### **SYMPOSIUM**

# **Vivid Representations and Their Effects**

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Abstract Sinhababu's Humean Nature contains many interesting and important ideas, but in this short commentary I focus on the idea of vivid representations. Sinhababu inherits his idea of vivid representations from Hume's discussions, in particular his discussion of calm and violent passions. I am sympathetic to the idea of developing Hume's insight that has been largely neglected by philosophers. I believe that Sinhababu and Hume are on the right track. What I do in this short commentary is to raise some questions about the details. The aim of asking these questions is not to challenge Sinhababu's proposal (at least his main ideas), but rather to point at some interesting issues arising out of his proposal. The questions are about (1) the nature of vividness, (2) the effects of vivid representations, and (3) Sinhababu's account of alief cases.

KEYWORDS: Vivid Representation; Desire; Procrastination; Akrasia; Alief

Riassunto Le rappresentazioni vivide e i loro effetti – Humean Nature di Neil Sinhababu contiene molte idee interessanti e importanti; tuttavia in questo breve commento intendo concentrarmi sulle rappresentazioni vivide. Sinhababu eredita l'idea di rappresentazione vivida dalle analisi di Hume, in particolare dall'analisi delle passioni calme e violente. Condivido l'intento di sviluppare questa intuizione di Hume, ampiamente trascurata dai filosofi. Credo che Sinhababu e Hume siano sulla strada giusta. Quanto intendo fare in questo breve commento è sollevare alcune questioni di dettaglio, il cui fine non è quello di mettere in discussione la proposta di Sinhababu (quantomeno nei suoi intenti principali), quanto piuttosto di indicare alcuni punti interessanti che emergono dalla sua proposta. Le mie questioni investono (1) la natura della vividezza, (2) gli effetti delle rappresentazioni vivide e (3) la descrizione di Sinhababu dei casi di alief. Parole Chiave: Rappresentazione vivida; Desiderio; Differimento; Akrasia; Alief



SINHABABU'S *HUMEAN NATURE* CONTAINS many interesting and important ideas, but in this short commentary I focus on the idea of vivid representations and their effects on mind and behavior. The following idea plays a crucial role in Sinhababu's discussions in, among other places, Chapter 7 and 8.

Amplification by Vividness: The effects of desire that E increase proportionally with the vividness of sensory or imaginative representations of things we associate with E.<sup>1</sup>

Sinhababu argues that this idea helps us

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to make sense of a wide range of puzzling phenomena, such as procrastination, akrasia, and the Skywalk experience. The crucial idea in Sinhababu's accounts of these phenomena is that a vivid representation of an object increases the effects of relevant desires, motivating the person to behave and feel in a particular way toward the object. So, for instance, the vivid sensory representation of Facebook increases the effects of my desire for Facebook, which explains why I spend so much time on Facebook rather than on the book manuscript that I really want to work on.

Sinhababu inherits this idea from Hume's discussions, in particular his discussion of calm and violent passions. I am sympathetic to the idea of developing Hume's insight that has been largely neglected by philosophers (with some exceptions, such as T.S. Gendler).2 I believe that Sinhababu and Hume are on the right track. What I do in this short commentary is to raise some questions about the details. The aim of asking these questions is not to challenge Sinhababu's proposal (at least his main ideas), but rather to point at some interesting issues arising out of his proposal. The questions are about (1) the nature of vividness, (2) the effects of vivid representations, and (3) Sinhababu's account of alief cases.

#### The nature of vividness

The first question is about what vividness is. Sinhababu does not say much about the nature of vividness, which is the key factor of *Amplification by Vividness*. He does provide some examples:

The passion that motivates me to get vaccinated is typically a calm one. But if I'm presented with gruesome images of the disease I'm being vaccinated against, I'll be more motivated to get vaccinated, and I'll feel more anxious about not going

while I'm most violently averse to being pricked by the doctor's needle moments before it happens, my aversions to being pricked again in twenty years is much calmer, since I don't represent the distant future as vividly

I may run to the pool eagerly on a warm summer's day, thinking of the fun of swimming with my friends. But when I'm about to leap in and my body has a foretaste of the initial bracing cold, I may hesitate, and have to will myself to jump.<sup>3</sup>

These examples help us to guess what Sinhababu has in mind when he talks about vividness or vivid representations. But the idea of vividness is so central to Sinhababu's discussions that it would be reasonable to ask for more precise and informative characterizations.

It would be useful to begin with Hume, from whom Sinhababu takes the ideas. Hume actually says a lot about what he calls "force", "vivacity", "liveliness", etc. Hume's discussions suggest that these terms refer to a particular kind of phenomenal property (although there are some exegetical disputes in particular when these terms are used in the definition of beliefs).4 Hume uses these terms in the very beginning of the book 1 of his Treatise where he discusses the distinction between impressions (including sensory representations) and ideas (including imaginative representations). Hume argues that «the difference betwixt [impressions and ideas] consists in the degrees of force and liveliness with which they strike upon the mind».5 Impressions are more forceful, vivacious, lively, etc. than ideas, although there are some exceptional cases; «in sleep, in a fever, in madness, or in any very violent emotions of soul, our ideas may approach to our impression»; «it sometimes happens, that our impressions are so faint and low, that we cannot distinguish them from our ideas».6

A view one might find in Hume, then, is that vividness is a phenomenal property that distinguishes impressions from ideas and, in particular, sensory representations from imaginative ones in such a way that typically the former are more vivid than the latter. Let us call this "Hypothesis 1". According to Hypothesis 1, for instance, the sensory representation of Facebook is more vivid than the imaginative representation of it.

Is Hypothesis 1 consistent with Sinhababu's claims? I am not sure about this. Amplification by Vividness suggests that some imaginative representations can be vivid, at least more vivid than other imaginative representations. One might think that this contradicts Hypothesis 1. But not necessarily. This idea does not contradict Hypothesis 1 for example when the the vivid imaginative representations are still less vivid than sensory ones. Amplification by Vividness might also suggests that some sensory representations are not very vivid, at least less vivid than other sensory representations. For instance, the gruesome images of a disease might be more vivid than the sentences in a page of a book describing the harmful consequences of the disease. Again, one might think that this contradicts Hypothesis 1. But not necessarily. This idea does not contradict Hypothesis 1 for example when the non-vivid sensory representations are still more vivid than imaginative ones (e.g., the sensory representation of the page of the book is more vivid than the imaginative representation of the gruesome images).

An interesting issue is whether Sinhababu allows for the possibility that some imaginative representations are as vivid as, and possibly more vivid than, some sensory representations, which does contradict Hypothesis 1. Maybe he does allow for the possibility. Referring to O'Craven and Kanwisher,7 he emphasizes the similarities between sensory and imaginative representations; «both the Hedonic Aspect and Amplification by Vividness respond to "vivid sensory or imaginative representation". These representations are neurally realized in very similar ways, suggesting that they have similar effects».8 The idea here seems to be that vividness is what is shared between sensory and imaginative representations rather than what distinguishes them.

What, then, is vividness if it is something that is shared between sensory and imaginative representations? A hypothesis would be that vividness has something to do with visual modality (and perhaps other sensory modalities). Both sensory and imaginative representations have visual modality and hence both are vivid, according to this hypothesis. Let us call this "Hypothesis 2". According to Hypothesis 2, the sensory representation of Facebook and the imaginative representation of it are both visual and vivid. Is Hypothesis 2 really consistent with Sinhababu's view? A problem is that Hypothesis 2 might not be consistent with the idea, which is crucial in Amplification by Vividness, that vividness comes in degrees. It is far from obvious, for example, that visual modality comes in degrees. Are some sensory representations more visual than other sensory ones? Or, are some sensory representations more visual than some imaginative ones?

An alternative hypothesis comes from another discussion by Hume, the one Sinhababu actually refers to when introducing *Amplification by Vividness*. Here is Sinhababu's summary of the discussion.

Themistocles thought of a plan to give Athens naval supremacy by launching a secret mission to burn the ships of all the other Greek kingdoms, which were gathered in a nearby port. Since those kingdoms would learn of the plan and take precautions if he expressed it openly, he only told the Athenians that he had a secret plan that would benefit them greatly. The Athenians had him explain the plan to Aristides alone, whose judgment they completely trusted. Aristides reported back to the Athenians that the plan would be greatly advantageous to Athens but terribly unjust. Upon hearing this, the Athenians unanimously voted against the plan.9

The reason why the proposed advantage did not convince Athenians is that «[t]he notion of advantage, being a very general idea,

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isn't conducive to vivid imagining». 10 In Hume's own words, «a general idea [...] is commonly more obscure» and «the more general and universal any of our ideas are, the less influence they have upon the imagination». This example suggests another hypothesis, "Hypothesis 3", according to which vividness has something to do with particularity. The notion of advantage is too general. What is needed in order to convince Athenians is to give them more details about the particular advantage he was talking about.12 Does Hypothesis 3 capture Sinhababu's notion of vividness? In his discussion of procrastination, Sinhababu argues that procrastination occurs for example when Facebook is represented more vividly than the book manuscript that I am working on. But is Facebook more particular than the book manuscript? In what sense? Certainly, the name "Facebook" refers to a particular social networking service, but "the book manuscript" also refers to a particular book manuscript.

Here is another problem, which is related to Descartes' famous discussion of a chiliagon in his *Meditations*. A particular chiliagon is no less particular than a particular triangle, but it is difficult for us to vividly imagine the former:

When I imagine a triangle, for example, I do not merely understand that it is a figure bounded by three lines, but at the same time I also see the three lines with my mind's eye as if they were present before me; and this is what I call imagining. But if I want to think of a chiliagon, although I understand that it is a figure consisting of a thousand sides just as well as I understand the triangle to be a three-sided figure, I do not in the same way imagine the thousand sides or see them as if they were present before me.<sup>13</sup>

Hypothesis 3 might not be an independent hypothesis in its own light. Perhaps Hypothesis 3 is actually reducible into Hypothesis 2. Vividness has something to do with the

visual modality, and and the reason why general ideas are not conducive to vivid imagining is that they are unlikely to be represented visually. For instance, the general idea of advantage cannot be visually represented. Particular ideas are more likely to be visually represented than general ideas. But it is not the case that all particular ideas can be visually represented. A particular triangle can be visually represented, but a particular chiliagon cannot be, which might explain why the latter is not conducive to vivid imagining.

Another idea, which might be worth considering, would be that vividness has something to do with what neuroscientists and psychologists call "salience", "incentive salience", or "motivational salience". For instance, Berridge and Robinson write:

Incentive salience has both perceptual and motivational features. According to our hypothesis, it transforms the brain's neural representations of conditioned stimuli, converting an event or stimulus from a neutral 'cold' representation (mere information) into an attractive and 'wanted' incentive that can 'grab attention'. But incentive salience is not merely perceptual salience. It is also motivational, and is an essential component of the larger process of reward. Its attribution transforms the neural representation of a stimulus into an object of attraction that animals will work to acquire. It can also make a rewarded response the thing rewarded.<sup>14</sup>

The two aspects of salience, namely perceptual aspects (objects look "attractive" and "grab attention") and motivational aspects ("animals will work acquire" the objects), might correspond to the two aspects of vividness Sinhababu talks about, namely the perceived vividness and its motivational consequences.

# The effects of vivid representations

The second question is about what vivid-

ness does. According to Amplification by Vividness, vivid representations increase the effects of desires. For instance, a vivid sensory representation of Facebook increases the effects of desire for Facebook, which explains procrastination.

I waste a lot of time on the internet. At noon, I plan to spend the evening working on my book rather than goofing around on Facebook. This book is fun to write, so wasting time isn't even that much more fun. At that time, representations of both goals and temptations have equal low vividness. My preference for working on the book tonight, under these conditions, testifies to my stronger desire to do it. But when the evening comes and I'm at the computer, the charms of the internet are more vividly represented to me than the benefits of work.<sup>15</sup>

This account of procrastination is certainly attractive, but it might not be the whole story. In particular, Sinhababu does not explain why Facebook becomes more vivid than the book manuscript. Both are are particular objects that are visually represented. In virtue of what Facebook is more vivid than the book manuscript? This is even puzzling given The Attentional Aspect which says that «desires that E disposes one to attend to things one associated with E, increasing with the desire's strength and the strength of the association». 16 In this case the desire to work on the book manuscript is said to be stronger than the desire for Facebook, which predicts, with The Attentional Aspect, that attention will be paid to the book manuscript rather than to Facebook.

In any case, my second question is about the strength of desires. Sinhababu maintains that vividness increases the effects of a desire but this does not mean that the it increases the strength of it. For instance, when Facebook is vividly represented, the vividness increases the effects of the desire for Facebook but it does not make the desire stronger, in particular, stronger than competing desires such as the desire to work on the book manu-

script. This idea seems to be crucial for Sinhababu, in particular in the context of explaining irrational behaviors. Explaining an irrational behavior does not only require explaining why the person behaves in the particular way. It also requires explaining why behaving in that way is irrational. Suppose my obsession with Facebook is irrational. Explaining my irrational obsession with Facebook does not just require explaining why I spend so much time on Facebook. It also requires explaining why my spending so much time on Facebook is irrational. Amplification by Vividness does explain why I spend so much time on Facebook in terms of the vivid sensory representation of Facebook and its effects on behavior. It explains why my spending so much time on Facebook is irrational in terms of the fact that, although the effects of my desire for Facebook are increased, the desire itself is not strong, in particular not stronger than competing desires such as the desire to work on the book manuscript. I am irrational because I am behaving against my stronger desires.

However, this idea that vividness increases the effects of a desire without increasing its strength rests upon the assumption that the strength of a desire is independent of its effects, which is potentially problematic. According to functionalism, for instance, mental states are defined in terms of their causal roles. which includes their effects. Desires and beliefs are distinguished from each other in terms of their causal roles; desires play desirelike causal roles, and beliefs play belief-like causal roles. Functionalists might also think that the strength of mental states is defined in terms of their causal roles. For instance, a strong desire and a weak desire are distinguished from each other in terms of their causal roles. Strong desires have strong effects, and weak desires have weak effects. From such a functionalist point of view, it is not possible that vividness increases the effects of a desire without increasing its strength.

Perhaps Sinhababu is not a functionalist, at least when it comes to the strength of de78 Miyazono

sires. Sinhababu gives an analogy to illustrate his commitments. We can truly say that "Usain Bolt is faster than Jerry Fodor" even when Bolt is asleep and Fodor is afoot. Being fast is a dispositional property which is temporarily masked when Bolt is asleep. Similarly, we can truly say that "my desire to work on the book manuscript is stronger than my desire for Facebook" even when I spend so much time on Facebook which is vividly represented. Having a strong desire to work on the book manuscript is a dispositional property which is temporarily masked when Facebook is vividly represented. But is this analogy really good? Certainly it is counterintuitive to say that temporarily Bolt is not faster than, or is slower than, Fodor when Bolt is asleep and Fodor is afoot. But it is much less counterintuitive to say that temporarily the desire to work on the book manuscript is not stronger than, or is weaker than, the desire for Facebook when Facebook is vividly represented. After all, desires often get stronger or weaker temporarily depending on contexts and situations. For instance, I have a strong desire for good beer, perhaps stronger than many other desires I have. But this desire gets weaker temporarily after drinking more than 3 or 4 pints. Temporarily I am in the state in which I do not want to drink any more.

In the quote below, Sinhababu seems to be talking about two different ideas about desire strength.

To answer the objection, we should use the different measures of desire strength that our different theoretical purposes require, considering the effects of *Amplification by Vividness* when explaining motivation but ignoring them when assessing practical rationality. When theorizing about what people actually do, defenders of the Humean Theory should acknowledge how vividness amplifies the motivational effect of desires. Then they can explain why people pursue vividly represented temptation. But Humeans about practical rationality

should just work with desire strength understood dispositionally, without considering how vividness amplifies desire's motivational effects. Even if the vividness of a temptation makes someone pursue it, it doesn't make such pursuit rational.<sup>17</sup>

Unfortunately, this quote is not very clear. One one hand, Sinhababu talks about "two measures of desire strength", which might suggest that there are two different kinds of desire strength; the one that is influenced by vividness and the one that is not. One the other hand, he also says that vividness amplifies the motivational effect of desires (not that it amplifies the strength of desires), which suggests that there is only one kind of desire strength; the one that is not influenced by vividness.

## The alief cases

The third question is about Gendler's alief. Sinhababu is very skeptical about alief because of the lack of informative characterizations of alief. But I am less skeptical about alief. At least, I believe that Gendler provides plenty of informative cases including the famous Skywalk case<sup>18</sup> and shows how we can make sense of the puzzling features of the cases in terms of what people alieve. And, as Sinhababu admits, Gendler's characterizations are at least informative enough for some philosophers to appeal to aliefs in different philosophical discussions.

It is true that Gendler does not provide a very clear definition of alief. But not having a very clear definition of a mental state does not give a good reason to deny the existence of the state. We are committed to the existence of beliefs, desires, and other mental states not because they are clearly defined but because they are explanatorily useful. Functionalists, for example, might define beliefs as the mental states that play belief-like causal roles. But this is far from a very clear definition of belief because, as Schwitzgebel points out, "belief-like causal roles" are not

very clearly defined;

[p]hilosophers frequently endorse functionalism about belief without even briefly sketching out the various particular functional relationships that are supposed to be involved.<sup>19</sup>

Sinhababu seems to think that he provides a clear characterization, if not a definition, of desire:

I hope that Chapter 2's account of desire shows how to characterize mental states so that they can provide interesting explanations. It doesn't just say that desire has some unspecified motivational, affective, and attentional effects. It tells you which activating phenomena will make a desire with a particular content produce particular effects. This makes clear how desire affects thought, feeling, and action.<sup>20</sup>

But it should also be noted that Sinhababu does not provide a very clear characterization of vividness in terms of which he explains how desire works.

But the lack of the clear characterization of alief is not Sinhababu's main point. The main point is rather that alief is explanatorily redundant because Gendler's cases can be explained without introducing alief. In particular, the Skywalk case is explained by *Amplification by Vividness*, which we have independent reasons to accept, for example in the context of explaining other phenomena such as procrastination and akrasia. This is certainly an important challenge for Gendler.

Sinhababu's basic idea is that the effects of the desire not to fall is amplified by the vivid representations of the Skywalk. The person vividly sees the real Skywalk perhaps after a long drive, and the vivid representation increases the effects of the desire not to fall:

When you're about to step out onto the Skywalk and you see the ground below, the sudden very vivid representation of extreme heights amplifies your aversion to falling to your death. This representation wasn't vivid earlier, so you were able to make travel plans, drive, and pay the entry fee without being paralyzed by fear. [...] We can understand hesitation in stepping out onto the Skywalk in terms of the motivational effects of an extremely low credence combined with an intense aversion when we have incredibly vivid representations of its object.<sup>21</sup>

There are some worries about this account. Sinhababu argues in Chapter 2 that a vivid representation might fail to increase the effects of a desire because the amplified motivation is overwhelmed by some other beliefs:

[v]ivid sensations can eventually reduce motivation by producing beliefs – for example, when someone wants to eat a delicious-looking fruit but then sees another person become sick after eating it.<sup>22</sup>

I do not know why the same thing does not happen in the Skywalk case. In other words, I don't know why the amplified desire not to fall is not overwhelmed by the belief that the Skywalk is safe. After all, as Sinhababu points out, the subjective probability of falling would be extremely low. The degree of belief in the Skywalk case that the Skywalk is safe might be as high as, or higher than, the degree of belief in Sinhababu's example that the fruit makes me sick.

Another worry is that Sinhababu only tells us one side of the story. There is another side, which is about another desire the person has about the Skywalk, namely, the desire to enjoy the Skywalk, which motivated her to come all the way to the Skywalk. It is a desire about the Skywalk and, hence, *Amplification by Vividness* predicts that the effects of this desire is amplified by the vivid representation of the Skywalk. But, then, the prediction from *Amplification by Vividness* might be that she becomes so excited and runs toward the Skywalk as fast as she can.

Sinhababu might think that the hesitation is

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exactly what we should predict when we put the two sides of the story together. She shows some hesitation when trying to step on the Skywalk because of the amplified desire not to fall together with the amplified desire to enjoy the Skywalk. Both desires are amplified, and her hesitation is the product of their competing with each other. But, this solution might not be satisfactory. Suppose that both desires are amplified roughly to the same degree. But we also need to take relevant beliefs into account. The desire not to fall is certainly amplified, but its influence on behavior should be discounted (if not overwhelmed) by the strong belief that the Skywalk is safe. But, then, the desire to enjoy the Skywalk, which is also amplified but not discounted, should be dominant and hence the prediction should be that she enjoys the Skywalk with little or no hesitation.

Probably this problem can be generalized to many cases in which there are two competing desires about one object. For instance, according to Sinhababu, a vivid representation of Faceook increases the effects of my desire for Facebook, which explains why I spend so much time on Facebook. But maybe I have a competing desire about Facebook, namely the desire to avoid Facebook which has devastating impact on my productivity. Indeed, it seems to me that many, if not all, procrastinators are perfectly aware of the main causes of procrastination, such as Facebook, and they want to avoid them seriously. Then, the vivid representation of Facebook increases not just the effects of my desire for Facebook but also the effects of my desire to avoid Facebook. But, then, Sinhababu's account is not sufficient to explain why I spend so much time on Facebook and why it is so difficult for me to avoid it. Note that the relevant competition here is not between the amplified desire for Facebook and the amplified desire to avoid it. Rather it is between the amplified desire for Facebook and the amplified desire to avoid it together with the desire, which is not amplified but is reasonably strong, to work on the manuscript.

#### Notes

- <sup>1</sup> N. SINHABABU, *Humean Nature. How Desire Explains Action, Thought, and Feeling*, Oxford University Press, Oxford / New York 2017, p. 36.
- <sup>2</sup> See T.S. GENDLER, *Philosophical Thought Experiments, Intuitions, and Cognitive Equilibrium*, in: «Midwest Studies in Philosophy», vol. XXXI, n. 1, 2007, pp. 68-89; T.S. GENDLER, *Alief and Belief*, in: «The Journal of Philosophy», vol. CV, n. 10, 2008, pp. 634-663.
- <sup>3</sup> N. SINHABABU, *Humean Nature*, cit., p. 37.
- <sup>4</sup> See L.E. LOEB, *Stability and Justification in Hume's Treatise*, Oxford University Press, Oxford 2002.
- <sup>5</sup> D. HUME, A Treatise of Human Nature (1739), edited by L.A. SELBY-BIGGE, Clarendon Press, Oxford 1960, p. 1.
- <sup>6</sup> Ivi, p. 2.
- <sup>7</sup> See K.M. O'CRAVEN, N. KANWISHER, *Mental Imagery of Faces and Places Activates Corresponding Stimulus-specific Brain Regions*, in: «Journal of Cognitive Neuroscience», vol. XII, n. 6, 2000, pp. 1013-1023.
- <sup>8</sup> N. SINHABABU, *Humean Nature*, cit., p. 38.
- <sup>9</sup> *Ivi*, p. 36.
- <sup>10</sup> Ivi, p. 26.
- <sup>11</sup> D. HUME, A Treatise of Human Nature (1739), cit., p. 425.
- <sup>12</sup> See T.S. GENDLER, *Philosophical Thought Experiments, Intuitions, and Cognitive Equilibrium*, cit.
- <sup>13</sup> R. DESCARTES, Meditations on First Philosophy: With Selections from the Objections and Replies (1641), edited by J. COTTINGHAM, Cambridge University Press, Cambridge 1986, p. 50.
- <sup>14</sup> K.C. BERRIDGE, T.E. ROBINSON, What is the Role of Dopamine in Reward: Hedonic Impact, Reward Learning or Incentive Salience?, in: «Brain Research Reviews», vol. XXVIII, n. 3, 1998, pp. 309-369, here p. 313.
- <sup>15</sup> N. SINHABABU, *Humean Nature*, cit., p. 118.
- <sup>16</sup> *Ivi*, p. 33.
- <sup>17</sup> Ivi, pp. 119-120.
- <sup>18</sup> See T.S. GENDLER, Alief and Belief, cit.
- <sup>19</sup> E. SCHWITZGEBEL, *Belief*, in: E.N. ZALTA (ed.), *The Stanford Encyclopedia of Philosophy*, Summer 2015 Edition, URL: <a href="https://plato.stanford.edu/archives/sum2015/entries/belief/">https://plato.stanford.edu/archives/sum2015/entries/belief/</a>>
- <sup>20</sup> N. SINHABABU, *Humean Nature*, cit., pp. 132-133.
- <sup>21</sup> *Ivi*, p. 133.
- <sup>22</sup> *Ivi*, p. 37.