The Rationality of Mood[1]

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Abstract In this article, I argue that at least some moods are affective episodes whose main difference from emotions is that their intentional objects, *qua* intentional objects, are not consciously available. I defend this claim by exposing an experiment where affective responses – moods, I maintain – are elicited by subliminal pictures (§2). I then show how everyday kinds of moods can also be plausibly interpreted as emotion-like affects whose intentional object is not conscious (§3). In the final section (§4), I borrow the six criteria for rationality that de Sousa proposed in *The rationality of emotion* and show how they can be used to argue that, if we conceive of moods as such, then they too can be rational.

§1. Introduction and hypothesis

In *The rationality of emotion*, Ronald de Sousa writes:

> 'The title of this book strikes many people as a joke: it is commonly assumed that emotions are subjective and irrational, or at best arational.' (1987, p. 141)

That was 35 years ago. Today, most philosophers working on this topic are convinced that emotions can be rational. De Sousa's seminal book has certainly been instrumental to the new consensus.

The title of this paper strikes many people as a joke: it is commonly assumed that moods are subjective and irrational, or at best arational. De Sousa himself considers moods to be 'objectless' and hence arational (e.g. de Sousa, 1987, p. 310). Moods, in this context, are understood as occurrent affective states with particular phenomenal characters, and to which we refer by expressions such as 'being in a good/bad/melancholic/euphoric mood' or 'feeling calm/irritable/down/serene'.

In this paper, I will argue, *pace* de Sousa, that moods too can be rational. I will do so by defending an account of moods as affective episodes that, contrary to appearances, are not, or at least not always, objectless (§2–3). Then, I will borrow the criteria of rationality put forward by de Sousa in *The rationality of emotion* and argue that moods are sufficiently similar to emotions for the criteria to apply to both (§4).

I consider them to be sufficiently similar because I hold either one of these four hypotheses – depending on my mood:

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- Strong hypothesis (SH): Moods just are emotions with unconscious objects, i.e. emotions whose intentional objects, *qua* intentional objects, are not consciously available.
- Moderate hypothesis (MH): Moods are affective episodes whose main difference from emotions is that their intentional objects, qua intentional objects, are not consciously available.
- Not so strong hypothesis (NH): Some moods are as SH depicts them.
- Weak hypothesis (WH): Some moods are as MH depicts them.[2]

SH, MH, and NH commit to claims that won't be needed to make my point here.[3] For this reason, I will only rely on the weak hypothesis WH.

Some clarifications:

- By 'not consciously available' or simply by 'unconscious', I mean what Ned Block calls 'access-unconscious' (1995). Intentional objects (the mental content of your sight, imagination, memory, etc.) are access-unconscious when they are not available for introspection, reasoning, or direct rational control of action, including reporting.
- And what I mean by stating that the intentional objects of some moods '*qua* intentional objects, are not consciously available' is that such mood episodes don't appear in consciousness to be about their intentional objects; their intentionality is not part of the phenomenal character of these episodes. For example, Sam is in an anxious mood about tomorrow's competition, but the fact that his mood is about this is not a feature of the phenomenal character of this mood episode, he is not conscious that his mood is about this. Sam may otherwise be conscious of the relevant intentional object: he is aware that the competition is tomorrow. He may even become conscious that his mood is about a certain object through indirect means such as inferences or testimony – e.g. Sam may be convinced by his partner that his anxious mood is about

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[2] As far as I know, none of these hypotheses can be found in the literature. However, MH is close to Rossi's account (2021). He proposes that moods are perceptual experiences that represent undetermined objects as possessing evaluative properties – undetermined objects being objects that the individual is unable to identify or individuate. There are at least two differences between MH and his account: first, Rossi's is only compatible with Tappolet's perceptual theory of emotions (2016), or some very similar perceptual theory. By contrast, MH is compatible with most theories of emotions. Second, MH claims that moods have undetermined objects only from a first-person perspective: they are not consciously identified, but, unconsciously, they are – this is what triggers the mood episode according to the present picture (more on this in Bonard, Under review, sec. 3.3.). Thus, moods are not fully undetermined according to MH. Whether or not Rossi's theory could make this amendment, his theory certainly does not imply that moods have determined unconscious objects, unlike MH. There may be other points of divergence, but they are nevertheless similar, and potentially mutually reinforcing, accounts.

[3] Here are two of these controversial claims. First, SH and NH imply that emotions can have unconscious objects, a claim quite unpopular in philosophy of emotion (though see e.g. Prinz, 2004; Scarantino, 2014). Second, both SH and MH imply that all moods have the same intentional structure. Consequently, they imply that there cannot be moods that are objectless (contrary to claims by de Sousa, 1987; Kind, 2013; Searle, 1983) nor moods that are consciously directed at the world as a whole, a general object, a plural object, or a vague object (Fish, 2005; Goldie, 2000; Mitchell, 2019; Prinz, 2004; Solomon, 1993). I come back to this topic at the end of §3. I defend SH in a paper in preparation.

> tomorrow's competition. But it is not part of the phenomenal character of the mood that it is about its intentional object. This fact is not available by introspecting what it is like to undergo the mood episode.

According to MH, the main difference between moods and emotions is this difference in consciousness: in emotional episodes, one has direct conscious access to what the emotion is about as part of its phenomenal character; one is aware of the intentional objects of emotional episodes *qua* intentional objects of these episodes. Not so for moods. WH restricts this claim to some moods (at least).

In the next section, I will defend WH by presenting the experiment that led me to form this hypothesis.

§2. Subliminal pictures and moods

In an influential study, Öhman and Soares (1994) used subliminal pictures to elicit negative affects. I will argue that these affects are moods. Let me describe this study in detail, as it will constitute a prime source of evidence for my overall argument.

Öhman and Soares first selected people with either a snake phobia, a spider phobia, or neither (i.e. participants that had a significantly high score on either a test measuring their fear of snakes or their fear of spiders as well as control participants with low scores on both these tests). They then presented participants with pictures of snakes, spiders, flowers, and mushrooms on a screen for a very brief moment (20 or 30 milliseconds) and then masked the pictures so that participants could not consciously perceive them, but could subliminally perceive them.

After this, participants were asked to fill out a questionnaire. They were notably asked to select the pictures they were shown on a forced-choice task. The results show that they didn't perceive them consciously – they couldn't guess above chance level. They were also asked how they were feeling with respect to three affective dimensions: arousal, valence, and dominance, by using the well-established Self-Management Manikin (SAM, see Figure 1.). The results show a clear difference between 'phobic trials' – i.e. trials in which participants suffering from snake or spider phobia were respectively presented with subliminal pictures of snakes or spiders – and 'non-phobic trials' – trials involving participants with no phobia or in which phobic participants were presented with pictures of mushrooms, flowers, or of the animals about which they are not phobic.

Participants' answers could be predicted in statistically significant ways by two parameters: whether they are phobic and what kinds of pictures they saw. Participants in phobic trials reported feelings that were, overall, significantly more negative, more aroused, and less dominant that participants in non-phobic trials. In other words, results indicate that participants tended to feel in negative, aroused, and powerless affective states after they unconsciously perceived a picture of something they strongly fear. Now, feelings with a negative valence, high arousal, and low dominance (a.k.a. powerlessness) are paradigmatically associated with fear (Bradley & Lang, 1994; Fontaine et al., 2007) as well as with fear-related moods such as anxious or nervous moods (Yik et al., 2011).

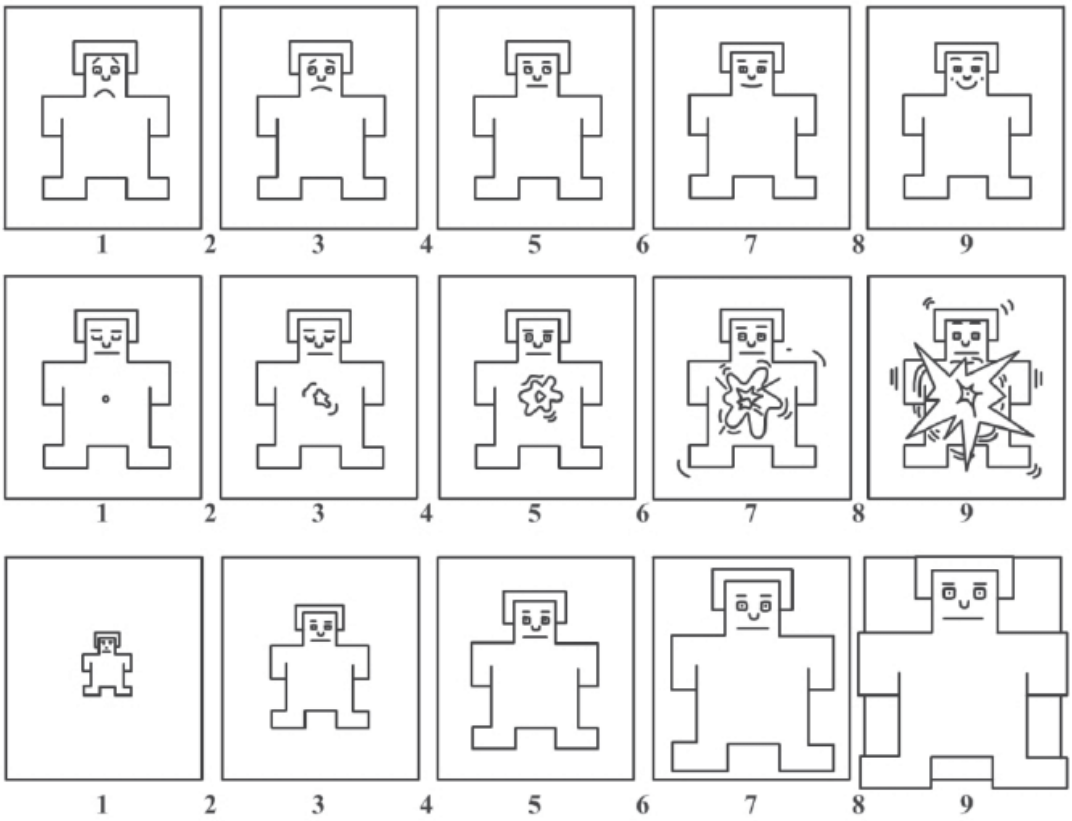

Figure 1. The Self-Assessment Manikin (SAM) for valence, arousal, and dominance. This is a well-established measure of affective feelings used by Öhman and Soares (1994). Picture from Bradley and Lang (1994).

Imagine for a moment being in the participants' shoes. After being presented with flashes on a screen that you couldn't identify, you are asked to fill up a questionnaire, notably on how you feel. At this point, you introspect and report your affective state on the SAM measure (Figure 1). Let us say that, unfortunately, you are phobic of snakes and you were presented with subliminal pictures of snakes. Being a typical participant, you place your crosses on the SAM measure as follows, reflecting the mean measures for phobic trials (approximated to the closest whole number, see Öhman & Soares, 1994, p. 236):

- 4/9 on valence
- 5/9 on arousal
- 5/9 on dominance

By comparison, here are the approximated numbers for the control, non-phobic trials:

- 7/9 on valence
- 2/9 on arousal
- 7/9 on dominance

After this trial, it's fair to say that you don't feel so good – as evidenced by looking at where the numbers of the phobic vs. non-phobic trials fall in Figure 1. Let us suppose that you were then asked: 'Why do you feel this way?'. 'What is the object of your affective state?', or 'Is

there something in particular that makes you feel this way?'. You'd have no clue. So, you may answer 'I don't know, I just feel like this, that's all' or perhaps 'I have the impression that the whole world is somewhat threatening' (reflecting two popular accounts of moods in philosophy, see §3). Alternatively, you may also make up a post-facto rationalization by claiming something like 'I'm stressed about my interview next week'. Or perhaps you'd be perspicacious enough to guess that it may be the flashes on the screen that put you in this affective state. But you could not mention snakes as being part of the intentional object of your affective state, since you don't know what you saw – from your perspective, snakes don't appear as the object of your fear-like affective state. Snakes are not consciously available *qua* intentional object of your affective episode.

However, snakes *are* constitutive of the intentional objects of the fear-like affects in phobic trials (what is true of snakes is true of spiders in this paragraph). As a control study by Öhman and Soares confirms (1994, p. 236), participants in the phobic trials respond to the subliminal stimuli in a way that is very similar to how they would respond if they consciously perceived pictures of snakes as measured by changes in skin conductance and reported feelings (using SAM). The straightforward explanation is that the same mental mechanisms are involved in the elicitation of both the regular fear responses – i.e. in the cases where the phobic participants consciously see pictures of snakes – and the fear-like affects elicited by the subliminal pictures of snakes. Presumably, in both conscious and subliminal cases, the mental mechanisms in question are the appraisal process and it is about snakes – this is what explains that phobic participants react with fear-like affects in both conditions (Bonard, Under review). Let me elaborate. The function of the appraisal process is to evaluate how we fare with respect to our well-being and to make us react accordingly; appraisals – the outputs of the appraisal process – are evaluations of the situations in which we are, how we fare in different situations given our concerns, goals, values, desires, ideals (Scherer & Moors, 2019). These situations are the intentional objects of the appraisal process, whether or not it is consciously available to the subjects (Grandjean et al., 2008). Like any intentional state, appraisals can misrepresent what they are about. In fact, the possibility to misrepresent may well be a sufficient condition for intentionality (Dretske, 1986). In the phobic trials, appraisals misrepresent their intentional objects: it mistakenly evaluates the situation as involving a risk of being harmed, because it misrepresents the situation as involving real, dangerous snakes.[4]

Now, let us ask: what kind of affect is the fear-like episode triggered in phobic trials by the presentation of subliminal pictures of snakes or spiders? I see four possibilities.

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[4] For a more detailed defense of the claims made in this paragraph, see Bonard (2021, Chapter 9, Under review). There, I also discuss several other experiments on subliminal elicitation of affects. These experiments show that subliminal stimuli influence not only affective feelings (e.g. valence, arousal, dominance) but also action tendencies, physiological changes, and neuronal processes. These changes are the same, or very similar to, the changes associated with the emotions that you would expect to be triggered by a conscious exposition to these stimuli. In other words, besides the fact that their intentional objects are not conscious – a very important difference – the affective states elicited by subliminal pictures appear to be like emotions in every respect – in their cognitive (appraisal), physiological, motivational, and affective feelings components (see notably the reviews by Smith & Lane, 2016; and Winkielman & Berridge, 2004).

- *A mood.* We may well say that these participants were in a negative, fear-like mood, especially if we hold two common hypotheses in the philosophy of emotion: that emotional episodes must have consciously available intentional objects and that moods, although they have no clear intentional objects, are like emotions in other respects, i.e. concerning changes in affective feelings, action tendencies, and physiology.
- *An emotion.* Alternatively, if we consider that emotions can have unconscious intentional objects, we may say that participants were undergoing an emotion, e.g. a fear targeted at snakes or spiders, although they didn't consciously see them and so couldn't have told you what their fear was about.
- *Both.* Thirdly, one may remark that the two previous possibilities are not exclusive because moods, or some moods, may well be emotions with an unconscious object, as per SH or NH (see §1).
- *Neither.* A fourth possibility would be to say that they were neither in a mood nor an emotional state. But then, what other kind of affective state were they in? I don't see an established category that would fit the bill. One could invent a new category, but Occam's razor should be fatal to it. [5]

The second answer ('An emotion') and the third ('Both') imply that it is not essential to emotions that they have consciously available intentional objects. This is controversial: it is common to hold that if someone is undergoing an emotion, then they should be able to know what their affective state is about when they are in this affective state and are asked what it is about. For those who share this view and require that emotions must have a consciously available intentional object, because of the bloody use of Occam's razor against the fourth answer ('Neither'), it seems reasonable to choose the first answer ('A mood'). This should lead them to accept WH, i.e. that at least some mood episodes are affective episodes whose main difference with emotional episodes is that their intentional objects, *qua* intentional objects, are not consciously available. If we can make the argument that all moods are of this kind, it leads to MH.

For those who accept that emotions can have intentional objects that are not consciously available during the emotional episode, they should be led to accept either the first answer ('A mood') or the third ('Both'). Here is why. From the perspective of the participants in these experiments, nothing differentiates their affective states from moods. If emotions can have unconscious objects, besides the first answer, this leaves open the second answer ('An emotion') and the third ('Both'). Because we know that the participants' affective states have intentional objects, one may be led to consider them as emotions and not as moods and thus accept the second answer. But the problem with this move is the following: as we will see in the next section, many – perhaps most – episodes that we call moods in our daily life may well be just like the affective states from these experiments: feeling like moods but having intentional objects that are not consciously available. My point in the next section will indeed be that many daily-life affective states that we call moods can plausibly be interpreted as

[5] It is not evident which of the first three answers would be most popular among the psychologists working on these experiments (I don't think any would choose the fourth). In this literature, it is common to talk of a change of *mood* caused by exposition to subliminal pictures (e.g. Monahan et al., 2000), but it is also common to refer to these states as unconscious *emotions* (e.g. Smith & Lane, 2016). And then, some use both expressions (e.g. Winkielman & Berridge, 2004).

such. If we refuse to call these states moods because they may be emotions with unconscious objects, then we would redefine what is usually called a mood in everyday day life. Furthermore, we'd have no way of telling whether everyday cases are moods or emotions with unconscious objects. Both these consequences would cripple our talk of moods.

Now, these problems are avoided if we accept to call these states moods and choose the third answer ('Both'): this answer suggests that, if it is true that many everyday cases usually referred to as moods may be emotions with unconscious objects, we should respect everyday talk and just call them moods. In other words, the idea is that the fact that an affect that feels like a mood may be an emotion with an unconscious object is not a reason not to call it a mood. We should respect everyday talk and call it a mood even if it may turn out to be an emotion with an unconscious object. This should lead those who accept that emotions can have unconscious objects to accept the third answer ('Both'), which leads to accepting NH – i.e. that some moods just are emotions with unconscious objects. Given arguments that all moods are of the same kind, this reasoning leads to SH.[6]

So, if I'm on the right track, whether or not one accepts that emotions can have unconscious objects and so whether we choose the first ('A mood') or the third answer ('Both'), what precedes leads us to accept that the affective states in the subliminal phobic-trials are moods. Accordingly, one should accept WH or NH respectively. And, given arguments that all moods are of the same kind, MH or SH respectively. I can live with any of these four options. However, because it is controversial that emotions can be moods and that emotions can have unconscious objects, I will stick with the first answer in the following: these states are moods. And because I have not argued that all moods are of this kind, we are led to accept WH (instead of MH), i.e. that at least some mood episodes are affective episodes whose main difference with emotional episodes is that their intentional objects, *qua* intentional objects, are not consciously available.

For the moment, we only have reasons to accept that the moods in question form a very limited set: I have only discussed cases involving affects triggered by subliminal pictures. In the next section, I will argue that this set may be much larger.

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[6] Let me mention at this point an objection to the four hypotheses above, i.e. SH–WH. Here goes. Moods are often distinguished from emotions based on other criteria than intentionality: they are said to be typically less intense than emotions (DeLancey, 2006) and to typically last longer than emotions (Johnson-Laird & Oatley, 1989; Owens & Maxmen, 1979). Thus, the argument up to here does not even establish WH, because it only explains the difference in intentionality between the relevant moods and emotions. An easy way out of this objection is to further restrict WH. Concerning the duration of moods, one can just restrict WH to those moods which don't last longer than emotions. Concerning the intensity of mood, one can further weaken WH and argue that moods are like low-intensity emotions with unconscious objects. Now, I believe that better answers can be given and that we can defend a strong form of WH, and even defend SH or MH against this objection. Doing so however is beyond the scope of this paper (I do so in a draft for a future article on moods).

§3. How big is the set of UO moods?

Let us call 'UO moods' (for Unconscious-Objects moods) the moods postulated by WH, i.e. moods whose main difference with emotional episodes is that their intentional objects, *qua* intentional objects, are not consciously available. In the last section, I argued that the set of UO moods is not empty. But how big is it compared to the set of all moods? In this section, I aim to make it plausible that several typical mood episodes may well be UO moods. I don't claim that the interpretations that I will give in the following are the only ones possible. Defenders of other mood accounts may propose alternative explanations that are also plausible. However, my point will be that interpreting the following cases as involving UO moods cannot be excluded. This is sufficient to make my argument in this paper because, as I have highlighted above, my overall argument only relies on the idea that many daily-life affective states that we call moods may turn out to be UO moods as they can plausibly be interpreted as such.

Dreams. Tonight, I woke up after a nightmare: I dreamt that the city I was in was being bombed. I remained in bed for a while in an anxious state. I knew that my anxiety was about my dream because I remembered the nightmare vividly. However, as it sometimes happens, I may have woken up instead without remembering it, while nevertheless still being in the affective state in which the dream had put me. In fact, I may have woken up and felt in a bad mood without having a clue that it was caused by my dream – more precisely: caused by the appraisals whose intentional object was the situation in which I was in my dream. In this case, my affective state would have had the relevant features of the dream as its intentional object, but I would not have been conscious of it. The latter case is naturally interpreted as a UO mood.[7]

Positive/negative events. One evening, while getting your thrash out, you bump into your neighbor. You're in a good mood and start joking around with him and go on to discuss your respective holiday plans. You actually were in a good mood for the whole day because this morning you learned that a paper of yours was accepted in a prestigious journal. You are not thinking about this success now – in fact, you were so busy this afternoon that you haven't thought about it since lunchtime. Although your flow of consciousness is only filled by your conversation with your neighbor, it is plausible that – under the hood, so to say – your good mood is still stimulated by appraisals of this morning's positive event. In other words, your affective state involves as a component a positive evaluation of your situation, even if you're

[7] As remarked by Christine Tappolet, it is not obvious that the etiology of moods entails something about their content, though my interpretation of this and the following examples rely on such an inference. Can we really infer the intentional object from the cause of an affective state? In response, I would maintain that, yes, we can make inferences about the intentional object of an affective state from its appraisal process for the following reason. I consider that the intentional object of an affective state is constituted by what the state represents. In affects, this representational function is fundamentally performed thanks to the appraisal process, which is the representational core of an affective episode: when the appraisal process performs its function appropriately, the affective state inherits its content from the appraisal process (as I detail in Bonard, Under review). It does so in a way comparable to how our visual experience inherits its content from processes in the visual cortex – when the visual system functions appropriately. So, I would argue, you can in some cases infer the content of a state from its etiology.

not thinking about your achievement. Your evening mood is naturally analyzed as a UO mood: you're in a positive affective state although, at this point of the day, its intentional object is not part of its phenomenal character, it is not accessible to your consciousness *qua* intentional object of your affective state. Of course, a similar interpretation could be given for many, if not all, cases where happy moods are triggered by happy events, irritable moods triggered by irritating events (for such an example, see Goldie, 2000, pp. 149–150), sad moods triggered by sad events, and so on.

Energy levels. Let us now take the case where you are in a bad mood because you are sleep-deprived. The UO interpretation could be the following. The lack of sleep means that you have less capacity to achieve your goals. For this reason, you appraise your day as full of events that are more goal-obstructive than usual: you make a ton of spelling mistakes writing your emails and need to reread those you receive to understand them properly; while riding your bike back home, your lack of attention makes you cut the priority to a pedestrian and nearly got you in an accident; arrived home, you notice that you have forgotten to buy milk although your partner has reminded it to you just before you left work; and so on. Many of your daily tasks involve little mistakes of yours although you usually have no problem performing them. For the same reason, you appraise these situations as harder to cope with than usual. The appraisals have triggered a series of small but cumulative bodily reactions which make you feel tense, make you frown more often than usual, trigger action tendencies that are more avoidant and aggressive than usual, and all these modifications reverberate in the horizon of your consciousness as negative feelings. However, these small negative appraisals are not strong enough to cause full-blown emotional episodes and you don't notice that they contribute to an overall negative affective state. In other words, the repeated appraisals of goal-obstructiveness and lower-than-usual coping potentials, though largely unconscious and unattended, cause you to be in a bad mood. This mood's intentional object is your present situation which is evaluated negatively, though you don't have conscious access to these appraisals – if you did, according to the present picture, you would be undergoing a negative emotion, or a series of negative emotions, about your situation, for instance frustration, irritation, or annoyance about the relevant events. Indeed, remember that according to WH, the main difference between moods and emotions is whether the intentional object is consciously available *qua* intentional object. Being conscious of one's appraisals, I take it, means being conscious of the intentional object of the affective state *qua* its intentional object.

The same kinds of explanation could be given for bad moods caused by an empty stomach. Conversely, good moods caused by healthy long rests and nutritious meals can be understood as involving appraisals of higher-than-usual goal-conduciveness and coping potentials. According to the present interpretation, they all are UO moods caused by different energy levels which modify the unconscious intentional objects of these affects: how well you are doing in your present situation.

Depressive mood. Another case of moods typically discussed is depressive or melancholic moods. Depressive moods are occurrent episodes that are to be contrasted with depression, the latter being understood as a complex affective disposition that can last for years. Depression may be analyzed as a disposition to regularly undergo depressive moods as well as various negative emotions, and not to undergo certain positive affective episodes. Having said this, the UO interpretation of depressive mood is very much in line with the account of depression proposed by Nesse (a psychiatrist) and Ellsworth (a cognitive psychologist):

> ‘Symptoms of depression […] are aroused when an important goal seems unattainable[. In such situations, t]he initial response is to seek new strategies, but if no route to the goal seems possible, motivation fades away, freeing up effort for other more profitable tasks. If for some reason the goal cannot be abandoned, then ordinary low mood tends to escalate into pathological depression.’ (Nesse & Ellsworth, 2009, p. 136).

The interpretation of depressive or melancholic moods as UO moods is in line with this because, according to the present picture, although these moods may appear as being directed at nothing at all or at the whole world, they are typically triggered by situations appraised as involving an important goal that cannot be abandoned, but that is also appraised as unattainable despite repeated and sustained attempts at finding solutions.

According to Nesse, depression, like pain, is an evolutionary adaptation, not a bug, and its evolutionary function is to help us give up on unattainable goals:[8]

> ‘[Symptoms of depression such as] pessimism, lack of energy, low self-esteem, lack of initiative, and fearfulness can prevent calamity even while they perpetuate misery. […] Just as anxiety inhibits dangerous actions, depression inhibits futile efforts.’ (Nesse, 2000, p. 16)

The appraisals and the motivational profile of depression are similar to those of grief, according to Nesse (and Ellsworth): they have a similar function of helping us give up on something we irremediably lost. Often though, in depression, it is not a single event that is appraised as involving an un-abandonable, but unattainable, goal, it is a series of situations (Nesse, 2019).

The UO interpretation of depressive moods goes along the same lines: although there does not seem to be a precise intentional object in depressive moods, these states actually are about specific features of the person’s situation *via* unconscious appraisals. Note again that, according to WH, if such appraisals were conscious, then the affective episode in question would not be a mood but an emotion. And, as said, depression may be seen as a disposition to undergo not only moods but also emotions.

I have discussed four cases of moods that are typically discussed in the literature: waking up in a mood without knowing why, moods triggered by positive/negative external events, moods triggered by low/high energy levels, and depressive moods. I am not claiming that these four cases can only be interpreted as UO moods. It is difficult to establish confidently whether a mood episode is a UO mood or not because it cannot be decided by introspection or by observation of our peers. Various accounts of the intentionality of moods may be compatible with most of the data available to us, which mostly comes from our anecdotal, everyday experiences. No empirical results of which I am aware help us decide decisively

[8] His account also leaves room for abnormal, dysfunctional depressions. Evolutionary functions come with the possibility for misfunctions. Compare: there can be dysfunctional pains (e.g. in phantom limbs) even if pain usually performs its evolutionary function normally.

between these accounts for everyday cases – though, I have argued, the subliminal picture experiments help us decide for certain lab cases.

Nevertheless, I take it that the UO interpretation I proposed for these four cases constitutes a defeasible argument for the claim that they involve UO moods, because, if it is correct, it makes these cases naturally fit in with insights from the cognitive and affective sciences. On the one hand, what distinguishes UO moods from emotions is a widespread phenomenon: explanations based on access-unconscious mental objects are legions in cognitive sciences. Empirical evidence abounds for unconscious perception, memory retrieval, decision making, thinking, and, indeed, affective episodes (Augusto, 2010). On the other hand, if a mood is a UO mood, then most of its features can be explained through what we know about emotions. This means that we can make sense of, or at least form solid hypotheses on, its functional role (see e.g. Nesse, 1991, 2019), its subtending mental mechanisms (in particular, appraisal processes, see e.g. Scherer & Moors, 2019), its action tendencies (e.g. avoidance for anxious mood, celebration for happy mood, etc., see Frijda, 2007; Scarantino, 2014), or its phenomenology (see e.g. Deonna & Teroni, 2017). This is only a defeasible argument because rival accounts of moods may also allow fitting in moods comfortably with findings in cognitive and affective sciences.

Although comparing how well rival accounts do in this and other respects is beyond the scope of this paper, let me nevertheless tentatively present what other kinds of moods besides UO moods there could be given what was said above. After all, WH only claims that *some* moods are UO moods.

From the perspective of this paper, it seems plausible that certain mood episodes are entirely objectless, being non-intentional on both a conscious and unconscious level, because such episodes may well result from misfunctions or atypical workings of the affective system. For instance, certain drugs may artificially lead to irregular hormonal balance without any appraisal process taking place and so to a change of mood without unconscious intentional objects. Also, it is possible to trigger affective states by activating certain parts of the limbic system through electric stimulations (Panksepp, 1998, Chapter 3): these states may well be classified as objectless moods. There may also be misfunctions or atypical processes of the brain or other organs (e.g. hormonal glands) that result in objectless moods in regular daily life. For instance, hormonal changes due to non-cognitive factors or some brain lesions may theoretically cause stimulations of the affective system and trigger moods with no intentional objects.

According to the present picture, moods, like emotions, are affective states whose main function is to be reactions to situations appraised as positive or negative for one's welfare, reactions that involve action tendencies, bodily changes, and affective feelings in line with these appraisals. Moods, like emotions, fail to perform this function when they are triggered by something else than the appraisal process, as in the cases mentioned in the last paragraph. These are objectless moods, but dysfunctional ones. Now, we should not expect dysfunctional and atypical cases to be more prevalent than normally functioning ones. Because I cannot make sense of objectless moods other than by considering them to be misfunctions, I don't expect the set of all moods to be overcrowded by them. However, my inability to identify them doesn't mean that there are no functional or typical objectless mood episodes and so I leave this possibility open.

The picture presented here also lets it open that some mood episodes are like emotions except that the world as a whole is the intentional object of the mood, or at least appears in the phenomenal character as the object of the mood (Mitchell, 2019; Solomon, 1993). In my own, anecdotal experience, I don't think I have ever been in such a state but, as Mitchell (2019) notes, 42% of participants in a questionnaire-based study (Davitz, 1969, p. 46) reported depression as involving a sense that 'everything seems useless, absurd, meaningless', which gives credibility to this hypothesis.[9]

To have a clearer idea of what distinguishes UO moods from moods consciously directed at the whole world, we need to distinguish the latter from moods directed at the overall situation we are faced with. Unless some form of solipsism is true, one's personal situation at a certain time is not everything there exists, and so it is to be distinguished from the whole world. According to the present picture, the intentional object of a mood can very well be the overall situation we are faced with at a certain time. This can also be the intentional object of an emotion in cases it is conscious. For instance, you may be happy or sad about how your life turns out to be. But this is not the same as claiming that this happiness or sadness is about the whole world. The same applies to moods: they can be about our overall personal situation without being directed at the whole world.

There is nothing problematic about the idea that the phenomenal character of a mood episode presents it as being about the whole world. Our moods may *feel like* there is nothing that counts in the world but our personal, desperate situation and that literally everything is useless, absurd, meaningless. However, the idea that the intentional object of regular moods not just feels like or appears to be, but *is* the whole world seems harder to defend from the psychofunctional perspective of cognitive science, i.e. the perspective from which the present picture stems. It is indeed hard to see what would be the function of having affective states that are about literally everything, as opposed to being about parts of the world, including broad ones such as the overall situation we are faced with. Of course, even if I am right that affective states directed at literally everything cannot be functional, it does not mean that such states don't exist: I can easily imagine that there are dysfunctional moods that not only *appear* to be about everything but that *are* evaluations of everything. However, again, we shouldn't expect the set of all moods to be overcrowded with dysfunctional cases. But, once more, I may have failed to see why moods directed at the whole world can be functional, and I leave this possibility open.

There may also be other kinds of moods with a different sort of intentionality that are compatible with the picture offered here. Besides the two views just discussed – moods as objectless or world-directed – moods have been claimed to be consciously directed at a general, plural, unspecific, or vague object (Broad, 1954; Goldie, 2000; Prinz, 2004; Siemer, 2009; Solomon, 1993). The argument of this paper is compatible with a pluralist view of

[9] Note that many participants in this study also described the feeling of depression with sentences that don't take the whole world as an object, e.g. 'a sense of being gripped by *the situation*' (50%), 'there is a sense of uncertainty about *the future*' (48%), 'a sense of being totally unable to cope with *the situation*' (44%), 'I lose all confidence in *myself* and doubt *myself*' (42%) (Davitz, 1969, p. 46, my emphasis).

moods as long as UO moods are part of it. It seems to me that the considerations up to this point sufficiently sustain this assumption. We can thus turn to the next section.

§4. Six criteria for rationality

Let us now see whether we can apply de Sousa's criteria for rationality to UO moods and argue that they, like emotions, can be rational. He gives six criteria and we will discuss them one after the other. Here is the first:

> '(R1) Success. The formal object of a representational state defines that state's criterion of success, in terms of which the rationality of that state is assessed.' (de Sousa, 1987, p. 159)

If we accept WH, then we should accept that UO moods have the same formal objects as their conscious doppelganger: the affect that is just like the UO mood in question except that its intentional object is conscious *qua* intentional object. Now, all moods seem to have what is usually called their corresponding emotions or equivalents (Gallegos, 2017; Goldie, 2000; Price, 2006; Rossi, 2021; Tappolet, 2018): e.g. an irritable mood and the emotion of being irritated (or annoyed), an anxious mood and the emotion of being anxious (or fearful), an elated mood and the emotion of being elated (or ecstatically happy), and so on. It seems plausible that UO-moods doppelgangers just are their emotional equivalents. Thus, as long as we know what is the formal object of the emotional equivalents of UO moods, we can determine what is the formal of any UO mood.[10] So, if standard accounts of the formal objects of emotions are correct, according to this reasoning, the formal object of a fearful UO mood is a danger, the formal object of a sad UO mood is an irrevocable loss, the formal object of a happy UO mood is a success, and so on. If that is correct, then UO moods are rational according to (R1).

Here is de Sousa's second criterion for rationality:

> '(R2) *Minimal rationality.* It is a necessary condition of an intentional state or event's being describable as categorially rational, that under some true description it can properly (though perhaps vacuously) be said to be evaluatively rational.' (de Sousa, 1987, p. 160)

By 'categorially rational', de Sousa has in mind the use of 'rational' that contrasts with 'arational': a river is arational, but human actions are rational in the categorial sense. On the other hand, 'evaluatively rational' contrasts with 'irrational', as in 'Sam's decision to drink this paint is irrational'. Only something that is categorially rational can be assessed as more or less evaluatively rational.

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[10] A slightly different reasoning leading to the same conclusion is the following. If, on the one hand, we accept the idea that appraisals determine what is the formal objects of emotions (Bonard, Under review) and, on the other hand, we accept that UO moods are triggered by the same appraisal process as their equivalent emotions, then we should accept that the formal objects of moods are determined by the same appraisals as their equivalent emotions. So, for instance, if a fear-like mood is triggered by the same appraisals as fear, these two affects should have the same formal object.

Emotions can be assessed as evaluatively rational – and so are categorially rational. An emotion is evaluatively rational when it is about a situation that instantiates its formal object (de Sousa, 1987, p. 185). UO moods, similarly, can be so assessed, and they thus fulfill criterion (R2).

Let me flesh out more how UO moods fulfill this criterion. De Sousa tells us that 'a formal object gives the point of a certain emotion, state, or activity. … the point of believing is to believe what is true … the point of wanting is to want what is good' (de Sousa, 1987, p. 159). So, we may ask: what is the point of a mood? Answering this question should tell us how moods can be assessed as evaluatively rational.

At the beginning of his article 'What is mood for?', psychiatrist Randolph Nesse asks a very similar question: 'What function, if any, is served by the capacity for high and low moods [i.e. happy and sad moods]?' (Nesse, 1991). Here is his answer, a hypothesis very much in line with WH:

> 'high mood helps individuals take full advantage of the opportunities in propitious situations, whereas low mood motivates them to seek help, be socially submissive, conserve resources, and consider alternative strategies in situations where investments are not paying off.' (Nesse, 1991)

Very generally speaking, the point of being in a good mood is to be in a favorable attitude toward goal-conducive situations while the point of being in a bad mood is to be in a disfavorable attitude toward goal-obstructive situations. Articulating this further is tantamount to articulating how these situations instantiate the formal objects of the moods in question. Indeed, fleshing out the specific ways in which moods are favorable or disfavorable attitudes, how the situations in question are conducive or obstructive to one's goals, and how the specific attitudes function to make us react to these situations in functional ways is tantamount to fleshing out how moods are attitudes that are appropriate when their intentional objects instantiate their formal objects. Above, I started articulating such a fleshed-out account for depressive moods.[11]

Here is de Sousa's third criterion:

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[11] A question we may ask at this point is the following: assuming WH, isn't there a reason why UO moods don't have conscious objects while emotions do? In particular, shouldn't there be different evolutionary functions to UO moods and emotions that explain why we have both? One possible answer to this question is to point to the fact that perception can have unconscious objects, e.g. perceiving subliminal pictures. Answering why we may perceive objects unconsciously as well as consciously may help answer why we have both emotions and UO moods. Maybe there are no evolutionary functions: maybe it's just a limitation of our cognitive abilities that some objects are only unconsciously apprehended (e.g. limited attention abilities, lack of rapidity in processing information). Or maybe there is some function to consciousness that helps explain why it makes sense that certain kinds of our mental states can either have conscious or unconscious objects, like perception and emotion. Inquiring further into such questions is beyond the scope of this paper.

> ‘(R3) *Intentionality.* The teleology implicit in rationality applies only to intentional acts or states.’ (1987, p. 161)

Of course, if UO moods exist, as we have discussed at length already, then they fulfill this criterion. Let us then go on to the next one without further ado:

> ‘(R4) *Origins.* The assessment of rationality of any act or belief looks both forward to consequences, logical and causal, and backward to origins.’ (de Sousa, 1987, p. 162)

By ‘causal consequences’, de Sousa means whether a reaction or an action influences the world in ways that are deemed strategically rational (see below). By ‘logical consequences’, he means, e.g., whether a belief turns out to be true, or a fear episode about real danger. By contrast, assessing the rationality of a state or an act by looking ‘backward to origins’ is assessing whether it is justified based on what led to it. For instance, whether a belief was based on appropriate evidence and inferences, irrespectively of its truth.

UO moods can be assessed as rational in these three ways. Let me give a new example: Late at night, I’m walking back home after a party in a city I don’t know very well. Something in the atmosphere, I don’t know what, triggers a fearful mood. This leads me to turn off the music in my earphones, hide my fancy smartphone, be more alert, walk a little faster with a feign insurance, looking straight ahead, crossing the street when I see anybody on my side of the pavement. If it turns out that the neighborhood that I’m crossing really is somewhat dangerous at this time of the night, then my mood will be rational with respect to its ‘logical consequence’: it will be fit given its formal object. If the series of reactions that follow the action tendency of my mood help me avoid some potential danger, then my mood is strategically rational as well. Finally, if my mood was triggered by my perception of appropriate evidence for danger, this state may be justified given the information I gathered and so rational in the third way mentioned in (R4). This may well be the case even though I’m not conscious of what exactly triggered my mood because, say, it was based on an unconscious inference based on the pre-attentive perception of certain sounds or movements.

Here is the fifth criterion:

> ‘(R5) *Constraints.* Rationality never prescribes, but only constrains, by proscribing inconsistency and distinctions without a difference.’ (de Sousa, 1987, p. 163)

De Sousa elaborates on this criterion as such:

> ‘Rationality forbids inconsistency and arbitrary distinctions: it imposes constraints, defined by criteria of consistency and nonarbitrariness.’ (1987, p. 163) And adds: ‘one of the constraints implicit in (R5) is the requirement that cases not be differently treated arbitrarily.’ (1987, p. 176)

Applying this criterion to UO moods notably means that, given two identical situations, it couldn’t be rational for one person to be in a given mood while the other is not in the same mood. This requirement is implausible if by ‘situation’ we only take into account external parameters: we can have different takes on the same external situation without anyone of us being irrational about it. For instance, if you and I are in a techno club with an electrifying atmosphere, you may be in an enthusiastic mood that makes you want to dance until dawn

while my mood makes me wish we were around a bonfire in the forest instead. And there would be nothing irrational about either your or my mood.

However, if we take into account people's different concerns, desires, preferred values, goals, or ideals, as well as their differences in beliefs, in particular their beliefs about what is their action repertoire and coping abilities, and also their bodily states – empty stomachs and lack of sleep included – then the criterion (R5) may be plausibly applied to UO moods.

For instance, if both of us shared your desire to have fun dancing tonight and your passion for minimal techno, if we both believed that this is the best club in Berlin, if we were equally trusting in our dancing abilities, had the same energy level, and so on with all the relevant cognitive, conative, and bodily bases of our moods, then, I maintain, there would be something irrational about me to not be in the same mood as you. As such, UO moods, once again, are no different than emotions.

They may appear to be different in this respect because it is harder to know, and sometimes impossible, what are the relevant bases of our UO moods, since their intentional object is not directly accessible to consciousness, and can only be retrieved by inferences or other such indirect means. Nevertheless, despite this difficulty, there is no reason to think that (R5) doesn't apply to UO moods.

Now, of course, cases where all the relevant cognitive, conative, and bodily bases are shared are rare, if not inexistent. For this reason, we may often have different moods that, like some emotions, 'are not necessarily compatible, even when they are all equally adequate.' (de Sousa, 1987, p. 189) Because UO moods, like emotions, have such complex internal bases according to the present picture, we should rarely expect it to be irrational that two people are not in the same UO mood only because the external context is the same.

Here is the sixth and last criterion for rationality:

> '(R6) *Cognitive and strategic rationality.* A representational state can be assessed in terms of the value of its probable effects (in the causal sense): this evaluates its strategic rationality, or utility. By contrast, a state is cognitively rational if it is arrived at in such a way as to be probably adequate to some actual state of the world that it purports to represent.' (de Sousa, 1987, p. 164)

I consider that what I have said so far should lead us to consider that UO moods, just like emotions, fulfill criteria (R6): they can be assessed as strategically rational (see the discussion of (R2) and of 'causal consequences' in (R4)) and as cognitively rational (see the discussion of 'backward-looking rationality' in (R4)).

In his discussion of (R6), de Sousa adds that emotions, though they may be evaluated as cognitively and strategically rational, should ultimately be assessed through a sui generis form of rationality, that he calls 'axiological rationality', which is where the genuine rationality of

emotion is to be found (1987, p. 203).[12] An emotion is axiologically rational when its intentional object instantiates its formal object, which is an evaluative property, for instance when shame is about what is shameful. Given what was said above, this should apply to UO moods as well: a UO mood can be assessed as axiologically rational when its intentional object instantiates its formal object. As we have seen in the discussion of (R1) and (R5), the formal object of a UO mood should be the same as that of the corresponding emotion.

In sum, if what I have said above is correct, UO moods can be rational according to the six criteria of rationality proposed by de Sousa.

§5. Conclusion

In this article, I have argued that at least some moods are affective episodes whose main difference from emotions is that their intentional objects, *qua* intentional objects, are not consciously available. I called such cases UO moods (for Unconscious-Objects moods). I have introduced this hypothesis with an experiment by Öhman and Soares (1994) where affective responses – moods, I figured – are elicited by subliminal pictures. I then showed how this idea can extend outside the lab to everyday kinds of moods, discussing notably the following examples: waking up in a mood without knowing why, moods triggered by positive/negative external events, moods triggered by low/high energy levels, and depressive moods.

The hypothesis that at least some moods are UO moods explains the many similarities between moods and emotions as well as their main differences, notably the fact that moods don't appear, from a first-person perspective, to be about anything in particular. The explanations yielded by this hypothesis also allow applying to moods insights about emotions from the affective sciences.

In the final section, I borrowed the six criteria for rationality that de Sousa proposed in *The rationality of emotion* and showed how they can be used to argue that, if we conceive of moods as UO moods, then they too can be rational.

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[12] In Bonard (Ms.) I defend a (quasi) belief-desire theory of emotion. If it is correct, it could potentially be used to argue that emotions' rationality is exhausted by forms of cognitive and strategic rationality. This argument could then be applied *mutatis mutandis* to UO moods.

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