long-standing puzzles. For example, in the case of pure instrumental music, which we mentioned in the introduction, it could be argued that pure instrumental music cannot be ‘deep’ in the first sense (as it doesn’t have a subject matter) but that it can still be ‘deep’ in the second and third sense, as some pieces of pure instrumental music might eventually have the power to put people in a reflective mood and thereby lead to new insight accompanied by emotional experiences.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s11229-024-04786-7>.

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## Completing interest

The authors report there are no competing interests to declare.

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