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"The Feeling Theory of Emotions and the Treatment of Affective Disorders"

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by

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I have two primary aims in this thesis. First, I intend to defend a Feeling Theory of emotion. Second, I want to explore the possible implications of a feeling theory for the treatment of emotional disorders. Both of these aims are important given the predominantly cognitive approach to treating affective disorders. Cognitivism in emotions, the idea that the emotions are primarily cognitive entities (judgments, beliefs, or opinions of some sort) has shaped psychotherapy, especially in the West. To a great extent, this cognitive approach to treating affective disorders is the result of a cognitive consideration of the emotions.

Challenging cognitivism in emotions, therefore, might lead to new theoretical and practical insights. The ardent over-intellectualization of the emotions changed decisively the way we viewed mental illness during the second half of the 20th century. It is not a secret that the intellectualization of the emotions paved the way for intellectual/cognitive methods of treating emotional disorders to sprout. If this over-intellectualization was largely baseless as I argue here, I think that it is about time we considered changing the way we view and treat mental illness, once again.

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I outline here, very briefly, the basic structure of this thesis. In chapter one, I say what emotions are not. I say that they are neither perceptual experiences of value, nor cognitive states, or states whose cognitive aspects stand significantly out. I also propose that they can't be impulses to behave, as many Motivational Theorists suggest. In chapter two I refer to the most widely known Feeling Theory of Emotions, the James-Lang Theory. I also discuss other feeling theories including Demian Whiting's proposals on the ontology of emotions as well as Jesse Prinz's hybrid view of emotions. In chapter three, I say what the emotions probably are. After having found differences and similarities with the JLTE in the second chapter, I put forward my version of the Feeling Theory which, I believe, simplifies things as to what are the emotions, and what are the states which comprise an emotion *and* something else. This distinction may have a pivotal role in determining what primarily needs fixing, in affective disorders.

The first three chapters summarize my philosophical quests on the ontology of emotions. Chapters four to six are more psychology oriented, as they are inspired by the theoretical assumptions of the first three chapters. In particular, in chapter four I investigate the effectiveness of the current model of treatment of common affective disorders, which is predominantly based on a cognitive approach to mental illness. My research indicates that while Cognitive Therapy is efficacious, it is so, not because it treats deep, cognitive distortions which are deemed responsible for the development of affective disorders, but because it works as a strong, active placebo directly targeting the feeling imbalance of the patients. In chapter five I elaborate further on the deficiencies of the Cognitive Model of Treating Mental Illness, and I also present the Hyper Emotion Theory of Psychological Illness. I argue that the Hyper Emotion theory is a much better alternative to the Cognitive Model.

Lastly, in chapter six I make some assumptions which are heavily propelled by a "feeling' approach to treat affective disorders. More specifically, I investigate how Mood Management Techniques, Medication, Behavioral Therapy without Cognitive Elements and other non-Cognitive means, could contribute synergistically to the well-being of the sufferers. Towards the end of the final chapter, I make a bold conjecture regarding the current, outpatient treatment model of mild affective disorders which I believe, deserves further attention. I put forward the idea that voluntary commitment for a short period of time to institutions that could ensure avoidance of negative stimuli and encourage experiencing positive emotions only, might result in emotional equilibrium. This emotional balance could possibly lay the foundation for more effective future treatments.

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PART I

CHAPTER 1

Against Perceptual, Cognitive and Motivational Theories of Emotions

Introduction

KEYWORDS: Intentionality, Perceptual Experience of Value, Emotions as judgments, Emotions as Impulses to Behave

In this chapter, I say why the emotions are not judgments, perceptual states or a species of motivation. I begin by setting forth counterexamples which make a common argument against theories which take the emotions to be perceptual experiences of value, and theories that view emotions as judgments of some sort. Those counterexamples, I argue, are prominent exceptions to cognitive and perceptual definitions of the emotions. Next, I cover other counterexamples/objections which are not common to both judgmenatalism and perceptualism, but pertinent to each of the above. The objections are so overwhelming, I say, that we cannot but turn down those two theories altogether. At the end of this chapter, I propose that the Motivational Thesis of Emotions, according to which the emotions are dispositions or impulses to behave is also to be rejected even if it looks attractive. A "soft" Motivational thesis on the other hand, could be a good alternative to Cognitive and Perceptual Theories of Emotions. Such thesis cannot describe what emotions are, but it can accentuate their motivational dynamism without reducing them to impulses to behave.

First Reflections on Cognitive and Perceptual Theories of Emotions

In this chapter I will give a number of considerations that speak against the idea that emotions are judgments or perceptual experiences or motivational states. Together they present as a solid case for thinking these theories of emotion are inadequate.

My strategy here is this: first, to spell out the judgment theory and perceptual theories of emotion, and to show how both are committed to the idea that the emotions have intentional objects. Second, to provide counterexamples that threaten the idea that emotions are intentional or object-directed states, which is a pre-requisite for both perceptualism and judgmentalism. Third, to offer specific arguments against the perceptual thesis. After that, I will refer to particular arguments against the judgment theory of emotions. Finally, I will say that the motivational thesis of emotions is also threatened by sub-cortical emotions. Those are emotional states which feel like emotions, but cannot be registered by the subjects. I will claim that Andrea Scarandino's *blindfright*, a sub-cortical emotion which is successfully used as an exception against perceptual and judgmental theories, sets a clear hazard to the position that holds that all emotions motivate for further action. Right away therefore, I go ahead to discuss judgment theories of emotions.

1.1 About Judgment and Perceptual Theories of Emotions

Most judgment theories of emotion hold that emotions involve or comprise certain kinds of judgments. The idea is that emotions are judgments of some sort, and it's been influenced by the views of the Ancient Greek Stoic philosopher Epictetus, who regards them as opinions:

"Nothing beyond the use of our opinion is properly ours. Every passion rests on opinion. What is to cry and to weep? An opinion. What is misfortune, or a quarrel, or a complaint? All these things are opinions; opinions founded on the delusion that what is not subject to our own choice can be either good or evil, which it cannot. By rejecting these opinions and seeking good and evil in the power of choice alone, we may confidently achieve peace of mind in every condition of life». (*Epictetus, Discourses, iii.3.14–19; Enchiridion, 6*)

Notable proponents of the judgment view of emotions, among others, includes Solomon [1976.2003], Nussbaum [2001], Neu [1977] and Lazarus [1988,1991]. For instance, Lazarus admits having taken "the most controversial position on the causal role of cognition in emotion, namely, that it is both necessary and sufficient condition", Lazarus [1991]). Solomon identifies them directly with judgments and keeps on arguing that "to have an emotion is to hold a normative judgment about one's situation" (Solomon [2003]). Nussbaum reiterates those claims by seeing them as cognitive appraisals, or value judgments [2001]. All in all, the judgment theory says that to experience an emotion, one must cognitively appraise or evaluate (acknowledge) that events are in a certain way. For example, fear might involve the judgment that some object or event is threatening or dangerous, and anger might involve that an event has been offensive. The historical popularity of the judgment view basically lies in the following aspect. It intimately connects emotion, value and cognition (hence Nusssbaum's view of emotions as cognitive appraisals and value judgments). This connection is said to account for the intelligibility and distinction of different types of emotions. For example, anger and fear differ in that the former involves the concept of offense while the latter involves the concept of danger. Some theorists (Arnold, [1960]; Kenny, [1963]) claim that an experience that doesn't involve its correspondent evaluative appraisal (i.e., anger without offense or fear without danger), are meaningless.

Jerome Neu underscores the inter-dependence of emotions on thoughts, beliefs, content and objects; here are some quotes of his, from *Emotion, Thought and Therapy* [1977]:

[without appropriate beliefs one lacks ... the emotions themselves. Appropriate beliefs (conscious or unconscious) constitute an essential part of what it means to have an emotion [p.1]

[Without the thoughts, one cannot have the emotions. [p. 36]

[If drugs produce emotions, it can only be by producing ... beliefs. [p. 66].

Perceptual theorists on the other hand, think of emotions as perceptual (or perceptual-like) experiences of value. Their main claim is that their view retains all those elements that one may find appealing in judgement theories of emotions, while avoiding a fundamental objection. This objection according to Whiting is that it's «possible, even commonplace, for people to undergo an emotion (say, fear) while actively refusing to endorse the judgment that the judgment theorist believes identifies that emotion (say, a judgement regarding the presence of danger) », (Whiting, [2012[, p.94). Eminent defenders of the Perceptual Theory of Emotions

are Tappolet [2005], Döring [2003]; [2009], Prinz [2004] and de Sousa [1987]). Perceptual theories come in two varieties. The one variety, defended by Prinz, states that the emotions are literal perceptions of bodily changes, elicited by content such as danger, slights, demeaning offence etc. Their function is to motivate for action (Prinz, [2004]). The other variety (Roberts [2003]; Tappolet [2016]), retains the view that emotions are perceptions of evaluative content (danger, slights, demeaning offence etc.), but it doesn't necessarily accept Prinz's view that they are also perceptions of bodily changes. Rather, perceptualists like Roberts and Tappolet usually replace perceptions of bodily changes with perceptions of a stimulus (e.g., the gun pointed at you, or the attacking tiger). According to those theorists, unruly emotions can be understood along the lines of illusions: like in the Müller-Lyer illusion, it's normal to perceive something in a specific way, while judging it in another. Someone, for example might get frightened by its own over-projected by the streetlights shadow at night, when crossing a dark alley alone. An optical illusion of this kind can deceive the person into perceiving the oversized shadow as a dangerous object, and make him believe that there's danger at hand.

It is obvious that intentionality is indispensable for both cognitive and perceptual considerations. In contemporary philosophy, intentionality is the about-ness or the of-ness of mental states. "Intentional states are those which are about or of things, normally things other than themselves', (Crane, p.3 [1998]). Such example could be John's thinking *about* his girlfriend, or John's thinking *of* his girlfriend. The contemporary view of intentionality has its roots in Brentano's idea that intentionality, the mind's 'direction upon its objects', is what is distinctive of mental phenomena. According to Brentano, intentionality 'is characteristic exclusively of mental phenomena. No physical phenomenon manifests anything like it', (Brentano, [1874]). Jean-Paul Sartre pointed that 'it is of the very nature of consciousness to be intentional' while adding that 'a consciousness that ceases to be a *consciousness of something* would *ipso facto* cease to exist.', Sartre, [1948]. The Intentionality Thesis in Emotions says something very similar. It says that the emotions are about something; they are object-oriented. The object of my fear is the gun you point at me, or the tiger that is about to attack me. A further distinction drawn by Kenny [1963] is the one between *particular* objects and *formal* objects of emotions. The gun is the particular object, while the danger it represents, is the formal object. More discussion on this distinction in later paragraphs. In this part of the thesis, I'll be concentrating mostly on the claim that emotions have particular

objects, while discarding later the claim that one can exist without the existence of the other.

The judgmentalist therefore, says that his judgment is about whatever the emotions are about. E.g., the puppy his fear is about, is judged as dangerous. The perceptualist allows for disparity on the other hand: disparity from what's one perceiving, to what's one judging; he may perceive the puppy as dangerous while judging it as harmless. Nevertheless, they both need an object for an emotion to obtain, and this is part of their definition of what an emotion is. For the judgmentalist, an emotion is a judgment of whatever a feeling is about. For the perceptualist, an emotion is a perception of whatever a feeling is about.

If therefore, the examples I describe below are examples/states we are not ready to dismiss as non-emotional, but they are about nothing, we 'll have to admit that cognitivism and perceptualism fail to deliver comprehensive definitions of emotion. Without further ado, I present examples which make the case against the intentionality of emotions. These examples are common to perceptual and cognitive theories. After this, I discuss objections specific to these two theories.

1.2 Examples Against both, Perceptualism and Cognitivism of Emotions

Blindfright

Named after blindsight to emphasize the analogy, *blindfright* is cited by Andrea Scarantino, [2010] as a counterexample to judgmentalism or cognitivism where «subjects can register fear-relevant properties of a stimulus and become afraid of it without being aware of seeing it, just as in blindsight one can register the color and shape of a stimulus without being aware of seeing it», (Scarantino, p.736, [2010]). It is observed in both normal subjects (subjects with no visual problems) and patients with damaged primary visual cortex. The latter show amygdala activation when fearful objects are presented in their blind field, (Morris et al., [2001]). But because some may counter-argue that we cannot safely and fully assess the theoretical implications when *blindfright* is caused by impaired vision, I 'll dwell on the former: Normal subjects show all measurements of fearful responses (skin

conductance response (SCR) increase, heart rate (HR) increases and decreases, amygdala activation and orienting misbehavior) when exposed to masked fearful stimuli. Generally, the masking procedure requires that the interval between the masking and the masked stimulus is 30ms or less, (Marcel, [1993]; Esteves et al. [1992]). When the masked stimulus is not fear-provoking, and it's neutral or positive, none of the above measurements indicating fear-experience is presented, (Ohman and Soares, [1993]).

There are two main issues to be examined here. The first is whether *blindfright* is a threat to the intentionality thesis for both, perceptual and cognitive theories. The second is, if it is indeed a threat, what is this telling us about the nature of the emotions.

I assert that *blindfright* is a threat to perceptual and cognitive theories of emotions, and in fact, a big one. It must be noted that *blindfright* is different from the examples I will refer to next. It's different in that we don't just lack an object in cases of *blindfright* but still, we have manifestations of an emotional experience. It is that there is an object which is so well masked, that the subjects cannot report being aware of it. In my view, *blindfright* not only threatens the intentionality thesis from the traditional standpoint (the factual lack of an object), but it *expands* the dimensions of lack of intentionality. *Blindfright* probably takes the concept of "lack of intentionality" a step further. The extremely good masking of the stimulus produces results that look as if there is genuine lack of intentionality, even if in reality there is, somewhere, very well hidden a stimulus. This might be seen as a novel approach to aboutness. The well-masked stimuli that produce emotional responses may provide another dimension of intentionality. A dimension that it's not about whether there is a stimulus out there or not, but about whether the stimulus can be registered or not. When a perceptualist asks the subject after the experiment: *have you perceived anything fearful?* the clear answer must be- *no, I have not.* When a cognitivist asks the subject -*have you judged anything as fearful?* --the clear answer, again, must be, -*no I have not.* Thus, it could be said that lack of intentionality is not limited to the absence of a stimulus, but it's expanded to the complete inability to register a stimulus even if the subjects (knowing that they're part of an experiment) have their ears and eyes open and are in «full readiness» mode, to detect that stimulus. If emotions are judgments or perceptions, then subjects should be able to report on the objects of their emotions; In *blindfright* and similar subcortical experiments, subjects cannot report the objects of their emotions. Therefore, emotions cannot be perceptions or judgments.

The only way for perceptualists and judgmentalists to deal with problems such as *blindfright*, is to use the Elastic Strategy (Scarantino, [2010]). The Elastic Strategy stretches the notions of perception and judgement so much, that eventually, everything becomes a perception or a judgment. In this case, perptualists and cognitivists talk about unconscious or subconscious perceptions, or judgments. Alternatively, Ned Block's distinction between phenomenal (P) consciousness and access (A) consciousness[1] can be employed to explain why there are emotional cues in *blindfright*, but no conscious awareness of anything. Block's example of P without A is that one can become conscious (acquire A) of an ongoing noise (e.g., a pneumatic drill) «some considerable time after one has been "aware of" or has been "experiencing" it», (p. 234 and p.244, [1995]).

In my opinion, we don't really have perceptions or judgments in this case. We can't simply say that *blindfright* is perception of danger or judgment that something is dangerous, which we don't have access to. This is because unlike the pneumatic drill noise which we can become aware of, at a later point, *blindfright* fear can never be acknowledged as a perception that we hadn't previously had access to. Imagine two friends chatting, and after some time they suddenly stop. Seconds later, the refrigerator's motor stops working, and they realize that they 've been listening to the motor's noise all along; they just became conscious of it once it stopped, and when there was silence in the room; that's Block's distinction between A consciousness and P consciousness.

Blindfright isn't anything like it, because no matter how hard the subjects try, they cannot register any perceptions or judgments; neither during the «exposure» to the masked stimulus, nor afterwards. We need to set boundaries to what can be considered as a perception, or a judgment. Otherwise, by using the Elastic Strategy, I can claim (and you can't deny it), that as I type these words, I perceive explosions and solar flares on the surface of the Sun, and I judge them as dangerous for the Earth's atmosphere. I can stand firm on my claim (and you'll have no means to challenge it) that (as in *blindfright*) the fact that I can't register my perceptions of the Sun-surface explosions, doesn't mean that I don't have them. It's wiser to support then, that during *blindfright* there are not perceptual experiences of anything, and whatever fear the patients experience, is about nothing.

[1] Block gives the "paradigm of P-consciousness that are sensations, whereas the paradigm of A-consciousness states that are "propositional attitude" states like thoughts, beliefs and desires, states with representational content expressed by "that" clauses", (Block N., [1995]).

The way I see it, complete inability to register a stimulus equates to absence of a stimulus, in *perceptual* and *judgmental* terms. There are all sorts of ongoing stimuli in the world; the point is what is perceived or judged in a certain way, and what is not. If a person cannot register the object of his emotion *in any way*, my recommendation is that he experiences an objectless emotion, no matter if there is an object "out there", or not.

To explain my point of view further, let me draw an analogy between psychoanalysis and *blindfright*. Unlike psychodynamic therapy whose main function is to reveal the subconscious content of the patient's emotions or thoughts, in *blindfright* there's nothing that can be revealed. When psychodynamic therapy succeeds, the content of subconscious conflicts is thought to be brought to the surface. In such case, the patients can acknowledge the existence of subconscious emotions and thoughts, and consequently, acknowledge that that they might had been phenomenally conscious of them, but had no prior access to (to use Block's terms). In that sense, non-conscious perceptions or judgments can be acknowledged as «possibly accessible ». This is not the case in *blindfright*: if the masked stimulus occurs in very short intervals (i.e., 5-10ms), there's no way to track *any* kind of perceptions or judgments. Ever. For me, this is a clear case of non-perception and the only evidence we have that something might have happened, is the feelings involved. If the subjects cannot register fear-relevant properties of a stimulus, it makes sense to assume that not only they haven't perceived the stimulus, but they also haven't perceived any kind of dangerousness. Nor they have judged anything as dangerous. It becomes evident that *blindfright* indicates that there can be emotional feelings and no perceptions or judgments. This is because anything non-conscious in the case of *blindfright* (emotions, thoughts, perceptions or judgments), does not even lie to our understanding of subconscious (that is to have the capacity to be acknowledged at subsequent times).

I understand that there might be objections regarding the role of awareness in determining objects associated with emotions. There could be the claim that even if there is nothing at a conscious level, we cannot rule out to be something registered at a subconscious level.

I think that everything about *blindfright or* any similar emotions primed by subliminal stimuli, points to that there isn't anything subconscious about them. First off, apart from *blindfright*, subliminal stimuli have mostly been involved in the context of emotion studies (e.g., Frumento S., et al. [2022]). It is clear that almost all researchers agree that subliminal stimuli used, do not simply evade conscious

focal awareness (that is the mark of the subconscious, so to say). Nor that these subliminal stimuli are registered at an alternative storehouse of one's knowledge as Locke and Kristof have described the subconscious (Locke Edwin A.; Kristof Amy L. [1996]). The design and conclusion of such primed experiments show that perception of such stimuli doesn't simply lie outside consciousness at a subconscious level, but they are collectively referred to as stimuli that pertain the unconscious of the subjects[2]. I'm pretty confident that we should demarcate the subconscious level from the unconscious (or the non-conscious), for the reasons I mentioned earlier. Any such information at a level not possible to be retrieved, introspected or registered, must be treated as information pertaining the unconscious. Take breathing for example, a seemingly subconscious behavior: We don't think of breathing at all, but we can change how we control our breathing and its pattern if needed. This is because we can introspect and retrospect on our breathing pattern. We can't do any of those with subliminal stimuli. Hence, I believe that we should rule out the possibility that there are any perceptions registered at a subconscious level in *blindright* masked stimuli, or similar subliminal stimuli for that matter.

Scarantino discusses two objections to his *blindfright* case. This discussion brings forward further considerations to the nature of the emotions themselves. The first objection is that *blindfright* «is not really fear because there is no distinctive phenomenology attached to it», (p. 738, [2010]). The second «is that *blindfright* not only lacks a phenomenology, but it also lacks other key properties of prototypical fear episodes», (p. 738, [2010])[3]. His replies are as follows: Regarding the lack of phenomenology, he argues that the subjects state that they feel «high arousal, high disliking, and lack of control». But he adds that «lack of phenomenology does not necessarily entail lack of emotion», (p. 738). Regarding the objection that *blindfright* is similar but not real fear because it doesn't have all their prototypical properties, he maintains that verbal report of a subjective state is poorly correlated with what behavioral and physiological measurements show. In other words, *blindfright* is still fear, even if it's not reported, and even if it seems

[2] I would distinguish by saying that our subconscious workings of the mind remain predominantly beyond the reach of our conscious mind. Such workings can get projection into conscious mind through various ways. I would also see the unconscious activities as the ones not regulated by our conscious and subconscious drives, that occur automatically and are not available to introspection.

[3] As regards the key properties of prototypical fear, Scarantino mentions that fear episodes "involve a suite of coordinated neurophysiological, phenomenological, and behavioral responses", p. 739, [2014]

(*per* Scarantino) to lack phenomenology. I agree with the first leg only, the one that says that *blindfright* is still genuine fear, even if it cannot be reported. I need to stress that I highly disagree with the idea that there can be emotions that lack phenomenology.

Let me note that as a motivational theorist of emotions who views them as irruptive and prioritized impulses to behave, Scarantino probably finds it easy to concede that there might be lack of phenomenology in some emotions. I can't. But it's more than obvious that *there is* phenomenology in *blindfright*, as long as someone is willing to see it. Patients report «high arousal, high disliking, and lack of control». These non-agreeable feelings shouldn't be overlooked. The high arousal and high disliking, in other words the reported negative algedonic properties, are sufficient to describe the phenomenology of the emotions, as I will soon support in chapter 3. This comes contrary to Scarantino's assertion that «lack of phenomenology does not necessarily entail lack of emotion", [2010]. Let me go back to his definition of *blindfright*: He defines it as the subject's inability to "register fear-relevant properties of a stimulus and become afraid of it without being aware of seeing it". By focusing on what's to be registered, I counter-propose that the subjects do not register fear-relevant properties, but they register the emotion of fear itself. This is no other than the "high disliking and the high arousal", namely, the disagreeable feelings. What the subjects can't register is the stimulus, or any perception of the stimulus, not the feeling. For Scarantino the fact that they "become afraid of it without being aware of seeing it" probably constitutes some kind of subconscious/unconscious perception. For me, and for the reasons I explained before, there is no perception of the stimulus. On the one hand, I agree with him in that missing verbal reports, the absence of *all* prototypical properties and the lack of aboutness (the lack of intentionality), do not entail lack of emotions. On the other, I propose that manifestations of simple algedonic values not only show that there is a phenomenology, but they make up *all* the phenomenology we need to describe emotional states. Emotions, I will claim, are likeable or dislikable sensations and *blindfright*, sets the paradigm for that claim.

1.2.1 Panic Attacks, Diffused Anxiety and Sadness, and Substance-Induced Emotions

Unlike *blindfright* where the stimulus is masked and impossible to be perceived, panic attacks, euphoria, diffused states of anxiety & depression, and substance-induced emotions are examples where there seems to be no stimulus. Panic attacks for instance, are sudden, unprovoked-by-a-stimulus bouts of intense fear, (APA [2013], *Diagnostic and Statistical Manual of Mental Disorders* (5th ed)). Non-specific anxiety or non-specific unwellness are states that most of us experience at some points in life. Kenny himself, a proponent of the idea that emotions are *de facto* intentional, acknowledges the existence of *tokens* of fear that are sometimes genuinely object-less. He writes: «there are cases where we are afraid, but afraid of nothing, or of something, but we know not what. Perhaps we awake in the morning with a sinking feeling, and a loose and general sense of dread», (Kenny, [1963]). Finally, substance-induced emotions are everywhere: from the agitation someone might feel after the consumption of excessive amounts of coffee or the calming effects of alcohol, to the emotional effects of antidepressants and anxiolytics and the negative emotional side-effects of numerous drugs, the evidence for substance-activated affective states is incontrovertible.

In that context, Thalberg [1964] cites three kinds of emotions: i) emotions which cannot take objects (e.g., depression, euphoria, and apathy), ii) emotions which may, or may not have an object (he gives embarrassment, worry, anticipatory pleasure, and delight as examples), and iii) emotions which must necessarily take objects. Against this classification Lamb proposes that the division should rather be "between emotions which *must* take objects and those which *may*" (Lamb R., [1987], p. 109). Thalberg and Lamb's positions, although different, probably summarize what's been written on the literature regarding emotions that may, may not, or must take objects. My own position, which is explained in detail in chapter 3 and includes a third layer/level, is that the intentionality thesis is false for all emotions, because I ascribe no intentional or propositional properties to the emotions. I consider them as very simple feelings of specific sort. When they take an object, I will say, they become something else; they become compound mental states, comprising emotions and other mental phenomena. This is very different from Lamb's position, if we take his view as the most plausible of the two. For Lamb, there's objectless fear (as in panic attacks) and object-directed fear (as when

a gun is pointed at you). But still, both fears are emotions which only differ in that the first is objectless, while the second is object-oriented. For me, the fear directed at the pointed gun is a compound state and only the objectless, panic attack fear is a *bona fide* emotion. Also, for Lamb, guilt must necessarily take an object. I agree, and in chapter 3 I propose a further layer of higher-order compound states that includes states such as guilt or shame. But I don't consider them as emotions and in that case, I make the distinction regarding the falsehood of the intentionality thesis for all emotions, and the apparent correctness of the "compound" thesis for all such composite states.

What are the counter arguments here? Well, there's a concerted effort to, either classify objectless emotions as moods, or to try to give them an object. Sometimes, many theorists attempt to do both. In that manner, Solomon states that:

"There are passions which need not be about anything in particular; these are moods. The difference between an emotion and a mood is the difference in what they are about. Emotions are about particulars, or particulars generalized; moods are about nothing in particular, or sometimes they are about our world as a whole. Euphoria, melancholy, and depression are not about anything in particular...they are about the whole of our world". (Solomon, [1976]).

Kenny has desperately struggled to discover an object (or objects) for objectless emotions. He writes:

"Are there not objectless emotions, such as pointless depression and undirected fears? There are indeed such emotions.... We are often unaccountably depressed, on days when for no reason everything seems black; but pointless depression is not objectless depression, and the objects of depression are the things which seem black". (Kenny, [1963]).

A third attempt to rescue the intentionality thesis from the counterexamples under consideration, is made by Lyons. In his book *Emotion* [1980], he tries to sustain aboutness by employing the notion of objects that «are not immediately available for description». So, for example, in depression what we are sad about, might not be "immediately available for description".

I believe that all three attempts are doomed to fail. As far as the attempt to describe objectless emotions as moods is concerned, one must first define moods. I give three possible definitions in chapter six, but I 'm strongly against the idea that objectless emotions are the same as moods. While both are feelings states, moods are way more diffused (more spread out in intensity and duration), probably lack the strong somatic manifestations the emotions have, and can be thought of as precursors of emotional episodes. Because they're diffused, but they still may have a character, (i.e., sad mood, angry mood, depressed mood etc.). Lyons confuses them with objectless emotional episodes which, while about nothing, demonstrate their full, strong feeling character, and their strong physiological disturbances. The episode of fear in panic attacks has all the prototypical physiological and feeling properties of the fear that someone feels when a gun is pointed at him. In fact, as I explain in chapter six, although moods are usually precursors or feeling states that predispose to experience a token of an emotion, the two are not *necessarily* linked. The episodes of very intense fear experienced in panic disorder, are not necessarily tied to the mood an individual is in. After all, this is why they 're called panic attacks. They are nowhere visibly connected to the general feeling status the individual is in, that precedes the episode; they just come out of the blue. Therefore, objectless full-blown emotional episodes are one thing, and moods are another. Solomon and other cognitivists are wrong in supporting that the panic attack fear, is some type of mood which is about «nothing in particular». It's an emotional episode which simply doesn't have an object.

Regarding the idea that the object(s) of objectless emotions is the *whole of the world, the things which seem black, or everything*, I have to say the following:

First, it appears that this *ad hoc* approach, is used only to save the intentionality thesis from troubles. It is a desperate effort to devise an object (where there is no object), just to keep the intentionality theory of emotions alive. Second, it would be frivolous to take the above expressions literally. When perceptualists and cognitivists claim that the object of the fear in panic attacks is the *whole of the world*, or *everything*, it can't be implied that the individual's fear is about a *great number* of things. When it's proposed that someone's depression is about *the things that seem black*, we can't say that there are such specific things (the walls, the desk in front of him, the vase, what?) that *actually seem black.* It's just a manner of speech that allows the sufferers to express their emotional turmoil, and us, to understand that they feel unwell.

Finally, it seems true that sometimes, the objects of our emotions are «not immediately available for description», owing to various reasons. This is what someone could support to refute the idea that there aren't emotions which are objectless: simply, the object isn't immediately identifiable and not «available for description». In fact, this might be occasionally true. It might be the case that many emotions to lack an object that is clearly and easily available to the emoter. But this, shouldn't lead to the generalization that objectless emotions don't exist and it's just the object that isn't obvious. The existence of such emotions doesn't mean that *all* instances of such emotions have objects that are subconscious, or "not immediately available for description". For instance, the objects of the emotions someone experiences after the inadvertent consumption of large amounts of methamphetamines that lead to hallucinations, panic or psychosis, are not "immediately available for description", because such emotions do not have objects. Furthermore, even if the cause of his undirected emotions (the consumption of psychotropics without his consent and without his knowledge) is disclosed later to the affected individual, the objects can never become "available for description", simply because these causes do not have an "about" relationship with the provoked feelings. The individual's emotions/feelings are *caused* by the methamphetamines, they are not *about* the methamphetamines.[4]

The failure of intentionality in emotions on the other hand, entails the failure of cognitivism and perceptualism in emotions, because the first is a prerequisite of the second. If this is so, it could be said that cognitive and perceptual theories may sustain a loose causal explanation of emotional states. It could be claimed for

[4] A clear distinction between causal and intentional relations of emotions needs to be drawn here. Let the Causality thesis be the thesis that emotions are caused by X. Also, let the Intentionality thesis be the thesis that emotions are about X. The Intentionality thesis says that X are physical or mental events. It seems that the Intentionality thesis fails because X (physical or mental events) does not cover all cases. It cannot include *blindfright* and similar subcortical experiments, drug induced emotions, or objectless psychological states such as the fear of panic attacks. This is because it cannot be said that *blindfright* is *about* something (so long as this something is so well-masked that it cannot be registered), it can't be claimed that drug induced emotions are *about* drugs, or that objectless psychological states such as the fear of panic attacks are *about* anything in particular. In contrast, The Causality thesis succeeds in the following: It provides causal (etiological relations) for those cases. According to the Causality thesis the well masked stimulus as an αιτιον (cause) for subcortical experiments, the consumption of the drugs is the cause for drug induced emotions, and some chemical imbalance in the brain or sudden hyperactivity of parts of the brain is the cause for objectless psychological states such as the fear of panic attacks. But the role of the Causality thesis is exhausted in providing causal objects of emotions only. It cannot be a complete theory of emotions because it tells us nothing about the "what-is-likeness" of emotional states. It tells nothing about how they feel, it tells us nothing as regards how phenomenologically emotions are presented to us.

example, that judgments or perceptions *may* cause emotions, and certainly, we should be careful to abstain from the claim that they always do.

1.2.2 The Relational Theme Card

Regarding objectless emotions, judgmentalists and perceptualists may think that they have a last card to play. It is what I call the Relational Theme Card. Many judgmentalists and perceptualists seem to have adopted Kenny's distinction between the material object of an emotion, and its formal object. Kenny believes that the emotions are about both (Kenny, [1963]); the material object is the actual/factual object (the gun pointed at you). The formal object is "the description of the material object which must always be true of it in order for the relevant emotion to be appropriately instantiated", (dangerousness in our case). Scarantino, [2014]), Salmela [2005]) and Prinz [2004] have also described the formal objects of some emotions according to Lazarus' Core Relational Themes, [1991]. This is the table, as presented in Scarantino's paper:

Table #1.

Emotion	Formal Object
Sadness	Having experienced an irrevocable loss.
Anger	A demeaning offense against me and mine
Fear	Danger
Guilt	Having transgressed a moral imperative.
Shame	Failing to live up to an ego ideal
Pride	Enhancement of one's ego identity by taking credit for a valued object or achievement, either one's own or that of someone or group with whom they identify.

The card perceptualists and judgmentalists could play therefore, is this. They can say that, agreed, there are cases when the factual/material object is missing, but at least we have always the formal object. So, the emotion is still intentional. It's about its relevant, Core Relational Theme. For example, panic attack fear lacks a material object, but still, the fear is about danger. Thus, the intentionality thesis is saved at all times. So practically, the perceptualist and the judgmentalist will say that the fact that we have two objects, works as a safe net, and rules out lack of intentionality.

The question is, can we have intentionality in the absence of one or the other object? Can we still have intentionality in the absence of the material object, or the opposite? The worry here is how can an emotion represent a formal object without also representing a particular object? In cases such as *blindfright*, drug induced emotions or unprovoked experiences of panic or sadness, the concern is how's it possible for the agents to perceive the formal object, without perceiving the material object. I believe that the worry is justified. Once a state is about nothing, it looks as if it's superficial to say that it represents any kind of relational themes the subject may detect in its close environment, simply because there aren't any. In cases of objectless emotions, it seems to me that it is redundant or at least metaphysically trivial, to relate a pure qualitative mental state with a theme that does not seem to arise from anything, in terms of design or explanation.

See it this way: Some substances are observed to cause various neuropsychiatric side effects. For instance, montelukast is labelled with a black box warning for neuropsychiatric side effects (aggression, nervousness, depression and agitation among others, [(updated information by the FDA), August [2009])]. Isotretinoin (a treatment for acne) is associated with depression, aggressive tendencies, irritable mood and anxiety (Kontaxakis, Skourides D., et al. [2009]). The list of substances that may cause objectless emotions is long; in our case, it is possible to assume that some individuals might experience bouts of sadness following the consumption of montelukast, or to experience anger-like emotions for no reason. In such cases there can be no link between the experienced feelings and their putative formal objects, as some philosophers claim (i.e., *Gut Reactions*, Prinz, [2004]). We cannot associate the consumption of montelukast with loss of any kind, or the consumption of isotretinoin with a demeaning offense. To insist then that those objectless emotions are about conjectural themes, is to make a theoretical assumption that is, at best, arbitrary regarding specific cases. Furthermore, it casts doubt on the accuracy of the original pairing: can we say that, without exception, anger is related to a demeaning offense, or sadness to irrevocable loss? The above

examples definitely show that we can't confidently say that specific emotions are related to specific themes, *without exceptions*.

In summary, the lack of intentionality is a real threat to both perceptual and cognitive views. The examples I have given, examples that clearly involve emotions without intentional objects, constitute a strong threat to perceptual and cognitive (judgmental) theories of emotion. I will now give additional considerations for thinking that these theories are indeed false.

1.3 Objections tailored to the «Emotions as Perceptual Experiences of Value» Thesis

Apart from the objection from the *lack-of-objects* -which is common to both cognitivism and perceptualism-, a major source of concern pertaining the Perceptual Thesis, is this: Several theorists advocating the Perceptual Theory, regard them as sensory experiences, (Prinz, [2004], Doring, [2007], [2009]). Others (e.g., Brady) think they are only akin to perceptual experiences, but still, a concern is raised here. Whiting [2012] points out that it is unclear what could serve as emotion's sensory modality.

Thus, the question is whether our five sensory modalities are "good candidates for providing us with 'emotional perception'", (Whiting, [2012], p.94). Whiting argues that they are not, for the following reasons:

If emotions were simple sensory experiences, it would follow that subjects that lack one or more sensory modalities, would fail to experience emotions. This is obviously untrue. Blind people, deaf people, people who have lost their taste or individuals who can't have haptic feedback, can experience emotions just fine. To make use of the methamphetamine example, it's apparent that the emotions experienced because of the consumption of the drug, are irrelevant to the subject's functioning or malfunctioning of his sensory modalities.

So, the moral of the above is that emotions are not one or more of the usual five sensory experiences. Emotion then must comprise its own unique sensory modality. But this then leads on to the next worry that Whiting raises.

The problem is that, as Whiting asserts, emotional feelings do not have the sought-after intentional or representational content and, therefore, "cannot provide us with the required perceptual modality", (p.99, [2012]). To clarify things, Whiting's position that "emotional feelings do not have the sought-after intentional or representational content and, therefore, cannot provide us with the required perceptual modality", comes as a response to someone who might claim that emotional perceptions involve a different kind of sensory modularity, one that is to be spelled out in terms of feeling. Perhaps an extra sensory modality. This, in turn, comes as a response to the idea that emotions represent things somehow, and this representation does not need the deployment of concepts (Döring [2009], Faucher and Tappolet [2006]). Whiting's claim is that agreeable/disagreeable sensations undergone when experiencing an emotion, do not themselves manifest an associated representational character. The perceptualist's counterclaim is that emotions about X, must have a representational character of X; when someone's happy about his son's achievements, his "pride" is embodied into the relevant mental representation. The answer here (and for more, see chapter 3 of this thesis) is that by viewing *happy-about-my-son's-achievements* as a compound state consisting of a thought and a feeling, the plain, "happy" feeling constituent need not have a representational character.

Another criticism of the perceptual model is given by Michael Brady, (Brady, [2010]). Brady's argument is that emotions don't serve as reasons for belief for making evaluative judgments, as perceptualists tend to think. Unlike common perceptual experience, Brady claims that the emotions do not serve as reasons for belief. Here is how he explains so.

If I see a computer in front of me, he says and in the absence of defeaters like poor eyesight or hallucinations, I have very good evidence or conclusive reasons to believe that there's a computer in front of me. For this perceptual experience, and endless others, there isn't anything spectacular that would draw me into my experience and consume my attention. This is not the case for the emotions, he explains: Firstly, because emotions not only reflexively and automatically direct our attention, but they also capture or consume our attention for long, often making it very difficult for us to disengage our attention and shift focus to something else. Secondly, he states that unlike perceptions, emotions motivate us to search for *further* reasons for their accuracy, they motivate us to "search for reasons which bear on their own accuracy, and hence on the correctness of the associated judgement", (p. 12, [2012]). As an example, he mentions an experience of fear,

"when trying to get to sleep at night, upon hearing a noise downstairs. In such circumstances", he asserts, "we are motivated to seek out and discover additional reasons or evidence. In particular, we are motivated to seek out and discover considerations that have a bearing on whether our initial emotional appraisal—namely, that we are in danger—is accurate", (p.5, [2012].)

Thirdly, according to Brady an emotion cannot justify itself. That is, "an emotional experience cannot be a reason for the relevant evaluative judgement', [2012]. For example, your fear of the attacking bear cannot be a reason to judge that the bear is dangerous, because in this case, we would have to conclude that the fact you're afraid of the bear itself, gives you good reasons to be afraid of that bear.

I agree with Brady that contrary to simple perceptual experiences, emotional experiences appear to catch and hold our attention for long, and that it's difficult to disentangle and shift focus. I also agree that emotional experiences cannot be reasons for the relevant evaluative judgements. What gives you reason to think the bear is dangerous or fearsome cannot be the emotion of fear itself, but rather something else; be it the bear's growling intimidating sounds, its sharp teeth, or it's attacking posture. For recalcitrant emotions like the ones in phobic reactions, the idea that the emotions themselves cannot be reasons for the relevant evaluative judgements is supported further in light of the fact that the people who experience such emotions know that their phobic emotions are irrational. For instance, consider the person who is frightened of thunders, and knows that they pose no danger as long as she's staying inside. What gives her reason to think the thunder is dangerous and make the relevant evaluative judgement, can't be the fear itself, especially when she *knows* that the thunder isn't hazardous when in home. There must be something else that makes her consider the thunder as fearsome as the deafening sounds, or the frightening bright lightings.

I disagree though, with the idea that emotions always motivate us to search for further reasons for their accuracy. This is a very anthropocentric approach that may apply to adult humans only, and in specific circumstances. Brady examines this possibility and mentions young children who "seem to form evaluative beliefs—such as the belief that they are in peril—directly as a result of experiencing fear", (p. 11). His response is that our emotions can be trained or calibrated so as to bring to our attention important elements of our surroundings, and as we age, we learn to associate our emotions with their relevant values. His response is not satisfactory from my standpoint, because it leaves out all the basic emotions infants and animals experience. To be able to correlate emotions with circumstances and values,

presupposes "a sophisticated understanding of when and to what extent they (the emotions) are trustworthy', (Elgin, [2008]). But this is not the case with animals and infants. Does the frightened cat need to search for further reasons that justify her fear? Or the infant? Obviously not. By excluding infants and animals experiencing basic emotions, and by focusing only on adult human emotions that occasionally prompt us to seek for extra evidence for their accuracy, Brady fails to show that emotional experiences differ from perceptual experiences in that the first motivate emoters to seek out and discover additional reasons or evidence. Not all emoters (animals and infants included) are motivated to do so.

Thus, what can be retained from Brady's views, is that emotional and common perceptual experiences are different in how the former consume our attention compared to the latter. Moreover, it can be retained that emotional experiences, unlike their perceptual counterparts, cannot be in themselves reasons for their relative evaluative judgments. Those two, appear to be strong arguments against the Perceptual Thesis.

The Perceptual Theory of Emotions looks attractive at first. By stating that emotions perceptually represent the world as being in a certain way, it avoids the more demanding cognitive requirements that take the emotions to be judgements. By considering emotions as states that demonstrate characteristics like informational and inferential encapsulation and involuntariness[5], the Perceptual Theory appears to be better than its judgmental counterpart in explaining the rapid onset of emotional episodes, their recalcitrant nature and, perhaps, irrational emotions like phobias. But the problem with the Perceptual Theory is that it confuses the phenomenology of the feelings with the phenomenology of the perception because it fails to show that affectivity «manifests phenomenally the sort of representational content the perceptual-value theorist is after», (Whiting, [2012]). Moreover, it is bound to world-directed intentionality and whenever emotions are not directed, the Perceptual Theory cannot provide a satisfactory explanation, (in perceptual terms), for those emotions. Any attempts to justify intentionality in objectless emotions by resorting to intentionality-through-the-Core-Relational-Themes, seem futile in my view.

[5] informational and inferential encapsulation are defined by Tappolet as information on what's to be expected from an emotion that is included in the perceptual characteristics of the emotion itself, (Tappolet, [2016]

1.4 Objections tailored to the «Emotions as Judgments» Thesis

Emotions can't be judgments. I have tried to show this with the earlier example of *blindfright,* but here, I offer additional reasons why emotions aren't judgments. Emotions might be caused by correct, or misleading judgments, but most certainly, they *are not* judgments as the «hard» cognitivist thesis wants them to be. I offer four reasons why:

1. Emotions are not judgments because judgments are sensitive to reason and other judgments, and emotions do not comply to those two, in all cases.

2. Emotions are not judgments because judgments do not *necessarily* feel somehow. Sometimes there's a phenomenology of judgment, sometimes there's not. Emotions on the other hand do feel somehow.

3. Emotions are not judgments because judgments are normally intentional (deliberate) cognitive processes. Emotions on the other hand, are more like mandatory unavoidable reflexes.

4. Emotions are not judgments because it would have been a colossal mistake to insist that non-cognitive agents like infants and animals lack the capacity to experience emotions. The ability to make judgments in the conservative sense, says the argument, is a privilege of linguistically competent agents only.

More comments on those four objections, is what comes next:

1. Before elaborating on categories of emotions that are not sensitive to reason, I would like the address a possible objection against the assumption I am elaborating on, that judgments are sensitive to reason. It could be said for instance, that judgements are not necessarily subject to change when new evidence comes up. However, I wish to clarify that I make this assumption under a normative account of the rationality of judgments. Under such an account, judgments *should/ought to* change in light of new evidence. E.g., you should change your judgment to that "thunders are not dangerous when inside", after been amply informed that they are not. But as said earlier, this is not always the case.

   We must see then, why is it that occasionally judgments are not sensitive to reason, or other judgments. It might be because of interfering and conflicting interests, perhaps habits, or most likely, because of our emotions. In fact, affect

does seem to influence judgments (make them immune to evidence-based change) more than anything else (Jarymowicz M. [2016]). But if this is the case and affect determines the level of evaluative heterogeneity more than anything else, it 'd be a logical fallacy to support that judgments and emotions are one and the same. Barring self-interests or habits, evaluations should or must change in light of new evidence, and the only other way for an evaluation to lead to an irrational decision (one that does not take into account new evidence), must be something that could be by nature irrational. Emotions are by nature, oftentimes, irrational. Therefore, judgments and affect (which is oftentimes irrational) must be fundamentally different species. Regarding habits or self-interest, we need to consider seriously the possibility that those two to have a functional role. By functional role, I mean the following: It is likely that people keep supporting their old judgment despite new evidence. Self-interests mostly, and habits to some extent, may make people insist on their older judgments just because this attends on whatever interest of theirs, without this meaning that they haven't made secretly a new correct judgment upon the presentation of new evidence. A hard racist for example, may by close contact find out that black people are not bad, or inferior at all. It's understandable to continue expressing the former belief/judgment that black people are bad or inferior out of self-interest (e.g., so as not to negate a whole life of supporting racist values). But still, we may acknowledge the real possibility that he has covertly made a different judgment, despite publicly expressing another belief/judgment.

That being said, I go on talking about a common category of emotions that appear to be insensitive to reason: irrational fears. Phobias and irrational fears seem to be distinctive circumstances where judgments about X are insensitive to logic, reason and other judgments. If judgments are generally to be understood as being cognitively penetrable (subject to change when new evidence comes up), but a specific subset of emotions is not cognitively penetrable, it might be held that it follows that emotions cannot be judgments; at least, not in an across-the-board basis. The claim here is not that that all emotions are not sensitive to reason. In many cases they are. The claim is that the fact that sometimes, inexplicably, emotions are not sensitive to reason, threatens the judgmentalist view that the emotions are judgments.

Traditionally, judgmentalists have tried to explain irrational emotions and phobias by calling on *contradictory* judgments: Nussbaum argues that,

sometimes, subjects may hold several opposite beliefs, ([2001], p. 35). The first thing to note, is that Nussbaum's account runs contrary to the definition of phobias itself. In Specific Phobias Disorder, the main criterion of the diagnostic features is that «adolescents and adults with this disorder, *recognize* that their fear is excessive or unreasonable» (Criterion C), DSM IV, 4th edition [2005]. This clearly means that the sufferers do not hold two contradictory beliefs; they don't believe that X is true, and X is not true, simultaneously. They don't judge that danger is at hand, and danger is not at hand. Their judgment is that danger is not at hand, but their emotion is, inexplicably, not extinguished by their judgment.

Secondly, Nussbaum makes the extraordinary hypothesis that people who are perfectly sane and make reasonable judgments in all aspects in life, is possible to exhibit an *ad hoc* (per Nussbaum), uncalled-for, lapse in their logic. Judgementalists need to explain why, how and when this selective lapse in reason occurs. To the best of my knowledge, judgmentalists have not explained why perfectly reasonable individuals demonstrate logical errors in very specific cases, and in very specific instances.

Recently, a different proposal on the problem of recalcitrant emotions has been given, (Hichem Naar, [2019]). Unlike Nussbaum who claims that recalcitrant emotions like phobias can be explained by contradictory judgments, Naar proposes that given the phobic character of an irrational emotion in conjunction with the fact that the emotion won't be affected in any way by the presence of the judgment, it's possible that the phobic person experiences an animal emotion. By animal emotions he means emotions which are neither reason-responsive, nor judgment-sensitive. He distinguishes them from reflective emotions which are reason-responsive and judgment-sensitive. The example he gives is something like the difference between hunger and beliefs. Also, he proposes that "an emotion of a given type may involve different kinds of evaluative states across cases" which is what he calls the pluralistic view. It comes in contrast with monistic view that "an emotion of a given type necessarily involves the same kind of evaluative state", (Naar, [2019], p. 6). He invites us to reject the idea that emotions always involve the same kind of evaluative state. He explains that until know, theorists either take it that an emotion "always involves an evaluative judgment or, it always involves an evaluative state of a less demanding sort—such as a perception-like representation with a non-conceptual

content (Tappolet, [2016]) or a *sui generis* bodily attitude" (Deonna & Teroni, [2012]); (Naar, [2019], p. 6). By embracing pluralism, is the claim, we could say that, generally, adult human emotions involve evaluative judgments, while infant and animal emotions involve perception-like representations with a non-conceptual content, or *sui generis* bodily attitudes.

I think we should reject the idea that it's possible that the phobic person experiences an animal emotion.
At first, the animal/reflective distinction presents a very disunified class of emotions. In what matters do reflective and animal emotions differ, and in what matters are they similar? Naar concedes that they are similar in many aspects: he says that "an animal's emotion may motivate her in the same way, have the same cognitive base (e.g., some perceptual experience of the situation), feel the same way, and involve the same bodily changes as the reflective emotion in question", (p. 12). If therefore, they are similar in so many aspects, they should be different only in the way they are evaluated. Imagine the zookeeper and the deer accidentally trapped in the unfed tiger's cage. I assume that they both experience the same emotion of fear at first. They will both feel the same way and perhaps, experience the same bodily changes. In what sense those two emotions differ then? Why is the zookeeper experiencing a reflective emotion and the deer an animal emotion? One could say that further thinking made by the zookeeper on the situation adds further evaluations, but this doesn't warrant us to believe that we're talking about two different emotions. We have no grounds to sustain that the reflective/animal distinction of emotions is a legitimate one, other than to say that humans can reflect on the same basic emotions; not that there are two kinds of emotions.

Second, even if we accepted the distinction as a real one, Naar's theory would have to explain why, when and under what circumstances a person experiences an animal emotion. In addition, the theory would have to explain why the animal emotion doesn't turn into a reflective one, granted that the person possesses the evaluative capacities that could make this makeover possible. Why, for instance, the spider-phobic individual experiences an animal emotion that cannot be turned into a reflective one? Why does she experience an animal emotion only when she confronts spiders, and in all other instances experiences reflective emotions? It appears that Naar's proposed disunified class of emotions, cannot provide a credible solution to the problem of recalcitrant

emotions. Hence, recalcitrant emotions remain a serious problem for the judgmental theorists, because a specific sub-group of uncontrollable emotions imperils the idea that emotions are judgments.

1. As in the case of emotions-as-perceptions, the phenomenology of the emotional feelings appears to be distinct from the phenomenology of judgments. When I judge that the carton of juice I just bought doesn't fit into my full refrigerator and I 'd better leave it outside, I don't necessarily feel somehow. I don't feel anything like as when a gun is pointed at me, or the pleasurable feeling that I undergo upon realizing that I 've passed the exams. There are two branches here: the first is about the phenomenology of judgments compared to the phenomenology of emotions as pure feelings. The second is about the phenomenology of judgments compared to the phenomenology of emotions as bodily feelings, or appraisals that stem from bodily feelings.

   In the first case, it's obvious that the phenomenology of a simple judgment (i.e., I 'd better leave the juice outside) is entirely discernable from the "edgy" phenomenology of the fear I experience when a gun is pointed at me. Even if someone rejects the idea that emotions are aggregable/disagreeable feelings only, and he claims that they are part of something larger, how the «feeling» constituent feels, is distinguishable from how a mere opinion/judgment feels (e.g., my opinion/judgment that is going to rain tonight).

   In the second case, it can be held that mere judgments do not only have a distinct hedonic phenomenology from the emotions (in many cases it seems that mere judgments do not have a hedonic phenomenology), but that the bodily feelings of the emotions and the bodily feelings of simple judgments (the bodily sensations that accompany them respectively), are entirely different. My judgment that the juice should be left outside is not accompanied by any appreciable bodily manifestations, while my fear I undergo when the gun is pointed at me, is.

   Thus, judgments in general, and emotional feelings differ phenomenologically in two respects: they differ at a hedonic level (i.e., the agreeable sensation of my pride compared to the neutral sensation of my judgment that is going to rain today). They also differ in the bodily feedback they give: my judgment that is going to rain today is not accompanied by bodily cues, while my pride may be

accompanied by stomach frisson and tingles of excitement, often observed in states of mild euphoria.

2. Emotional feelings can be caused by many things. They can be caused by external auditory, visual, haptic, olfactory or taste stimuli. In addition, they can be caused by thoughts, or memories. They can pop up just like that (objectless emotions), or they can be induced by substances. In all cases, the emotional feelings appear to be mandatory unavoidable reflexes. It's one thing that once triggered, they are immediately unavoidable, reflexive, and mandatory, and another that they can be possibly controlled at subsequent times. To the contrary, judgments, in the traditional conservative sense, are defined as deliberate, conscious higher-order mental states. The judges at TV song competitions make premeditated, calculated judgments. When you vote, you also judge that politician A is better than politician B in governing your country for the next few years, and you decide in an informed, studied fashion.

   Emotions and judgments, therefore, differ in how they deploy themselves, or in how they come to be formed. Someone might ask at this point about judgments arising from habit. What about the judgment that you make when you turn left or right on your way to work because this is probably the fastest route? Those actions arising from habit, in my view, are not judgments in the traditional sense, because they lack the element of pre-calculation or at least the element of conscious deliberate calculation. In that sense, not only the habit of turning left on your way to work is a judgment, but the cat that finds her way through a door opening into the house, *judges* that she fits to get through that opening. As I will soon support, if we included such habits in the category of judgments, everything is a judgment.

   In addition, one might wonder about habits of thought. For instance, still thinking of Napoleon as a short person after being informed that he wasn't, or still thinking of tomatoes as vegetables after learning that they are fruits. Are these judgments that persist? The answer is no. This is because such beliefs, are residual old beliefs that linger for a very little time and are very soon replaced by the new beliefs. You may habitually recall tomatoes as vegetables when you see them stashed at the vegetable corner, but very shortly you remember your new, evidence-based belief that tomatoes are fruits. In that sense, your judgment is that tomatoes are fruits because it takes a lot more than residual, habitual false

memories to be defined as judgments. It's required that a genuine belief, a belief that is based on hard evidence, to be involved, and in the case of habitual thoughts such genuine beliefs are absent. Harold Pashler, (p.111, *Encyclopaedia of the* Mind, vol.1, [2012]) states that "an event is a judging that p just if one concurrently believes that one is judging that p". This is not the case for habits of thought because the informed individual, does not "concurrently believe" that he's judging that Napoleon was short or tomatoes are vegetables. When someone momentarily recalls tomatoes as vegetables because of years of habit, he does not evaluate evidence to form the belief that tomatoes are vegetables, thus he does not make a judgment. Those thoughts of habit are most likely tricks of the mind and nothing more.

To tackle the problem of who, when and under what circumstances judgments can be made, Solomon (in later works) states that «one can, and sometimes must, speak of bodily judgments" (Solomon [2003]). A similar perspective is given by Prinz who talks about embodied appraisals [2004]. I don't think that we can speak about bodily judgments or bodily appraisals. If we considered judgments as deliberate, conscious higher-order mental states, it would follow that Solomon's bodily judgments or Prinz's embodied appraisals, could be controlled, amended, and manipulated. The Stoic view takes judgments as amendable entities, amendable by/through persuasive discourse (logos: Ancient Greek: λόγος); bodily judgments cannot be subject to «λόγος». In defending the "bodily feelings" position, we would have to defend the preposterous supposition that elevated heart rate, dilated pupils, or excessive sweating can be subject to persuasive discourse. But it's apparent that our bodily feelings that accompany our emotions are not sensitive to persuasive discourse. You cannot persuade your palms not to sweat when anxious, or your pupils not to dilate when angry. If now, someone abandons the conservative sense of the term judgment and adopts a liberal sense of the term, he 'll have to admit that everything can be a judgment: according to this Elastic view (Scarantino, [2010]), one could claim that when sunflowers turn their flowers to the direction of the sunrays, they make a judgment. When trees shed their leaves in fall, they make a judgment. Every action, every motion, every habit becomes a judgment. With the liberal sense, you don't need pre-calculations, or deliberate reflections and everything a living creature does, can be named a «judgment». If anything can be a judgment in the liberal cognitivist sense, the truth of the cognitive thesis becomes trivial and unimportant.

3. Further to the *everything-can-be-a- judgment* argument of the previous paragraph, we need to become clear as to which agents can make judgments. If infants and animals can't make judgments because they lack higher cognitive capacities, they should be deemed unable to experience emotions. Higher cognitive capacities require language mastery, something that infants and animals obviously lack (Deigh, [1994]). The cognitivist's reply is that language mastery isn't needed for appraisals. Cognitivists tend to believe that judgments are to be identified with what a creature finds worth of doing: To identify that something is worth of eating, is a judgment. To identify that something is worth of avoiding (either disgusting or fearsome), is a judgment; non-cognitive agents are capable of making this kind of judgments. This is what Solomon supports in *Not Passion's Slave* [2003]. Nussbaum [2001], gives her own explanation of what cognitive appraisals of non-human animals look like:

> "Cognitive appraisals need not all be *objects of reflexive self-consciousness*. Animals (and humans) can discriminate the threatening from the non-threatening, the welcome from the unwelcome, without self-consciousness. Many if not most animals have something, we may call conscious awareness: that is something the world is like to them, and that intentional viewing of the world is significant in explaining their actions; But this needn't imply that they study their own awareness. Some of the animals we have discussed have emotions without ever having self-consciousness".

For sure, most judgementalists don't want to concede that animals and infants can't experience emotions. Since they are committed to the idea that emotions are judgments, they have to provide their version of what a judgment is, extending it to the type of judgments non-cognitive agents are capable of. A strategy judgmentalists follow, is to identify judgments with learning. Non-cognitive agents can make judgments as their cognitive counterparts can, in light of new information, judgmentalists preach. In a series of experiments rats "learned" that pressing the right lever gave food and pressing the left one gave an electric shock. When the experimenter changed the rules of the experiment, rats "learned" to press left to get food, and right to avoid the shock (Rolls, [1999]). Finally, Solomon's assertion that «one can, and sometimes must, speak of bodily judgments" is employed by cognitivists not only to identify emotions with bodily judgments, but to specify, in like manner, which agents can experience emotions. If our emotions are bodily judgments, non-cognitive agents can probably experience those bodily judgments *aka* emotions too.

It's apparent that judgmentalists use the Elastic Strategy not only to say what can count as a judgment, but also to say which agents can make those judgments. Cognitivists tend to describe non-human emotions in a mechanistic, functional way. This functional way is based on the triptych: appraisal, action readiness and physiological changes and behavioral action (Oatley, Stein & Jenkins, [1998]). Appraisals are identified liberally by judgmentalists either as judgments that «need not all be *objects of reflexive self-consciousness*» (Nussbaum), or as «bodily feelings» (Solomon). If emotions are self-unconscious, non-reflexive judgments, or simple bodily judgments that are followed by physiological changes and behavior, one can claim that the number of species apt to experience emotions increases dramatically. Many plants, the sunflowers mentioned earlier included, exhibit a tropism where the motion of flowers or leaves comes in response to the direction of the sun. In this case we have everything that satisfies the mechanistic view that describes the emotions. The sunflower buds «judge» in a bodily, non-reflective way that they should follow the sun rays from the east to the west. They become ready for that action and physiological changes inside the plant take place. Then, behavior (the turning) ensues. Do we have emotions in such case? Do the plants experience any bodily feelings? More incredibly, imagine the farmer impeding this sequence: he ties the sunflower buds so as not to turn and track the direction of the sun. Do the plant experiences stress, or anxiety? Oatley & Johnson-Laird claim that emotions are evaluations of the likely success (or failure) of plan/goal changes, [1987]. If we identify those evaluations with the very liberal interpretation of the term «judgment», we are bound to accept the remote possibility that amoebae, plants, or individual cells can theoretically experience emotions because success (or failure) at their plans/goals is observed. If the cognitivist claim is that plants and unicellular organisms cannot experience emotions, one must ask why. All three parts of the triptych are satisfied: How can we be so sure that plants and unicellular organisms do not experience emotions? What are the criteria this exclusion is based on?

As regards the claim that non-cognitive agents can make judgments in light of new information. I just said that animal and infants can change the way they *feel* in light of new information, but what about the idea that they can make judgments in light of new information? Some comments follow: Indeed, the way of learning through trial and error, possibly indicates pre-cognitive evaluations. But if this kind of associative learning produces pre-cognitive judgments, these judgments must be completely different from the judgments/opinions of the Stoic view. The first are

based on a reward/punishment system. The latter are products of evaluative discourse. In that case, we 'd have two kinds of judgments. Type1 judgments and type 2 judgments. Type1 judgments are logically associated with behavior that leads to «pleasure» or «suffering». Animals and infants associate any action happened in the past with "feel better" or "feel worse" emotions. They can either repeat or avoid such actions in the future (Rolls, [1999]). This doesn't explain why fawns exhibit fear-like behavior when they first confront bobcats, or mountain lions. Or, why babies are intimidated by ugly grimaces. If there's not past behavior that has led to «pleasure» or «suffering», we should suspect a third type of judgment, that is hard-wired. In this occasion, the notion of judgment is stretched dangerously, and we find ourselves completely in the dark regarding which organisms can feel emotions and when. If hard-wired behaviors like the baby deer's first encounters with its predator are judgments, we can hardly think of any behavior that's not a judgment.

To conclude, the liberal conception of emotions as judgments, seems to give birth to more questions than it is supposed to answer. As Scarantino puts it (p.747, [2010]), «if judgments are the sorts of things that animals and infants (but not trees, rocks and unicellular organisms) can formulate, then they can be bodily, unconsciously elicited, directly motivational, cognitively impenetrable, and subcortical, it is hard to imagine anyone disagreeing with the thesis that emotions are, in this extremely liberal sense, judgments».

1.5 If not Perceptions of Value or Judgments, can the Emotions be Impulses to Behave?

The Motivational Theory is trending in the Philosophy of Emotions. There are two schools: One that solely claims that emotions are feelings of action readiness, (Deonna and Teroni [2012], [2015]). There's a second school that claims that emotions are impulses to behave which may, or may not be felt, (Scarantino, [2014]) To be precise, Deonna and Teroni don't call their theory a motivational theory, but they propose an attitudinal theory of emotions. For them, emotions are felt attitudes of action readiness. They are emotional attitudes specific to each emotion, felt experiences of one's body, ready for specific action. For example: the fear of the gun pointed at you is the felt experience of this gun as dangerous insofar as it is "an experience of one's body being prepared" for avoidance (Deonna &

Teroni, [2015], p.303). Likewise, anger at a person "is an experience of offensiveness insofar as it consists in an experience of one's body being prepared to retaliate" ([2015[. P. 303).

In contrast, Scarantino's Motivational Theory of Emotions states that the emotions are neither to be reduced to judgments, nor to perceptions, or feelings. They are special kinds of central motive states, or behavioral programs that are not to be defined by how they feel, but rather by what they make us do, (Scarantino, [2014]). The non-feeling requirement has also been stressed by Scarantino in his *blindfright* 2010-paper where he insists that «lack of phenomenology does not necessarily entail lack of emotion», (p. 738, [2010]). For Scarantino feelings don't play such an important role in describing emotions; being in(action) tendencies/action reflexes, is enough for their definition. Scarantino also endorses a teleo-semantic theory of motivation, similar to the dualist perceptual teleological material/formal object theory. For example, fear has the function of causing avoidant or fight behaviors when danger is present. The inspiration for both schools comes from Frijda's (1986) Theory of Emotions, which views them as action tendencies.

The theory has many good qualities. Most importantly, it supposedly tackles the intentionality problem. The intentionality problem is about the absence of a particular object. If there isn't a particular object but we still have motivation or tendency to act, the intentionality problem seems to be a problem no more. According to the Motivational Theory the emotion is motivation to something. Motivationists may claim for instance that your fear, either as a feeling of action readiness or as an irruptive and prioritized impulse to behave, doesn't matter whence it has come from. Your fear is just motivation to something, independently of objects; be it by a gun pointed at you, by a dreadful memory, substance induced, or just came out of the blue as in panic attacks, motivationalists are mainly interested in what the emotion makes you do. They don't engage much into the conversation about its object (material or formal). In that sense, the seemingly unsolvable problem of intentionality of objectless emotions for Perceptual and Judgmental Theories, is not a problem for the Motivational Theory. This is what looks appealing for the Motivational Theory at first glance. Of course, there are other problems with the Motivational Theory, and I'll get to them at the end of this chapter.

Between Scarantino's version and Deonna and Teroni's version I would definitely choose the second. I 'm more of a fan of Deonna and Teroni's version because as I explained earlier, emotions can't be states which may, or may not be felt; they are

states which are *necessarily* felt. Scarantino just missed the algedonic reports which is all we need to establish that even in *blindfright*, we have genuine emotional feelings.

Despite the fact that the Motivational Theory looks appealing, criticism has been voiced. Here is what I'm about to do: At first, I examine objections against the general Motivational Theory and against Scarantino's version of the Motivational Theory of Emotions (MTE for short). Those objections, I will say, do not look ominous for the Motivational Theory in general, but they mostly seem to threaten Scarantino's «hard» Motivational Thesis. At the end of the paragraph, I provide further arguments against Scarantino's MTE. What can be retained, I will support, is a mellow motivational view that illustrates how emotions motivate without reducing them to rudimentary urges.

Regarding Scarantino's «hard» Motivational Thesis: He defines emotions as follows:

"An emotion is a prioritizing action control system, expressed either by (in)action tendencies with control precedence or by action reflexes, with the function of achieving a certain relational goal while correlating with a certain core relational theme". (p. 178, [2014]).

So, apart from a teleo-semantical relationship of emotions with Core Relational Themes, he introduces the notion of Relational Goals. A table from his paper seems informative:

Table 8.1, p,181, [2014]

Emotion	(In)action tendency/ action reflex	Relational Goal	Core Relational Theme
Anger	Attacking	Removal of obstruction	Offense
Fear	Avoiding	One's own safety	Danger
Sadness	Undifferentiated disengagement	Not relating as such	Loss
Joy	Open engagement	Relating as such	Positive Event
Disgust	Expelling	Removal of object	Contamination
Guilt	Repairing relationship	Making up for a flawed behavior	Moral transgression
Shame	Disappearing	Hiding a flawed self	Failure to live up to an ego ideal

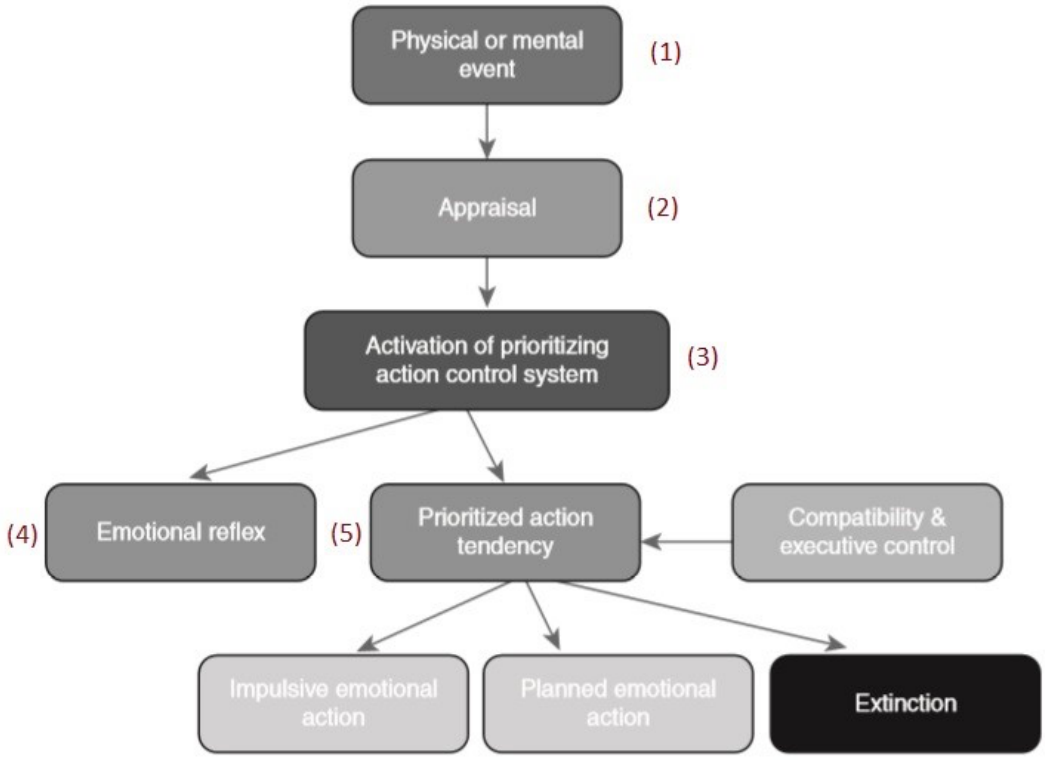
A first objection to the Scarantino's MTE is that states like depression or melancholy look as if they mustn't be impulses to behave, (Reisenzein [1996]). Reisenzein claims that people who have fallen in deep melancholy or deep depression are motivated to do very little, if any. One answer here could be that depression and melancholy are more generalized states, probably moods; motivationalists don't endorse the idea that moods, in general, are *decisive* motivators. The idea is that moods are not significantly associated with impulses to behave, unlike emotional episodes which are more intense, and thought to be clearly more associated to further behaviors. Moreover, in sadness, episodes or tokens of grief, there seems to be the impulse to withdraw, stay in bed all day, cry, as well as other behaviors associated with sad episodes or spells of grief (grief in such case can be seen as the broader time period when sad feelings are deployed). Tendencies to withdraw or cry, sound as legitimate impulses to behave. They're consistent impulses to do something (e.g., stay in bed). So, unlike Scarantino's proposal that in sadness the action tendency/reflex is a vaguely defined undifferentiated disengagement (from what? from loss?), one could reply that consistent impulses to behave (cry, stay in bed etc.) do exist. It seems therefore, that the first objection probably fails.

Another objection to the Motivational thesis in general and not a specific objection to Scarantino's MTE, is that happiness, euphoria or joy provide diverse possibilities for further action. Unlike fear where impulses appear to revolve around two poles (fight or flee), when happy we may do many things. It looks as if happiness is a feeling of action readiness. We want to do something when very happy; what's not clear is what the exact action will eventually be. This time Scarantino sees this possibility, as he names open engagement as the possible action tendency/reflex.

Moreover, it has been proposed that a specific impulse is sometimes linked with different emotions, or different emotions are associated with the same impulse (Eder & Rothermund, [2013]). Again, this is a difficult-to-refute argument against Scarantino's teleological version, and not against the Motivational Theory in general. For instance, and looking at Scarantino's table, attacking which is associated with anger can as well be associated with fear (the fight or flight response). The same with disappearing, which in Scarantino's table is strictly linked to shame. Someone very frightened might want to disappear; these are different emotions associated with the same impulse. Those limiting associations aren't included in the generic Motivational Thesis.

The objection here is that both diversity in actions and the fact that different actions are linked with the same emotion, set a "definition" problem with the Motivational Theories in general. For example, it's not clear how a motivationalist would define happiness. Would he define it as a tendency to laugh out loud, scream out of joy, jump up and down, or cheering? Or, how a motivationalist would define fear; would he define it as an impulse to attack, to flee or to disappear? Such definitions should work backwards. Should we say for example that if we see someone disappear, he feels fear? Or shame? Should we say that if we observe someone attacking, we should conclude that he experiences anger? Or fear? It is unclear with possibilities of such kind, that the Motivational Thesis can define emotions in a concrete way.

Finally, Scarantino's MTE is highly dependent on events and their appraisals. Figure 8.1 from his 2014 paper helps me make my point. The numbers next to some panels are my addition:



It is possible, I say, that we may lack (1) and (2). I've time and again claimed that it's possible to have emotional experiences without physical or mental events and

hence, without their appraisal. Scarantino with his table is committed to the order he describes because there seems to be a specific order: the activation of the action control system (which leads to either an emotional reflex or an action tendency) comes after the appraisal of a physical or mental event. But what about cases where there's no physical or mental event to be appraised? He omits cases which skip (1) and (2) and goes straight to (3), (4) or (5) (e.g., there might be drug-induced emotions that lead to emotional reflexes or function as prioritized action tendencies that are not caused by physical or mental events and not appraised as such). If a similar figure (where (1) and (2) would be replaced by a panel named "Feelings") was given, it could have served one of the main objectives of the generic Motivational Thesis which is to tackle the problem of intentionality. But Scarantino with his figure appears to be too dedicated to evaluativism, even if he denies it at the beginning of his paper. Further reflections on Scarantino's rigid version of the Motivational Theory come next.

1.5.1 More Objections to Scarantino's "hard' Thesis

Scarantino, with whom I disagree mostly with, sees emotions as mental states that have a mind-to-world-to-mind direction of fit. He explains: "An emotion is satisfied when what it successfully represents as to be made to obtain fits what it successfully represents as obtaining... we can think of fear as being satisfied when it motivates the emoter to avoid dangers, of anger as being satisfied when it motivates the emoter to get back at slights, of shame as being satisfied when it motivates the emoter to repair failures to live up to an ego ideal, of disgust as being satisfied when it motivates the emoter to expel noxious substances, and so on. Conversely, an emotion E can be unsatisfied because it fails to occur when the appropriate state of affairs is instantiated, or because it fails to guide behavior appropriately with respect to the state of affairs represented as being instantiated", (p. 762, [2010]). This position combines formal objects/core relational themes, with motivations. It supposedly solves the problem of irrational emotions and objectless emotions. For irrational or undirected fears for instance, he says that "an episode of fear occurring in the absence of danger instantiates a cognitive failure" and not a conative failure, may I add, (p.762).

First, I am struggling to find what the motivations are in episodes of sadness, if with think of "sadness as being satisfied when it motivates the emoter to X". I can't figure what X might be about. To avoid irrevocable loss? But if there is loss, it has already happened, it's not something in progress as in fear or disgust, and nothing can be done about this loss. It happened, and that's *why* someone feels sad. What is the impulse about? To say that the impulse is to cry or stay in bed all day, is completely unrelated with impulses that have anything to do with irrevocable loss, *aka* the formal object. It's inconsistent to use motivations relevant to formal objects sometimes (fear, anger, shame, and disgust in Scarantino's examples), and motivations relevant to material objects in other cases (my objection to sadness where the only possible action tendencies have to do with real behaviors and not behaviors to amend irrevocable loss, because that's impossible).

Secondly, he speaks of shame "as being satisfied when it motivates the emoter to repair failures to live up to an ego ideal". I can easily think of the emoter to experience a disagreeable feeling, to acknowledge "failure to live up to an ego ideal" (no cognitive failure), but not to have the slightest reflective intention to repair this failure (no conative failure too). As a matter of fact, I think that in a great number of shame episodes, people don't feel an impulse to repair their "failure to live up to an ego ideal", simply because they can. Clearly, Scarantino can't mean apologizing to you for "my stealing from your wallet" because apologizing cannot restore the failure. Apologizing can rebuild our relationship or make me feel better, but it can't repair my failure because this failure belongs to the past. There can't be repair when we focus on "backward-looking" emotions like regret or shame. Only intentions (which can hardly pass off as action tendencies) to avoid experiencing such emotions in the future. But I strongly doubt that the first impulse the person has after "stealing from a wallet", is an urge not to fail to live up to his ego ideal in similar situations in the future.

Also, I honestly can't see the motivations in regret at a conative level. I regret not following your advice to attend the concert last week: what is my impulse about? Moreover, if there are action tendencies in shame or regret (something I doubt), they might occur well after the emotional experience. This is not an impulse; it's simply a pre-meditated intention to act. Scarantino proposes a teleo-semantic motivational relationship between relational themes and motivations which only seems applicable to fear and anger. This relationship isn't applicable to all emotions. Furthermore, it's not clear (if we accepted Scarantino's position) whether states which fail at, both, conative and cognitive levels are still emotions. *Blindfright*

seems to fail at both levels: the subjects cannot cognitively detect their fear, nor they seem to have an impulse to do anything. We can't think of *blindfright* «as being satisfied» because the studies did not report impulses. In addition, *blindfright* fulfills Scarantino's description of «an episode of fear occurring in the absence of danger» that instantiates a cognitive failure. Do we have an emotion in this case? In my view (and in Scarantino's view I must admit), we do have an emotion and the only indication for this, is the feelings. Scarantino himself rightly acknowledged *blindfright* as a real emotion and successfully used the subcortical experiments to show that emotions can't be judgments. But unfortunately, the same experiments appear to threaten his own position. If in *blindfright* there are no impulses, we have a clear counterexample to his understanding of the Motivational Thesis. As Scarantino himself puts it, one counterexample is more than enough [2010].

These are some reasons why I believe that the Motivational Theory defenders should reject outright Scarantino's version and stick (if they feel that they must), to the more generic Deonna and Teroni's version; to say that emotions are feelings of action readiness suffices, without getting us into more troubles. Deonna & Teroni's model appears to be much better in that it doesn't link specific emotions to specific behaviors as Scarantino's model does, something that causes confusion at times (i.e., disappearing which can be perfectly associated with either shame, or fear). Moreover, unlike Scarantino, Deonna & Teroni do not endorse possible absence of phenomenology. As I've argued, even in fringe cases like *blindfright*, the phenomenology is there, in the form of simple unpleasant sensations. Deonna and Teroni see emotions as *felt* attitudes of action readiness, something that implies that phenomenology in the form of feelings is always existent. In that sense, Deonna & Teroni are Feeling theorists who simply over-emphasize the motivational powers of the emotions.

Looking at the relevant literature, I found one more case that could threaten the Motivational Thesis, in general. This is the case of "freezing fear". Tonic-immobility related fear is observed, both in the animal kingdom as well as in humans (for more on studies of tonic immobility related fear in animals (see Hofer, [1970]. Hennig, C. W. [1978] and Forkman, et. al [2007]). This kind of fear is a fringe case of emotional response; "a reversible–and, thus, temporary–state of physical inactivity and relative unresponsiveness to external stimuli, in situations experienced by the agent as involving extreme danger", Hatzimoysis [2014]). It's temporary, but it lasts for a considerable amount of time. In humans, tonic-immobility is mainly observed in PTSD sufferers as there seems to be a clear

correlation between reported tonic immobility, and post-traumatic syndrome disorder (PTSD), (Abrams et al. [2009]). The argument here could be that immobility that lasts that long, indicates absence of impulse to behave despite the fact that the sufferers experience emotions. Therefore, this kind of fear could make a strong case against the view that *all emotions,* at *all instances*, motivate the subjects.

A first approach is to think that it's possible that "freezing" fear to have been evolutionary shaped. It's likely to have survival value "either because predators are generally interested only in live prey, or because a predator's thinking that the prey is dead makes the predator loosen its grip, thus allowing the prey to escape", (Hatzimoysis p.616, [2010]). Putty nose monkeys for example, freeze for a considerable amount of time and they sometimes experience tonic immobility when hovering predators are trying to spot them. They flee on the other hand, when predators are on the ground.

For humans, another explanation can be given: in cases of extreme circumstances, the standard fight-or-flight response is not exhibited. Instead, victims are looking for alternative ways to face reality. One such explanation is provided by Hatzimoysis [2014] and is based on the Sartrean phenomenological Theory of Emotions (*Sketch for a Theory of the Emotions*, Sartre [1939]). The Sartrean explanation sets forth the idea that if reality is too harsh to confront with, an attempt to shut oneself from reality is a seemingly viable option. In face of extreme terror, victims try to eradicate the existence of the assailant or to eradicate the impossibility of the situation as whole, by eradicating their own awareness of that assailant or the situation they are in. In other words, for cases of fringe, inescapable terror it could be said that consciousness attempts to switch itself off as a refuge of what happens «out there». If avoiding the object of fear seems impossible, the body paralyzes, gets into a «daydreaming» mode, and dissociates from reality by trying to block it. This means that it's possible that "freezing fear" to provoke an impulse to behave. The difference might be in the way: the trope of dissociation is the impulse. The action taken is to shut oneself from reality. Thus, emotions appear to have a motivational function, even in extreme cases like the one of "freezing" fear.

The point so far, is that some popularly raised objections do not look as if they can completely deconstruct the generic Motivational Theory. I would say that what seems to be rejected, is Scarantino's rigid version rather the "softer", generic version of the Motivational Thesis. Agreed, there seems to be a "diversity in actions" problem as well as a problem with different actions that are occasionally

linked with the same emotion, but nothing very deeply alarming that could blow the generic Motivational Theory apart. So, can the Motivational Theory ever be a comprehensive theory of the emotions. I think' it cannot, and I try to explain why in the following paragraph.

1.5.2 Why the Motivational Theory cannot be a Comprehensive Theory of Emotions

If Deonna and Teroni's version of the Motivational Theory comes with such good references, one may wonder, why not say that Motivationalism in Emotions is the way to go? I said earlier that the Motivational Thesis is to be rejected but the arguments so far suggest the opposite. So, let me explain why.

For one, I hold that emotions are feelings which cannot be *reduced* to impulses to behave. If impulses are urges, one needs to examine what urges are supposed to be. If urges are identified with strong desires, we are bound to accept that the emotions are nothing more than strong desires. In general, emotions are not to be identified with desires. Emotions and desires are firmly related, -something like first cousins-, but not identical. The main difference between Scarantino's thesis and Deonna & Teronis's thesis is about what emotions are; not what they do. By stating that «lack of phenomenology does not necessarily entail lack of emotion», Scarantino leaves open the possibility that some emotions not to be felt in utmost circumstances, as in the one of *blindfright*. Deonna & Teroni on the other hand, are cautiously declaring that the emotions are feelings, without leaving open the possibility to lack phenomenology is special occasions as Scarantino does: they 're feelings of action readiness. In theory, I 'd have no objection to hold that the emotions are feelings which *function* as impulses for further behavior, in an irrupted and prioritized manner. In fact, I believe that any feeling theorist could accept such position because by viewing emotions as feelings of action readiness, the feeling theorist does not abandon the Feeling Thesis; he simply stresses a fundamental property the emotions have, namely the property of being motivators for action.

A possible counterargument from motivationalists is that according to a functionalist view, the emotions might be defined as impulses or motivations, if

they function as impulses or motivations. This argument is also to be rejected because I aim to define the emotions with the term that is closer to what they are, not with the term that tells us what they do (how they function). To draw an analogy, consider thirst, or hunger. They are both awful sensations (feelings) which motivate the person to find water, or food. But if we were to define thirst or hunger and we had to choose between a term that defines them as feelings or sensations, or a term that defines them as motivations for action, I'd choose the first. In my view, ontological definitions are more precise than functional definitions. Under functional analysis, emotions do not depend on their internal constitution, but rather on the way they function, or the role they play in the system which they are a part of. The idea for example, that if a metal weight functions as a door stopper, then the metal weight is a door stopper, is ontologically trivial and it faces the same problems as any other proposals of multiple realizability made by functionalists. A metal weight can be a door stopper, a lifting weight, a decorative item and so on. In the same way, beliefs can be action tendencies, thoughts can be motivators and pains impulses to behave. Are they emotions? Whatever plays a functional role and is realized in different means, cannot unveil the ontological truth about the substance it's realized upon. Otherwise, beliefs, thoughts and pains would be emotions (a notion I previously rejected when I argued against evaluative theories) the same way Ned Block's China Nation arrangement would have a mind (see Block's China Brain thought experiment, [1978]).

Another important problem with functionalism in emotions, is that if emotions are functions *aka* impulses to behave, then particular inputs (stimuli in the case of emotions) should result in specific outputs (behaviours). A gun pointed at someone should result in the same behaviour. But we can imagine that the difference in resulted behaviour between the "average" Joe, an ordinary man who will probably, freeze, shout, cry, or run, and "superman" Joe who's trained for years to deal with threats of this kind, must be immense. If "average" Joe and "superman" Joe experience the same fear and react with different outputs (e.g., the one shouts and runs, and the other stands Stoically still), they must share little or nothing in common in any of their fears. If on the other hand, functionalists list *a priori* a large number of outcomes as possible, the importance of the functional thesis in emotions becomes trivial. If say, they list fleeing, shouting, freezing, crying, or defiantly standing still as possible behaviours upon facing a pointed gun, the functionalist thesis of emotions cannot elucidate us about the true nature of emotions. When the resulted behaviours are not only diverse, but fundamentally opposing (such as laughing arrogantly at the person threating you with a gun vs

shaking and crying), the functional thesis of emotions fails to deliver a proper distinction between relevant and non-relevant content of behaviour. To explain, if the relevant content of behaviour of fear is to avoid it because it signifies danger, "superman" Joe's response is irrelevant to the proper behaviour of fear-like situations. Functionalism in the case of "superman" Joe, fails to offer its fundamental "if X then Y" explanation of what fear is.

Lately, an important conjecture of mine (that it is possible that the emotions always motivate), has been seriously shaken. During this research, I reviewed meticulously the *blindfright* experiments cited by Scarantino, ((Marcel [1983]), Esteves et al. [1994], Ohman and Soares [1998])]). Nowhere did I find reported "impulses to behave" by the participants. I would expect the subjects to report not only "high arousal, high disliking and lack of control", but also to report tendencies for further action. I would expect the subjects to report something like "I felt the need to leave the premises"- (flight response). Or, to state something like "I felt the need to smash the equipment" – (fight response). But unfortunately, expressions of this kind are nowhere reported, indicating that it might possible that the subjects didn't have any impulses to behave. There are two possible alternative explanations: the first is the questionnaires to have been poorly drafted. Perhaps, the researchers didn't include questions asking about the participants' urges, after being exposed to masked stimuli. The second is that the participants to have expressed urges, but the researchers didn't include them in their studies. If none of the two is what happened, we should suspect that no impulses to behave were experienced.

It's clear that in this thesis I intend to defend a Feeling Theory of Emotions. Not a hybrid theory (something like emotions = feelings + impulses) where emotions are feelings plus motivations, but I'm open to the idea that they're feelings which have the important property to motivate for further behavior *in most cases.* If the absence of impulses to behave in subcortical cases like *blindfright* is real, not only Motivationalism as a stand-alone theory that defines emotions as motivations is threatened, but the idea that emotions are feelings which *always* have the property to motivate is threatened.

To sum up and for those reasons explained, the "hard" Motivational Thesis, the thesis that defines emotions as impulses to behave in consonance with relational themes and relational goals, at all times, must be clearly rejected. The "soft" Motivational Thesis on the other hand, which views emotions as *feelings* with motivational powers (again, in most cases; see the case of sub-cortical emotions),

can be retained. But not as an explanatory and comprehensive theory of what emotions are, but as a feeling theory that heavily highlights a significant property the emotions have.

Conclusion: With all the above in mind, it can be said that what we can keep as viable options are the following: 1) Etiological Perceptualism, the view that emotions *may* be caused by perceptions. 2) Etiological Cognitivism, the view that emotions *ma*y be caused by judgments and 3) «soft» Motivationalism, the view that emotions frequently exhibit action tendencies. What's left, to define what emotions are, is a Feeling Theory of Emotions. But a feeling account, many will say, and especially an account that views emotions as bodily feelings, sweeps aside essential features of the emotions. In chapter 3, after rejecting the Bodily Feeling Theory by James and Lang, I address this concern.

CHAPTER 2

From Hume and James to Prinz and Whiting: Feeling Theories of Emotions

Introduction

KEYWORDS: Hume, James, feelings of bodily changes, composite mental sates, algedonic properties, emotions of pleasure and displeasure

Feeling theories of emotions take, as the name says, emotions to be feelings. But different theories do this in different ways. David Hume for instance, is famously associated with a view which states that emotions are essentially only feelings. In the *Treatise of Human Nature,* he describes emotions as "simple and uniform impressions" which cannot be reduced further to their constituent parts. Contemporary philosophers refer to this analysis as being a "feeling" position, defining Hume's view of simple emotions as non-intentional sensations (Mark Collier, [2011]). Broadly speaking, feeling theorists identify emotions with their unique phenomenal properties, their qualia. There is something it is like to feel scared, and this *sui generis* qualitative experience demarcates fear from other emotions (such as sadness), or other sensations (i.e., pains). As explained in the previous chapter, feeling theorists need not deny that emotions are caused by judgments, or that they produce specific behavioral patterns, or that they might be produced by perceptual experiences. Remember, at the end of the previous chapter I proposed that Etiological Congitivism, Etiological Perceptualism and the undoubted motivational powers of emotions, are not to be rejected. What most feeling theorists deny (myself included), is that those causes and effects, are part of the intrinsic nature of emotions. So, this is the first, classic view whereby emotions are simplistically seen as mere sensations which are about nothing and represent nothing.

James and Lange stand, unquestionably, at the "feeling" side of things. William James, an American psychologist and philosopher, and Carl Jeorg Lange, a Danish physician, developed individually in the 19th century a theory of emotions which assumed the same premise; that the emotions are sensations of physiological changes. Their hypothesis became later known as the James-Lange Theory of Emotions (JLTE). James' consideration was unique and made a splash. Your heart is not pounding because you are afraid. Your palms are not sweaty because you are scared. Your stomach is not tense because you are terrified. Rather you are afraid, scared, or terrified because your heart is pounding, your palms are sweaty, or your stomach is tense. In that sense, physiological changes precede the emotion.

Fast-forward a century later, feeling theories of emotions seem to spark interest again. Even if not that many theorists would have been willing to accept the James-Lange theory unmodified, it has been notably advanced (even if somehow customized) by A. R. Damasio, [1994, 1996, 1999] and Craig, [2002]. According to Damasio's Somatic Marker Hypothesis, emotions are evoked by changes of bodily feedback which, in turn, is projected to the brain (the "body loop"). Craig talks about dedicated afferent channels which directly convey somatic visceral information to the brain. Details provided by functional neuroimaging and lesion studies, seem to underpin the hypothesis that an increase in sympathetic autonomic activity, is linked to our conscious experience of the emotion (Craig, [2002]).

In 2004 Jesse Prinz with *Gut Reactions* offered a feeling theory of emotions which many have seen as Jamesian, or Neo-Jamesian. Albeit a feeling theory, it borrows elements from perceptual and cognitive considerations. According to Prinz, emotions are experiences of bodily changes indicating situations in our environment which are of special concern to us. Those somatic feelings of bodily changes represent things like dangers, losses, or offenses; this is what is borrowed from perceptual and cognitive theories. Remember that cognitive and perceptual theories have adopted Lazarus' Core Relational Themes, [1991], (see Chapter 1). Many cognitivists and perceptualists take dangers, losses, or offenses, as the formal objects of emotions. Prinz takes a different path: he contends that those dangers, losses, or offenses, are somehow represented by (or are representations of, this is not entirely obvious) a set of somatic changes. What needs to be noted, is that in Prinz's view, emotions are always intentional but there is a dissimilarity. James and Lange's proposal that emotions are about somatic feedback entails that intentionality is directed at bodily changes, while Prinz's claim is that the emotions are always directed towards something external (dangers, losses, and so on) which

triggers a felt bodily response. Despite having adopted mixed elements from non-feeling theories, it can be affirmed that Prinz's theory is a feeling theory nonetheless, because it clearly states that emotions are only the embodied affective states, not their causes or their effects.

Some years later ([2011], [2012]), Demian Whiting advances a feeling theory of emotions inspired by Hume's view. According to Whiting, emotions are types of non-intentional bodily feelings. Whiting makes a distinction between emotions, which are non-intentional feelings in the Humean sense, and compound mental states comprising emotions and representations. According to this view, a fear of a spider is a state of fear along with a thought or perception of a spider that triggers the state of fear.

The above said, I would divide feeling theories into two main categories. The first might include Hume's view and Whiting's revision on Hume. Those two excise intentional properties from emotions. The second might include the James-Lange Theory and the neo-Jamesian theory offered by Jesse Prinz. The last two are intentional but with different kinds of objects.

Hume's view, although intuitive, looks overly simplified. For if we take emotions to be simple sensations, there is a difficulty in specifying complex emotions like guilt or pride. In addition, we would have to disregard the fact that, most times, what we everyday call emotions are intentional mental states. Most times, fears are thought to be about something, or episodes of joy are about something else. It's a rarity (nevertheless an actuality) for emotions not to have objects, and by unconditionally accepting Hume's view that takes emotions to be horizontally non-intentional, we 're missing something out. Here is where Whiting comes in and offers a new perspective to the above. By making the distinction between emotions (that are non-intentional feelings), and composite mental states, he provides a way out of the oversimplification problem of the Humean view. Whiting's distinction does not reject Hume's idea that emotions are simple, non-intentional sensations. Rather, Whiting makes an optimal addition which expands and completes the Humean thesis.

The theory I am about to offer later in this chapter, is a detailed reformulation of Whiting's theory with some differences in mind. For instance, I expand Whiting's theory from a two-level layering to a three-level layering to distinguish between simple emotion-thought complexes or emotion-perception complexes, from more cognitive demanding complexes. Also, I lay out the requirements for a mental state

in order to qualify as: a simple emotional feeling, a composite emotional mental state or a higher cognitive emotional mental state. Third, Whiting rushes to rebuff the accusation that emotions are simple hedonic states. I support that they are hedonic states, and I also support that our emotional lives could be described with feel-good/feel-bad statements. Moreover, my lists of basic and complex emotions respectively, and Whiting's lists differ slightly; perhaps due to the qualification criteria I set, for various emotions to belong to one category or to another.

Finally, I discern another disagreement of mine with Whiting who claims that emotions are non-intentional *bodily* feelings which are, in fact, their phenomenal appearances. The term "bodily", points to actual bodily sensations like the trembling, the heart racing, or the sweating, as mentioned before. But the term 'bodily', is too broad of a term. Surely, the term 'bodily' might include brain states, but it directly cross-refers to sense-organ sensations as described by the Jamesian or the neo-Jamesian theses. I will argue later that it's difficult to infer that the emotions are feelings always caused by/are about sense-organ sensations. It's difficult because (as I will soon support) we cannot reliably establish a backward connection from bodily feelings to emotions at all times and for all emotions, and it's also difficult because specific bodily reactions cannot be mapped *exclusively* to specific emotions. To be fair, my criticism on Whiting is not that he proposes that emotions are feelings caused by sense-organ sensations. Rather, my criticism is that he doesn't fine-grain as to which type of sensations he refers to (sense-organs vs brain activity). My recommendation is that the term "bodily" is too vague as to which parts of the body refers to, and I believe that it should be omitted.

Therefore, I will no longer deal with Hume's original view which I also find overly simplistic, and I will focus on Whiting's theory, even if Hume's theory has been the inspiration for both, Whiting's theory, and mine.

Moving to the "Jamesian spectrum", I will have to discard Prinz's theory from the start, for two reasons. Firstly, by always requiring an external object, Prinz's theory faces the same problem cognitive and perceptual theories face. The problem of objectless emotions such as panic attacks, substance-induced emotions, or free-floating states of anxiety, dread, or sadness (see Chapter 1). To the contrary, the JLTE seems to be apt to handle those cases because it is not object-oriented to the external world, rather its object(s) are the physiological reactions which accompany the emotions. So, a panic attack for example, is experiencing a feeling of fear whose object is bodily feedback. In such case, or any similar cases where there is not an

external stimulus, the problem is solved; this is not the case with Prinz's view, or any other theory that necessarily requires an external object.

The second reason why I feel compelled to discard Prinz's theory, is because of the "first-timers" problem. Let me explain: Prinz always demands for representations/external objects (see first objection). According to his theory, there is a mental mechanism which he calls a "calibration file", that makes emotions happen. Calibration files establish systematic links between representations and the emotions. A calibration file is "a data structure in long-term memory that contains a set of representations any one of which can cause the set of patterned bodily responses and feelings that constitute an emotion", (D'Arms, [2008]). Prinz seems to support that representations/external objects can only trigger the calibration file mechanism if a copy of that very perception (the representation) has already been 'put in the file' through associative learning. In an example of an adult human emotion, jealously can be experienced as a bodily feeling when: a variety of perceptions, be it thoughts, visual confirmations of infidelity or even the smell of unfamiliar perfume on the lover's clothes, trigger the relevant calibration file mechanism which causes somatic states that represent infidelity. In an example of a basic emotion, fear can be experienced as a bodily feeling when: a variety of perceptions, (there can be too many, no need to enumerate them here) trigger the relevant calibration file mechanism which causes somatic states that represent fear. The "first-timers" problem is not about higher cognitive emotions, but it pertains basic emotions experienced by infants or newborn animals for the very first time. If what Prinz says were true, it would have been unattainable for infants or newborn animals to experience emotions because there is nothing that has already been 'put in the file' through associative learning, nothing in their long-term memory. This would have contradicted our general belief that infants and newborn animals do experience basic emotions like fear, or joy. It's obvious that there must be a moment when most mammalian species experience such basic emotions for the first time. Consider, the infant that is intimidated by ugly grimaces, or by strong, unpleasant sounds. Or the frightened baby-deer that crosses its path for the very first time, with a bobcat. Endless similar examples suggest that retrieving registered, learned calibration files from the long-term memory, is not always possible for experiencing emotions, because when experiencing an emotion for the first time, such files don't exist. Consequently, it seems fair to say that retrieving those files is not always *necessary* for emotional experiences. As a result, a major recurrent requisite in Prinz's theory (the one that supposedly explains how perceptions are transubstantiated into emotions via calibration files), is not satisfied. Therefore,

there seem to be two major flaws in Prinz's theory that prompt us to search for a different, more plausible theory.

Lastly, it's apparent that the objectless-emotions obstacle is not a real worry for either Whiting's theory, or mine because by definition, emotions are objectless states. What's left then, is to examine whether the JLTE can stand as a robust theory of emotions, and this is what I'm doing next. My conclusion is that it cannot, and I explain why.

2.1 The James Lange Theory of Emotions

The basic premise of the James-Lang Theory of Emotions (JLTE) either in its original formulation ([1884], [1894]), or in its revised edition [1894] is that emotions are feelings of bodily changes. Emotions are seen as a class of sensations, they are affective experiences that have a distinct phenomenal quality, an "emotional warmth" (James, [1890] p. 451). We have to keep in mind that the James-Lange theory was formulated more than 130 years ago, when neuroscience was in its infancy. Thus, some of its parts, as the one postulating that "no separate and special centers" for emotion exist, were consistent with the neuroscience of the 1890's (James, [1890], pp. 473–474), but have proven to be erroneous today. In neurological terms, the JLTE says that emotions are, or involve, ordinary reflex circuits implemented in bodily sense-organs. As infants, we have a limited set of inborn emotion mechanisms corresponding to what James calls «coarser» emotions (anger, fear, love, hate, joy, grief, shame, pride, and their varieties" (p. 374, [1892]), that are to be distinguished from "subtler" «moral, aesthetic, and intellectual feelings», (p. 468, [1890]. Those feelings are also accompanied by bodily changes, but they are not emotions; rather, they are intellectual judgements of value. As we age, the appraisal of objects and representations, becomes more elaborated via learning and experience. Mechanisms of associative learning [6]are getting involved in the process, something that later became known under the term «classical conditioning» (Pavlov, [*1960], [1927]*).

[6] Learning in terms of an association between two stimuli or events., i.e., dogs learn to associate the ringing of the bell with the provision of an award (food).

James has been credited for his famous subtraction argument as regards the emotions. In *"What is an Emotion?"*, an oft-quoted passage reads as follows:

"If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its characteristic bodily symptoms, we find we have nothing left behind, no "mind-stuff" out of which the emotion can be constituted, and that a cold and neutral state of intellectual perception is all that remains. ... What kind of an emotion of fear would be left, if the feelings neither of quickened heart beats nor of shallow breathing, neither of trembling lips nor of weakened limbs, neither of goose flesh nor of visceral stirrings, were present, it is quite impossible to think. Can one fancy the state of rage and picture no ebullition of it in the chest, no flushing of the face, no dilatation of the nostrils, no clenching of the teeth, no impulse to vigorous action, but in their stead, limp muscles, calm breathing, and a placid face? The present writer, for one, certainly cannot. The rage is as completely evaporated as the sensation of its so-called manifestations"., [1884].

James pinpoints one of the most obvious features of emotional experience: The bodily manifestations which are present when we undergo emotional feelings, especially strong emotional feelings. Indeed, it's hard to imagine powerful emotional feelings stripped of physiological symptoms, and James' observation comes naturally, at first glance. But as I will argue later, it's possible to undergo emotions without noticeable physiological symptoms, especially the kind of emotions we usually call subtle, or sophisticatedly slight emotions, such as aesthetic admiration or mild happiness. James' point seems valid when it comes to rage or fear, but his observation cannot stand for all emotional experiences.

The most striking feature of James' theory is about the sequence of emotional feelings on the one hand, and behaviors and bodily changes on the other:

"Common sense says, we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect . . . and the more rational statement is that we feel sorry *because* we cry, angry *because* we strike, afraid *because* we tremble." (James, [1890], p. 449,)

In that context, emotions according to the JLTE do not motivate action in the traditional sense. The feelings come *after* the physiological changes and facial expressions. They *are about/caused by* those physiological changes and facial expressions. The physiological changes and facial expressions are caused *directly* by the perception, or the appraisal of events. Example: The intruder threatens you with his knife. This directly causes your heart to beat faster, your breathing to become abnormal, your pupils to dilate, or your palms to sweat. The feeling of fear is about/caused by those physiological reactions. Oftentimes, meditating appraisals

are not necessary (i.e., the sight of a dark, moving form in the woods (James, [1890], p. 457), or feelings, can be brought about via drug-induced bodily changes (Reisenzein et al., [1995]). But where is behavior in all this? Well, things seem confusing if we try to interpret James' suggestions literally. The most agreed interpretation of the Jamesian sequence of events is as follows:

A) Stimulus → physiological changes and facial expressions → emotion (feeling)

This interpretation is based on a specific excerpt of Jame's original text that reads as follows: "My theory ... is that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur is the emotion". But if we pay attention to the text, we can see that James treats physiological changes and behavior almost identically. "...we feel sorry *because* we cry, angry *because* we strike, afraid *because* we tremble.". Trembling is a physiological change while striking is behavior. Crying? Perhaps a little bit of both. The point is that he clearly allows for the possibility that the emotions be caused by/are about, specific behaviors. So, two more schemes interpreting James, could be the following:

B) Stimulus → behavior → emotion (feeling)

and

C)

Stimulus → | → *physiological changes and facial expressions* | → *emotion*
| → *behavior* |

It is obvious that James proposes that behavior (i.e., striking) precedes the feeling, the same way physiological changes and facial expressions precede the feeling. Because he treats both behavior and physiological changes the same way, it might be possible that (C) to be what James had in mind, whereby behavior and

physiological changes occur simultaneously, inasmuch we can't understand from his writings whether the one or the other happens first. In my opinion, (A) must be investigated and (B), (C) must be rejected. It is unlikely the feeling to come after behavior, granted that behavior might be absent. E.g., you might find my comments insulting but decide that it's best to do nothing about it. Furthermore, behavior takes time as it involves muscular motor coordination and preparation, as well as mental processing of the stimulus. In James example, I cannot imagine that there is no feeling between the insult, and the striking. I cannot imagine that I perceive someone's insult, I process it as such, my body prepares itself for striking the person who insulted me, I execute the striking and all that without any feeling. On top of this, I can't imagine that I 'll have to wait until my hitting the person has finished, to feel anger. The whole sequence of events looks more than implausible, and I think it must be dismissed altogether. The same with the suggestion that behavior and physiological changes happen simultaneously first, before any feelings are involved. The delayed feeling, especially when behavior is involved, gives us good reasons to believe that (B) and (C) are probably out of the question. Therefore, I will refer from now on, to the most common interpretation of the JLTE, the one that says that physiological changes and facial expressions precede the emotion[7].

The above interpretation is very important because this is the point when the JLTE identifies itself as an intentional theory. It is important not only because it gives a different perspective on the causation sequence of events of emotional episodes, but because it makes the JLTE look like a bulletproof theory when it comes to the problem of objectless emotions. The jitteriness after heavy coffee consumption is poorly understood with cognitive, perceptual, or even Prinz's mixed theory. All of them require an external object. The JLTE on the other hand does not. With the JLTE, the jitteriness is about the palpitations or the shakiness that follows the consumption of large amounts of caffeine. Similarly, an episode of panic attack according to the JLTE is the dread you experience, and it is about a number of bodily manifestations that take place unexpectedly and inexplicably.

In what comes next, I 'll do the following. I will elaborate further on the good bits of the JLTE. Then, I'll talk about its weaknesses. My conclusion is that it fails to be true at all times. My view is that the JLTE fails in general, and that physiological

[7] It's worth noting that most scholars interpret the JLTE as a theory that says emotion follows physiological changes (e.g., Collier, Barret etc.). It is surprising that James' proposal, that behavior might as well precede the emotion, has gone largely unnoticed.

changes mostly *accompany* the emotions. As I will show, the fact that the JLTE isn't true at all times gives us a good reason (along with a couple of other objections), to believe that it cannot stand as a robust, complete theory of emotions.

2.2 The Merits of the JLTE

The prominent virtue of the JLTE is that it takes emotions to be types of feelings or sensations, rather than thoughts or perceptual experiences. By so doing, it accommodates better the phenomenology, or the experience of an emotion. James's subtraction argument accommodates the phenomenology or experience of emotion in a very convincing way, at least for specific emotions such as anger, anxiety, or fear. Of course, I think the JLTE gives the wrong account of the feelings or sensations in question, but that is a different point and one that I will elaborate on when spelling out the weaknesses of the JLTE.

The JLTE says that at the beginning of life, human emotions function as mechanic, reflex circuits. But as we, humans, age, it's also sensible to support that emotional experiences are enriched and expanded. It seems true that past experiences make the appraisal of objects and representations more elaborated via mechanisms of associative learning. This creates more room for complex emotions to be developed. Further development of cognitive capacities forms the basis for new, more elaborated emotions to unfold. Emotions like guilt, pride, or admiration. In that context., the JLTE provides a good account of how human emotions develop overtime.

Next, moving onto the idea that emotions involve physiological changes, it does seem plausible to suppose that bodily cues both modulate the experience of emotion, as well as initiate emotional experiences. By modulating I mean that bodily feedback contributes to the augmentation of the emotional experience. You get scared for some reason and your heart starts beating faster. The faster beating contributes to experiencing fear all the more. This is how bodily cues may temper with emotions already initiated.

By initiating, I mean that it is possible bodily feedback to be the prime reason for experiencing an emotion, in the absence of an external stimulus. Give enormous

amounts of coffee to someone, and his heart might start beating fast. It's common then to feel jittery, anxious, and apprehensive. Notably, people suffering from hypochondria, experience negative feelings triggered by exceptionally high sensitivity of bodily cues, compared to normal subjects. In that case, emotions and cognitions (fear of dying or losing control) follow perceptions of even the slightest bodily abnormalities. Therefore, somatic feedback can be both a modulating factor and an initiating factor, depending on the circumstances.

In addition, the idea that a stimulus (i.e., a threatening grizzly bear) provokes arousal (i.e., heart pounding, trembling, sweating) that leads to emotions, may seem appealing not only to philosophers and psychologists, but to common people too. In that context, the theory pioneered in recognizing the importance of peripheral nervous activity in adjusting emotional experiences. The subtraction argument did this in a very appealing way. Indeed, it's hard to imagine episodes of fear, anxiety or anger stripped from bodily upheaval. In many instances, bodily feedback, along with perceptions of circumstantial leads, play a very important part in emotional feelings. The JLTE stresses the close relationship between bodily manifestations and emotions.

There have also been some experiments suggesting a close link between emotions and bodily activity. For example, fear, sadness, anger, and happiness are shown to be produced or (at minimum) increased, following imposed creation of facial expressions (Duclos et al., [1989]; Flack, Laird, & Cavallaro, [1999]; Strack et al., [1988]). Individuals who have received BOTOX forehead injections that immobilize the muscles that produce frowning, frequently report reduced feelings of anxiety and depression (Lewis & Bowler, [2009]).

Moreover, persistent gaze into another's eyes (which might lead to boosted levels of mutual respect, liking, and romantic attraction) has been researched (Kellerman, Lewis, & Laird, [1989]). More positive mood and less negative mood are reported after prolonged touch and holding hands between partners, (Williams & Kleinke, [1993]). Similarly, slumped posture is associated with sad and fearful feelings, clenched fists with increased feelings of anger and disgust, and erect, upright posture with feelings of pride, (Duclos et al., [1989]; Riskind, [1983]; Riskind & Gotay, [1982]; Stepper & Strack, [1993]). Finally, it's been found that respiratory patterns influence the emotions (i.e., as in yoga deep, slow breaths and relaxation, (Bloch, Lemeignan, & Aguilera, [1991]; Philippot, Chapelle, & Blairy, [2002])). These are the good bits of the JLTE. In the next paragraph, I explore its deficiencies.

2.3 Why the JLTE fails.

Despite its merits the JLTE suffers from a number of weaknesses that together give us sufficient reasons to think it fails as a theory of emotion. Let me begin with, from where I just stopped, with experiments that examine the relationship backwards, from bodily cues to emotions. In most of those experiments, there are no consistent results. For example, the BOTOX forehead injections and the imposed creation of facial expressions did produce some results, but «the findings are not always consistent, particularly for emotions such as surprise and disgust», (Laird & Lacasse, p. 29, [2014]).

Other studies have produced even more mixed results. Adrenaline-injections to individuals have presented inconclusive evidence as to whether visceral arousal causes emotional feelings. Some subjects did not report them at all, while others reported something "like an emotion", or the feeling we sometimes experience just before an emotional episode. Very few reported full-blown emotional activity (Cannon, W. B. [1927], Cantril, H., & Hunt, W. A. [1932]). The lack of cues has been held responsible for the conflicting results, along with possible misattribution of emotions. From the perspectives of cognitivism and as regards the subjects who haven't reported anything, it's been proposed that "the lack of any object, or reason for the emotion usually deprives it of its genuineness", (Cantril, H., & Hunt, p. 302, [1932]). Regarding the subjects that felt something like an emotion, or something that's experienced before an emotional episode, a possible explanation given is that knowing there was no reason to feel an emotion would be sufficient to undermine any potential feelings, as would knowing what the effects of adrenalin would be.

But in the end, most experimenters affirm that while the evidence that visceral arousal is an important initiator of emotional feelings and it is substantial, arousal does not affect *all* emotions, and it does not affect *all* individuals. Moreover, the necessity of autonomic feedback and emotions has been investigated in various studies. Again, those studies have produced mixed findings (e.g., Critchley, Mathias & Dolan, [2001]; Chwalisz et al. [1988]; Cobos, Sanchez, Garcıa, Nieves Vera, & Vila, [2002]).

The inference is therefore that this backwards relationship, from bodily cues to emotions, cannot be established for *all* emotions and *all* individuals. This is the first reason why we should be skeptical as to whether the JLTE can be verified as an

across-the-board theory. For if emotions according to JLTE are sensations of physiological changes and facial expressions, we would expect that by inducing physiological changes and facial expressions, all affected individuals to experience emotions. As we see, this is not the case for all emotions, all individuals, at all occurrences.

The fact that induced physiological changes and facial expressions provoke emotional responses to a subset of people only, is pinpointed by Reisenzein & Stephan. The say- rightly in my view- that accepting as normal that a subset of individuals don't experience emotions upon induced physiological changes and facial expressions, is analogous to "proposing that half of the population have an inverted color spectrum (see e.g., Hardin, [1988]); in fact, it is even more radical because, whereas people with an inverted color spectrum would at least still experience *colors* when we do, the basis of emotional experience in Jamesian and non-Jamesian emoters is completely different" (Reisenzein & Stephan, p.44, [2014]). They close their comment by saying that "If we have to decide between this option and abandoning JLTE, then surely JLTE must go», (p. 44, [2014]). Indeed, it is peculiar that many individuals don't experience emotions at all, upon induced physiological changes and facial expressions. At minimum, we would expect them to experience diminished emotions, or something like an emotion; not nothing at all. This is why the analogy between those who see inverted colors and those who feel nothing upon induced physiological changes breaks down. The first see a color (even if inverted), while the second feel nothing (while we would expect from them to feel, at least, something).

The next objection to the JLTE questions the way the JLTE considers the phenomenology of emotion. For one, by stressing the close relationship between bodily feedback and emotions and by stating that those somatic cues are the objects of emotions, we may get a clear idea of what the phenomenology of emotions is. If fear for instance, is the sensation of heart pounding or trembling, one can assume that according to the JLTE the phenomenology of fear is similar or identical to the phenomenology of the racing heart or the phenomenology of trembling as experienced when not occupying an emotional state. And this phenomenology, must be quite different from the phenomenology of cognitive, or perceptual theories. How fear phenomenally appear to us, according to cognitive theories, must resemble how a belief that there is something dangerous, phenomenally appears to us. Similarly, according to perceptual theories, the phenomenology of

fear must resemble how the perception that there is something dangerous, phenomenologically appears to us.

Those are distinct from the Jamesian phenomenology of bodily feelings. The question is whether the phenomenology of emotions is exhausted by the Jamesian phenomenology of physiological changes. The answer is negative, for there must be something more, or other than (or above) the simple phenomenal appearance of bodily cues. Otherwise, heart pounding or trembling would exhaust the phenomenology of fear, for instance. This seems to be plainly untrue. We might as well imagine a person whose heart is racing because he just run several rounds and trembling because he run those rounds in the cold. We don't expect the trembling from the exposed-to-the-cold runner, whose pulse rate is elevated, to experience fear. This kind of criticism is made by Sartre in his *Sketch* [1939].

It's easily understood by experience alone, that many bodily sensations and functions are commonly shared by different emotions. In another example, people may have elevated heartbeat and sweat gland activity when they experience fear and, also, when they are positively excited about the life prospects of their new job. High-intensity positive emotions involve the same physiological arousal as high-intensity negative emotions, like anxiety or anger. Emma Sepalla in her book, cites studies which confirm that both in positive and negative high-intensity emotions, "our heart rate increases, our sweat glands activate, and we startle easily", (Sepalla, *The Happiness Track*, [2017]). It's apparent from everyday life, that specific bodily reactions cannot be mapped *exclusively* to specific emotions as the theory upholds.

Another reason of concern is the following: if the JLTE were right, we wouldn't have been able to explain mixed emotions. For instance, it might be possible that two different emotions to co-occur, something that might involve opposed bodily changes (e.g., an increase vs. a decrease in blood pressure). That would «destroy the pattern characteristic for any one emotion», (Reisenzein & Stephan, [2014], p. 43). Ersner-Hershfield et al., [2008], report that mixed emotions can exist in various combinations, be it a combination of anger and joy, disgust and satisfaction, or embarrassment and sadness. They also make special reference to poignancy; according to the authors, poignancy presumes the experience of mixed emotions as positive and negative feelings that often co-occur, if not existing simultaneously. Poignancy comprises a mixture of happiness and sadness that occurs when one faces meaningful endings. In that sense, a person can feel sad and happy at the same time, even if these feelings tend to be contradictory. In fact, there has been some research on that: viewers have experienced mixed feelings of happiness and

sadness upon viewing certain films with bitter-sweet endings (e.g., *La vita e bella*), (Larsen JT, McGraw AP, Cacioppo JT., [2001]). In another example, nostalgia is thought to be a mixture of pleasure coming from the memory of something lived, and the pain caused by that event being permanently gone. According to Berrios, Totterdell and Kellett, [2015], nostalgic mixed emotions are often experienced by graduates, shortly after their graduation ceremonies. In the same paper, Berrios et al. confidently say that "the current study indicates that mixed emotions are a robust, measurable and non-artifactual experience". From the Jamesian perspective, mixed emotions are difficult to be understood. If the Jamesian thesis were right, we would expect that mixed emotions comprising of contradictory emotions (i.e., disgust and satisfaction, or sadness and happiness) to be about visibly different somatic feedback that occurs simultaneously. For instance, consider the pair "disgust and satisfaction" as discussed by Ersner-Hershfield et al. Disgust is related to upset stomach, while satisfaction to a calm stomach sensation. But experiencing an upset stomach and a calm stomach, at the same time, seems extremely difficult, if not unfeasible. Therefore, experiencing a mixed emotion of disgust and satisfaction, would be impossible according to the JLTE. Of course, experiencing a mixed emotion is not only possible, but probably a common experience. Thus, mixed emotions constitute a serious threat to the JLTE.

More clues about the probable direct relationship between brain activity and the feeling we experience during emotional episodes, are provided by neurobiological explanations. From the perspectives of neurophysiology, there are strong indications that the emotions are more directly related to brain activity primarily, and that they are related ancillary, to peripheral nerve and sense-organ activity. We know now that the emotions are pleasant or unpleasant mental states organized in the limbic system of the mammalian brain. We also know that the amygdala is also highly implicated (as in fear, or anxiety), (Givens DB., [2014]). Other studies have shown *that* the left prefrontal cortex is associated with positive emotions, (Kringelbach ML, O'Doherty J, Rolls ET, Andrews C [2003]). All in all, there is ample evidence that the emotions are related to certain activities in brain areas. This means that the emotions must be feelings which are over and above the sense-organ feelings of the Jamesian view. The idea that emotions are probably feelings that stem from the brain (we might call them 'cerebral feelings' or 'psychic feelings'), rather than feelings that are about sense-organs is reinforced by the fact that peripheral nervous activity (the activity of sense organs in JLTE) is too slow to be at the epicenter of things. The sluggishness of peripheral activity as opposed to a more centralized brain-centered version, constitutes a problem for the JLTE

because physiological reactions are too sluggish to explain the rapid subjective experience. The perceived latency of most physiological perturbations has been backed by various theorists (LeDoux, [1998]; Schmidt-Atzert, [1993] etc.). For instance, Le Doux says that "at a minimum, it takes a second or two for signals to travel from the brain to the viscera and then for the viscera to respond and for the signals created by these responses to return to the brain. For some systems the delay is even longer", [1998]. He adds that "it's not so much the travel time from the brain to the organs by way of nerve pathways that's slow, it's the response time of the organs themselves. Visceral organs are made up of what is called "smooth muscle," which responds much more slowly than the striated muscles that move our skeleton during behavioral acts", Therefore, is his conclusion, autonomic nervous system (ANS) responses influence information processing during emotional reactions; what I earlier called, "modulation of the emotions". But he's clear at the same time, that the fact that visceral responses have relatively slow actions should make us seriously consider that ANS responses cannot be the primary factor that determines what emotion you experience in a given moment. The primary factor that determines what emotions you experience in a given moment must be brain processing, with the amygdala, the pre-frontal cortex and the hippocampus probably being the most implicated parts of the brain.

I believe that we can verify that ANS responses must not be the primary factor in emotional experience, by introspection. Take a moment to think how we realize things when we experience, say, fear. It seems to me, that first, we are overwhelmed by an unpleasant sensation, an edgy feeling, one that is typically experienced as occurring in the head. We normally realize that our heart beats faster, or that our breathing becomes abnormal, a bit later. The bodily feedback augments the awful first feeling, perhaps it feeds it. How much later cannot be estimated with accuracy, but definitely later. If the opposite were true, we would have felt our heart beating faster and our breath become abnormal first, and we would experience the awful sensation second. But phenomenologically, it appears to us that the overwhelming, unpleasant sensation comes first. So, the phenomenology of emotions seems to be on par with neurophysiology. Thus, the Jamesian sequence:

> Stimulus of the emotion [that leads to] -> Physiological Response Pattern [that leads to]-> Affective Experience

cannot only be backed by science, but also by how things appear to us, phenomenologically. What's missing from the Jamesian sequence, is brain activity from which, most probably, an over-and-above feeling (the emotion) stems. The feeling, in simple words, must come first, before the realization of the bodily cues. The bodily cues probably have a very central, yet appurtenant role in the emotional experience, not the principal role.

One more source of worry for the JLTE, is studies that have shown that autonomic responses might not be required to experience emotions: Erica L. Johnsen et al., [2009], showed evidence for «double dissociation between feeling emotions and autonomic responses to emotions, in response to music stimuli», (p.1, [2009]). They studied people who had lesions to specific parts of their brains which disproportionately impaired autonomic responses. Their emotional responses on the other hand, remained relatively unaffected. Likewise, they studied people who had lesions to other parts of their brains which disproportionately impaired their emotional experience. In the latter case, their autonomic responses remained relatively unaffected. If similar findings are to be found and verified in the future, the basic premise of the Jamesian thesis that the perception of changes in our own body *is* the conscious experience of the emotion, is clearly under threat.

Finally, there appear to be mental states which, commonly, are thought to belong to the emotional spectrum, that are not associated highly with sense-organ responses. While the firm association between bodily feedback and emotions seems to be true for fear or anxiety, it appears counterintuitive apropos of mild pleasant emotions (like mild joy, easygoing elation, light happiness and the like), episodes of mild sadness and, perhaps, some states we call complex emotions. Mild joy, mild sadness and the like, don't appear to be about physiological changes, because by introspection alone, we can sense that those mild emotions are not accompanied by noticeable physiological responses. The same with aesthetic admiration. We might feel intellectually and psychologically content when admiring a nice painting, but it would take a lot of strong, unconditional admiration of a piece of art to make our hearts beat fast, or our limbs weakened. Similarly, for some complex states, physiological reaction might be absent or imperceptible. For instance, I can't see how guilt can be about specific bodily changes. Or it's difficult to identify the pleasant feeling someone undergoes when he feels proud, with specific sense-organ activity. While we can seemingly easily introspect and locate our bodily changes after an episode of fear, anxiety, anger, or erotic courtship, it

doesn't look as if we can equally accept without a doubt the causal link between specific bodily feedback, and *all* the emotions.

Laird & Lacasse state «that James may have come to his emotion theory by personal observations», (p. 32). Famously, James said: "The best thing I can say for it [his theory] is that in writing it, I have almost persuaded myself it may be true" (James, [1884], p. 205). I don't know what kind of introspection and personal observations James did, but it seems that he did the ones that suited specific emotions (anger, anxiety, fear, disgust or even episodes of romantic love) on which, he based his theory. It looks as if he selectively left important others out. So, we have two options. The first is to make an informed choice and accept an arbitrary VIP list including some emotions only, which indeed, seem highly associated with visceral activity, and occlude the rest. The second is to acknowledge that bodily activity influences the emotions but deny that the emotions are the feelings or perceptions of this activity. Or even, to wholeheartedly endorse Dagleish's statement that «bodily feedback *modulates*[8] the experience of emotion»; A statement that many affective scientists and theorists would have been happy with.

In conclusion, and for the reasons above, the JLTE cannot be seen as a sturdy theory of emotions that can fully explain the nature of emotions, or their function.

2.4 The "take home message" of the JLTE.

I spoke earlier about the merits of the JLTE. Also, I cited the objections, and my conclusion was that the JLTE is difficult to stand as a universally valid theory of emotions. But what is the "take home message" from it?
The important lesson from the JLTE is this: I suggested at the end of the previous chapter that what could be kept are the following views: Etiological Cognitivism (the view that emotions *may* be caused by judgments), Etiological Perceptualism (the view that emotions *may* be caused by perceptions), and Functional Motivationalism, or "soft" Motivationalism (the view that emotions frequently force us to behave in certain ways).
A useful addition from evaluating the JLTE is that it seems to introduce Etiological Body-ism. I would describe this view as the one that says that emotions *may* be

[8] As explained earlier, emotional modulation is used as in influencing, or adjusting the emotion.

initiated upon sensing bodily abnormalities. In that context, the theory I'm about to present- as a feeling theory itself- retains the aforementioned virtues of the JLTE. As mentioned, it acknowledges the important role of bodily cues both, at a modulating level as well as at a level when, occasionally, bodily cues initiate emotions. Also, it acknowledges their mechanic nature (describing them as reflex circuits), rendering emotions original substances. This could prove crucial in treating unwanted emotions.

But here, any resemblance stops. My theory, I believe, avoids the pitfalls of the JLTE. It avoids committing too much on bodily feedback and it avoids making bodily activity the object of emotions. Also, it avoids the difficulty to explain why bodily cues play a determinant role in a subset of individuals only, and in a subset of emotions only. This is hard labor, and only Jamesians must provide a consistent answer.

In this chapter, I tried to present varieties of the Feeling Theory of Emotions. Its largest part was devoted to the JLTE because the JLTE provided a radically different perspective of a feeling consideration of the emotions. It placed centrally bodily feedback at the epicenter of emotional experiences. Because of the distinctiveness of the JLTE, I tried to investigate which elements of its are to be retained, and which are to be discarded. The overall conclusion was that the JLTE cannot be seen as a comprehensive theory of emotions, albeit many of its aspects are insightful and provide points to ponder. Moreover, the old Humean version of the Feeling Theory was presented, as well as Whiting's new reformulation of Hume's account. It is time, I think, to present my version of the Feeling Theory in a separate chapter.

The chapter to come is the one where I say what emotions probably are, I talk about their object-directedness (more accurately about the lack thereof), and about their being non-propositional entities among other things. As said earlier, the theory is based on Demian Whiting's series of papers [2006, 2011]. My version is way more inclined towards a Humean perspective of emotions, rather than a Jamesian view. In that sense, I wouldn't say that it offers any improvements on the JLTE. Or, that it moves forward from where the JLTE finds itself in a deadlock. Rather, it simply assimilates a couple of satisfactory virtues of the JLTE, and it offers a new perspective on the old, non-intentional, "simple feelings" view, which was first defended by Hume many years ago, with focus on the hedonic nature of

the emotions. The multi-level structure I'm about to propose, offers a convincing alternative (I hope), to the naïve/simplistic character of the original Humean thesis.

At the end of the next chapter, I will elaborate on the importance of espousing this particular version of the Feeling Theory in light of viewing psychiatric disorders as, predominantly, disorders of our emotions.

CHAPTER 3

The Thesis: A 3-Layer Version of the Feeling Theory of Emotions

Introduction

KEYWORDS: Composite mental states, Basic emotions, Desires, Hedonic properties

Until now, I have argued that the emotions are neither cognitive states, nor perceptions of value, or simple perceptions of somatic disturbances. Furthermore, I have also argued that the emotions do not need objects. This last one of course, seems to be a rather vexing statement to make because from our experience alone, the majority of the states we call emotions, are normally about something: someone is happy because she won the lottery, sad because she lost her job, afraid of the burglars who just broke into her house, or proud of her son who successfully passed his test at school. The same goes with animals or infants; the zebra experiences fear because a lion is after her, or the baby feels joy because the mother cuddles her with affection.

At first, it might seem too risky to brazenly claim that the emotions do not have objects when it appears that, in most instances, they do. On the other hand, I have already dedicated an entire chapter impugning cognitive and perceptual theories of emotions for being unable to accommodate counterexamples. Those counterexamples pertain cases when there's no object. Examples of such cases are the extreme fear during panic attacks[9], the dysphoric sadness of the depressed

[9] It could be contended that fears in panic attacks and substance-induced fears, as well as relevant anxiety, do have objects. The object of such fears (or involved anxieties) could be said to be the idea of dying, or the idea of losing control. In reply, the following can be said:
Firstly, it can be agreed that humans may ascribe their objectless feelings to evaluations which are contingent on what they know about physiology, and physical sensations. Fast heartbeat, difficulty breathing, sweating or tremors, can be ascribed to heart problems. Because many people *know* that such symptoms are related to heart conditions, they can be interpreted as something catastrophic happening to the person and relevant thoughts may occur (thoughts of dying or losing control). At the same time, we should not ignore that very similar objectless emotions can occur in non-cognitive agents. For instance, yohimbine, caffeine or bradykinin

individual, or Scarantino's *blindfright*, [2010]. And this is a reality that can't be ignored, nor should be swept under the rug. My view is that we cannot ignore such cases as if they make up a mysterious sub-class of emotional objectless experiences that does not belong to the same set as all the rest do. My solution then, is rather simple: we change the terminology, and we change stratification and classification. In other words, we change the agenda. What's the agenda right now? Feeling theorists of emotions claim that competing theories have hit a wall by being incompetent to deal with the problem of counterexamples. Cognitive and perceptual theorists reply that a feeling account is too simplistic, and it disregards essential cognitive and perceptual aspects. A recurring objection to the feeling theory is that if the emotions are brute occurrences, like headaches, they cannot be said to be unreasonable. But the emotions, says the objection, do appear to be subject to rational assessment. Thus, by considering them simple feelings we downgrade them to a lower state or status, than the state or status they actually belong to.

It seems to me that there's no other solution than to rename and reclassify everything under a single condition in mind: to classify and rename categories of emotions so as in this new classification system, *all* instances of emotional

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are shown to induce anxiety (and likely fear-like sensations) in animals, (Bhattacharya, SK., Satyan KS., Chakrabarti A. [1997]; Bhattacharya, SK. et al., [2016]). In a similar manner, we can hypothesize that such objectless induced emotions can be had by children, animals or even adults who lack knowledge of human pathological and physiological reactions. Those agents cannot make relevant associations and therefore, they experience object-unrelated mysterious feelings. If we want to find a common pathway (and this is the best approach in my opinion) between objectless emotions in adult humans and similar objectless emotions in agents who lack knowledge to make relevant cognitive evaluations, we should say this: Objectless emotions develop as non-directed feelings at first. They can become intentional only in light of specific associations which only knowledgeable adults are capable of. We don't have good reasons to think that caffeine induced anxiety doesn't develop initially as a disagreeable, nauseous feeling which is simply decompressed as crying in toddlers, but can be worked and intensified further by logical associations (i.e., tachycardia is interpreted as something catastrophic) in adults.

On a similar note, it could be contended that objectless sadness in certain cases of depression may be understood in psychodynamic terms. Under those terms it could be said that the object is hidden.
I am of the opinion that two things need to be said. First off, it's not clear if, how and why hidden objects can cause episodes of sad emotions. Perhaps, and I'm not saying this with confidence, (if such hidden objects could be seen as proper objects), they might play their part in moods; but it's questionable if they could have a role in distinct episodes of emotions. Secondly, it is also not clear if "hidden" stimuli can be thought of as legitimate objects of emotions. I argued earlier in the *blindfright* section that complete inability to register a stimulus constitutes lack of object. In the *blindfright* section I mentioned stimuli that can never be registered by the individuals. In the same way, why hidden objects (that can, in principle, be uncovered much later) be thought of as proper objects? From a phenomenological point of view, people might report that at the time of experiencing objectless sadness they just experience an objectless emotion (such as, feeling bad for no reason). It is nowhere obvious that concealed from awareness objects to be seen as valid objects of episodes of sadness.

experiences are to be accommodated, with no exceptions whatsoever. This is something that cognitive and perceptual theories of emotions have failed at. A classic example/case which cannot be accommodated by cognitive and perceptual theories is free-floating undirected depression. When people feel sad for no reason. Cognitive theories cannot accommodate such instances of sadness, because the sad emotions someone undergoes are not about anything. It is a pre-requisite of cognitive theories that emotions are about something, so such instances of free-floating sadness (or anxiety) cannot be accommodated. Perceptual theories do not do any better. Supposedly, perceptual theories have the advantage to appeal to the relevant relational theme, and asseverate that the relational theme is the object, if an emotion doesn't have an actual object. But if the relevant theme of sadness is irrevocable loss, we can't see how undirected sadness is about "irrevocable loss". Most likely, there isn't any kind of loss in the picture, when someone feels sad/depressed for no reason. Likewise, there are many similar instances like the above, which cannot be accommodated by cognitive/perceptual theories.

In fact, the solution I am proposing is a theory of dismantling and reconstruction. It breaks down emotional phenomena to the simplest possible entities and expands its way up to accommodate more and more mental phenomena, so eventually, to become a theory that is in position to accommodate everything; all the states we commonly refer to as emotional states. My proposal consists of a two-plus-one, layer stratification. This three-layer stratification is given after arguing in favor of a hedonic perspective of emotions.

The plan for this chapter is this: Initially, I discuss the hedonic perspective of the emotions. After, I talk about the basic emotions and their selection process. Having talked about the basic emotions, I refer to two more categories (layers): the composite mental states whose one constituent is a basic emotion, and the higher-order composite states which are composite mental states experienced by humans. The three categories (layers) combined, make up the three-layer Feeling Theory I want to defend in this thesis.

Following, I discuss some possible objections to the Feeling Theory, and I close this chapter by stressing the importance of the distinction between Basic Emotions and Composite Mental States.

3.1 The hedonic perspective of the Emotions

The first thing to note, is that I take the emotions to be qualitative states. So, what I'm about to do here, is to defend a feeling theory of emotion, according to which emotions are feelings that can be characterized according to their distinctive hedonic properties. According to this theory, different hedonic properties characterize different emotions. Each emotion has specific algedonic properties and as such, it comes with specific hedonic specifications. Emotions like joy, satisfaction, content or calmness are thought to be valenced positively. Contrarily, fear, anxiety, sadness and the like, are supposed to be valenced negatively. That is, emotional feelings appear to have an intrinsic property of being agreeable/non-agreeable states, pleasurable or non-pleasurable states. States that lack the intrinsic property of being agreeable/non-agreeable states, are not emotional states. For instance, in relation to fear, I take it that a state that lacks its unpleasantness does not count as fear. If a state functions only as a threat-detection mechanism that is followed by certain action (i.e., fleeing or freezing) without being felt in a dis-pleasurable way, it is not fear. A robot for example, endowed with strong AI abilities that can detect threat and accordingly, initiate a certain course of action, does not experience fear.

The truth of the hedonic perspective of emotions can be defended by a modified version of James' subtraction argument. Remember that James posited that the emotions are nothing but somatic feelings, by arguing that if we try to abstract from an emotion all the feelings of its characteristic bodily symptoms, we find that we have nothing left behind. He claimed that we are left with "a cold and neutral state of intellectual perception which is all that remains" (James, [1884], p.193). In the previous paragraphs I went to great lengths to show that James' view is not accurate, because the feelings of characteristic bodily symptoms simply accompany *some* emotions and not all, and for that reason the emotions cannot be feelings of bodily symptoms.

But a modified version of James argument, I believe, can work excellently in support of the hedonic theory. Indeed, I cannot imagine any states that are stripped from their hedonic properties that can be called emotions. Take any emotion you like; positive or negative, basic or complex, short or long, mild or intense. You will not find one that lacks hedonic properties, no matter how hard you may try. Even

the most subtle emotions feel somehow in qualitative terms, and this "somehow" has a positive or negative sign.

By contrast, let us see how the subtraction argument works for other theories of emotions. As just mentioned, it doesn't work well for James' Theory. We could strip barely noticeable bodily symptoms (if any) from mild sadness, and still experience a dis-pleasurable dysphoric feeling (which is the emotion). Also, the emotions can exist without the presence of thoughts or other complex cognitive representations. They can exist without objects, and they can exist in the absence of perceptual experiences as I showed in chapter 1. So, the subtraction argument does not work for either cognitive or perceptual theories. In fact, we can strip emotions of many things and still have them, but we can't have them if we strip them from their hedonic properties. Therefore, the hedonic properties are the *only* properties that exist consistently in all emotions (basic and non-basic). The sub-cortical emotions (such as *blindfright* and the like) I referred to earlier, indicate that the subtraction argument works -even in fringe cases- for the hedonic theory. Sub-cortical emotions are stripped of almost everything; yet they are still emotions because they have some rudimentary hedonic properties. Because of these properties they are emotions just fine.

The kind of pleasantness/unpleasantness of every emotion varies. For example, fear has an "edged" unpleasantness while the unpleasantness of sadness or melancholy is "down-spirited" vs the unpleasantness of anger which is "hot-flushed". So basic emotions (or the emotions, as I will use those two terms interchangeably), have very specific hedonic specifications. Each basic emotion must have a distinct, transparent hedonic quality, distinguishable from the hedonic qualities of other, similar emotions. All basic emotions must be inherently identifiable by these distinctive hedonic properties. Those properties seem to suffice for their identification. In other words, the distinct edginess of fear is enough to distinguish an episode of fear from an episode of sadness, or an episode of anxiety. We don't need all typical features of emotions to have a readily identifiable basic emotion. We don't need a cause of an emotion or relevant behaviour, or perception of a relevant core theme as Lazarus suggested (i.e., the respective relevant core theme of danger, for the emotion of fear); the feeling is enough. The distinct hedonic properties of a basic emotion is all we need. Let me call this, the Principle of Sufficiency. Thus, the Principle of Sufficiency states that basic emotions are identified by their distinct hedonic properties only. If a state has object(s) on top of its hedonic properties, it is not a basic emotion.

The Principle of Sufficiency can help us distinguish between emotions that are very close to one another. Take for instance two emotions that belong to the negative spectrum and are adjacent in how they feel: anxiety and fear. While they both have an edgy character, anxiety is edgy in a more uneasy and restless way. Fear on the other hand, and especially intense fear, is also edgy but with a sense of being in some kind of a nauseous warp drive where everything becomes blur. The distinction based on hedonic properties alone is fundamental in my theory because someone could argue that hedonic properties themselves might not be enough to distinguish between emotions that are pretty close in how they feel. He could say for example that we need a fearful stimulus (along with the relevant specific hedonic properties), to distinguish fear from anxiety, which in turn, must have a respective anxious stimulus (along with the relevant specific hedonic properties). He could also add that we would need relevant behavior (behavior typical to anxious emotions vs behavior typical to emotions of fear). My answer still, is that we don't need all that; the specific hedonic phenomenology of fear (which is edgy in a nauseous, blurred way), is enough to help us distinguish fear from anxiety (which is also edgy but in an uneasy and restless way). The specific edgy and uneasy unpleasantness of anxiety for example, and this unpleasantness only, is good enough to inform us that a mental state is anxiety and not something else, something similar.

To help myself make my point and prove that all we need is specific hedonic properties to distinguish between close-up emotions and nothing more, I will use again the example of atypical emotions. Such emotions are deficient in that they don't have all elements of typical emotions. As such, they are, in principle, difficult to be identified because a number of parameters is missing. Two such examples, are panic attack fears and undirected sadness in depressed patients.

Panic attack fears are described by sufferers, as intense episodes of fear (or episodes of intense fear if you prefer). Sufferers describe the attacks as episodes of fear, be it the first time they experience them, or the hundredth. Furthermore, patients are clear that what they have experienced is fear, and not anxiety (with those two being close to one another in how they feel). Apart from strong physiological symptoms, the prevalent reported emotion in panic attacks is fear. Most frequently it is unspecified fear, and occasionally, it is fear of dying, or fear of losing control, (*The American Psychiatric Association*, [2013[, DSM (5^{th} ed.), American Psychiatric Publishing, pp 214-217, [2013]). In many cases dread is reported, which is a variation of fear, (E. Bourne, [2005]). My question is how the sufferers know that

it is fear they have experienced, and not anxiety or sadness. So, the question is: how are panic attack sufferers in a position to distinguish between fear and sorrow? Can the sufferers distinguish because of the object that causes the fear? No, because there's no object. Can they distinguish them because of perception of danger? Again no, because there is no danger in sight. Can they distinguish them because of somatic feelings? This is problematic as well, because as I explained earlier in the JLTE part, similar somatic manifestations are involved in multiple states. Can they distinguish them because of past similar experience? Once more the answer is negative; think of the first panic attack fear in someone's life which is not comparable with "normal" fears of the past. Past "normal" fears probably had an object (e.g., the burglar holding a knife) and relevant behaviour (e.g., engagement in a fight with the burglar to defend themselves or fleeing the scene to save their lives). "Normal" fears involve something fearful. Nothing of the above exists in objectless panic attack fears.

So, the ONLY way to know that it was fear and not something else, is to know the *exact* hedonic properties of fear.

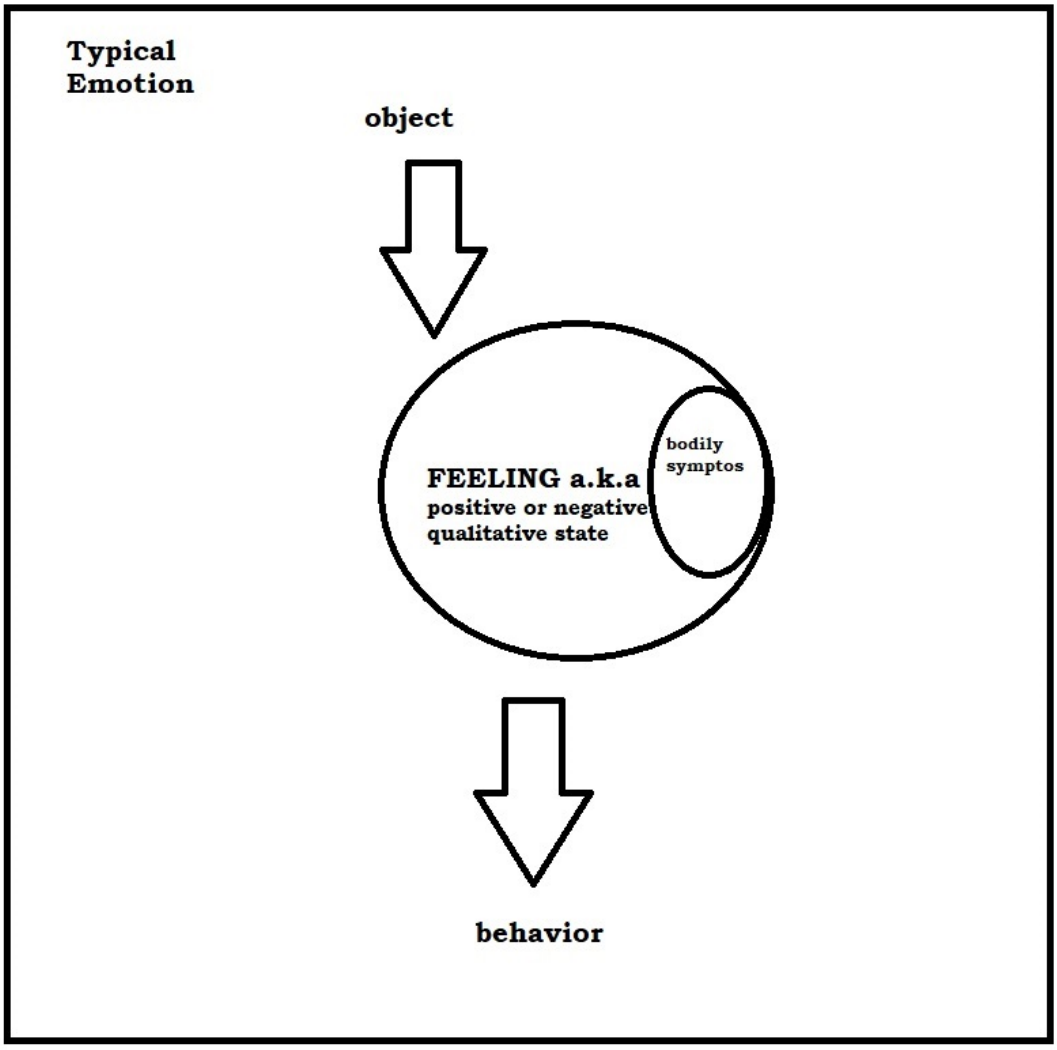
Another example is unexplained sadness, as in MDD. Most of us experience sadness and we conceptualize it via sad events occurring at the early stages of life. Loss of a grandparent or loss of pets are events that possibly bring about sad feelings, so conceptualization of sadness is formed via sad events that are meaningful to us and explain our sad feelings. Later in life, if unexplained sadness is experienced in the context of depressive disorder, there aren't any meaningful-to-us events that can explain or justify our sadness. Depressed patients may not be sad because of something, but simply sad. This sadness is atypical in that it lacks a cause that brings it about. But again, depressed patients *explicitly* report sadness. According to the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders [2000], sufferers report sad feelings, low mood, hopelessness, and helplessness. As I will explain in a later paragraph, sadness, hopelessness, and helplessness can be considered inter-exchangeable variational terms of sadness.

In addition, patients who report undirected sad feelings may not exhibit behaviour related to sadness. They may function socially at an acceptable level, not withdraw from most activities and responsibilities, and not undergo crying spells. Once more, we need to call on the Principle of Sufficiency to explain how they are in position to explicitly report sadness in the absence of anything sad. It must be the *exact* negative hedonic properties that suffice to describe sad emotions, and not something else. So, we have to conclude that the Principle of Sufficiency is so

strong, that we have no good reasons to say that it doesn't apply to all emotions. For if people are in position to distinguish atypical emotions (which are the most difficult to be identified because they lack major emotional structural elements) by their distinctive hedonic properties alone, we must conclude that all emotions must be inherently identifiable by these distinctive hedonic properties.

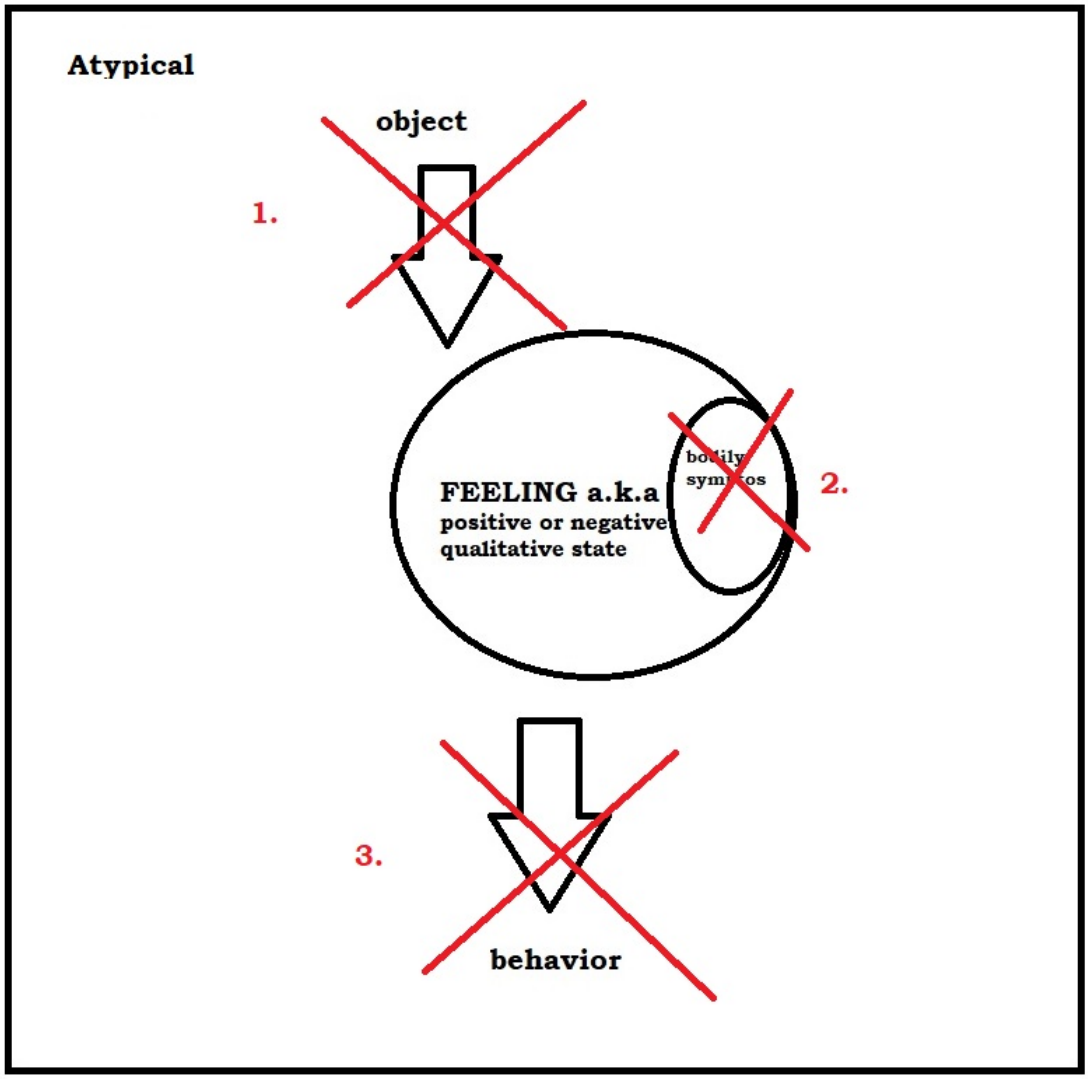
The next drawing depicts a typical emotion that has all features. Let me define as atypical emotions the ones which lack typical elements such as objects, or relevant behaviours. Typical emotions are the ones which have all such elements.

Drawing #1



In contrast, an atypical emotion may lack one, two or all three typical features marked as (1), (2) and (3).

Drawing #2



Note that the hedonic theory of emotion is entirely consistent with the phenomenon of hedonic reversals. This involves deliberate engagement in activities that bring about negative emotions. At times, at specific circumstances, the perceived intrinsic property of some emotions seems to be altered. For instance, people report to enjoy thrillers and horror films where the predominantly elicited emotion is fear. Others, love splatters where the ubiquitous sight of blood is supposed to trigger disgust. Many, love listening to sad songs, or watching films with sad endings. Justified rage, or anger are said to feel sometimes well. This phenomenon is described as «hedonic reversals». Enjoyment of sadness, fear or disgust is observable in both men and women, but higher in females across domains (Paul Rozin, Lily Guillot et al., [2013]). This phenomenon is observed in human

behaviour only, as we have no indications that non-cognitive agents such as animals and infants deliberately pursue emotions that are negatively valenced. However, this can be easily accommodated by a hedonic theory of emotions. There are three possible reasons, consistent with a hedonic theory of emotion, for why people opt sometimes for emotions that come with negative hedonic values, Those three possible reasons are: a) people might tend to like their physiological reactions to innately negative experiences b) people may enjoy this benign masochism if it occurs just below, in intensity, a level that is not tolerable and c) people enjoy the idea of the «mind control over the body». This last one, has received more attention and it has been given as the most persuasive explanation, (Guillot et al., [2013]). Let's see the example of entertainment that involves fearful scenes. It is not that people don't experience the negative hedonic value of, say, fear when they watch horror films. They do. It's probably that they enjoy experiencing a negative valenced feeling, through a safety net that gives them the illusion of control (the safety net is that the fear they experience cannot affect their well-being directly, as the on-screen threat cannot touch them). So, the pleasant quality people have, comes from the "control" over the fear they experience when watching the horror film, or from their idea of having control in a fearful stimulus. The pleasant quality does not come from the fear itself because the fear itself, cannot but have an unpleasant quality.

Also accommodated easily by the hedonic theory of emotion, is what we might refer to as out-of-balance emotional experiences. By out-of-balance emotional experiences I mean prolonged duration of positive emotions or unbalanced, one-sided experiencing of positive emotions only. Prolonged duration, or one-sided experiencing might affect the perceived intrinsic property of some positively valenced emotions. Indeed, we have examples that appear to affirm this. Constant, prolonged «high» (elation), in some bipolar patients feels unwelcomed. This does not pertain bipolar patients only. For sure, in clinical situations some bipolar patients often want the elation to continue, most likely because they know how it is like when in periods of depression. During depressive periods the sufferer may experience excessive crying and have a negative outlook, and this probably explains why continuation of elation might be temporarily desired. But in general, perpetual elation for either bipolar patients or healthy subjects must -at least- feel exhausting. Feeling "high", under normal circumstances, is being considered as something positive. But feeling "high" for too long, is probably experienced negatively. As for abundance or unilateral existence of positive emotions, ask yourself if you would like to perpetually experience calmness, joy, or euphoria for the rest of your life,

and those feelings to be the *only* ones to feel from now on. I suspect that you would turn such an offer down.

Prolonged duration or one-sided experiencing leave the hedonic perspective of emotions untouched. This is because, most probably, the emotions are "designed" to be felt equitably in terms of quantity and quality. So, if they are experienced disproportionally in terms of quantity, longitude or they are felt unilaterally (e.g., only positive emotions), the balanced is disturbed. And if this balance is disturbed, the agents have been probably "designed" themselves to feel the out-of-balance experiencing of emotions, as something undesirable. The answer to why "too much" or "too long" of positive emotions is undesirable, is not easy. As I just said, living creatures are most likely made to experience a variety of emotional states in a balanced way. Or boredom may play a role[10]. What is a balanced proportion of emotions, is also difficult to be determined with accuracy, and beyond the scopes of this thesis. We observe that a disproportionate mix of emotional states is ill-favored even if we talk about positive emotions only. But I can't see how these concerns could harm the hedonic perspective of the emotions. Because it seems to me, that it is one thing to say that emotions are algedonic qualia having specific hedonic properties, and another that disproportional or disbalanced experiencing of them is unwanted and may fetch undesirable results. The fact that emotions have hedonic properties is indisputable. What happens if they are experienced in disproportional ways, is another story.

Finally, a question that makes sense is about whether the hedonic perspective can be applied to complex, human emotions and not only to basic emotions. My answer is positive, and I discuss this issue shortly, when I talk about those complex emotional states. My proposal then, is the following: Basic emotions, do have specific algedonic specifications, but sometimes they are accompanied with an antithetical quality, as in the case of hedonic reversals. On top of that, those algedonic properties must be experienced in quantitative and qualitative balance: too much of anything may result in everted algedonic values. In any event, the algedonic properties of emotions are extremely essential and their hedonic properties are the ones that need our primary attention. Those properties, in my view, capture the essence of emotional experience and define, at large, the ontology of both basic and complex emotions: they constitute their most prevalent property,

[10] Boredom is a fascinating topic in Psychology and in Philosophy. As such, I wouldn't like to branch out into it on this paper, as boredom appears to be something between an emotion (or emotional state) and a cultural, specific mental state that people find unpleasant. Thus, boredom needs special attention that cannot be given here.

which is no other than their property of being pleasurable, or non-pleasurable feeling states.

I am now going to unfold my views on basic emotions. I will compile a list of basic emotions, and I set two considerations I have in mind that may qualify an emotion as a basic one.

3.2 Pure, Basic Emotions (or simply, emotions)

At the bottom layer, one can find the emotions which are commonly named as basic. Mental states which are pure, non-intentional, non-propositional feelings: the intense fear of panic and anxiety attacks, the unexplained episodes of sadness, or substance-induced emotional feelings that have no object (euphoria, dysphoria, agitation, edginess, calmness and the like). There has been a lot of speculation as to which emotions are basic, and various lists have been proposed until now. For instance, there's James's list which includes "anger, fear, love, hate, joy, grief, shame, pride, and their varieties" (James, [1894], p. 374). There's also Paul Ekman's famous list (Ekman, [1969,1999] which was based on the automatic appraisal mechanism criterion (similar to James's reflex circuit concept), and his research on universal facial expressions. His 1999 expanded list included "amusement, anger, contempt, contentment, disgust, embarrassment, excitement, fear, guilt, pride in achievement, relief, sadness/distress, satisfaction, sensory pleasure, and shame". This was a substantial expansion compared to his 1969 Bix Six list which only included happiness, sadness, fear, surprise, anger, and disgust, (P. Ekman, [1969]). J. Prinz talks about further fragmentation of the Big Six; his claim is that basic emotions «are not basic after all" because they are all «culturally informed", (J. Prinz, [2004]). I argue that this is a very weak claim, and that my strict criteria may yield a plausible list of very basic emotions. Those criteria, when applied, leave no room for cultural influences to play a significant role.

In order to compile mine, I think that two main considerations should be considered in order *bona fide*, basic emotions to qualify as such. To identify a pure, basic emotion, one has to first ask the following: Can the mental states in question be had by adult humans, and non-cognitive agents (animals, infants and the cognitively impaired)? I think that it is important this consideration be set first, because if a putative emotion cannot be undergone by non-cognitive agents, then

that suggests it can't be classified as a basic emotion. Guilt for instance, isn't thought to be experienced by animals or infants and as such, that is reason to suppose it cannot be defined as a basic emotion.

If the second answer is also yes, we should see if the mental state under scrutiny can exist without an object. This consideration doesn't say that the emotions under investigation always exist in an objectless form. Rather, it says that the emotions under investigation *are possible* to be found in an objectless form. It is an important consideration too, because it also helps us demarcate complex emotional states from basic emotional states. Guilt, pride etc., cannot be found in an objectless form, and thus, they can't be basic emotions. Examples of such objectless emotions might include not only unexplained fear of panic disorder, diffused anxiety, or bouts of depression and substance-induced emotions. They might include emotional feelings that have arisen from tampering with parts of the brain. For example, subjects have reported "feelings of disgust following electrical stimulation of the anterior sector of the insula conducted during neurosurgery", (Penfield and Faulk, [1955]). More recently, Krolak-Salmon and colleagues [2003] demonstrated that feelings of disgust «that were difficult to stand» were experienced when they stimulated electrically the anterior insula through implanted depth electrodes. Similarly, electric stimulation of the hypothalamus in rats, cats and monkeys induced typical aggressive behavior (snarling, exposed teeth, growling). The animals attacked everything at their immediate surroundings for no apparent reason, Lammers et al., [1988]; Siegel and Pott, [1988]; Siegel et al., [1999] & Annegret, Falkner and Dayu Lin, 2014).

Granted that the emotion yet to be decided can exist in an objectless form, both considerations are satisfied. Then, one can boast that he has spotted a pure, basic emotion.

3.3 The Selection of a List of Basic Emotions

The cross examination of exemplars that might lead to the compilation of a basic list of emotions, appears to be long and demanding. For one, we need to designate the larger pool of emotional phenomena which basic emotions are to be picked out from. To give an idea of the complexity of such project, I will discuss the following study: in 1984 Beverley Fehr and James A. Russell, asked 200

undergraduates of the University of British Columbia to place as many items of the category «EMOTION» as come readily to mind. The students were instructed to stop after about a minute, or 20 items, (Fehr & Russell, [1984]). The results are highly interesting because some items can hardly pass off as emotions (e.g., being cynical, expression, sharing, or criticism), while consistency and repetition is observed among some others. The extremely wide variety of states listed as emotions is as expected in my opinion, because as the authors point out «everyone knows what an emotion is, until asked to give a definition», (p. 464, [1984]). After all, there's no official list and no consensus on the definition of emotions, but merely philosophical proposals. So, I might as well do just that; I will use this random list by non-experts as my pool from which I'll try to extract the list of basic emotions.

Table 1- Free Listing of Exemplars of Emotions

Happiness (152)	Hurt (16)	Lust (8)	Dislike (5)	Stress (4)	Thinking (3)	Insecurity (2)
Anger (149)	Liking (16)	Tenderness (8)	Exuberance (5)	Thrilled (4)	Wonder (3)	Malicious (2)
Sadness (136)	Lonely (16)	Annoyed (7)	Panic (5)	Tranquility (4)	Admiration (2)	Meditating (2)
Love (124)	Sympathy (16)	Arousal (7)	Satisfaction (5)	Unhappy (4)	Alert (2)	Mixed (2)
Fear (96)	Compassion (14)	Cheerful (7)	Touching (5)	Violence (4)	Amazement (2)	Outgoingness (2)
Hate (89)	Ecstasy (14)	Disappointment (7)	Aggression (4)	Vulnerability (4)	Appreciation (2)	Protective (2)
Joy (82)	Envy (14)	Distress (7)	Amused (4)	Ambivalence (3)	Anguish (2)	Rapture (2)
Excitement (53)	Grief (14)	Frightened (7)	Apprehension (4)	Attraction (3)	Belonging (2)	Relaxed (2) .
Anxiety (50)	Mad (14)	Hopelessness (7)	Awe (4)	Bliss (3)	Boisterous (2)	Repulsion (2)

Depression (42)	Sorrow (14)	Irritation (7)	Deep (4)	Confidence (3)	Closeness (2)	Responsibility (2)
Frustration (39)	Warmth (14)	Kindness (7)	Desire (4)	Conflict (3)	Communication (2)	Responsiveness (2)
Crying (36)	Nervous (13)	Longing (7)	Dismay (4)	Defeat (3)	Complacent (2)	Self-concept (2)
Feelings (35)	Pain (13)	Melancholy (7)	Enjoyment (4)	Dejection (3)	Contempt (2)	Self-esteem (2)
Jealousy (29)	Tense (13)	"Pleased (7)	Enthusiasm (4)	Expectation (3)	Criticism (2)	Sentimental (2)
Disgust (27)	Moody (12)	Rage (7)	Exhilaration (4)	Expressive (3)	Cynical (2)	Softness (2)
Laughter (27)	Pride (12)	Relief (7)	Gay (4)	Giving (3)	Devotion (2)	State (2)
Elation (26)	Smiling (12)	Respect (7)	Hostility (4)	Helping (3)	Distrust (2)	Stubbornness (2)
Caring (24)	Trust (12)	Scared (7)	Humor (4)	Helplessness (3)	Disturbed (2)	Successful (2)
Guilt (22)	Passion (11)	Sensitive (7)	Loyalty (4)	High (3)	Dread (2)	Tiredness (2)
Embarrassment (20)	Tears (11)	Sex (6)	Miserable (4)	Humility (3)	Edgy (2)	Turbulent (2
Contentment (19)	Pleasure (10)	Shyness (6)	Mournful (4)	Jubilation (3)	Expression (2)	Uncertainty (2)
Peace (19)	Calmness (9)	Sincerity (6)	Needs (4)	Negative (3)	Euphoria (2)	Uncontrollable (2)
Upset (19)	Glad<9)	Strong (6)	Pensive (4)	Passivity (3)	Frown (2)	Understanding (2)
Worry (19)	Affection (8)	Afraid (5)	Rejection (4)	Positive (3)	Gentleness (2)	Unstable (2)
Empathy (18)	Boredom (8)	Anticipation (5)	Remorse (4)	Quiet (3)	Hardness (2)	Uptight (2)
Confusion (17)	Delight (8)	Bitterness (5)	Serenity (4)	Reactions (3)	Heart (2)	Wanting (2)
Surprise (17)	Greed (8)	Concern (5)	Shame (4)	Resentment (3)	Hyperactive (2)	Weak (2)
Despair (16)	Hope (8)	Control (5)	Sharing (4)	Terror (3)	Impulse (2)	Withdrawn (2)

Note: The number in parentheses is the number of subjects, out of 200, who listed each item or some syntactic variant of it. Items listed by only 1 subject were omitted.

Table 1, as shown in *Concept of Emotion Viewed from a Prototype Perspective,* by Beverley Fehr and James A. Russell [1984], p.469, *Journal of Experimental Psychology: General, 113(3), 464–486.*

A first triage seems rather easy; many listed emotions (greed, pride, guilt, embarrassment, or shame) seem compatible only with a cognitively advanced consideration of the mind, thus, excluding non-cognitive agents from being in capacity to experience them. Infants and animals for instance, are not thought to be able to experience, say, guilt or pride. This process should narrow down the list of basic emotions considerably.

That said, the following list comprising of twelve emotions is a list that contains states which can all exist in a pure, non-intentional, non-propositional form. It is the product of repeated and meticulous application of the two criteria to Fehr & Russell's table of exemplars of emotions:

FEAR, SURPRISE/STARTLE, AGRESSIVE AROUSAL[11], DISGUST, ANXIETY/STRESS/ANGUISH, SERENITY/CALMNESS, SADNESS/HOPELESNESS/DEPRESSION, JOY/CONTENTMENT/HAPPINESS, EUPHORIA, AROUSAL/ELATION/EXCITEMENT, DYSPHORIA, RELIEF.

All the above states can exist in an objectless form. Also, we have no good reasons to believe that they might not be experienced by non-cognitive agents:

Fear, anxiety and depression can be experienced as diffused objectless states. Aggressiveness and disgust by stimulating parts of the brain. Calmness can be pharmacologically induced (i.e., anxiolytics -among other substances- may evoke relaxation). The same with euphoria and dysphoria: k-opioid receptor agonists and μ-opioid receptor antagonists are observed to cause dysphoric states, (T. Lemke & D. William, [2012]; J. H. Lowinson, [2005]). Likewise, euphoria can be the result of the consumption of a variety of drugs (opioids, cannabinoids etc.). It may even be the result of fasting. Psychomotor agitation may be a side effect of drugs like cocaine or methylphenidate. Regarding relief, things look easy; Benzodiazepines can swiftly provide relief from your intense anxiety in a way similar to how painkillers can relieve pain.

[11] I won't include anger as one of the basic emotions, because it's doubtful that the term 'anger' should be used in an across-the-board basis. Can we say that your dog is angry because you took his plate away from him? Usually, we ascribe anger to cognitively elaborated human affairs, so in my view, we'd better stick to the term aggressive arousal as a term better describing a basic, pure emotion. At first glance, it seems that aggressive arousal is tied to a cause: we tend to think that an agent exhibits aggressive behavior *because* of something. But as I pointed out earlier, this is not always the case. Thus, aggressive arousal (as disgust does) meet all four criteria and should be included in the list of basic emotions instead of anger.

Naturally, one might wonder if disgust can occur in objectless state and in non-cognitive agents (infants, animals). As said before, the surprising truth is that it can. While disgust in its most prototypical, sensory basic form can be elicited by bitterness and other unpalatable tastes in human infants, other primates and rats, it has been shown by research that there have been brain manipulations that release "disgust" reactions (e.g., gape), (i.e., Rozin P, Haidt J, & McCauley CR [2008], Berridge KC [2000]). Such reactions are mostly attributed brain tampering that has led to dysfunction in the pVP (the posterior half of the Ventral Pallidum), or related limbic circuitry.

What's left is surprise/startle. Startle may exist as stimulus-absent induced disorder symptom. Unprovoked startle is a symptom of Tourette's syndrome, and Post-Traumatic Stress Disorder. Furthermore, motor startle reflexes can be increased in anxiety disorders (Bakker et al., [2009]). The question here is whether startle should be seen as an emotion. Well, I 'll go with Jenifer Robinson's view [1995], who classifies it as an emotion that belongs to the "primitive" end of the emotional spectrum, a "primitive" emotional response from infancy. If one accepts it as such, one has an excellent constituent of cognitively sophisticated emotions like moral indignation and embarrassment. For instance, embarrassment might consist of surprise/startle and discomfort when someone is acting socially in an unacceptable way, and he's frowned-upon his act.

Therefore, the above list consists of emotions that comply with both considerations. It can be seen that most emotions are referred to as groups of two, or three. For example, I refer to sadness/hopelessness/depression as a group of three, or I refer to serenity/calmness as a group of two. I do so, for simplicity. Two (or more) terms often quote variations of a categorical emotional state. Or they refer to variations in intensity of a categorical emotional state (as in fear, terror, or dread). We think of terror or dread as intensity variants of fear. Sometimes we think of a state as having complementarity to one-another: a hopeless/helpless agent is most likely sad, and by being sad feels, most probably, hopeless/helpless. Thus, hopelessness, helplessness, sadness and depression are often used in meaning interchangeably, without this being accurate (for instance people can be sad, but not hopeless). Yet, I will adopt reference to such kind of grouping of emotions despite its obvious deficiencies. I will do so solely for practical reasons, as I will shortly explain.

The reason why I refer to emotions as couples, or triplets is practical. For one, we use specific terms when defining psychiatric conditions (e.g., Generalized *Anxiety*

Disorder [GAD]). It would have been confusing to use different similar terms for, say, anxiety (i.e., instead of anxiety to use the words apprehension, or stress). Secondly, in our everyday vocabulary we use terms like stress/anxiety/apprehension or sadness/depression/hopelessness with minimal impact to our ability to communicate the emotion we are referring to. When we refer to sad feelings, or we refer to depressed feelings, pretty much we refer to the same thing, so by avoiding fine graining, we make things more convenient. Finally, what I'm trying to do here is to compile an as short as possible list of basic emotions, that complies to two conditions. First, the basic emotions can be had by cognitive and non-cognitive agents, and second, those emotion to be possible to be found in an objectless form. I believe that it would have been a mistake to include all possible variants of a basic emotions (e.g., to include both fear and dread) in that list, because the list would have been elongated for no apparent reason.

Having said which emotions must be included in the list of basic emotions and why they should be included, I will go on to talk about composite mental states.

3.5 Composite Mental States of Emotional Nature (CMsoEN)

When we refer to emotions that have objects, we should refer to intentional states that should be considered as composite mental states - CMS (Whiting, [2006]). My *fear-of-the-tiger,* or my *fear-that-you-are-leaving-me* are *object-directed emotions* which consist of an emotion AND a representation. The representation might be a thought, a memory, a visual, a tactile or an olfactory stimulus. For expository reasons alone, and because there can be endless composite mental states consisting of a mental state and a representation, I propose that we name them composite mental states of emotional nature (CMSoEN). In this way, we become explicit as to which states we're referring to; my desire to drink a glass of water because I believe that it can quench my moderate thirst is a composite mental state comprising of a simple desire, a belief, (or a thought), and perhaps, the qualitative experience of having this desire, or this belief. But it is not of emotional nature: the mere thought of me drinking the water, the glass itself and my intention or my desire to have it, all of them comprise a CMS which does not have an emotional character in the traditional sense. It may lead to an emotion (i.e., relief), but my desire itself to drink a glass of water is not an emotion. Some may claim that all mental states have a phenomenal character, a "mental paint"; they feel somehow.

They may do. It's possible that my thought that there's a red apple in front of me, or the way I represent its redness to my mind to "feel somehow". But they're not phenomenally impressive enough, and they don't have the phenomenal character I'm after, the phenomenal character of fear, anxiety, sadness, or joy.

That said, it could be claimed that CMSoENs are emotions which have jumped one level up, upon the acquisition of objects. My guess is that the vast majority of emotional states we (or other species) experience (commonly dubbed emotions), are CMSoENs; this is layer two. The broader category of CMSoENs most likely includes some emotions which are universal yet, they cannot exist in an objectless form. Examples may include affection for another being, or maternal affection towards the offspring. We have sufficient scientific evidence that the last two are experienced by both animals and infants. The mother's care towards the offspring is omnipresent across species. Domestic dogs demonstrate empathic-like responding to humans in distress, (D. Custance & J. Mayer, [2012]). Chimpanzees also demonstrate such responding to individuals of kin who have been victims of aggressive behavior. Such behavior is also observed in human infants, (Teresa Romero et al. [2010]).

Therefore, CMSs comprise a very large category of states of emotional nature that do have objects. They are made from a basic, universal emotion, and a cause that is either a thought, or some other representation. Most of the basic emotional constituents can exist in an objectless form, but some basic emotions like simple affection also belong to this category.

To show how a CMSoEN is a state that comprises of a basic emotion and a representation, let me offer an example. Each of the basic emotions below, when combined with a representation, become a CMSoEN.

"Fear, surprise/startle, agressiveness, disgust, anxiety/stress/anguish, serenity/calmness, sadness/hopelesness/depression, joy/contentment/happiness, euphoria, arousal/elation/excitement, dysphoria, relief"

For instance, let me pick randomly calmness: When calmness is caused by a thought, or caused, say, by listening to the sounds of rain, it is a bundle; a CMSoEN. Attention: calmness caused by consumption of benzodiazepines is not a CMSoEN, because this calmness is not about anything and cannot be seen as a "bundle". Calmness caused by drugs is a basic, undirected emotion. Similarly see the difference between happiness/joy from listening to fine music, and happiness/joy

caused by the use of euphoriants. Note that joy about someone's own achievements requires special cognitive capacities. We call this joy, pride. This is not just a CMSoEN, but something more. It is a Higher-Order CMSoEN. I give more details about such states in the next paragraph.

3.6 Higher-Order CMSoEN

In layer three, complex CMSoENs are to be found. Typically, Higher-Order CMSoEN are exclusively attributed to humans[12]. Examples include shame, pride, embarrassment, guilt, hate, indignation and the like. They consist of specific identifying thoughts, and one, or more basic, pure emotions. Pride is happiness about a personal achievement, or an achievement of someone we care about. Grief is sadness about the loss of a loved one. Guilt is sadness about our wrongdoing. Jealousy appears to be more complex: it includes fear and anxiety about losing someone, or it could be claimed that it is sadness about loss of what we have, or want. Jealousy and sexual jealousy may come from/result in feelings of inadequacy, helplessness or disgust. Indignation is anger or aggressiveness about a demeaning offense. Embarrassment is discomfort (akin to dysphoria) that is caused by

[12] There is a number of H/O CMSoENs that are thought to be ambiguously placed (jealousy, hate, greed or grief). It can be supported that it's possible animals or infant to be in position to experience such emotions and thus, jealousy, hate, greed or grief should not be limited to adult humans. As such, it can be claimed that the above are not H/O CMSoENs and could be seen as basic emotions. For example, it might be claimed that it's not perfectly clear whether a baby is jealous of your having a toy at your hands that it really wants, or whether we could say that it is unhappy with you for not giving them the toy. Do animals experience grief, or grief-like states? It was previously believed that grief was only a human emotion, but studies have shown that it's possible that some animals demonstrate grief-like states. In some cases, we can speculate more confidently: Bekoff mentions «sea lion mothers, watching their babies being eaten by killer whales, squeal eerily and wail pitifully, lamenting their loss», (Marc Bekoff, [2000], p. 866). In some others, things are not that clear: mallard hens for example, seem shocked for a moment when losing one of their young to a predator, but they soon return to doing what they were doing before. Elephants generally investigate the dead body by touching and grabbing, but they leave after some time. It's unclear whether the last two examples constitute curiosity, or something deeper.

I think that we should limit jealousy, hate, greed or grief to adult humans and see them as H/O CMSoENs. Even if there are suspicions that non-cognitive agents might experience feelings *similar* to those we do, it's prudent when defining basic, pure emotions to go with the sure bets. Therefore, in my quest for pure emotions I 'll prefer sticking to the very minimum. Instead of saying that the infant is jealous of your toy, it might be better to say that it has intense desire/intense longing for it. Instead of saying confidently that animals grieve, we 'd better say that they may experience temporary sadness; it's not an extremely bad idea, say, to leave grief for humans as it contains cognitive extensions. It is one thing human greed, which is an excessive desire to possess wealth or goods with the intention to keep it for oneself, and another ants' stockpiling of food. The first is a result of cognitively demanding process, the second is probably instinctual.

witnessed frowned-upon acts or conditions; or sadness caused by one's own loss of dignity. All in all, H/O CMSoENs can be analyzed into simpler, basic emotions plus particular, labelling thoughts.

The difference between Layer 2 mental states and Layer 3[13] mental states, lies in that while they are both intentional, L2 mental states can exist in an objectless form (e.g., anxiety), whereas Layer 3 mental states cannot (e.g., guilt). For instance, we can't just say that someone is guilty, or proud. He must be guilty for/about something, or proud for/about something.

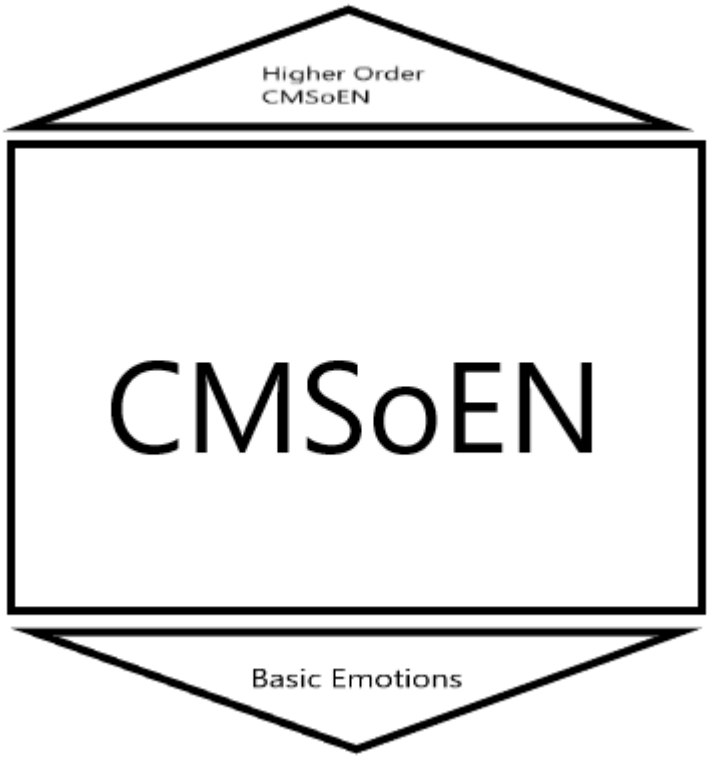
Moreover, because L3 states are very complex, it is possible that sometimes they consist of more than one basic emotion (plus a particular labelling thought). So, embarrassment may involve two basic emotions: sadness and dysphoria. An embarrassed individual may feel dysphoric because he's witnessed stealing from his parents, and sad because he feels that he's lost his dignity after being strongly deprecated for his actions.

Once more, it needs to be made clear that animals and infants can have L2 emotions possibly, but not L3. It sounds fair to me to say that the specific labeling thoughts required for L3 states are out of reach for animals and infants. Pride for instance, requires specific labeling thoughts that are beyond the capabilities of animal and infants.

Below, there's a figure depicting the 3 layers of emotional experiences:

[13] For simplicity, I name Higher Order Composite Mental States as Layer 3 mental states (or L3 mental states) and Composite Mental States as Layer 2 mental states (L2 mental states). It's obvious that the term Layer 1 (L1), is reserved for the basic emotions.

Fig. #4



The figure cannot be accurate as to how they're quantitatively represented. My intention is just to show that in the economy of emotional experiences across species, the bulk of those experiences is CMSoENs. Basic, pure emotions are commonly observed in psychiatric disorders as inexplicable negative nameless feelings, or as a result of consumption of psychotropics (as side effects of medication, or as an effect of strong addictive substances that usually have the potential of abuse). Higher-Order CMSoENs on the other hand, must be arithmetically less than their CMSoENs counterparts, because they require the presence of *specific* identifying thoughts.

At this point, I want to deal with what I left unanswered at the end of paragraph 3.1. Is it attainable to describe the emotions that belong to the H/O CMSoENs category (L3), in simple hedonic values? This appears to be a legitimate question because H/O CMSoENs are very complex states. Can we describe them in terms of agreeability or disagreeability? I think we can. Imagine two persons engaging in long conversations which involve very complex emotions. These two persons speak two very different languages. The language of the first person contains all the terms

that describe H/O CMSoENs (shame, pride, grief etc.). The language of the second individual, does not. They are conversing via automated translation equipment, similar to the equipment used in multinational conferences. Firstly, they are discussing their children's' achievements with the first person referring to "pride", and the second person describing pride with much simpler words. When for example the second individual says that "I feel nice about my son's achievement at school", the first individual understands that he feels pride about his son's achievements. When the second individual says that "he feels bad because he cheated at the exams and he acknowledges his misbehavior", the first understands that he feels guilty. Could this conversation go on forever? It's obvious that it could; and not only that, but we can imagine the person whose language is so rich to include all these complex emotional terms, to be able to understand the other person, even if the latter makes reference to his emotions in even *simpler, algedonic terms*. For instance, the sentence "I have a very aggregable feeling about my son's school achievements" could, still, be comprehensible by the first individual as pride. The utterance "I have a very dis-pleasurable feeling about my cheating at the exams and I now understand that it was totally wrong", can be understood as guilt.

It is clear that H/O CMSoENs are intentional and propositional. This solves (in my opinion) a longstanding dispute between cognitivists and feeling theorists of emotions. H/O CMSoENs have all these cognitive properties the cognitive theorists call for. They are intentional and propositional inasmuch propositionality and aboutness, help *identify* those mental states. (Whiting, [2009], p. 290). They have propositional content because linguistic capacities required for conceptualization, are obviously there. At the same time, feeling theorists could boast that while this 3-level theory can include everything, it seems to give us a clear winner. This is because while the feeling component is present in all three levels/categories, the elements that make a state intentional or propositional, are observable in two out of three levels only. Basic emotions consist of the feeling only, CMSoENs are bundles of a basic emotion and a representation, and H/O CMSoENs are CMSoENs whose representational constituent is necessarily a cognitive demanding thought. It is clear then, that what is dominant and common across layers (L1, L2 and L3), is the feeling. Hence, it becomes obvious that there can't be a mental state of emotional nature that lacks the feeling component. It follows, in my opinion, that it is safe to say that the component or the property that subsists in every state we think of as emotional, it must be the component/property that defines this state. Looking from a distance the 3-layer stratification (which

appears to be comprehensive enough to accommodate the sum of emotional states), and seeing how prevalent the feeling component is, it becomes clearer that a feeling consideration of emotions, must be the closest-to-the-truth consideration of the emotions.

2.4 Some possible objections to the Feeling Theory

I believe that the benefits of the Feeling Theory's stratification are obvious: everybody could be happy because it has the potential to satisfy all parties, since there seems to be no room for exceptions, or counter examples. Even cognitivists can be satisfied because the features deemed necessary by cognitive theories (intentionality, propositionality) lie around in L2 and L3 mental states (CMSoENs and H/O CMSoENs). I have already replied to some possible objections but nevertheless, there might be those who might insist that still, some serious issues need further explanation.

The first possible objection is that experiences of the same emotion (i.e., pleasure, or fear) that are caused by representations that differ significantly, must differ also in how they feel. This is somehow different from what I talked about before. I argued that hedonic properties suffice to distinguish between adjacent emotions like fear and stress. This is a possible objection on how it could be difficult to distinguish between occasions of the same emotions caused by entirely different causes. For example, the fear caused by an actual threat (i.e., a gun pointed at you), must feel differently (says the objection) from existential fears, or fears about the uncertainties of life. Likewise, joy at others' misfortunes (the Germans have a word for it: *schadenfreude*), must feel differently from the joy you feel when you get lost in a good book. Therefore, the objection to the feeling theory is that it cannot illustrate accurately the difference in phenomenological terms, episodes of the same emotion (e.g., joy) caused by substantially different causes (e.g., *schadenfreude* joy vs good-book-reading joy).

To that objection, I take a radical position: pleasure is pleasure, anxiety is anxiety and fear is fear no matter what the cause is. I assert that no substantial difference in phenomenological terms, in episodes of the same emotion caused by substantially different causes exists. Phenomenologically, I cannot easily accept that

the feeling someone experiences (pleasure), is radically different when he experiences *pleasure-by-reading-an-enjoyable-book* compared to the *pleasure-at-others'-misfortunes*. I'm referring to the distinct, qualitative, experiential characteristics of pleasure itself, not any differences in duration or intensity. So, the basic, core feeling (the satisfaction) of reading a good book or the satisfaction of *schadenfreude*, are the same phenomenologically; there can't be 2 types of pleasure. This is central not only to how I consider the emotions themselves, but as I will shortly support, it might also have implications at the treatment of problematic emotions. Because as I explained earlier, if the object of any given emotion informs the phenomenology of the emotion, we have to focus on the object rather on the feeling. For if the object informs the phenomenology of the emotion in detail, we will have to say that there are endless different "phenomenologies". If we fine-grained that much, anxiety caused by debts at the bank should differ a lot, from anxiety caused by debts to car dealerships. But this is not clearly the case. Otherwise, a person who has never faced financial problems and never felt anxious because of those problems, would have been difficult to understand another person who faces such financial problems, even if himself, has experienced anxiety because of, say, marital problems. It is obvious that anybody who has experienced anxiety for reason X, can easily understand how it is to feel anxiety for reason Y.

To the above, it could be argued that different emotions of the same category are not equivalent. It could be also argued that it doesn't follow that whoever has experienced anxiety for reason X, can understand how it is to feel anxiety for reason Y.

In my view, both objections probably miss the point. My argument is not that, so to speak, *Schadenfreude* is phenomenologically *identical* to the pleasure of reading an enjoyable book. Not in the sense that these two have exactly the same phenomenological value. My argument is that the core feeling in both experiences is phenomenologically of the same genre. This is what probably gives the ability to a person to be able to "understand" what emotion the other person undergoes, without having experienced the exactly -in terms of conditions- same emotion. Consider for instance the unthinkably unbearable feeling of losing one's offspring, juxtaposed to the admittedly unpalatable feeling of losing one's fortune, or the devastating feeling of losing one's pet. The only way for someone to understand another person's sadness is to have experienced some sort of sadness himself. If we unpack the above phenomena by systematically peeling away any symbolic

meanings of theirs (like peeling layers of an onion until only the core is left), we might reach a phenomenological purity of the basic emotion/feeling itself. We might probably understand then, that losing one's child sadness is probably an immensely magnified and inflated feeling of losing one's pet or fortune.

Of course, not all phenomenologists would agree with the above, but this is understandable given the nature of phenomenology whereby the concept of objective research is commonly rejected. Yet, there are many who espouse a Husserllean approach of investigating subjective experience through bracketing (more or less a process like the one described above, whereby understanding another's phenomena can be done via suspension of judgment and delving into analysis of the core subjective experience). Those phenomenologists may agree with my suggestion that the conditions of emotions of the same genre, cannot inform them to the point of developing themselves into different emotions.

A second possible objection is that if the emotions are simple, objectless feelings, they cannot be assessed for their rationality. If emotions are about nothing, how can we assess them for their soundness? Irrational emotions commonly include irrational fears (phobias). They also include *inappropriate-to-the-situation,* or non-fitting emotions; emotions that don't fit into the context of a situation. For example, happiness is not supposed to fit into the context of a funeral of a beloved one, or sorrow is not supposed to fit upon hearing joyous news (i.e., winning of lottery). So, the precise objection is this: Unless emotions are about something, we cannot evaluate them for their rationality. Intentionality requires a conflict between contradictory representations. E.g., a conflict between my fear of X and my belief that X is not dangerous. So, the objection says that my claim that the emotions are non-intentional is faulty, because only if they are intentional, they can be evaluated for rationality.

The answer to the above is as follows:
First, CMSoENs and H/O CMSoENs are intentional states, and as such, they can be evaluated for their ratiocination. For instance, the fear of the innocuous puppy is intentional (it is about the puppy), and it is judged as irrational because it is a L2 emotion. Likewise, someone's joy about the death of beloved one, or someone's sorrow about his winning of the lottery are also intentional CMSs (L2 emotions). As such, they are deemed to be irrational. So, it is clear that Layer 2 & Layer 3 emotional states are subject to rational assessment because they have objects or

intentional contents. In a few lines, I will say when joy about the death of beloved one, or sorrow about winning of the lottery are not L2 emotions, but L1 emotions.

I come now to the critical question of whether the above objection can infect Layer1 emotional states, the basic emotions. My firm belief is that it can't. Basic emotions are emotions in their purest form. They don't have objects and they are identified by their specific hedonic properties alone. Let me remind you which emotions I'm talking about. Basic emotions are brought about from various substances, they include objectless fear/anxiety/sadness etc., and they can even be brought about by tampering with parts of the brain. For all these emotions, I believe that we cannot call on their rationality to evaluate whether they fit to the context, or not. For example, panic fears, undirected sadness or undirected anxiety must never be assessed for their rationality simply because these feelings are simply there, without being directed towards anything in particular. If rationality is the conformity of beliefs with reasons to believe, it can be supported those undirected emotions cannot be assessed on the basis of such conformity. This is because there are neither beliefs, nor reasons to believe when it comes to basic emotions. In unspecified fear for example, there are no beliefs (i.e., "I believe that there is something dangerous out there"), nor reasons to believe (i.e., "the reason to believe that there's something dangerous is because I see an armed person pointing a gun at me". Because none of the above exist in L1 emotions, we cannot check if there's conformity between beliefs and reasons.

In L2 emotions (like the harmless-puppy-phobia), there is dissonance between my belief that the puppy is harmless, and my fear of that puppy. But there isn't any kind of dissonance in my panic attack fear, for I don't hold any beliefs on that fear that pertain the cause of that fear. We cannot say that the panic attack fear is either rational or irrational, because we don't have a point of reference that relates to the source of that panic attack fear. Consequently, we can't have a comparative relationship between what ought to be emoted in "situation S" and what is actually emoted in "situation S"; simply because the panic attack fear is situation-irrelevant and cause-irrelevant. The same with calmness induced by sedatives or alcohol, or emotions that are products of brain tampering. To go back to the *non-fitting-to-the-context* examples, if a person is happy at the passing of his beloved one, or sad at his winning of the lottery and this person is in a normal, lucid state, then yes, we can evaluate his happiness and sorrow respectively as irrational or rational, because these emotions are directed to events that are opposite to his emotions. These are

L2 emotions. But joy experienced at the funeral of a beloved one caused by euphoriants (morphine, codeine etc.), is a basic emotion which is neither directed, nor affiliated to the sad event: such joy is a L1 emotion. As such, it should not be assessed for its rationality. Similarly, a seriously depressed (and not lucid at all) person may respond with sorrow or indifference to learning that his lottery ticket won the prize. His sorrow though, is irrelevant to the happy event, and it is not directed to the happy event at all. His sorrow is a basic non-directed emotion (a L1 emotion) that can't be evaluated as being fitting or not fitting to the context of the situation, because it is irrelevant to the situation. The deeply saddened individual feels sorrow at *any* situation.

Therefore, I don't think that we have an objection here that could threaten the 3-layer stratification according to which there are both, non-intentional and intentional emotional states. L1 states are non-intentional, and they shouldn't be assessed for their rationality, while L2 & L3 states are intentional, and they can be assessed for their rationality.

Finally, there might be an objection against reducing the emotions to pleasurable/non-pleasurable states. This objection says that by doing so, we may end up with a very minimal (in terms of quantity) theory that will recognize "only the existence of a couple of real emotions, namely the emotions of pleasure and displeasure», (Whiting, p. 292, [2011]).

This is where I wish to stop for a moment, because I take this objection very seriously. It is without question what most cognitivists would speak against a hedonic perspective of emotions, because for cognitivists a hedonic perspective of emotions, deintellectualizes and oversimplifies the emotions to a great extent. As Whiting puts it, by "recognizing there being only two emotions, we're committing ourselves to a picture of our emotional lives that is far too austere to be credible», (p.292).

Whiting asserts that the objection is not valid because it's not possible to reduce mental states such as fear, anger, joy and sadness to the states of pleasure and displeasure. If this were the case, «the fearful agent and the angry agent are feeling the same emotion (namely displeasure), albeit for different reasons», (p.292). But he believes that this is not the case, because fear and anger present themselves to consciousness differently; fear has an "edgy" character while anger a «hot-headed»,

or an irritable one. According to the Feeling Theory, emotions do not include thoughts or beliefs as constituents but can be caused by them. In that case, further reduction to feelings of pleasure and displeasure is wrong for «it is possible—even common—to undergo mental states such as fear, sadness and anger, without having the thoughts that the cognitive theorist of emotion argues is constitutive of those emotions», (Whiting, p. 293, [2011].

I stand opposite to this approach adopted by Whiting. I tend to think that the emotions can be reduced to pleasurable/non-pleasurable feelings, while we can avoid at the same time picturing our emotional lives in a way that is far too austere to be credible. For one, the case of emotions that «lack the thoughts that the cognitive theorist of emotion argues is constitutive of them» (e.g., fear, anger), makes it even clearer that if the thoughts that cause the feelings in question are taken out of the picture, what's left is their hedonic values only. For non-cognitive agents for instance, who lack such thoughts, hedonic values must be the *only* values that can explain their qualitative experience when undergoing an emotion.

Second, I believe that there's nothing wrong in reducing emotions to states of pleasure or displeasure because this is what they really are. I discussed this in previous paragraphs but let me become more analytic.
The specific emotional character each basic emotion has (fear, sadness, joy, or disgust), can be described in simple algedonic terms even if the reduced entity provides *extra* information on the *kind* of its pleasantness, or its unpleasantness. To ask whether emotions can be reduced to aggregable or non-agreeable feelings, is like asking whether the concept "trainer" can be reduced to the concept "shoe". In my opinion it can, because even if the term «trainer» encapsulates more detailed information on the specific use vs. the most generic description of the term «shoe», they both fall into the category of «footwear».

Someone could ask at this point, why then, not group together all states that can be reduced to agreeable/non-agreeable feelings? In such case, pains and tickles should be grouped together with emotions. The argument might be that, working backwards, the wide, generic pool of the reducing entities might be misleading as regards the identity of the reduced entities. Because if pains, tickles, fears, or stress can all be reduced to unpleasant states, we might get the wrong idea on their identity; It seems true that the first differ from the latter, and it'd been a categorical mistake to place them all in one, broad group. Emotional pains are to be

distinguished from physical pains in that the latter have a physical origin. Edwin Shneidman refers to emotional pain as the unpleasant feeling or suffering which is of psychological origin and not of physical origin. The emotional pain is ""how much you hurt as a human being. It is mental suffering; mental torment." (Shneidman, [1996], p.173). The *per origin* distinction gives us a pretty clear view on how to distinguish between the two, even if they both are unpleasant feelings.

This hazard, therefore, can be avoided if one argues for a *translationist* model of reduction. Rudolf Carnap [1928;1967] explains:

"An object (or concept) is said to be *reducible* to one or more objects if all statements about it can be transformed into statements about these other objects".

Let's project this, to the concept of emotions with an example: Mary sees a therapist complaining about overwhelming emotions of anxiety during the last 6 months. Her doctor prescribes medication and therapy, and they keep conversing on her progress by referring to feelings (e.g., "-how are you feeling lately?", "-I felt better at the beginning of the treatment but, lately, I don't feel well" etc.). It's obvious that the concept of «anxiety» is reducible to the concept of "feeling" because even if their conversations take long, they can keep making statements of the reduced entity (anxiety), that can be transformed into statements about the reducing entity (feeling). It's also obvious that such transformations wouldn't have been possible if we tried to reduce anxiety to, say, pains or tickles. So, with translationism, the danger of dissimilar states such as tickles and anxiety be grouped together and confused, is avoided. Carnap's translationism of reduction and his criterion, gives us the freedom to reduce basic emotions to simple algedonic states while keeping us safe from *eliminating* them to simple algedonic states. Sadness can be reduced to non-agreeable feelings because most of the truths of sadness can been *translated* into the language that describes the truths of «dis-pleasurable feelings»; sadness on the other hand, cannot be eliminated in favor (or, displaced by) «dis-pleasurable feelings».

3.7 The Importance of the Distinction between Basic Emotions/CMSoENs and its Implications

Why, one may ask, all this trouble? Why the re-classification and the re-naming, and how could the principles of this thesis be of use? For one, apart from the philosophical concerns on the identity and ontology of the emotions, there are practical implications on the treatment of affective disorders. If we see disorder as an aggregate of negative feelings, thoughts, behaviors and physiological manifestations we need to know what needs fixing. All of them at once, or is it that one aspect plays a more central role than the others? This largely depends on how we view the emotions: if someone believes that thoughts are part of them, or he stands for a position according to which emotions are predominately cognitive entities, it makes sense to aim attention at the cognitive parts. In part 2 of this thesis, I examine two models of disorder. The first is very cognitive and aims to treat the cognitions that supposedly cause the feelings. The second is feeling-oriented and focuses on establishing emotional equilibrium first. The 3-layer stratification allows for more in-dept analysis. If, for instance, it is judged that in unsettled H/O CMSoENs the identifying thoughts is the culprit, then these thoughts must draw our attention. If on the other hand, it is suspected that the thoughts are not responsible, but they simply reflect powerful disagreeable feelings, it looks sensible to focus on them first.

Two things strike as odd: The first is that by developing a very strong culture of talk therapy, and in particular a culture of cognitive therapy, it's like forgetting what the real problem is. The real problem, at the end of the day, is the problematic emotions as regards the problematic dis-pleasurable feelings they involve. After all, what we should primarily care about is the feelings because technically, this is what hurts and not the thoughts. Thoughts and behaviors do not necessarily constitute affective disorder, if the feelings are not disagreeable. It's imaginable that someone to have all sorts of faulty thinking, to behave inappropriately and still feel fine. In that case, I don't think we can talk about affective disorder, but we should rather talk about something else (dysfunctional social behavior, for instance). The Hyper-Emotion Theory of Psychological Illness, with which I start the third chapter, focuses on that: the same thoughts may provoke extra strong feelings to different individuals, or they may provoke extra strong feelings to the same individual in different times, or at different settings. If we argue for a model where the thoughts are part of the emotions, there must be a purposeful function of the device (the thought) which is to deliver the selected effect (the feeling). In teleological terms, if the device and the effect are merged, one must suppose that the same device (the thought) must have the function to deliver the same effect (feeling) constantly and

consistently. But to say that a specific thought is part of the hypochondriac's emotion of fear or anxiety, doesn't shed light to a possible mechanism that can explain the difference in intensity of the feeling constituent of the hypochondriac's emotion, and the non-sufferer's emotion caused by the same thought. If health-related thoughts are supposed to cause negative feelings, a "bundle" view of emotions doesn't explain the difference in intensity, or sometimes, the *absence* of negative feelings.

The second, is the inexplicable obsession to focus treatment on the cause of problematic emotions, rather than trying to treat the problematic emotion itself. Remember Whiting's sunburn example: even if "sunburn counts as sunburn only if that skin condition has been caused by the sun", how sensible is it to start dealing with or talking about the sun, the moment the affected part of the skin is what needs urgent treatment? While the patient needs to be informed about the dangers of prolonged exposure without protection and be given advice on how to protect himself in the future, the urgent issue is to treat the burn as soon as possible.

Research on cognitive models focuses on the cause, rather than the feeling itself. But this not how science works when it comes to treatment. Information on how overexposure to ultraviolet (UV) radiation from the sun results in sunburn, mostly involves developing means of prevention rather than means of treatment. Because sun exposure and contact with a hot surface may result in burns that are similar in structure, standard treatment includes medication and measures that are applicable to all burns of the similar kind. Why things to be any different when it comes to affective disorders and upsetting feelings? Cognitive means could be reserved for prevention and coping with future situations (thus having an educational role), while non-cognitive means that work independently in respect to what the causes of the negative emotions are, look as if it's the best choice for treatment.

The above pertain thoughts about treatment during the urgent phase, and relatively normal phases of live respectively. But why, someone may wonder, should we engage in symptomatic management of the feelings, and not try to understand the causes? In doing so, many could say, we can help prevent or alleviate future problems and give the ability to the patient to gain greater control.

For one and as said earlier, I think that it can be very arduous to effectively challenge and thwart negative thoughts during the acute phase of common affective

disorders, like depression or anxiety. Most importantly, it can be hypothesized that the feelings (the emotions as described in this first part) to be the primary causes themselves of distorted thinking. In the second part of this thesis, I will advance the idea that it may be possible that problems in emotion (in the strict sense of problems in feelings) to be what gives rise to bad thoughts. I will advance the idea that, perhaps, by treating the emotion we do not treat the symptom. Rather, we treat the cause. One such view is based on an austere, "feeling" account of emotions, and it puts forward the conjecture that hyper-feelings are very frequently behind abnormal thoughts and abnormal behavioral patterns, and not vice-versa.

CHAPTER 4

Against the principles of the Cognitive Model of Treating Psychological Illness

Introduction

KEYWORDS: Cognitive Model, Cognitive Therapy, Cognitive Interventions, Behavioral Interventions

In previous chapters I gave a number of considerations against the idea that the emotions are judgments or perceptual experiences or motivational states, claiming instead that the emotions are best construed as feelings. In this chapter I will speak against the fundamental assumptions of the Cognitive Model of Treating Mental Illness. The Cognitive Model dictates that the main culprit in affective disorders is cognitive distortions. According to the Cognitive Model the main focus should lies in fixing cognitive distortions. Cognitive Behavioral Therapy (CBT) which is one of the most frequently applied therapies worldwide, combines cognitive restructuring with behavioral techniques to address both cognitive distortions and maladaptive behaviors.

My main argument against the tenets of the Cognitive Model of Treating Mental Illness is that CBT works, but not because of its cognitive elements. I offer evidence indicating that cognitive interventions most probably are not the ones doing the job. I cite studies comparing normal CBT with fake CBT; CBT whose behavioral and cognitive elements have been removed.

At first glance, this suggests that CBT's two main elements (cognitive and behavioral elements) are probably inessential in the sense that they are not the ones that make CBT (for the most part) efficacious. However, there are other studies that show that specific behavioral interventions are effective for particular conditions only. As such, I am compelled to explore the idea that CBT might also or alternatively work because of its behavioral elements. My conclusion is that the bounded effectiveness

of specific behavioral interventions on specific conditions does not threaten the postulation that -by and large- CBT works for reasons other than the ones we believe it works. To that end, I investigate the idea that CBT to be working as placebo. I present studies that propound that CBT most likely works as a strong placebo by affecting patients at a non-cognitive level via remoralization, instilling hope etc. In support of the above, I talk about three more indications that should make us believe that non-cognitive elements are responsible for the efficacy of CBT, namely the Adherence Protocol Paradox, the Therapist's Allegiance and Rapid improvement. Two of those indications also hold up the supposition that CBT most probably works as placebo.

Harking back to the idea that CBT might also or alternatively work because of its behavioral elements, I do two things: First, I argue that the placebo-hypothesis most likely provides a much better explanation for why CBT works, when it does. Second, under the premise that the effectiveness of some behavioral interventions is limited to specific conditions, I explore how such explicit behavioral interventions could work, if and when they do. Regarding the mechanism of such behavioral elements, in case they are efficacious, my claim is that they possibly work via a direct feeling mechanism. I elaborate on this claim after I have rejected Maxwell and Tappolet's claim that the behavioral elements of CBT are efficacious because they alter the perceptual content of problematic emotions. In short, my claim is that behavioral interventions do not restructure cognitive patterns (how patients think), nor they alter patients' perception of things. Rather, I claim that behavioral interventions alter directly how patients feel.

Overall, I put forward two alternative explanations for why CBT works: the placebo-hypothesis and the behavioral elements-hypothesis. My claim is that either way, the Cognitive Model of Treating Mental Illness is to be rejected because according to both hypotheses, the purported mechanism of action is most likely a direct, feeling mechanism. This runs contrary to the purported mechanism of action of the Cognitive Model which promotes an indirect, cognitively mediated mechanism of action. Those matters are discussed in more detail in paragraphs 3.3.2 - 3.3.4. I close this chapter by elaborating on the usefulness of Cognitive Therapy and more specifically, I talk about when exactly it seems to be the indicated treatment of choice.

The Cognitive Model

4.1 About Cognitive Therapy

The Philosophical roots of Cognitive Therapy can be traced back to Stoicism. Most notably, the Greek Philosopher Epictetus (c. AD 50 – 135) believed that our interpretations of events have a greater impact on us emotionally than the events themselves. People suffer when their expectations aren't met, and this is because they interpret events in an unrealistic manner. The idea that rationality can be employed to identify and discard false beliefs which might lead to destructive and unhelpful emotions, is what has influenced modern theorists to pinpoint cognitive distortions as the major culprits of depression and anxiety. Initially, psychologist Albert Ellis set forth the first form of cognitive therapy, Rational Therapy. Ultimately renamed to Rational Emotive Behavioral Therapy in 1992, REBT aspired to be something more than some type of psychotherapy; its supporters contend that it can be broadly conceived as a generic school of thought. As such, REBT aimed to be not only an etiopathogenetic (causal) treatment, but also as a prophylactic one. As a self-help therapy and a way of dealing with things in life, it's an approach that supposedly teaches people how to assist themselves, after sessions are over, by training them to abstain from absolutistic thinking in the future. Its putative goal is to help individuals to be "able to change such thinking to express preferences, rather than shoulds, musts, and oughts, and thereby "un-upset" themselves», («*Rational and Irrational Beliefs Research, Theory, and Clinical Practice*» Edited by D. David, S. J. Lynn, and Albert Ellis, [2009], p.10).

The ABC model of REBT conceptualizes the following: activating events (As), trigger beliefs (Bs) that are pertinent to the event which can be either rational (RBs) or irrational (IBs)) The emotional or behavioral consequences of those beliefs (Cs), may be depression, anger, anxiety, alcohol and drug use, social withdrawal, etc. Ellis [1962,1994] reiterates the old Stoic conviction that we are not moved by things but by our view of things, and he went on to claim that «it is not events (As) that cause individuals to become upset. Rather, it is beliefs/thoughts (Bs) that mediate the effect various events have on emotional and behavioral outcomes (Cs)», (Browne, Dowd, & Freeman p. 149, [2010]). In Ellis' view, irrational beliefs are not representational but evaluative. They don't represent things as they are, but they

reflect the individual's evaluations of those things. Contrary to rational beliefs which are pragmatic, logical and empirically supported, irrational beliefs are not empirically supported, nonpragmatic, and illogical. The first promote functional feelings and adaptive behaviors, while the latter cause unhealthy feelings (depression, anxiety or anger) and maladaptive behaviors.

Ellis & Harper, [1961] made the following distinction: not all negative feelings are dysfunctional. Those which are caused by rational beliefs should not be considered as dysfunctional; sadness, remorse, or genuine concern, belong to this category. For instance, sadness caused by the loss of someone we love, concern about one's safety for whom we care deeply, or remorse for the harsh words someone had used during a quarrel, are functional/adaptive feelings merely because they are caused by rational beliefs. For Ellis, it is irrational beliefs only, that cause unhealthy/dysfunctional feelings and maladaptive behavior. The REBT theory (Ellis, [1962]; [1994]; Wessler, [1982]) mainly focuses on evaluative/hot cognitions rather than on cold cognitions. By 'hot cognitions' Ellis refers to Lazarus' [1991] evaluative appraisals relevant to personal well-being and by 'cold cognitions', Ellis refers to descriptions and inferences which betoken the way people develop representations of relevant circumstances (i.e., activating events, {Lazarus & Smith, [1988]}) which are not necessarily pertinent to well-being. These hot cognitions function as proxies (irrational beliefs) which cause emotions while it remains debatable whether cold cognitions[14] can be directly related to emotions. Some years back, cold cognitions were believed to have strong causal powers as regard the emotions (Schachter & Singer, [1962]; Weiner, [1985]). The more recent trend, however, among psychologists and philosophers (Lazarus, [1991]; Lazarus & Smith, [1988]; Smith, Haynes, Lazarus, & Pope, [1993]) is that cold cognitions cannot produce emotions, especially when they remain unevaluated.

According to the «ABC» model -which is in fact the «ABCDE» model-, patients must try to challenge and restructure their irrational beliefs (D) and try to assimilate more efficient (E) rational beliefs (RBs). In this way, healthier, more functional, and adaptive emotional, cognitive, and behavioral responses can be obtained and maintained for longer periods of time. The ABC model affirms that the emotional, behavioral, and cognitive consequences (C) of irrational beliefs (IBs) «can become activating events (A) themselves, producing secondary (meta)consequences (e.g., meta-emotions: depression about being depressed) through secondary (meta-

[14] Cold cognitions are cognitive processes of information independent of emotional involvement. Contrarily, hot cognitions are processes influenced by the emotional state the person is in.

cognitions) in the form of either rational or irrational cognitions (RBs and IBs)", (Ellis, David, and Lynn, [2009], p.4).

The latest modification of the ABC(DE) model is that it has been expanded to include possible unconscious information processing (David, [2003]). More specifically, David proposes that «sometimes cognitions are not consciously accessible, insofar as they are represented in the implicit rather than the explicit memory system» (David, [2003]), and he goes on to propose several ways these unconscious cognitions be controlled.

But the REBT should not be regarded as something that it is not. At the gist of the therapy, one can find the non-negotiable doctrine which takes irrational beliefs as causes of maladaptive behavior and unhealthy emotions, and not *vice versa*. Even if the REBT theory accepts the possible existence of a circular feedback between emotional, behavioral, and sometimes unconscious meta-cognitive consequences of irrational beliefs, the emotions generated can only prime other cognitions and, thus, only *appear* to be pre-cognitive; in reality, and according to the REBT, all emotions generated from irrational beliefs are post-cognitive because «the generation of the emotion priming these cognitions involves itself computational/cognitive mechanisms» (Ellis, David, and Lynn, [2009], p.5).

While Ellis' paper "Rational Psychotherapy" [1958] marks the beginning of a new era, it is only some years later [1963] when the cognitive approach starts being seriously advertised as a meaningful way of treating a wide variety of disorders including depression, bipolar disorder, eating disorders, drug abuse, anxiety disorders, or personality disorders. Aaron Beck publishes a seminal article in that same year on thinking and depression, followed (a year later) by a sequel article («*Thinking and Depression II. Theory and Therapy*», General Psychiatry, [1964];10(6):561-571) which described the basic theory of a new cognitive approach along with general guidelines for successful treatment of depression. Soon, Cognitive Behavioral Therapy becomes the therapy of choice for a great number of physicians and remains (to this day), one of the most popular -if not the most popular- forms of psychotherapy. CBT is also based on the premise that our interpretations of events have a greater impact on us that the events themselves. A major difference between REBT and CBT is that the latter does not use the term rational; instead, the relatively modern and bland word «cognitive» seems to be immune to criticism as regards the philosophical implications the words «rational» and «irrational» carry. Another difference is that REBT focuses primarily on the role of biased beliefs in psychopathology, but it does not focus on the role of

othertypes of cognitive processes, such as attention or memory (Beck & Haigh, [2014]). From the beginning, Ellis included inferences (cognitions) as constituent parts of activating events. Dryden [2003], renamed them «adversities», representing the inferences that might be drawn about the activating event; Beck wasn't entirely clear in his first two seminal papers regarding the role of attention and memory, but the position was soon revised with the inclusion of schemas.

The equivalent of rational and irrational beliefs (Rs and IRs) in Beck's theory, is represented by the concept of schemas. Schemas are complex cognitive structures that process stimuli, provide meaning, and activate related psycho-biological systems. Originally formulated as a concept by Piaget &Warden [1926] that had a central role into a conceptual model of depression, schemas were further incorporated as sub-components into modes (Beck [1996]). Modes are networks of cognitive, affective, motivational, and behavioral segments designed to deal with specific demands. The concept of modes reflects Beck's categorization of various disorders. For instance, various disorders are organized into modes: a depressive mode, an anxiety mode, an obsessive mode etc. The concept of modes marks one final difference between REBT and CBT: The supporters of the latter insist that Rational Emotive Behavioral Therapy cannot elucidate the heterogeneity in clinical presentations. CBT on the contrary with the inclusion of modes, talks about networks which encompass various components that can better explain different types of clinical manifestations. Those manifestations are not always perfectly identical, even if they sometimes overlap with each other (i.e., anxiety clinical presentations vs depressive clinical presentations vs obsessive clinical presentations).

While schemas are described as highly cognitive structures that pertain a wide range of mental and physiological responses, the Generic Cognitive Model (GCM), (Beck and Haigh, [2014]) makes also reference to proto schemas which are even more basic cognitive structures that detect, assess, and mobilize a response to stimuli, vital for survival. For episodic disorders like generalized anxiety disorder (GAD) and/or depression, Beck & Haigh propose that proto schemas become activated when a match is made between a triggering event and them. The sequence of events the authors suggest, is as follows: «The activated schema (or proto schema) initiates further information processing, and the beliefs provide the content. The affective, motivational, and behavioral systems become activated, and because their function is congruent with the content of the belief, they facilitate an integrated response», Beck and Haigh, [2014], p.10). In Beck's theory, very strong

new information through therapeutic interventions can potentially deactivate dysfunctional schemas. This may have as a result the reduction (if not the elimination) of the symptoms.

Again, like in REBT, the sequence of events is described as follows:

«...information processing becomes distorted, AND THEN (my addition in capital letters) other systems (e.g., affective, motivational, behavioral) begin to function in a maladaptive manner, giving rise to symptoms of clinical disorders» (Beck & Haigh, [2014], p.13).

It is apparent that in both traditions (in REBT and CBT), it is distorted cognitions or irrational beliefs that primarily affect all other systems (i.e., the sufferer's emotional system included), and *not* the other way around. Even if both theories accept that there is a circular feedback/interaction among cognitive, emotional(feeling) and behavioral modules, for cognitive theorists the cause of psychopathology primarily lies on cognitive deficits whichever name someone chooses to give to them. In that sense, it is safe to assume that psychopathology according to REBT and CBT, *is primarily*, a problem of cognition and not a problem of affection (feelings).

4.2 Some first thoughts on the Cognitive Model of Treating Mental Illness.

In the first three chapters I went to great lengths to show that the emotions are neither cognitive, nor perceptual entities. Rather, I argued, the emotions are feeling states. My basic argument against the idea that the emotions are cognitive or perceptual states was that there are many emotions that are objectless. Emotions such as the fear of panic attacks, free-floating anxiety, undirected sadness or substance-induced emotions. In those cases, no cognitions or perceptions are involved. Contrarily, the basic argument in favor of a feeling thesis, is that there can't be any emotions that are not felt. In such case, the emotions are feelings (because they are always felt states) which may, or may not be caused by cognitions or perceptions. The fact that cognitions or perceptions are not always involved in emotional responses should make us stop thinking that the emotions should be seen as cognitive or perceptual entities. They should be seen as feeling/hedonic

entities that it is possible to be caused by cognitions or perceptions (Etiological Cognitivism and Etiological Perceptualism).

Moving on to the Cognitive Model of Treating Mental Illness it can be said that its main strategy is to center on challenging and changing thoughts, beliefs, and attitudes. More specifically it focuses on identifying and discarding false beliefs that supposedly lead to negative daily thinking patterns which, in turn, lead to destructive emotions and unhealthy behaviors.

Two issues can be identified with this strategy. The first has to do with objectless feelings of unwellness I just mentioned, that are frequently involved in mental illness. There is plentitude of free-floating emotions (feelings) in affective disorders that are uncontrollable and undirected. People feel sad for no reason, or anxious for no reason. They find themselves in negative hedonic states that are nowhere connected to any specific cognitive causes. In such cases, it is not obvious at all, how cognitive restructuring might help, since the absence of anything cognitive or representational seems to characterize those emotional states that we regard as being objectless. Behavioral manipulations might assist coping and putting under control negative free-floating states, but cognitive restructuring doesn't appear to be of any help. It's hard to imagine how cognitive restructuring might be of any assistance if no particular cognitions or cognitive deformities are involved[15]. In such cases, the problem doesn't seem to lie in what patients think or believe, but it appears to be a problem that solely pertains the hedonic states they are in.

The second issue relates to the way cognitivists think about cases where distorted cognitions are present. As we have seen, CBT aims to challenge the thoughts that cause negative feelings. In this context, cognitive theorists talk about core beliefs, and automatic thoughts. By automatic thoughts they mean negative self-talk that appears immediately as a response to a trigger. Automatic thoughts are, according to cognitivists, deeply rooted in the person's core beliefs about the self and the world. For example, an individual may hold the core belief that he's a "worthless human being". This core belief, cognitivists claim, is the hearth where every day automatic thoughts are born. I will fail at the exams/work/family matters etc. (everyday negative thinking), because "I'm a worthless human being" (core belief). The pattern is obvious according to cognitivists: automatic thoughts are generated by wrong core beliefs. Mostly, when cognitive theorists talk about faulty thinking,

[15] Of course, in all fairness, I should note that it is very unlikely that CBT would be recommended by clinicians in cases they see feelings of unwellness together with no particular cognitions or cognitive deformities involved.

they refer to them both, automatic thoughts, and core beliefs. Their project is to challenge both.

I have my reservations about this project. For one, we cannot be sure whether automatic thoughts are because of the person's core beliefs, or because of an underlying feeling problem that begets those automatic thoughts. In quantitative terms, automatic thoughts are too many to fight, as they pertain thoughts that occur in everyday life. A delayed response to a text message for example, might be interpreted as brutal rejection by some individuals. But we can't be sure whether the negative automatic thoughts caused by the delayed text response is because of the person's deeper core beliefs (i.e., "that he's worthless"), or because of the person's unstable feeling state he's in. Thus, tackling each and every negative thought might be too exhausting or even futile sometimes, as it is possible that the problem is not caused by deeper beliefs, but by the very problems in emotion that CBT is eventually supposed to treat. If negative automatic thoughts are caused by problems in emotion, then they are not what is responsible for the problems in emotion, and it remains unclear how treating or challenging such thoughts can help in such cases.

In addition, if there are underlying feeling problems, working on the patient's core beliefs might be inefficient, as well. If it is not very clear that the thoughts (particularly the core beliefs) cause emotional distress and it is the other way around, a cognitive approach may fail. This is because treating those core beliefs and not the underlying feeling problem that causes them, might end up being a wild goose chase. For instance, the therapist might be focused for some time on addressing his patient's core «belief» that "he's worthless", only to find that another wrong core belief (e.g., "life is not worth living") has just come up despite hard efforts to address the first wrong belief. And this, may go on forever. If there are lurking feeling issues that give life to bad thoughts (core beliefs that supposedly are the basis of automatic thoughts), we can never be sure of what the next wrong core belief might be. To the contrary, addressing any underling feeling problems directly, may inhibit further cognitive distortions - be it core beliefs or negative automatic thoughts - from emerging.

Therefore, it can be hypothesized that unless it is obvious that "a person's emotions are the result of some kind of distortion in cognition" (and to be sure, some such cases likely exist, such as where a person's upset is based on a misapprehension of their situation), a better way to address those problems may be a direct "feeling"

way, a way that does not include any cognitive means, a way that employs all available non-cognitive means that aim to fix those underlying feeling problems.

In summary, cognitive restructuring can't be efficacious when cognitive deficits are not present, as in states of free-floating negative feelings. Moreover, cognitive restructuring seems a good strategy only when it is abundantly clear that cognitive distortions (which are not caused by latent feeling problems) is the main issue. Consequently, we have valid suspicions to think that cognitive restructuring is not what, *en masse*, makes CBT efficacious. There must be a mechanism, other than cognitive restructuring, that for the most part makes CBT effective. I support that our best guess is that this mechanism is a direct, feeling mechanism. This is because of the theoretics of the emotions as described in the previous chapter according to which the emotions are mere hedonic states. If CBT succeeds in making patients feel better eventually, it must be because CBT must have a positive effect on the specific problematic emotions (problematic hedonic states) directly.

To be clear, none of the above entails that CBT does not work. But it raises serious questions regarding how CBT works, when it works. It provides us reasons to doubt whether CBT works when it does by means of treating cognitive distortions. In what remains of this chapter, I advance a number of empirical considerations that show that these doubts are well-founded. Before this, a few more reflections on Cognitive Therapy and CBT.

3.3 Further reflections on Cognitive Therapy and CBT

It is clear that Cognitive Therapies can work. There's substantial body of evidence indicating that CT is useful for a variety of conditions. From anxiety and depressive disorders to obsessive and substance use disorders, CT and especially CBT, has demonstrated efficacy. This is based on empirical investigations of CBT as an effective treatment for depression (e.g., Hollon & Beck, [1994], Antonuccio et al., [1995]) and anxiety (e.g., Westra & Stewart, [1998]). What I am about to do, is not challenge the fact that it works. What I am about to challenge is the strong conviction that CBT works because of its cognitive elements[16] (or specific elements). I will try to show that the non-cognitive, non-specific factors are

[16] Cognitive elements are often referred to in the literature as 'specific elements' or 'specific factors', while the non-cognitive elements of CBT are often termed as 'common factors' or 'common elements'.

treatment efficacious. Given that those non-specific elements do not address particular cognitive distortions, it can be hypothesized that CBT actually works by treating patients at an emotional, non-cognitive level, rather than having a desirable effect at a cognitive level.

I can imagine two possible non-cognitive explanations for why CBT works. Firstly, it can be hypothesized that CBT works as an active strong placebo affecting the feelings of the patients by reanimating patients' morale and instilling hope. It can be hypothesized that CBT does so directly, without cognitive mediation or any other kind of mediation. It can also be hypothesized that CBT's involvement with specific cognitive elements is efficacious irrelevant, in that any change in cognitions during treatment, are irrelevant to any relief in emotional symptoms. The second alternative explanation, which I will later argue about cannot be ruled out altogether, is that CBT works because of its behavioral elements.

In what follows I will, first, summarize a number of indications from the empirical literature that collectively provide strong reasons for thinking CBT does not work via cognitive restructuring. Some of these also point to the idea of CBT working as an active placebo. Second, I will explore in more detail the idea that CBT works as an active placebo. Third, I will reflect further on Behavioral Therapy, and I will argue in a separate paragraph that behavioral interventions also might work through mitigation of negative feelings directly, without cognitive or perceptual mediation.

4.3.1 Empirical evidence that Cognitive (and Behavioral) Elements are mostly irrelevant.

I offered some considerations against the alleged cognitive restructuring mechanism of the Cognitive Model of Treating Mental Illness. In what follows, I'm saying how such theoretical considerations are also supported strongly by the empirical research. A number of empirical studies support the idea that CBT does not work via the cognitive (and behavioral) elements, but rather, by the non-cognitive (common or non-specific) elements. Given that those non-specific elements do not address particular cognitive distortions, it can be hypothesized that CBT actually works by treating patients at an emotional, non-cognitive level, rather than having a desirable effect at a cognitive level. I call this the Placebo Hypothesis and I examine it in paragraph 3.3.2.

I should note that my focus at the moment is on the cognitive elements, and not on behavioral interventions. I investigate behavioral interventions in paragraphs 3.3.3 and 3.3.4. However, many studies cited here, involve experiments comparing CBT stripped of both cognitive and behavioral elements with normal CBT. Therefore, even if my attention is around the cognitive elements of CBT, the behavioral elements should be at least mentioned in the heading of the current paragraph, without this altering its main goal which is to explore the role of the cognitive elements in CBT.

To begin with, several attempts investigating explanations on what the mechanism of CBT is, have been made. There have been explanations alternative to the central hypothesis, that CBT works by fixing cognitive. They mainly involve comparisons of CBT stripped of therapeutic elements, with regular therapies. The results of those comparisons show that the cognitive and, possibly, the behavioral elements of CBT, are most likely superfluous.

Jacobson et al., [1996] attempted to remove one or more of the characteristic ingredients of CBT (cognitive or behavioral ingredients), without adding anything to the treatment. By eliminating one or two critical cognitive or behavioral components, they ended up having a basic, treatment-as-usual therapy, which at the level of cognitive therapy, was incidental to the theory. By treatment-as-usual therapy the authors referred to treatment in primary or general care, meaning that patients were recruited from primary or general care and received the usual care given in that context. When they compared what they had constructed with normal CBT by means of clinical trials, they found that both groups produced comparable outcomes. Wampold [2001] confirmed those findings via meta-analysis which showed that adding or removing ingredients that are theoretically purported to be critical, did not affect the outcomes produced.

In a similar manner, Schnurr et al. (2007) developed their own treatment to test it on Post Traumatic Stress Disorder (PTSD) sufferers. They took out everything that was considered scientific (exposure, processing of the trauma, or cognitive restructuring of any kind). They added nonspecific therapeutic factors in order to test whether "observed effects of prolonged exposure could be attributed to specific effects beyond the benefits of good therapy" (p. 823). Those nonspecific effects - the common factors- are the "lactose", or the delivery method. They named their therapy Present-Centered Therapy (PCT) and they got into much trouble only to develop various manuals for PCT, train a sufficient-for-the-study number of therapists etc.; in other words, they did everything necessary to create a non-

exposure, non-cognitive, non-*bona fide* treatment as a control for evidence-based treatments which had all the trappings of a legitimate treatment.

The results once again were astonishing: Frost et. al. [2014], conducted meta-analyses on studies comparing PCT against five popular psychotherapies (CBT included). Those meta-analytics of comparisons of PCT to five of the most scientific evidence-based treatments for PTSD demonstrated that it was "as effective as the evidence-based treatment to which it was compared for targeted and non-targeted variables" (Frost et al., [2014]). What's striking, is that the Society of Clinical Psychology has included PCT as an evidence-based working treatment for PTSD, ever since. Bruce Wampold calls this inclusion "a disturbing finding for the Medical Model, which considers some particular ingredients necessary for the treatment of PTSD".

The Jacobson and Schnurr experiments were not the only ones indicating that cognitive (and behavioral elements) are superficial. Serlin et al. [2003] and Öst and Breitholtz's [2000] make a similar point. [17] Schnurr's PCT experiment along with the other studies demonstrate something radical. All together these experiments strongly suggest that the Cognitive (and possibly behavioral elements) are not needed for successful therapeutic outcomes. And if they are not needed and we can have equally good results with stripped-from-cognitive/behavioral-elements therapies, we must assume that those elements are therapeutically irrelevant.

The data set of the above studies is complemented by three more peculiarities of CBT that support two things: They support that the cognitive elements of CBT are not the ones that make CBT efficacious, and they also support the idea that CBT probably works as placebo. These peculiarities are: The therapist's allegiance as a

[17] In 2000, Öst and Breitholtz, compared CBT which included relaxation and cognitive elements, with applied relaxation alone for the treatment of GAD. Again, no difference in outcomes was found at the end of treatment, nor at the 1-year follow up mark. In 2003, Baskin, Tierney, Minami, and Wampold attempted to estimate the effectiveness of common factor-type placebos by comparing active treatments (treatments that contained supposedly active elements such as cognitive and behavioral elements), with structurally equivalent placebo treatments. They borrowed format and content from cognitive therapies such as CBT and REBT: same number and length of sessions, treatments that were individualized to the patient, discussions related to the topics of interest etc. Also, the therapists involved, were specifically trained to deliver those placebo treatments. In reality, they constructed non-active treatments (treatments that lacked any supposedly active elements like cognitive or behavioral elements) intended not to be therapeutic, which "looked like" being therapeutic. Those placebos could be defined as supportive, non-interpersonal, non-cognitive, non-behavioral counseling that was structured in a way to give the impression that they were active, cognitive treatments. The comparisons between active treatments and structurally equivalent placebos fetched unbelievably astonishing results: juxtapositions produced negligible effects (~*d* =.15), "indicating that active treatments were not demonstrably superior to well-designed placebos", (Wampold et al., p.850, [2005]).

common factor that augments drastically the efficacy of treatment, the Adherence Protocol Paradox (the paradox that strict adherence to cognitive specifics fetches undesirable results), and the boosted efficacy before the introduction of cognitive elements (known also as rapid improvement). The Adherence Protocol Paradox appears to affirm the hypothesis that the cognitive elements of CBT are redundant. Rapid improvement has two aspects: it shows that the cognitive elements are not doing the work, and it also denotes that CBT-as-placebo is doing the work. The third peculiarity, the Therapist's Allegiance, also showcases that CBT must be working as placebo. Those three peculiarities are discussed below.

The Adherence Protocol Paradox

The adherence protocol paradox refers to poor results of CBT that run contrary to what we would expect when strict adherence to CBT protocols is observed. If the cognitive and behavioral elements of therapy are thought to deliver results, it's safe to assume that faithful adherence on the therapist's part to the protocols that particularizes the necessary techniques, structure and rituals, to be essential. One would also expect that the higher the adherence to the protocols and manuals, the better the outcomes would be. If the specific cognitive elements of CBT were the ones that did the job, we would expect better results if therapists applied them strictly and systematically. But this is not the case at all.

A couple of studies conducted in the 1990s suggest that high levels of adherence do not facilitate treatment (Castonguay et al., [1996]; Henry et al, [1993]). The investigators noticed that adherence was briefly beneficial, or neutral only at the beginning of the course and detrimental (not simply non-beneficial), at the following weeks towards the completion of the course of the therapy. When patients were resistant to therapy, many therapists adhered more and more to the protocols as an answer to non-progress. This was catastrophic and made those therapists look less competent in the eyes of their patients. Other studies have shown that insisting on applying more cognitive techniques when the patients demonstrated low agreement about goals and tasks, not only produced worse results, but therapists were at risk of losing their patients, (Barber et al. [2007]). Their study confirmed that high reliance to CBT in general, is inversely related to adherence. An explanation I can give as to why adherence might work very briefly

at the beginning of the treatment, and is damaging during its progression, is the following:

Patients are initially excited because they believe that they have probably found a way out of the psychological problems that torment them. The "scientific" appearance of those highly cognitive techniques which promise cognitive restructuring may induce an "euphoric" state at first, which subsides over time. Once they discover that cognitive restructuring is not what they probably needed, it becomes all the more difficult to stick to the principles of the therapy. The therapists on the other hand -especially younger, less experienced psychologists-, try to counteract against the fading effect of what they've delivered until then, by focusing further on the cognitive elements of the manual. The "adherence effect" in those cases might be proven pernicious: patients might stop therapy and either abandon efforts to become well or resume those efforts at a much later point in time with ofttimes catastrophic consequences. This might result in their losing faith in psychotherapy altogether, which is a lose-lose situation for everybody. Therefore, more studies are needed to examine whether infatuated adherence to the protocols in many cases, might be harmful instead of being advantageous. Should the former be established, it might be necessary to amend and adjust the guidelines of delivering cognitive therapy.

The "adherence effect", could also be seen as a plausible explanation for the high drop-out rates observed in CBT in comparison to other therapies. Meta-analysis indicates that the drop-out rate was significantly higher in CBT than in other therapies for mild-to-moderate depression, (Cuijpers P.; van Straten A.; Andersson G.; Van Oppen P. [2008]). The authors state that the CBT drop-out rates can be more than five times higher than in other treatment groups. When it comes to Computer-based CBT or internet-based CBT (iCBT), the drop-out rates look to be even higher than face-to-face CBT - which are already inexplicably high, (Wouter van Ballegooijen et al. [2014]). Cuipers et al. attempt to explain the unfavorable drop-out CBT rates as follows: "It may be possible that the drop-out rate is higher in cognitive–behavioral therapy because some clients find it difficult to understand how cognitions work and how they can be changed and because the therapy requires homework to be efficacious", (Cuipers et al, p.919, [2008]).

I find this explanation unconvincing. For one, the "some clients find it difficult to understand how cognitions work" clause, implies that a specific subgroup of patients is prone to quitting because their intellectual capacities or their educational qualifications, do not match the comprehension requirements of the basics of

cognitive therapy. One such subgroup, could be said to comprise of less educated, and/or less "intelligent" individuals. To my knowledge, there is no such research (research that proves that the less educated, or the less "intelligent" are the ones that normally quit) that confirms this hypothesis. The profile of the patients described by Cuipers was well-educated, middle-class, middle-aged individuals who have been clearly informed from the outset about the principles, goals and techniques of cognitive therapy. Beck himself [1991] outlines a negative correlation between intelligence and post-treatment residualized symptoms. In fact, there seems to be an association of positive outcome and therapy completion rates with less "intelligent" patients. Against what is expected, intelligence and level of education haven't been found to be good prognostic factors as regards treatment success, (Dunkin et al., [2000]; Beck et al., [1991]). Beck et al. affirm that "there is no empirical foundation for the common belief that patients of less-than-superior intelligence are unlikely to profit from CT", (Beck, Haaga, De Rubeis & Stewart, p.280, [1991]). Therefore, high CT drop-out rates cannot be explained by an inscrutable difficulty from the patients' side to comprehend the basic mechanisms of cognitive therapy.

Moreover, unwillingness to do some basic homework as an explanation for giving up therapy more easily, seems to be misguided too. For instance, Cuipers et al. report that CBT drop-out rates are almost three times higher than psychodynamic therapy drop-out rates, for depressive patients (p. 917, [2008]). Given that psychodynamic therapy is usually much longer and subsequently costlier, the above difference cannot be accounted for by mere reluctance to do some simple exercises at home. By design, psychodynamic therapy is expected to produce tangible results much later than any kind of CT. The number of CBT sessions are minimal, range from 10 to 20 and they averagely span over a period of 3 to 5 months, while psychodynamic therapy might go on for years. The actual reason(s) why more people suffering from a debilitating disorder, prefer to stick with a long-lasting treatment to a short-lived one, remain(s) elusive. But surely, the favorable specifications of CT (shorter, more focused-to-the-problem and tailor-made) are incompatible with higher drop-out rates.

A disagreement here could be that people with depression often lack motivation and energy and hence struggle to do the smallest tasks, or that the homework involved is not "simple exercises" but quite comprehensive diaries and mental tasks.

The counterargument is that first, not all depressed patients lack motivation and energy to prevent them from doing work needed by CBT. Possibly, apart from catatonic patients or patients with pathological apathy characterized by extreme forms of apathy usually found in neurodegenerative conditions or psychiatric disorders such as schizophrenia, a great number of patients suffer from mixed forms of depression. In those cases, depressive aspects are exhibited/cohabited with strong anxious, phobic or obsessive elements.

Second, it is not entirely clear when exactly it is impossible for depressed patients to keep up with CBT assignments. Perhaps, more studies are needed to determine the number of the patients who are unable to perform such tasks arithmetically and qualitatively (what are the specific characteristics of those patients). Moreover, for the subgroup of patients who are depressed, yet functional enough to perform such tasks, more explanation is needed given that most clinicians stress and explain outright the importance of those diaries and mental tasks. More explanations is needed given that those patients are convinced that such tasks can be lifesaving and life-changing, because they are indispensable elements of the therapy.

Therefore, the conclusion of this segment is that adherence to cognitive specifics discourages patients to carry on with their treatment. This tails my hypothesis that the cognitive elements in CBT, are probably, not the ones that do the job. Strict adherence to cognitive elements it appears, impede the whole process instead of promoting it.

Therapist's Allegiance (TA)

It is commonly maintained that the allegiance in psychotherapy plays an extremely important role. Allegiance in psychotherapy represents the therapist's personal belief both in the superiority and the efficacy of a particular treatment. Allegiance is often translated into therapist's ardor, enthusiasm or even into warmth and devotion. As a common factor, it is expected to have a significant effect with some researchers estimating its magnitude to up to .65 (Wampold [2015]. We can hypothesize that, in general, therapists' allegiance makes practitioners more enthusiastic, something that could adjust efficacy positively. In a recent meta-analysis by Dragioti et al., [2015b] it was found that "there was *an inflation* in the effects of psychotherapy treatments when researcher allegiance was present". More

specifically for Cognitive Therapy, they showed effect sizes were on average 30% higher when allegiant therapists in CBT trial were involved. But allegiance on the cognitive elements of CBT shouldn't have had a substantial effect.

The cognitive elements in CBT are very specific and by design, CBT must be relatively unaffected by the fervor of the therapist. Compared to other psychotherapies CBT is thought to be the most scientifically designed therapy of all.[18] In CBT, therapists attempt to uncover distorted thoughts systematically, by giving homework or other assignments. They also help patients to develop very specific coping strategies that target solving their current problems. In that regard, we would expect therapists' belief in the superiority of CBT to play little to no role. Given the very highly structured nature of CBT it would be expected that belief in the superiority of CBT to have negligible impact. In contrast, we would expect that in humanistic psychotherapy (e.g., Person-centered therapy), therapists' allegiance to have a robust effect. In such psychotherapies where therapist's openness, empathy and unconditional positive regard are employed to create a relational environment for positive growth, we can expect enthusiasm and belief in treatment superiority as well as commitment to therapy to play a significant role. But all these are, in principle, irrelevant in CBT whose outcomes should depend largely on the accurate implementation of concrete cognitive restructuring.

In fact, the cognitive strategies in CBT are so well planned and particularized that the allegiance effect could resemble the doctor's belief in the superiority of the medication course he describes. Neither the doctor's belief in the superiority of the medication he describes (granted that he's done the correct diagnosis and has chosen the appropriate medicine), nor the therapist's belief in CBT (granted that the therapist goes by the book) should affect the treatment outcome substantially. Theoretically (and practically as well) CBT can be delivered via a computer program lacking any kind emotional engagement. In reality, CBT is the *only* therapy that it is being delivered via apps, online, or in the form of self-study. Neither psychodynamic therapy, nor humanistic therapies are promoted as

[18] It can be objected that in clinical practice, two things happen. Therapists are encouraged to develop a relationship with patients so as they respond to protocols. Second, therapists are allowed (or even encouraged) to deviate from protocols in order a more eclectic approach be implemented. The objection then is that the role of engagement with the therapist shouldn't be dismissed. But this is my point exactly; the fact that the role of engagement with the therapist is that important (while in purely theoretical terms shouldn't be very important), should hint us to explore the recurrent hypothesis I make here. That is a great number of cognitive distortions to be derivatives of feeling imbalance, and mostly incidentally generators of bad feelings themselves.

effective if delivered electronically. To my knowledge, unlike computerized CBT, no such serious efforts have been materialized.

Therapists' allegiance must be considered in conjunction with the adherence paradox I described earlier (the observation that strict adherence to cognitive particulars seems to be damaging instead of being advantageous). On the one hand, we see that the more faithfully the therapists apply the cognitive specifics, the less effective is treatment. On the other, allegiance in psychotherapy enhances therapy outcomes, in general. In the case of CBT, these two are contradicting each other because allegiance (which may translate as in therapists' enthusiasm) to something that is *de facto* disadvantageous (if this something is meticulously applied), shouldn't have brought positive effects on therapy. What appears to be disadvantageous is strict adherence to CBT's specifics. The more therapists go by-the-book and apply the specific elements of CBT (cognitive and behavioral), the more likely is that patients to pull out of therapy. Thus, another explanation must be given as to why the therapists' fervor pays off.

In my view, the idea that CBT probably works as placebo targeting the feelings of the patients, rather by resolving cognitive distortions, is the best explanation on why allegiance has positive effect on CBT. Because it is only if CBT works by means of common factors *directly* affecting the hedonic imbalance of the patients, there's room for substantial positive impact of the allegiance effect. If CBT works by instilling hope for instance, then yes, the practitioner's enthusiasm and commitment probably adds on the overall effect of therapy. Therefore, the fact that Therapist's Allegiance in CBT has been beneficial, while it shouldn't have, is a retrograde piece of evidence that, indeed, CBT is in fact a therapy that affects patients directly at a feeling level.

Rapid Improvement

So far, the evidence indicating that the cognitive specifics of CT aren't what possibly brings about positive outcomes, is not scanty. The evidence should be examined along with another empirical "anomaly", namely the rapid symptomatic improvement prior to the introduction of specific cognitive interventions in CBT. Hayes [2004] observes that "...clinical improvement in CBT often occurs before the presumptively key features have been adequately implemented" (Hayes p.4,

[2004]). Hayes' assertions were based on an older study by Ilardi and Craighead [1994] which showed similar results.

The symptomatic improvement prior to cognitive manipulations denotes that the common factors contribute significantly to the overall success of cognitive therapy. In fact, it boosts the suspicion that the CBT doesn't work because of its cognitive modification techniques, but because it improves patients' feelings by instilling hope. Observing patients experiencing amelioration of symptoms before cognitive interventions, is like seeing positive results upon administering placebo pills before administering active medication. Of course, there are patients who show good improvement throughout the course of the therapy. For them, we can hypothesize that it is highly possible that cognitive interventions sustain further symptomatic improvement along the course of the therapy, *once* the patients have already started feeling better. Longmore & Worrel seem to support this speculation by noting that their main finding is that both responders and non-responders show rapid early response to treatment (Longmore & Worrel, p.181. [2007]).

Rapid Improvement provides good evidence against the idea that CBT works via its cognitive elements. However, Rapid Improvement also shows that CBT probably works as placebo via common factors such as instilling hope and positive expectations. In my view, those factors address the patients at a feeling level directly. We see that patients frequently get better before any cognitive elements are applied, and that they show no further improvement once those elements are applied. It is probably the idea that "help is on its way" that appears to be beneficial, rather than cognitive restructuring. This shows that the expectation does some serious work by lifting their spirits, rather than the actual therapy itself. This is seemingly why we observe improvement before cognitive and behavioral elements are applied. Presumably, CBT treats the hedonic imbalance of patients directly, even if it was initially designed to treat cognitive abnormalities. A therapy that targets feeling deficiencies directly by means of instilling hope and remoralization (and CBT can be considered as one such therapy), stands good chances to be successful. A recent study affirms what I just said. In 2019 four clinical psychologists embarked on a study to explore unhelpful factors in CBT that might be contributing to the 43% dropout rate of CBT as estimated by G. Proctor, [2005]. One of the main factors they identified was that when the therapist's enthusiasm was exhausted in adhering to the protocols of CBT (e.g., pressure on the patients to do some simple homework), the treatment failed. A participant of the study noted that in a failed treatment, the therapist was not focused on his issues but was "reading out of a

medical book". Contrarily, we see in the same study patients reporting that when empathy wasn't limited and the practitioners enthusiastically engaged directly with the *specific* feelings of the patients by showing compassion and understanding, the results were dramatically better. However, empathy, compassion or non-judgmental acceptance of the patients' narrative transcend the protocols of CBT. Therefore, we see that CBT is successful when its fundamental principles are abandoned, and when therapists (perhaps instinctively) adapt and deliver therapy that targets the feelings of the patients directly. The chances of CBT to become successful increase dramatically when it is being transformed into a "feelings" therapy. Thus, those two aspects in conjunction (that benefits are observed before specific elements, as well as benefits are observed when CBT is transformed into a "feeling" therapy) indicate that whatever gains of CBT are due to a placebo effect. CBT's success because of its working directly at an emotional level is very compatible with a feeling view of emotions.

The feeling view of emotions says that emotions are predominantly feeling entities, and not cognitive entities. CBT's success when it is being self-transformed from a therapy that primarily addresses cognitive deficiencies, to a therapy that primarily addresses feeling problems indicates that there might be something wrong with the idea of the Cognitive Model of Treating Mental Illness. In such cases the Cognitive Model should be seriously re-considered for its validity. It should be reconsidered because it has been probably based on a wrong premise. It's not a secret that Ellis and Beck were heavily inspired by the Stoic view of emotions that defines them as opinions. By rebranding the main idea and by talking about beliefs, they shifted the weigh in emotion theory from their affective properties to their cognitive properties. The emotions were reconsidered from being opinions-like states to belief-like states, and a witch hunting started to spot and amend bad emotions *aka* bad beliefs. Alas! The emotions are not beliefs or opinions or judgements, as I showed in the first part of this thesis. A good proof of this is what I just talked about: CBT becomes highly efficient when, in the real-life context, transforms itself into a feeling practice that addresses the feelings of the patients directly. It appears to me that seeking the true identity of the emotions is no waste of time, because knowing what emotions truly are, has implications in the treatment of problematic emotions observed in affective disorders. It's safe to assume that if the emotions were cognitive states, problematic emotions would be best treated via cognitive means, if they were perceptions via perceptual strategies etc. But as I showed in chapter 1, they are not. It seems that CBT's success is incidental and misleading. We tend to think that CBT works by addressing cognitive deficits, while staggering amount of

data indicates that it works via an entirely different mechanism. The strong indications we observe -that CBT is efficacious when transformed into a "feeling" therapy- is a backwards confirmation of the main hypothesis of the Feeling Theory of Emotions, namely that the emotions are feelings. CBT works because it's actually a feeling practice that treats the emotions - which are feeling states.

4.3.2 The Placebo Hypothesis of CBT

I have already said that improvement before the application of CBT specifics, shows two things. That those specifics are probably unneeded, and that CBT probably works as placebo. Besides Rapid Improvement, there are further indications pointing to that end. All of them, I believe, provide us solid justification to think that CBT works directly at an emotional level as active placebo. By active placebo I mean that CBT probably works by raising patients' hope for mental health improvement, and by lifting up their spirits. Individuals who engage in CBT expect or, believe that it will work. Their expectations and beliefs appear to be enough to fetch positive results. In fact, expectation and belief in any kind of therapy must have a positive effect. It is my conviction that the placebo effect in CBT is aligned with the definition of placebo that takes it to be a therapeutic outcome derived from an inert treatment, (Scwatrz and Pfister, [2016]). What is unique in the case of CBT though, is that the so-called common factors I've repeatedly talked about, don't seem to be ingredients of inert treatment. To the contrary, they seem to have a very active role, and in particular, a potent role. Therefore, I would dare to say that CBT works as an active, strong placebo.

Further hints denoting that CBT must be working as placebo come next. An important indication comes from the fact that the fundamental approaches of many types of psychotherapy, are irrelevant to the success, or no-success of any given therapy. Particularly for CBT, there is a big study by Ellen Driessen et al., [2013], which measured the difference in efficacy between the two big "rivals", in MDD (Major Depressive Disorder). The study compared CBT and Psychodynamic Therapy. No statistically significant treatment outcome differences were found between CBT and Psychodynamic Therapy. (PT) This is troubling because PT and CBT adopt a fundamentally different approach to treatment, stemming from different backgrounds. For PT maladaptive functioning is unconscious, and

maladaptation develops very early in life and eventually (and unconsciously) causes difficulties later. CBT on the other hand, posits cognitive distortions as responsible for illness which are largely conscious, and relatively recent (they are nowhere connected to very early childhood experiences). To get similar results from approaches that are so fundamentally different, should raise a suspicion. The suspicion is that something dubious is here because it appears that the type of psychotherapy being delivered is irrelevant to the success or failure of the psychological treatment. Because it is either that both PT and CBT are correct, which seems unlikely given their totally different theoretics, or it is that they work as placebo (both of them, or just one of them). I tend to think that the possibility that they both work as placebo makes way more sense.

Ellen Driessen's big study is not the only one indicating that success or failure of treatment has nothing to do with the type of psychotherapy applied. [19] Given that their theoretics of various types of therapy are oftentimes fundamentally different, we should suspect that it might be the case that all psychotherapies, (regardless of content, theoretical background and treatment approach), work as placebo. For it is very unlikely that they are all correct considering their totally distinct theoretical backgrounds and approaches. It is not my job here to examine whether *all* therapies work as placebo, but nevertheless, the evidence from the above studies are overwhelming and can't be ignored. For CBT which my object of interest, the evidence accumulatively shows that is working as an active, strong placebo.

[19] Pim Cuijpers et. al [2013] conducted meta-analysis of studies which allowed comparisons of CBT with other psychotherapies for depression, including nondirective supportive therapy, BA therapy (behavioral activation therapy), psychodynamic psychotherapy, IPT (inter-personal therapy), PCT person-centered therapy), and other psychotherapies. Cuipers et al.'s conclusion was that "these comparisons indicate that CBT was no more or less effective than these other psychotherapies", (p.384, [2013]. Cuipers et al.'s conclusion seems to converge with an older conclusion of theirs which stated that that differences in treatment outcomes among psychotherapies for the treatment of depression are small and unstable across meta-analyses, (Cuijpers P, Andersson G, Donker T et al. [2011]). Have in mind that all the above compared therapies, do not have too much in common.
More recently, in 2017, a large-scale comparison of cognitive–behavioral therapy (CBT) and person-centered counseling for depression (CfD) in primary care, suggested that these treatments are equally effective (Pybis, Saxon, Hill, & Barkham, [2017]). Like in the case of CBT and Psychodynamic Therapy (PT), the fundamentals of CBT and CfD (or PCT [person-centered therapy] which is its alternate name) are completely alien. I will not refer to the fundamentals of CBT as I have done so already, but in comparison, PCT is a non-directive, empathic therapy. The therapist accepts unconditionally their clients for who they are, without disapproving anything (feelings, actions, or thoughts) without interrupting the clients, without judging them, and without giving them advice. It is more than apparent that PCT is centrally different from CBT. No cognitive restructuring, no cognitive challenging, nothing. And yet, PCT and CBT are equally effective.

Paulina Gonzalez Salas Duhne et al. [2020] stress that "evidence such as this[20] has led some to argue that established therapies as CBT may work through similar mechanisms or so-called common factors" (see also Frank & Frank, [1991]; Wampold & Imel, [2015]). Those common factors are in my opinion the relationship with the therapist, the reanimation of patients' morale, and the raising of patients' hopes for mental health improvement.

The therapeutic relationship itself also appears to play a major role in CBT. This relationship is about how close emotionally, therapists and clients come together. What is of interest, is how this closeness may lead to improvement in therapy outcomes. CBT has been traditionally criticized for ignoring such relationship, (Leahy, R., [2008]). That makes perfect sense given the theoretics of CBT, and if we talk about a therapy that can be delivered via a computer program or a smartphone application. However, recent research suggests otherwise. During the last two decades, more and more voices have objected the idea that the therapeutic relationship doesn't play a major role in CBT. To the contrary, meta-analytic reviews of therapeutic relationship and outcome show that empathy is significantly correlated with positive outcome, (Horvath & Symonds, [1991]; (Martin, Garske, & Davis, [2000], Ackerman & Hilsenroth, [2003]). Some other studies have shown something more profound. Those studies establish that the therapeutic relationship is correlated more highly with client outcome than are specified treatment interventions (Lambert & Barley, [2001]; Norcross, [2001a]).[21]

Even if many CBT theorists may deny that the therapeutic relationship is a curative factor, *per se*, the data supporting the opposite idea is overwhelming. Norcross, [2002] was one of the first to speculate that the therapeutic relationship might be regarded as a possible change mechanism *in and of itself* (see also Ackerman et al. [2001]). In recent years, the importance of therapeutic relationship has been stressed even more, with many scientists calling for a U-turn against our conviction that the techniques and protocols used in CBT are efficacious, and not, other factors, (i.e., Okamoto, Dattilio, & Dobson, [2019]; HK Luong, SPA Drummond, PJ Norton [2020]). The same authors put forward seriously the hypothesis that

[20] By "evidence such as this" the authors referred to collective evidence that almost all therapies produce similar results as well as to evidence that fake CBT therapies are comparable to real ones.

[21] The importance of therapeutic relationship between therapist and client is existent even in purely behavioral interventions: Morris and Suckerman [1974] found that "therapist warmth was significantly related to outcome in systematic desensitization for snake-phobic clients". Significant effects between alliance and outcome have also been found in exposure and response prevention treatment for Obsessive-Compulsive-Disorder (Hoogduin, deHaan, & Schaap, [1989]).

CBT to be working because of non-specific factors, *aka*, as placebo. Therefore, the therapeutic relationship's contribution to positive results in CBT, is one more clue pointing to the placebo-hypothesis.

3.4 Reflections on Behavioral Interventions

Up to this point, I have argued that CBT probably works as an active, strong placebo and not via cognitive restructuring. By active, strong placebo I have meant that it works via common factors. Those factors include the relationship with the therapist, the reanimation of patients' morale and the raising of patients' hopes for mental health improvement. This may be a little bit more than the traditional, simple expectation-effect definition of placebo, but nevertheless, it still falls within the broader definition of placebo. I will be examining now the possibility that CBT to be working because of its behavioral elements.

In the previous section, I cited empirical studies that support CBT is not working via the behavioral as well as the cognitive elements. Those studies suggested that CBT works via the non-cognitive and non-behavioral elements, including placebo. However, there is some evidence that behavioral therapies (whether part of CBT or as purely behavioral interventions) can sometimes lead to improvements in emotion.

In 1995 van Oppen et al. compared purely cognitive interventions with ERP[22] (exposure and response prevention) for randomly assigned obsessive compulsive disorder (OCD) sufferers. No significant differences were found in treatment outcomes between those two, with slight superiority in favor of ERP. But other studies say that ERP is better than CBT in terms of efficacy.

Longmore and Worrell [2007], found that exposure and response prevention alone produced higher recovery rates at three months' follow-up (13% for CBT

[22] ERP is a technique of behavior therapy to treat anxiety disorders based on the principle of respondent conditioning often termed Pavlovian extinction. There's nothing purely cognitive in ERP even when the exposure therapist identifies the cognitive dysfunctions that accompany a fear-inducing stimulus. For example, when the therapist wants to break the circle of problematic thoughts, he doesn't attempt to fix the way of thinking by working on the way the patient thinks. Rather, he overexposes the patient to the stimulus that provoke such thoughts. This is done sometimes progressively and other times abruptly, depending on the specific ERP method, but no cognitive restructuring is applied.

with cognitive interventions and 45% for exposure and response prevention alone) for OCD.

In 2001, McLean et al. compared ERP and CBT in group treatment for OCD. Remarkably, they found that ERP was substantially more efficient than CBT at the 3-month follow-up. (Mc Lean et al., [2001]). The above, urged Clark to conclude that "...at this time there is no evidence that adding cognitive interventions to ERP [...] is clinically more effective than ERP alone for a heterogeneous sample of patients with OCD." (p. 275, Clark [2004]).

What can we make of the above? Firstly, it should be noted that those studies refer to a specific behavioral intervention (ERP) and as such, they can't establish that all behavioral elements are efficacious in general. We don't have an extensive number of studies showing that, for all conditions, the behavioral elements of CBT do the job. Nevertheless, the possibility that behavioral elements are positively operative, seems intriguing. In fact, Bruce Maxwell and Christine Tappolet [2012] have said exactly this: those cognitive interventions are relatively therapeutically ineffective in comparison with behavioral interventions.
So, does this claim (that those behavioral interventions are the ones that make CBT work) annul my claim that CBT works mostly as placebo by directly targeting the emotions via means of hope instilling and remoralization? I think it doesn't.

For one, we should be cautious about the spectrum of affective conditions behavioral techniques are successful at. Phobias and OCD seem good candidates for behavioral interventions, but generally, it's hard to tell that the behavioral interventions of CBT are the ones that always work, for all conditions. Behavioral interventions like ERP which appear to be effective in phobias, are not necessarily part of CBT; they are often applied as stand-alone treatments.[23]

Secondly, we can't possibly know the exact mix of cognitive/behavioral elements in CBT when it is applied in real life. We can't know how much of each element

[23] ERP, a specific behavioral intervention which is often a strong behavioral element in the CBT mix, is frequently applied without any cognitive restructuring, especially for specific phobias. For instance, in arachnophobia, it is commonly redundant to convince "cognitively" the patients that spiders do not pose a significant threat. They usually know so, in advance. Therefore, ERP is often the one and only therapeutic course of treatment.

(cognitive/behavioral), every practitioner has put in the therapeutic mix. So, we can't know what has contributed to the success of the treatment, and what hasn't in case the treatment has failed. Remember that the McLean and Longmore studies just say that for a specific condition (OCD), ERP is more effective than CBT in general; nothing more. We don't know how and why ERP was more effective than CBT for OCD, granted that the proportion of cognitive/behavioral elements contained in CBT is unknown. But we know for sure that the other studies/experiments, where all cognitive and behavioral elements were taken out and produced results identical to normal CBT, indicate that both cognitive AND behavioral elements are superfluous. On the one hand, we have a number of studies that demonstrate that behavioral interventions are more effective (up to three times more effective) compared to cognitive interventions. On the other, an even higher number of studies demonstrate that both, behavioral and cognitive elements in CBT are inessential. The former studies simply say that a specific behavioral intervention is highly effective for particular conditions, either implemented as a stand-alone intervention, or in the context of CBT. The results of those studies can't be interpreted as establishing that all behavioral elements of CBT are responsible for successful outcomes. The latter studies, however, do demonstrate that both elements are unnecessary. In my view therefore, the evidence indicating that the behavioral and cognitive elements are superfluous are more solid. Therefore, I believe the supposition that CBT works as placebo, takes the lead over the supposition that CBT works because of its behavioral elements.

If we read the stripped-CBT experiments alongside with the fact that the relationship with the practitioner is more important than the purported therapeutic elements, we have good reasons to prefer the placebo hypothesis over the behavioral-elements hypothesis. From the three clues listed earlier (improvement before the application of cognitive specifics, the therapist's enthusiasm and belief in the superiority and the efficacy of his methods, and patients' frustration when cognitive specifics start being strictly implemented) we can infer that interpersonal relationship between therapist and patient must have a pivotal role.

Nevertheless, it is still open as to how much the effect of the behavioral elements of CBT is. In all fairness, and because of studies that show that behavioral elements are occasionally effective, especially when compared to cognitive elements, the behavioral-elements hypothesis of CBT is not to be seen as an altogether absurd hypothesis. But it appears to be a self-limited hypothesis because of the reasons I

cited earlier: Firstly, because only specific interventions on specific conditions look as if they are effective. Secondly, whenever those behavioral interventions are part of the broader CBT mix, we cannot accurately estimate their exact actual impact. As such and because of those limitations, the behavioral-hypothesis of CBT seems to be a much inferior hypothesis compared to the placebo-hypothesis of CBT.

4.5 If Behavioral Interventions work, how do they do so?

I started this chapter by saying that I will try to show that he Cognitive Model of Treating Mental Illness is misconstrued. My principal argument was that the specific elements of CBT seem to be gratuitous, and I've put forward the hypothesis that CBT works as placebo. *En route*, another possibility came up, the possibility that the behavioral elements of CBT to be the ones doing the job. I just argued that this possibility is very slim and that most likely, some interventions may work for specific conditions, be it in the context of CBT, or not. Nonetheless, with this possibility still open, and by assuming behavioral interventions might be occasionally efficacious, it is vital to examine whether they comport with the principal tenets of the Cognitive Model of Mental Illness, as this is the model that is being critiqued in this chapter.

Therefore, two things are to be examined. How those behavioral elements work (what is their mechanism), and whether the way they work (if, and when they do) is compatible with the Cognitive Model. My view is that the behavioral elements (whenever and if these elements work) are not compatible with the Cognitive Model. Regarding the mechanism by which the behavioral interventions may work, I can say the following:

Surely, they can't work at a cognitive level. They can't teach the patient something that he probably already knows. Systematic exposure to the stimulus or encouraging the patients to take action opposite to the one they wrongfully take, does not make them any wiser. Patients normally *know* that their behaviors are less than ideal. The thunder-phobic person has probably been told that thunders are statistically much less dangerous compared to other habits of his. The person who suffers from social phobia and stays at home has been repeatedly explained that he performs an unhealthy behavior. It appears that behavioral interventions

oftentimes succeed at something that cognitive interventions are supposed to succeed at (but they don't).

The Cognitive Theory of Emotions I talked about in the first half of this thesis, tells us that the emotions are judgements. I rebuffed this notion in many ways, and I stressed that a major problem of the Cognitive Theory of Emotions is recalcitrant emotions, just like the thunder-fear. Individuals do not judge thunders as dangerous (given that they have been explained that thunders can't be dangerous while indoors), but the persons still experience this fear. Thus, systematic exposure cannot have a cognitively informative role, because judgements are already made. Thunders are already judged as non-dangerous (under certain circumstances) and repeated exposure doesn't have anything more to offer to the affected individual at a cognitive level. Such behavioral interventions (e.g., ERP) cannot be informative at a cognitive level. Thus, the observation that a specific behavioral intervention like ERP cannot work via a cognitive mechanism is in line with my critique of cognitive models of emotion. More specifically, it is line with my argument that the emotions cannot be judgements because, on many occasions, we judge something in a specific way while we feel it in a totally different way. It is perfectly clear that behavioral interventions cannot fix the faulty emotions if we think of them as being faulty judgements, because we see that those judgements are correct. Nevertheless, these behavioral interventions appear to fix problematic emotions, so we must assume that the emotions are something other than judgements. We must also assume that behavioral interventions' mechanism must be something different than a cognitive mechanism addressing cognitive deficits.

Therefore, if the behavioral interventions don't work at a cognitive level, there must be a different means through which they function. What might that be? An alternative thought advanced by Maxwell and Tappolet is that behavioral interventions interfere at a *perceptual* level, altering the content of the problematic perceptions of the individuals. I doubt this, and I elaborate on my disagreement in the next few paragraphs. Instead, my proposal will be that behavioral interventions may work at an emotional (feeling) level directly. In this case, CBT as a whole must be seen as working at an emotional level directly; either because it works as placebo via instilling hope and remoralization, or because its behavioral elements are efficacious because they work at an emotional level directly too. By working at an emotional level, I mean that they directly improve the feelings of the patients without needing any kind of cognitive or perceptual mediation. In any case, it seems

that CBT is in fact a "feeling" treatment disguised with the cloak of a scientifically designed cognitive intervention. This comes in contrast with the main tenet of Cognitive Model that postulates that cognitive deficits are principally responsible for mental illness.

Maxwell and Tappolet do not dispute the effectiveness of CBT. At the first section of their paper what they challenge primarily, is the postulate that restructuring maladaptive thoughts and beliefs leads to positive changes in feelings and behavior. For that reason, they cite a couple of studies that challenge the idea that psychological disturbances have a cognitive basis. Studies that compare the effectiveness of CBT and drug treatment (finding them equally effective), or studies that compare cognitive interventions and a specific behavior intervention called "exposure and response prevention" (showing the inferiority of the behavior intervention over cognitive interventions). They read the results of those studies as indications that "challenging thoughts, is not the *sine qua non* of symptom improvement but would be at best one means by which cognitive changes associated with symptom improvement occur", (p. 4, [2012]). They argue against the primacy of cognition in mediating psychological disorders which is based on a judgmental theory of emotions. They also argue in favor of revisions in cognitivism that must take into account that peoples' choices are not always ruled by rationality. This is because Maxwell and Tappolet appear to support the idea that humans operate with two distinct cognitive systems. A fast, largely unconscious "intuitive system", and a slow deliberate, verbalizable "reasoning system". The authors disagree with Beck and Ellis in that newly learned cognitive schemas and representations replace old ones, and they propose that there's a continuous battle for dominance between new and old cognitive schemas.

It is my opinion that a distinction between purported fast and slow cognitive systems could -in principle- explain the struggle between new and old cognitive schemas. But it is also my opinion that there's no such competition simply because the struggle for dominance is between "feeling" schemas. I will explain later what these schemas are, and why they provide a better explanatory alternative. But first, let me say why Maxwell and Tappolet support that the perceptual account of emotion helps us rethink cognitive mediation in CBT. In their view, the perceptual theory of emotion can enlighten us in two things. First, it can help us understand why cognitive interventions tend to be less effective than behavioral interventions.

Second, if behavioral interventions are effective in changing cognitions, the perceptual account of emotions provides elucidation on how this is possible.

As to why cognitive interventions tend to be less effective than behavioral interventions, their claim is that cognitive interventions can only alter verbalizable content. The emotions according to the perceptual theory "does not assume that the evaluative content of emotions must be verbalizable and consciously accessible", (p. 8). They are partly constituted by nonconceptual evaluative content. So, is the verdict, a behavioral intervention can succeed where a cognitive intervention fails; at bringing about change on content that is non-verbalized and non-conceptual.

As to why behavioral interventions are effective in changing cognitions their answer is because "behavioral interventions are better adapted, in comparison with cognitive interventions, to altering the nonconceptual evaluative content that emotions involve", (p.9). According to the perceptual theory the content of the emotions (which is largely non-conceptual, non-verbalizable) is informationally encapsulated. In simple words the content of the emotions cannot be penetrated cognitively so as to be altered. It remains unaffected by other cognitive domains (e.g., beliefs). So, one may believe that the dog is harmless while perceive it as dangerous. The idea here is that even if someone is convinced by cognitive means that the dog is harmless, he will still perceive it as dangerous because the correct cognitive information he's received cannot penetrate the encapsulated information of the content of his emotion that makes him perceive the dog as dangerous. So, how does behavioral therapy work where cognitive therapy fails? By making the patient switching perceptions. Where the dog-phobic person perceived that dog as dangerous, after behavioral interventions, he perceives it more positively, as harmless.

Let me say first where I agree with Tappolet and Maxwell. I agree in that CBT probably works for reasons other than the ones we believe it works, *aka* by means of cognitive change. In fact, I have cited a good number of studies along with some empirical indications (the rapid improvement, the allegiance, and the adherence paradox) that gives us good reasons to believe that an alternative explanation for the effectiveness of CBT must be found. By considering the role of the placebo in CBT I have already claimed that most probably CBT works at an affective level via common factors and perhaps partly, by its behavioural components.

Let me go now to what I disagree with. Initially, let me recap my major disagreement with the perceptual theory as outlined in chapter 1. The perceptual theory states that "emotions and sensory perception share world guidedness: in the same way as sensory perceptions, emotions are *usually* caused by states of affairs or events in the world" (Tappolet and Maxwell, p. 6, [2012]). The word "usually" says it all: it is strange to accept a theory of emotion as universal and comprehensive, when one of its main features is thought to be valid occasionally. Indeed, there are countless emotional instances which are not caused by states of affairs, or events in the world. Objectless emotions cannot be accommodated by the perceptual theory. Panic attack fears, anxiety attacks or free-floating sadness are examples of emotions that are not–caused by states of affairs or events in the world. Again, such considerations were instrumental in my rejecting the perceptual theory in favor of a feeling theory of emotion.

Regarding Maxwell and Tappolet's explanation of why behavioral interventions succeed (where cognitive interventions fail), in light of the perceptual theory, the authors say this:
Perception of emotions is like sensory perception. In such case, indeed, the content of perception is encapsulated. Note that when we say that the content of perception is encapsulated, we may not only mean that it's not cognitively penetrable, but that the perceptual content is also tightly sheathed. The perceptual content is impossible to change. For instance, no matter how many times I see the phone in front of me, I won't see anything different than my very phone, because the content of my perception (my perceptual experience of my phone), is encapsulated. In such case the perceptual theory tells us nothing about how this change is brought about. To the contrary, it seems to me that the theoretics of the perceptual account of emotions rule out any possibility of change to the encapsulated content. It is hard to grasp how exposure therapy works if the content of the emotions is non-accessible as the perceptual theory postulates. Maxwell and Tappolet say that "perceptual shifts toward more positive evaluative representation of the objects of our emotions takes place with constant exposure to the stimulus". I cannot understand how and why such shift is possible, on the assumption that the perceptual theory is correct. For example, the emotion of the dog-phobic person is fear. According to the perceptual theory, he perceives danger upon dog-related stimuli and the content of his perception (the danger) is encapsulated. So, repeated exposure to dog-related stimuli cannot change his perception of danger conceding that the perceptual theory is true. Repeated exposure cannot shift our perceptions

toward more positive evaluative representation of the objects of our emotions, because the theoretics of the perceptual theory themselves, tell us that the perceptual content of the emotions is firmly boxed and inaccessible.

Therefore, if the change in behavioral interventions is not cognitive and if the perceptual content of the emotion is not accessible, we should be looking for something else (other than perceptual explanations) to explain how behavioral interventions work. This something else might be that behavioral interventions engage with the affective domain directly. This possibility is investigated next.

My claim is that a feeling explanation of behavioral therapy, may constitute a good alternative to cognitive and perceptual explanations of how behavioral therapy works (in case it does). Using the same example of the dog-phobic person and Exposure Therapy, I will leave aside the two possibilities already covered: that the person changes cognitive evaluations towards the dog, or that his perception of the dog changes. I will make another hypothesis and I will say that by being insistently exposed to the stimulus, what changes is his *feelings* towards the stimulus. How is that possible? My answer is this:

Remember that I have said that the emotions are specific hedonic states. So, what probably changes is the specific hedonic state that the person experiences upon seeing the dog. What is the mechanism of such change via behavioral interventions like Exposure Therapy? It is my hypothesis that too much feeling of specific emotion (in this case fear), eventually desensitizes the phobic individual from experiencing fear anymore. In the previous chapters I argued that too much of any emotion is to be considered as unbalanced, and that it is possible to fetch opposite results. A similar mechanism could be hypothesized for Exposure therapy. It is not that the phobic individual evaluates cognitively the dog in a different way, nor that the content of his emotion changes. He still perceives the dog as dangerous. But it is probable that the person "gets sick" of feeling afraid of dogs, and eventually a hedonic reversal occurs. A hedonic reversal as the ones described in the previous chapter. It is important to note that the Exposure Therapy is systematic and methodic, and unlike random encounters with the undesirable stimulus (the dog), the aim of Exposure Therapy is to eventually expose the patient to the stimulus to the highest degree. So, it can be hypothesized that any organism when experiencing too much of a negative emotion is probably "designed" to quit efforts to battle it, and simply switches off. A resembling hypothesis has been given for freezing fear,

when animals appear to switch themselves off the situation that is far too threatening to behave in the standard way (i.e., flee, fight etc.), [Hatzimoysis, [2014]).

On a more general scale, it is also possible that behavioral interventions other than Exposure Therapy, to directly target the hedonic state of the patients, when positive behavioral interventions are implemented. Depressed patients for instance, refrain from activities they used to enjoy in the past. It might be difficult for them to enjoy such activities when those activities are re-introduced in the context of behavioral therapy, but later on, systematic participation in such tasks usually brings positive results. It is possible that systematic participation (or too much participation) in such activities to also work by means of the "feeling" factor. Too much exposure to tasks that induce positive feelings, might work directly at a feeling level independently from the cognitive and perceptual capacities of the patients.

Lastly, it is my view that Maxwell and Tappolet are probably right in that schemas most likely battle for dominance, rather than there being replacement of schemas. The living proof of this is the patients themselves whose recovery looks more of a zigzag line rather than a straight line, with lots of up and downs, and lots of back and forths. But unlike Maxwell and Tappolet who talk about cognitive schemas, I propose that what must probably takes place, is battle for dominance of "feeling" schemas. Feeling schemas may describe patterns of hedonic states and the relationships among them. At the case of the dog-phobic person, it could be said that with Exposure Therapy, the aim is the dominance of a desirable feeling schema (i.e., dog=feel ok), over a negative schema (i.e., dog=feel not ok).

The points made in this chapter, I believe, make clear that the Cognitive Model of Treating Mental Illness should be seriously reconsidered. First, we see that cognitive and behavioral elements are likely unnecessary, and that CBT probably works via placebo. Second, even if behavioral interventions are occasionally successful, we have good reasons to believe that when they work, they address feeling deficiencies directly. It seems that the Cognitive Model of Treating Mental Illness fits nowhere in the picture. With all this in mind, I believe that it is essential that we seek for a Feeling Model of Treating Mental Illness. This Feeling Model needs to take into account the specific emotions involved in psychological disorders and pay close attention to the hedonic specifics of the emotions involved.

However, as I pointed out earlier in this chapter, there are special occasions where Cognitive Treatment must be -in itself- the preferred choice of treatment. Moreover, even if the reasons why CT works are other than the reasons, we believe

it does, why cannot deny that it is highly useful. Before closing this chapter, I want to summarize and elaborate further on those reasons.

4.6 The usefulness of CT. How can CT be useful?

What might be the role of Cognitive Therapy, in which cases is indispensable, and how should it be valued?

For one, Cognitive Therapy in the form of CBT particularly, is proven to be highly efficacious with success rates comparable to the ones of pharmacotherapy (DeRubeis, Siegle et al., [2008]). I claimed earlier that it is either its behavioral components that are responsible for its efficacy, or that the idea of therapy alone works as an *active* placebo is responsible. In my view the placebo hypothesis takes the lead, but in any case, the fact that millions of patients benefit from psychotherapy every year shouldn't be overlooked. So, if the hypothesis is true and Cognitive Therapy has, predominantly, an affective role in mental disorder, this role is to be appreciated to the full. There are more cases when cognitive therapy should be the approach of choice.

The first is when faulty representations or distorted thinking, are *clearly* the originators of the troubles, (Whiting, [2006]). It's not impossible to conceive that someone to have formed "core" beliefs about the self or the others, based on negative, abusive input he has received for a prolonged period of time. For instance, if somebody has been repeatedly told for years that he's a "worthless human being" without being one, he might show signs of psychopathological behaviour and negative feelings or negative thoughts, regardless of whether this information has been accurate or not. A second case is when an individual realizes some facts about himself, often with the help of a therapist. He might realize, say rightfully, specific negative facts about his character or the situation he's in, and again, he might end up being mentally disordered, without him having a problem of affect before the realization of his situation.

A third case is when there is some kind of mis-informing, or misunderstanding; Whiting says that "if a person's emotion—anxiety or depression, say—has been elicited by a mistaken understanding of a situation it may be the case that, to help

the person change the way he is thinking about his situation, we have to deal with whatever is *causing* such misunderstandings", (p. 240, [2006]).

The three cases I just mentioned (the case of prolonged psychological abuse, the one caused by misunderstandings, and the one due to acknowledgment of negative facts or situations), are scenarios when a representation is evaluated for what it is, resulting to *appropriate* to the evaluation emotions. Cognitive therapy in this instance can either clear out any misunderstandings or be useful in assisting the individual to accept the facts and help him find meaningful ways to deal with them or make him comprehend that his long-formed "core" beliefs caused by systematic psychological abuse (i.e., "you are worthless"), must be discarded. My speculation is that the above cases make up a substantial, yet not the broadest part of all cases of psychopathology.[24] Not all people become mentally ill because of misunderstandings, nor they do because they acknowledge negative facts about themselves, or because they have been victims of extensive psychological abuse. In fact, we observe that human psychology in general, is pretty much resilient to adversities. With hardships as the above to be a fragment of what people may have to deal with during the course of their lives, we observe that only a small proportion of the population suffers from a serious mental disorder. This observation bolsters the notion that in most instances there must be an unidentified problem of affect that interferes with how some people evaluate facts, rather than some kind of cognitive inadequacy, especially if, rationality on the part of the sufferers is prevalent in all other aspects. Nevertheless, for the aforementioned circumstances where the causes are *extremely* clear, cognitive therapy may play a critical role.

Finally, Cognitive Therapy may have an educational, prophylactic, and training role. The idea of controlling thoughts, behaviours and -if possible-, feelings, is as old as in the teaching of Stoics revived into the modern version of Stoicism which aspired to become a mainstream philosophical movement, mainly through the works of Nussbaum, [1994] and Philippa Foot's critique on non-cognitivism, ([1978], [2001]). It's ties and influence on CT have never been a secret, and they

[24] Without having been able to spot specific studies analyzing quantitively the proportions between easily identifiable causes of affective disorders, and disorders that pertain a diffused problem in affect which doesn't seemingly stem from the three aforementioned circumstances, I can say the following. It is my suspicion that most people suffering from common affective disorders in Western countries complain about unexplained, affect-caused depressive or anxious symptoms that are not tied to any of the above cases. A great number of people report depressive, phobic, or anxious symptoms that cannot be easily trussed to anything concrete. I believe that more studies are needed to determine the quantitative ratio between the two.

were re-confirmed in the updated Generic Cognitive Model (GCM) by Beck & Haigh, [2014] .

In my opinion, a Stoic way of dealing with things[25] in life can have a positive imprint. A patient who's in the acute phase of illness might find it difficult to keep a Stoic stance towards aberrant emotions, but if trained to do so *in tempore non suspecto*, he might benefit from the following:

Firstly, a Stoic way of dealing with things might attenuate, not the direct effect, but the aftermath of experiencing intense emotions. I argued in chapter three that the emotions are presumptively inescapable, qualitative states. Thus, even if avoiding the experience (when the required conditions obtain) seems impossible, managing their consequences could be a feasible objective.

Secondly, and probably most importantly, an effect of keeping a Stoic attitude in general, is that it might limit the impact of surprise when experiencing acute feelings. By limiting the impact of surprise, the intensity and duration of aberrant emotions(feelings) can be controlled. Take pain, for example: when people are told that they are about to experience pain and they are prepared for it, -as in the dentist's office-, they report a subjective, higher pain tolerance. The warning cues as augmenting factors of pain threshold are backed by neuroscientific findings. Anticipation of pain seemingly affects cortical nociceptive systems, and this is why individuals feel less of it, if warned timely (C. Porro, P. Baraldi et al., [2002]). My view of emotions as given in previous chapters, places them into special feeling category. A Stoic stance on the other hand, where apatheia and ataraxia are the primary goals[26], could assist individuals in two aspects: handling of what follows extreme emotional responses (which appear to be uncontrollable at first), and lower the impact of startle when bitter, negative emotions crop up. The element of surprise seems to be constitutive of very intense emotions, and it will be described shortly (Johnson-Laird et al. [2006]; [2012]. Hyper-Emotions (as I will call them) look as if they cause amazement by definition; a hyper-emotion amazes and startles the person who experiences it. Thus, being prepared for this amazement may result in less intense feelings which according to the authors are initiators of illness.

[25] By Stoic way of dealing things, I mean a certain sort of wisdom or ability, according to which mistaken evaluations should be eradicated and only good emotions (ευπάθειαι) in the form of unmistaken evaluations should be approved.

[26] By apatheia the Stoics referred to a psychological state undisturbed by the experience of emotions, pain, or other feelings, and by ataraxia to the tranquility of the mind.

It's time, I think, to explore the role of Hyper-Emotions in mental illness. Thorough examination of the role of such super emotions may help us form hypotheses about their role at the initiation of mental disorder, as well as the continuation of mental disorder. One such hypothesis is the one I am talking about next. The Hyper-Emotion Theory of Psychological Illness focuses primarily on the strength and duration of specific emotions in specific disorders. I believe that HEToPI deserves our attention.

CHAPTER *5*

The Hyper-Emotion Theory of Psychological Illness in relation to the Cognitive Model of Treating Affective Disorders: A More Emotional Approach

Introduction

KEYWORDS: Psychological Illness, Hyper-Emotion Theory, Distorted Thinking

I finished the previous chapter by saying that the Cognitive Model of Treating Mental Illness is probably wrong, because it is based on a wrong premise. This premise is that faulty thinking (in the form of faulty core beliefs or faulty automatic thoughts) is the main cause of disorder. I also claimed that we should better be looking for a Feeling Model of Treating Mental Illness. A Feeling Model of Treating Mental Illness can be defined as a model that primarily holds underlying emotional/feeling issues responsible for the development of mental illness. Moreover, it could be said that a feeling model adverts emotional/feeling issues be treated directly without cognitive mediation, because it makes sense to say that feeling problems are best treated directly via non-cognitive means. According to such a model whatever misdoings, wrong thoughts, or unhealthy behaviors, are most likely the result of underlying emotional problems, and not vice-versa. In the wider context of a Feeling Model of Treating Mental Illness I am exploring here the Hyper-Emotion Theory of Psychological Illness (HEToPI) which is backed by two studies. The theory postulates that an aberrant emotion, appropriate to the situation yet very high in intensity, is the principal cause of many psychological illnesses. The theory also says that patients are excellent reasoners in general, and especially on topics pertaining their illness. This comes in contrast to the Cognitive Model which takes it that patients' reasoning is -by and large- faulty.

In the preceding chapter I elaborated on theoretical considerations against the Cognitive Model of Treating Mental Illness which were also supported by strong empirical evidence. In this chapter, I compare the HEToPI with the Cognitive Model and my conclusion is that the HEToPI outperforms the latter in explaining how psychological disorder develops. I then go on to show that if we accept the HEToPI, this has likely implications for the treatment of emotional disorder. More specifically, I argue that three hypotheses can be derived from the Hyper-emotion Theory (hypotheses in insofar as they would require empirical confirmation). The first thoughtful hypothesis is that we must be looking for the specific emotion(s) that leads to pathology and work on it in a directed way, be it with pharmaceutical interventions or other non-cognitive means.[27] The second is that negative stimuli and subsequently, negative emotions be blocked for a specified time period, during the acute phase of psychological illness. The blocking of negative stimuli might restore the distorted hedonic balance of the patients. The third conjecture is that a combination of non-cognitive treatments be offered during the acute phase of the illness to shift the emotional balance of the patients towards a positive emotional equity. In this chapter I draw a first sketch of these three reasonable conjectures which are then further elaborated on, in the final chapter.

5.1 The Hyper-Emotion Theory of Psychological Illness

The Hyper-Emotion Theory of Psychological illness is based on an evaluative view of emotions (Oatley & Johnson-Laird, [1987]). According to the authors the evaluations which predispose individuals to certain courses of thought and action are more often than not conscious, but the theory doesn't preclude unconscious evaluations. Bodily feelings, or cognitive evaluations just mark the onset of a sequence of events that might lead to pathology. But bodily feelings or cognitive evaluations, are not automatically considered to be the principal *causes* of psychological illness.

[27] It could be supported that CBT should be included among other non-cognitive means because, nonetheless, it is efficacious, and in my opinion, a non-cognitive therapy after all. My view is that when targeting the specific emotion(s) responsible for illness during its acute phase, it' might be better that CBT be excluded. I've argued that CBT most likely works via its non-cognitive elements, but nevertheless, CBT's cognitive elements might be confusing for the patients during a time-period when dealing with the feelings directly is the main goal. I will argue later that CBT might better be applied after emotional restoration is completed.

Recall two major philosophical assumptions as regards the origins of affective disorders of almost all contemporary cognitive therapies:

Firstly, proponents of Cognitive Behavioral Therapy (CBT), or any of its offshoots, generally doubt the role of unconscious factors in psychological illness. Aaron Beck famously said that "Man has the key to understanding and solving his psychological disturbance within the scope of his own awareness" (Beck, [1976], p. 3).

Secondly and most importantly, cognitive theories primarily view dysfunctional cognitions as causes which create (and maintain) psychological disorders (Beck, [1976]; Harvey, Watkins, Mansell, & Shafran, [2004]).

On this last point, the Hyper-Emotion Theory offers something different; it postulates that psychological disorders "have an onset in which a cognitive evaluation initiates a sequence of unconscious transitions yielding a basic emotion. This emotion is appropriate for the situation but inappropriate in its intensity. Whenever it recurs, it leads individuals to a focus on the precipitating situation and to characteristic patterns of inference that can bolster the illness", (Johnson-Laird, Mancini, & Gangemi, [2006], p.1). For instance, the anxious patient will intensely focus on possible negative sides which are not commensurate to the situation and will neglect any positive sides. Those unhelpful thinking styles are thought patterns that have the potential to cause further negative emotions and behaviors.

According to the theory, patients do not (normally) experience the wrong emotion: they experience the emotion that healthy and unhealthy subjects alike, are generally presumed to experience. They do not experience, say, anxiety when they are supposed to experience fear, or disgust whenever they are supposed to experience sadness. The emotion they experience normally fits the circumstances. The problem lies in its intensity. Its intensity is much higher than expected. Moreover, patients tend to make inferences commensurate to the intensity of the emotion (feeling) they experience. For instance, consider a situation that would make most people experience mild anxiety (i.e., losing someone's keys). In this scenario many individuals might get upset at first, but later they may tend to focus on ways to deal with that situation. Consider in contrast, patients who infer that the most catastrophic scenario will occur (i.e., that they 'll be locked out of the house for very long, they'll catch a terrible cold etc.). The HEToPI provides an explanation for the difference between the individuals who infer that the most catastrophic scenario will occur, as opposed to the individuals who don't infer so. The

explanation is that the first group of individuals experience a high intensity emotion/feeling of anxiety, while the second group doesn't.

The theory questions the pervasive notion that faulty reasoning is the cause of psychological disorders. To the contrary, the original version of the theory suggested that sufferers reason better than non-sufferers, but only on topics relevant to their illness. A revision based on newer evidence approximately six years after its first formulation (Gangemi, Mancini & P. N. Johnson-Laird, [2012]), goes a step further. By utilizing revised eliciting tools, it posits that patients with psychological illnesses probably possess the ability to reason better than those who are mentally healthy, NOT only on topics relevant to their illness, but on neutral topics too. In simple terms, it is highly likely that the sufferers are *better* reasoners than non-sufferers, in general. The theory places emphasis on the unconscious transitions to hyper-emotional reactions which are present throughout the course of the illness. It is proposed that unconscious transitions to aberrant emotions can happen to any individual. What differs is that patients (unlike healthy subjects), reason excellently on those highly intense, aberrant emotions.

The HEToPI, lays down five main principles:

The first is about a common single cause of psychological disorders:

1. *"The principle of unconscious transitions to basic emotions*: Individuals acquire a sequence of unconscious transitions from a bodily feeling or cognitive evaluation to a basic emotion that is appropriate to the situation but aberrant in its intensity. The onset of a psychological illness occurs with such transitions, but they continue to occur throughout the illness". (p. 823, [2006])

The second is about the lack of control of basic emotions:

2. *"The principle of no voluntary control*: Individuals cannot control their basic emotions, which depend on simple cognitive evaluations". (p. 825, [2006])

The third, about the diversity of psychological illnesses:

3. *"The ontological principle*: Psychological illnesses arise from transitions to basic emotions, which derive from the ontogeny of social mammals, and so, the taxonomy of psychological illnesses depends on this ontogeny". (p.825)

Next, the authors consider predisposing factors:

4. *"The principle of vulnerability*: Individuals vary in vulnerability to psychological illnesses depending on innately determined conditions and on adverse environments". (p.825).

Finally, the fifth principle deals with how sufferers focus on their hyper-emotions:

5. *"The principle of inferential consequences*: Individuals focus on an aberrant basic emotion, they reason about it and its causes, and as a result, they become well practiced in reasoning about the topic, and their reasoning can maintain and generalize the illness". (p.825)

As mentioned earlier, the unconscious transition from real life events to emotions of very high intensity, lies at the center of the formulation of the theory. Johnson-Laird, Mancini, & Gangemi have become more specific on four common psychiatric disorders. The emotion that obsessive patients make an unconscious transition to, is intense anxiety. For Obsessive Compulsive Disorder (OCD) sufferers only, the authors have added a further parallel transition to the complex emotion of guilt. Intense anxiety is the foresaid aberrant emotion for hypochondriacs and phobic patients alike. Differently, depressed individuals make an unconscious transition to intense sadness (p.p. 826-829). The above transitions are backed up by observations during experiments that took place in 2006 whose results are displayed later.

The authors come to recognize an interactive loop between cognitive, behavioral and emotional states that prods people to become focused on topics relevant to their illness. This interaction by cognitive, behavioral and affective modules is acknowledged by classic cognitive theories too. The difference is that the philosophical assumptions behind contemporary cognitive therapies like CBT or

REBT, posit cognitive deficits as the initial *causes* of further behavioral or affective states. But for the Hyper-Emotion Theory, those cognitive deficits are not deficits at all. They are neither irrational beliefs (as we shall soon see), nor misrepresented schemas of faulty interpretations of events. They simply mirror reasoning commensurate to the intensity of the emotion in question, whose transition has taken place unconsciously. In that regard, it could be argued that the principal *cause* of psychological illness according to the HEToPI (again, without overlooking the obvious interaction between cognitive, behavioral and affective states that tends to reinforce pathology), is the aberrant emotion.

For obsessive, phobic or hypochondriac patients for example, their thoughts are post-cognitive expressions of their intense anxiety or their intense fear. For depressed patients on the other hand, "black thoughts" are cognitive expressions of the extreme sadness. To give an example, mysophobic patients have a pathological fear of contamination and germs. Mysophobia is believed to belong to the Obsessive-Compulsive spectrum of disorders. Those patients have thoughts that are -in principle- correct: the possibility of contamination and becoming ill is a real possibility, it's not a fabrication. Thus, it can be said that such relevant thoughts aren't delusional and that they are theoretically correct. However, the excessive overthinking about such possibility appears to be the problem, and HEToPi expounds this excessiveness by attributing it to the excessively intense negative feelings of those patients.

This is not a minor difference even if it may look like one. Careful analysis of the principles of the HEToPI in conjunction with a treatment of emotions as non-intentional, non-propositional feelings as developed in the first part of this thesis, might make necessary our strategies and priorities when designing coping mechanisms for psychological illnesses be revised. For more than four decades, the controversy as to which therapeutic approach may best deal with common psychiatric illness is ongoing. After a culmination of medication-based therapy usage in the mid-2000s, the preference for psycho-therapeutic interventions (and more specifically for all sorts of cognitive therapy including CBT or REBT) is on the rise. A 2013 meta-analysis demonstrates a significant 3-fold preference for psychological treatments over pharmacological treatments (McHugh, Whitton, Peckham, Welge & Otto, J Clin Psychiatry [2013];74(6):595-602. [2013]). Lately, the trend is that non-cognitive therapies (with medication standing out as the one most used) be relatively de-valued, and cognitive interventions be promoted instead.

My aim is not to discredit and unjustifiably attack the potential usefulness of psychotherapy, and more specifically CBT. Instead, I have already investigated its effectiveness and explored why it works, how it works, whenever it works. But my plan, is also to remind us all, that common psychiatric illnesses such as depression, phobias, hypochondria, or OCD are primarily illnesses of our emotions (feelings). My guess is that patients would have been substantially more reluctant to seek professional help if their conditions weren't conditions of their emotions, and if their conditions didn't *feel* bad. If affective disorders are ultimately disorders of our emotions more than anything else, it seems reasonable to wonder whether it is a good choice to target firstly any cognitive distortions involved (which in my view are symptoms of the illness but not its *first* cause). A wiser strategy might be to go after the genuine cause, which is the aberrant emotion according to the HEToPI that I have been outlining.

5.2 Two studies in support of the HEToPI

In what follows, I'm presenting two studies by Johnson-Laird, Mancini & Gangemi. These studies identify the emotions involved across various mental disorders. More specifically, those studies aimed to identify the emotion linked to the onset of each illness. Moreover, the first study demonstrated that people susceptible to specific psychological disorders think better on topics related to that disorder than individuals without such susceptibility. However, the second study showed that the tendency to think better wasn't limited to the content of their disorder, but it appears that patients were across-the-board excellent reasoners.

The 2006 study

The 2006 study by Johnson-Laird, Mancini & Gangemi consisted of four parts. The first part aimed to carry out a small-scale epidemiological survey. The primary work was done with the collaboration of 24 psychiatrists who, based on their records, tried to identify the emotion linked to the onset of the illness. Six basic emotions were given (anxiety, fear, disgust, joy, anger and sadness), and five

complex ones (guilt, embarrassment, envy, pride, and shame). The physicians had the option to name another emotion, outside of the list. The exact question was as follows: *«Indicate which emotion the patient referred to as occurring at the onset of the illness: »*

The survey included patients who were diagnosed as obsessive, agoraphobic, hypochondriac, or depressed. Almost none of the patients had received substantial psychotherapy of any kind, which could have affected their original responses.

The results of the first part of the study, were almost as predicted. Overall, the onset of illness was linked primarily to basic emotions rather than to complex ones. Obsessive patients predominately reported anxiety and embarrassment as the basic emotions at the onset of their illness, and guilt and shame as the complex emotions linked to their disorder. The ratio between basic to complex emotions, was almost 2:1.

Hypochondriacs reported anxiety and fear as the basic ones, without reporting any complex emotions.

Accordingly, agoraphobics reported anxiety and fear too. Shame and another (not named) emotion outside of the list were reported, but proportionally, those two complex emotions were reported much less frequently than their basic counterparts. In the case of the agoraphobic patients, the ratio between basic/complex emotions was almost 12:1.

Finally, depressed patients reported all basic emotions as the first emotions at the onset of their illness (anxiety, fear, sadness, anger and disgust), with sadness standing out as logically predicted. Depressed patients also reported complex emotions as the ones linked to the onset of their disorder, but again, it should be noted that the ratio between basic/complex emotions was relatively high (~ 3:1). Only a very small percentage (about 5%) of the sufferers was not in position to report any emotions linked to the onset of their illness.

The second part of the study aimed to investigate patterns of reasoning. At the beginning, the authors presented two vignettes about the same topic, one as narrated by a patient diagnosed with hypochondria and one by a patient suffering from obsessive-compulsive disorder. The goal of the authors was to showcase the difference in dialectical reasoning between hypochondriacs and obsessive patients and subsequently use the two narratives as paradigms for further analysis. In their example, a somatic disturbance led to different dialectical reasoning from the

hypochondriacs and from the OCD sufferers, something that clearly denotes that the same stimulus may yield in different self-dialectics depending on the illness. The authors evaluated the ability of 34 psychiatrists who were not specifically trained (if not at all) to make diagnoses upon narrative interpretations of patient stories but were rather trained to prescribe medication that covered a broad spectrum of anxiety, depressive or obsessive disorders. The results indicated that even if the psychiatrists were unable to describe the cues that they had used, and their diagnoses were most probably rapid and intuitive (cf., e.g., Hull, 1920), they were generally successful in identifying the illness and in spotting the correct characteristic content among psychological illnesses.

Next, they tried to confute the popular account of psychological illness which locates its causes in faulty reasoning, and postulates that affective disorder sufferers commonly overlook possibilities (Barres & Johnson-Laird, 2003; Barrouillet, Grosset, & Lec¸as, 2000; Johnson-Laird & Savary, 1996). The researchers established the methodology first: two groups of randomly assigned controls and patients, had to participate in a simple reasoning test about guilt. Individuals who tended to feel guilt, responded to the priming of the investigators by reasoning better than control participants, but only when they had to reason about content concerning guilt and not on neutral content.

Parts three and four of the study, investigated reasoning and tendency toward Obsessive–Compulsive Disorder (OCD) and reasoning of individuals with a tendency to depression, respectively. The researchers out of a pool of 290 students, selected 14 students who scored higher at the OCD self-report inventory (Rhe´aume et al., 2000) and 14 who had the lowest score. By assessing possibilities and impossibilities in a short vignette they had read, the students had to list possibilities for assertions with content designed to elicit the emotion of guilt. The results of the study confirmed the original hypothesis that predisposition to a specific illness may enhance reasoning about content relevant to that illness. Obsessive patients were three times more likely to list correct explicit possibilities when a story engaged a feeling of guilt. When the story didn't engage a feeling of guilt or it was on a neutral topic, no significant differences were observed between obsessive patients and controls.

By keeping the same structure, the authors conducted the fourth part of the study which pertained individuals with a tendency to depression. From a larger sample this time of 370 University of Palermo students, 40 students were selected. 18 students who scored higher at the Beck Depression Inventory (Beck et al., [1979])

and 22 students who scored in the lowest 5%, took the role of the "depressed" and the "control" subjects respectively. They had to list possibilities for assertions designed to engage depression, or assertions designed to engage guilt, or assertions which were neutral in content. As predicted, subjects with a tendency to depression who encountered a story likely to engage a feeling of depression, were more accurate in listing correct fully explicit possibilities. In fact, the percentage of correct possibilities of "depressed" subjects compared to percentage of correct listed possibilities of "control" subjects, was more than double (66% to 27%). Again, when the content was not about depression, but it pertained guilt or neutral content, no significant difference was found between the correct fully explicit possibilities listed by the two groups. The researchers concluded that, once again, their study indicated that people prone towards psychological illnesses ratiocinate better on topics pertinent to the illness, than individuals without such a propensity. They noted that this tendency perishes with any other kind of content (either neutral, or content relevant to a different psychological illness)

The 2012 study

The aim of the 2012 study by Gangemi1, Mancini, and P. N. Johnson-Laird under the name of *«Models and cognitive change in psychopathology»,* [2012], was to confirm the results of the original 2006 study which postulated that "patients reason better on topics relevant to their illness and that they show no significant reasoning patterns on neutral or irrelevant to their illness topics", [2012]. The first study specifically investigated reasoning and tendency towards Obsessive–Compulsive Disorder (OCD) and reasoning and tendency towards depression. The new study compared patients diagnosed with depression with controls, and students scoring high on anxiety with controls.

In the first experiment, out of a pool of 52 individuals 15 depressed patients and 16 non-clinical controls were selected. Unlike the preliminary 2006 study, this time the depressed patients were receiving treatment at the Centre for Cognitive Psychotherapy in Pisa, but they were not on anti-depressant medication. The authors noted that none of the participants "had received any formal training in logic, and none of them had taken part in a reasoning experiment before", (p. 159 [2012]). The goal was to elicit putative conclusions, both for valid and for invalid

syllogisms and the persons had to draw conclusions on 20 syllogisms which were presented in a different random order to each participant. The results of the first experiment showed the following: Generally, the depressed patients gave more correct responses for both valid and invalid syllogisms ([42%] to [26%]). Clearly, they drew more valid conclusions from premises about depression (77%) than from neutral premises (37%). But strikingly, the depressed patients refrained from invalid conclusions more often on neutral premises, than their control counterparts. For syllogisms designed to draw no valid conclusions, the depressed individuals responded "nothing follows" more often for neutral than for depressing conclusions. In their exact words, «this difference was reliably larger than the analogous difference for the control participants (7% versus 28% correct rejections», (p.160, [2012]). The authors' note on this eye-catching finding, is that the patients demonstrated superior performance with neutral premises; an observation that lied abnormally away from the expected focus of the study.

The second experiment was designed and executed in a similar fashion. In order to examine the effects of anxiety on reasoning, 21 anxious individuals and 21 non-clinical participants had to formulate their own conclusions, or to respond that nothing followed from sets of syllogistic premises; half of premises had anxiety-provoking content while the other half had neutral content. Again, the patterns of the results confirmed the prediction that patients suffering from a specific illness are better in reasoning than those who don't suffer from a mental illness. In this case, anxiety sufferers drew more valid conclusions that were anxiety-provoking, than their control counterparts. In fact, the ratio of correct valid conclusions of the anxious individuals on anxiety-provoking content compared to the correct conclusions of non-sufferers was slightly more than 2 to 1. Only 33% of the non-sufferers drew valid conclusion on «anxiety» content, compared to the high percentage (75%) of anxious patients. As anticipated, the hypothesis that mental disorder patients are better in reasoning when it comes to matters pertaining their specific illness, was confirmed.

But to their surprise, the amazement on the outlier was duplicated as the extraordinary collateral observation of the first experiment was repeated; for syllogisms with no valid conclusions, «anxious participants responded "nothing follows" more often for neutral than for anxiety-provoking conclusions...this difference was reliably larger than the analogous difference for the control participants», (pp.161-162, [2012]). The investigators' conclusion was that the anxious participants' performance «with syllogisms lacking valid conclusions was

contrary to our hypothesis: they were more likely to refrain from drawing invalid conclusions for the neutral contents», (p.162, [2012]). It was clear then, that they had stumbled upon something they didn't expect. Sufferers did not seem to be good reasoners on anything had to do with their illness, and bad on anything had to do with everything else. They study showed that they seemed to be good reasoners habitually, or 'across the board' good reasoners.

That being said, there may be things in need of clarification regarding Johnson-Laird et al.'s observations. For one, the theory seems to run well on depression, anxieties, phobias, and many obsessions (as in mysophobia described earlier). However, it's not clear how the theory could be applied in cases when patients do appear to experience a wrong emotion, or better put, an emotion that doesn't fit into the picture. For example, what about ruminations or seemingly unrelated rituals observed in OCD patients? What about cases when there isn't any association of thoughts and behaviours with the circumstances? There are some things that need to be said here.

The theory says that the main problem lies in the rapid development of a high intensity emotion(s) that highjacks everything. If we see this in conjunction with the postulation that the emotions are feelings, we infer that the problem may lie in a hyper-feeling that hijacks everything. This is not an implausible postulation as it can fit most cases of affective disorders. Hyper-emotions of sadness, fear, anxiety, or others can click well into the picture and possibly explain how disorder usually develops.

Now, as regards whether it is always the case that these hyper-feelings are appropriate to the situation or not, the following can be argued. It appears that in most cases those hyper-feelings do fit the situation even if they stretch immensely the realities (i.e., it can be argued that in mysophobia the real, yet minimal possibilities of contamination are multiplied through a catalyst, which is no other than hyper-feelings of fear). Nonetheless, there appear to be cases (even in the same category of disorder, i.e., OCD) when those emotion do not seem to fit the situation because thoughts or behaviours look as if to be detached from reality. For instance, repetitive rituals, obsessive counting, or even common lucky charms are examples when thoughts or behaviours are disengaged from what the situation is.

It appears that such cases do exist, but they do not taint the basic premise of the theory, that it is a hyper-feeling that is responsible for the development of the disorder. As an example, in the case of ritual counting the sufferer appears to take

as a *rigid reality* that counting can prevent disaster. For it is likely that he knows that counting cannot possibly prevent disaster, yet, if forced to drop his rituals, hyper-anxiety, or hyper-fear kick in. Not because he does wholeheartedly believe that his counting can have an effect, but because his hyper-feelings dictate him to do so. One possible way to explain why the sufferer takes as rigid reality something he knows it isn't, is to hypothesize that his counting is linked to disaster-prevention, via a metaphysical, Bayesian relationship whereby not-counting could entail disaster in a far, far stretched causal relationship. Hyper-feelings in such case, command a "better safe than sorry" reaction so as any mis-happenings be avoided. In any case, we see that hyper-emotions are, again, most likely responsible.

So, what is the bottom line? Is the theory in need of revision or modifications? I think yes, and in my view the theory needs to be revised and restated in way that could incorporate and explain as best it can, the development of mental illness, without abandoning its fundamental premise that hyper-emotions are the cornerstone of mental disorder. Thus, the theory could be reformulated by insisting on the universal role of hyper-emotions (feelings), stating that patients do not experience the wrong emotion, yet clearly note that the latter may not be true in some cases.

5.2 Targeting Emotions vs Targeting Cognitions; The Difference from Theory

As explained in Chapter 4, the core tenet of the Cognitive Model is that cognitive distortions are responsible for the development and persistence of mental illness. By fixing them through rationalization techniques along with behavioral adaptations, one can expect improvement at the affective realm.

Given that distorted thinking is central to the Cognitive Model, there are three questions that need answers, relevant to how maladaptive cognitions are involved in mental disorders. The Cognitive Model of Treating Mental Illness postulates that maladaptive cognitions are the main factor in the development of illness. Therefore, if the following questions cannot be sufficiently answered by the proponents of the Cognitive Model, it could be claimed that we have more reasons (on top of the reasons mentioned in the previous chapter) to doubt the validity of the Cognitive Model itself.

a. What is the triggering cause, that makes certain individuals develop and maintain maladapting cognitions?
b. Why do individuals, perfectly rational in all other respects, start adopting maladaptive beliefs on specific topics only?
c. Why don't they change this way of thinking, immediately after they realize that they have started making negative interpretations and subsequently have started engaging in unhealthy behavioral patterns? Instead, it's commonly observed that people do not respond instantly, as they would have, in any other mental propositions.

In what follows, I will try to show why the Cognitive Model cannot provide credible answers to those questions. In comparison, I will try to show that the HEToPI can do so. In that sense, the following paragraphs are like a crash test between these two fundamentally different approaches on how psychological disorder develops.

5.2.1 The Causes of Distorted Thinking

Regarding what sparks problematic thinking, cognitivists often conjure up biological and environmental factors, The cognitive approach, pretty much says that at some point (call it T1), these cognitive distortions start taking place. What exactly happens before T1 is not the primary focus point of the Cognitive Model. But still, an explanation is needed. Of course, the definition of T1 is to be taken as schematic rather than literal, when an aggregate of maladaptive beliefs starts determining the course of the illness. People often ask, is it environmental factors, or is there something wrong with my brain?

There are cases when environmental factors have been determinant. For instance, if a person is repeatedly told that he is worthless, it may be possible at some point (T1) to start adopting negative views about himself and the world.

As regards biological factors, they seem to play a significant role in mental disorders. In fact, heritability and genetics appear to be related to 40% of MDD[28]

[28] MDD: Major Depressive Disorder

cases (DSM V, p.160-168, [2013]. At minimum, one third of GAD[29] cases should be attributed to genetics too (Hettema, J. M.; Neale, M.C.; Kendler, K.S. [2001]. Furthermore, there are several theories regarding the biologically based cause of depression or other affective disorders, but as of today, they are just theories. None of them has been proven as a definitive biologically based cause (Carrol [2004].)

However, we have good evidence that link many emotions seemingly directly with brain functions and parts of the brain. So bad emotions, could possibly be direct results of bad brain functions. For instance, greater amygdala activation is linked to stress and fear, and in a few lines, I will say more about the link of emotions to brain functions and parts of the brain.

Factoring in the above, and this is where the HEToPI steps in, we could think of an explanation that involves feelings (emotions) to play an intermediate role for bad thoughts, granted that we have a better picture as regards the direct relationship between brain functions and the emotions(feelings). There might be an explanation that would state that brain malfunctions possibly cause the super-feeling of the HEToPI, which in turn, results in all else (unhelpful thoughts and unhelpful behaviours).

One such possible explanation, is to argue for an indirect relationship between brain functions and cognitions in which case the cognitions could be said to be mediated by feelings. In such case of course, and if cognitivists admitted that cognitions are strongly mediated by feelings, the cognitivist thesis on mental disorder would have been somewhat threatened. This is because if cognitivists admitted that cognitions are strongly mediated by feelings, then they would shift from a cognitive model to a feeling model of illness, whereby maladaptive cognitions are due to bad feelings.

The Hyper-Emotion Theory of Psychological Illness by contrast, does readily provide good answers to the above. According to the first principle, maladaptive beliefs stem from "transitions from a bodily feeling or cognitive evaluation to a basic emotion that is appropriate to the situation but aberrant in its intensity". According to the HEToPI, what may trigger those unconscious transitions to a super-feeling (which in turn may result in maladaptive beliefs), is not confined to a single cause. Biological factors are not ruled out; the idea that brain abnormalities to be causes

[29] GAD: Generalized Anxiety Disorder

of mental illness is compatible with the HEToPI, so long as these abnormalities trigger the transition to a basic aberrant emotion.

This is not an unknown factor: brain functions, and the nervous system in general, can be linked directly to feelings. For instance, the amygdala appears to be closely associated with the feeling of fear, whereas pure pleasure looks as if to be concentrated in the nucleus accumbens and the septal nuclei. Joy can be induced by stimulation of the globus pallidus, while guilt and anxiety may be associated with the orbitofrontal cortex. Interests in general (if they can qualify as feelings) are likely associated with the cingulate cortex, (Best B., [2009]). Therefore, brain malfunctions are not ruled out as possible causes of mental disorder because we have good reasons to believe that malfunctions in the amygdala, orbitofrontal cortex or other parts of the brain may result in problematic emotions. Because a high intensity problematic emotion is the cause of psychological illness according to the HEToPI, it can be said that the following relationship could be established according to the theory:

Brain malfunctions→Problematic high intensity emotions(feelings)→ Mental disorder (including distortions in thinking and unhelpful behaviours)

To conclude, in accordance with the HEToPI, the trigger to the hyper-emotion can be anything: from cognitive evaluations to various substances, past memory inputs that are processed negatively, or some kind of chemical imbalance in the brain, the theory views maladaptive beliefs as *symptoms* of emotional dysregulation, rather than its cause. The answer to "what triggers patients to develop and maintain maladaptive beliefs" is specific super-feelings whose trigger can be anything.

5.2.2 Unexplained *ad hoc* Faulty Thinking

In the previous paragraph I gave a picture of how the HEToPI could deliver explanations on the causes of distorted thinking, in general. In a slightly different issue, the HEToPI could provide insights as to why perfectly rational individuals

adopt *particular* beliefs or particular thinking styles (the kind of beliefs and styles cognitivists call irrational) on specific topics only.

Cognitive scientists need to spell out how and why some individuals start adopting, at some point in their lives, very specific cognitive biases. Remember the 2006 Johnson-Laird study about the integrity of the sufferers' logic, pertinent to their illness. Also, consider that the 2012 revised study which concluded that individuals that suffer from a mental disorder are, by and large, better-than-the-average reasoners. If there are no explicit, very distinct environmental factors which can potentially contribute to the development of particular cognitive distortions, the whole idea that people, perfectly sound in all other respects, start (for no apparent reason) unfolding specific cognitive deficits, is shaky.

Cognitive twists on specific topic(s) only are commonly observed. For instance, the unrealistic fear of one or more, but usually not all, classes of insects (entomophobia), is classified as a phobia by the DSM 5. We see then that, sometimes, disorder becomes very specific. It is unclear why, say, the moth- fearing individual reasons very poorly, only when it comes to moth-related content, and he reasons just fine in everything else, including to content related to other insects that belong to the same biological order. The fact that many sufferers exhibit very specific cognitive contortions while their intellectual capacities are fully retained on all other matters, requires an explanation outside of the cognitive context.

The Hyper-Emotion Theory warrants this specificity by linking particular basic very intense emotions to particular reasoning. The sufferers' reasoning, which can maintain and generalize the illness (principle #5), seems to be on par with their cognitive prowess. If intense anxiety is the emotion they feel, then specific maladaptive anxious beliefs may be produced. If extreme sadness is what they experience, then black thoughts might be voiced. If fear is what is felt, then phobic thoughts are the ones which prevail, and so on. It can be hypothesized that there must be strong explicit representational values, tied to each unconscious emotional transition, which "derives from the ontogeny of social mammals" and should be "taxonomized according to this ontogeny", (principle #2). How and why these representational ties are formed, is an object for further investigation.

The specificity of thoughts can be accounted for by the multi-varied stimuli-to-emotions relationship that is frequently observed. For instance, news on epidemics which have already caused the death of thousands, might provoke different intense emotions to different individuals according to their mental illness. The depression

prone person may experience extreme sadness about the loss of live(s), while the hypochondriac may feel fear and anxiety for the spread of a disease. News about the ill health/death of a close friend may bring about panic and shortness of breath to the nosophobic person, severe withdrawal to the depressed person, or more palpitations and muscle tension to the GAD sufferer. All of these individuals, elaborate excellently on the emotions they experience; seemingly concurrently, but in my view certainly *after and because* of their distinct emotional ordeal, the hypochondriac dwells on his own health, the depressed individual ruminates on the vanity of life and its hopelessness, and the anxious person might start worrying more about everyday matters. Johnson-Laird and his colleagues depict this varied interpretation of the same-stimulus-to-different-outcomes process with two graphic vignettes, (p.833, [2006]). The same content is superbly and skillfully (but certainly differently expatiated) by an OCD patient, and a hypochondriac. If someone reads between the lines, he can probably reach the conclusion that the cognitive skills of the sufferers are so well developed, that they eventually turn against their own welfare. This disastrous aftereffect can only be delineated by a "feeling" account of mental disorder where the emotional system is the culprit, and not by a cognitive one.

A hypothesis we could make to explain why the same stimulus is associated with different thoughts for people who suffer from various, but closely related, conditions is the following: The emotions in dint of how they feel, condition us, or dispose us to think in very specific ways. For example, fear has an edgy feeling character that condition us to attend to threat-related stimuli and have threat-related thoughts. Likewise, the nauseous negative feeling of anxiety disposes us to attend to impending doom-related stimuli and doom-related thoughts, or the down-spirited negative feeling of sadness disposes us to attend sad-related stimuli sad-related thoughts. Therefore, the patients do not form certain beliefs which just pop up while their other reasoning capacities are intact. Their emotions dictate those beliefs, they are very sensible granted the severity and particularity of their affective states and, it seems, sometimes are differential in terms of stimulus-produced emotional responses due to "innately determined conditions and on adverse environments", (principle #4). But certainly, the HEToPI says that patients generally think just fine, and it is only when hyper-emotions(feelings) hijack them, that they don't think just fine.

5.2.3 The Delayed Cognitive Restructuring Question

The last question is about the delay in restructuring faulty thinking and wrong beliefs which are involved in psychological illnesses. It is commonly observed that correcting cognitive distortions is not an instant process. But it should have been if irrational beliefs were mere cognitive misconceptions. Imagine John (a depressive, phobic, or anxious patient, feel free to choose whatever you wish) having a mega-session with the most competent therapist possible. Imagine again the therapist to be in position to identify all cognitive deficits and irrational beliefs held by John in a single, lengthy meeting. Granted that John is adequately explained that his beliefs were irrational, and granted that his reasoning capabilities were perfectly sound, it would have been a matter of hours for the therapist to challenge his beliefs, as it would have been with any other misconceptions (e.g., that Napoleon was short, or that tomatoes are vegetables and not fruits).

Philosophically, cognitivists have repeatedly hit a wall on this matter. Most notably, Nussbaum [2001] has supported that habit plays a major role; but why is habit so determinant in emotions (if judgments), and not in all other judgments? Say, that somebody has been holding two different beliefs for a very long time: the first is that the Earth is flat, and the second is that he is a "worthless human being". How is that the habit of holding the first belief for long vanishes the moment he is sufficiently explained that he has been wrong, while his conviction that he's "a worthless person" tenaciously persists, granted that he's abundantly assured for the opposite? A more convincing account is needed for the delayed response when challenging faulty cognitions.

The HEToMI can provide a satisfactory answer to the delayed cognitive restructuring question. This answer, hinges on two prerequisites: the first is to accept that the emotion (feeling) initiates meticulous cognitive tailored-to-the-feeling processes. The second is to embrace a non-cognitive consideration of emotions.

By doing so, we can hypothesize that the maladaptive beliefs and the wrong thinking are symptoms that depend on the feelings. So, it can be guessed that the feelings require time to change, and subsequently, the cognitive deficits are dependent on how much time is needed for negative feelings to turn into positive feelings. Famously, emotions are resistant to change and there's a lot of discussion

on the recalcitrancy of emotions. So, the more it takes to change obstinate feelings, the more time is needed for the dependent-on-the-feelings cognitions to change. The emotions are famously stubborn, and this is probably why cognitive restructuring takes a long time. The delay of change in cognitions possibly follows the delay of change in emotions. Sometimes, the cognitions simply don't change at all, because the eliciting (aberrant) emotions don't change at all.

For the cases therefore, when we see no progress at all and we observe that core beliefs are not amended even after intense therapy, we can infer the following: we see that there's no change in long-standing beliefs, probably because those long-standing beliefs don't exist at all. It may be also possible that what we take to be long-standing beliefs, to be nothing more than mere expressions of underlying issues in emotion(feelings). In cases we observe zero change in cognitions, we can hypothesize that this is because no change in underlying issues in emotion has been achieved. It is my view that we should be looking for something other than long-standing beliefs that fuel everyday cognitive distortions. The high intensity emotions (feelings) that suddenly and swiftly built up, constitute a plausible alternative explanation of what is behind day-to-day cognitive distortions.

To conclude, the points of the above sections are the following: First we observe that the Cognitive Model cannot provide satisfactory answers to what causes abnormal thinking, unless it is abundantly clear that specific environmental factors have played a role.[30] To that question the HEToPI provides a plausible answer, viz. an aberrant emotion that may cause aberrant thinking. Next, the Cognitive Model cannot satisfactorily explain why patients who are excellent reasoners in a multitude of topics, think very poorly in specific topics pertinent to their illness. The HEToPI says that they think poorly because specific feelings/emotions occur, which are pertinent to their condition. Those feelings/emotions "dictate" the patients to attend related stimuli and have faulty thoughts related to their condition. Finally, regarding why it takes time for cognitions to change or, sometimes, they don't change at all, the HEToPI states that the delay or the absence of change is due to the delay or due to no change of the underlying feelings/emotions.

All the above are extra reasons to question the validity of the Cognitive Model. In the previous chapter, I also argued against the validity of the Cognitive Model. In this chapter I don't just question its validity, but I also claim that the HEToPI can

[30] I have said earlier that, occasionally, environmental factors are extremely hard to be identified. This doesn't necessarily mean that they do not exist and the question of whether they should be ruled out or not, remains open.

provide plausible answers to specific questions where the Cognitive Model cannot do so.

It appears that a first crash-test gives us a clear winner. The HEToPI has a huge advantage: it tells us what to look for. We should be looking for a super-feeling whose intensity and duration are disconnected from the reality. Actually, the HEToPI defines specific emotions as the culprits of specific disorders and in that regard, the HEToPI is even more helpful. It tells us which *exact* emotions we should give priority to. Given that I have defined the emotions in the previous chapters as feelings of specific character, it can be said that the HEToPI tells us which *exact* feelings we should give priority to. We should give priority to the nauseous negative feeling of anxiety if anxiety is identified as the prevailing emotion, or to the down-spirited feeling of sadness if sadness is identified as the prevailing emotion, and so on. Hence, any model of treatment should, first and foremost according to the HEToPI, instruct identification of the major hyper-emotion(s) involved. I suspect that the treatment of the identified hyper-emotion must involve mainly non-cognitive means. More on such means of treatment and how efforts are to be concentrated, are described in chapter 6. We have a clash of two worlds here. The one that recommends dealing with cognitions because cognitions are responsible for disorder. I call it the Cognitive Hypothesis. The other, tells us that the emotions are what we should be looking for. I will call it the Emotional Hypothesis. In what follows, I will try to show that we can make some rational assumptions based on the principles of the HEToPI. Those assumptions may have some value as regards the way we treat common affective disorders.

5.4 The three pillars of a Feeling Model of Psychological Illness

By taking into account the insights of the HEToPI, we can make some reasonable conjectures pertaining the treatment of problematic emotions These are: to spot and focus treatment on the particular emotion(s) involved in the afflicted person's psyche; to block negative stimuli for a defined period of time so as hedonic balance is restored; and to use an array of non-cognitive means to that end.

I think that those three hypotheses come naturally if we look closer at the findings of the studies that have backed up the HEToPI. A particular emotion (or group of emotions) is responsible, so it can be guessed that no effort and time should be

spent in addressing anything else- at least at first. Secondly, we could immediately suspect that the particular hyper-emotion(s) in question to have had a toll on the emotional(hedonic) equilibrium of the afflicted individual. Therefore, the first thought that comes in mind is to proceed in damage control and take action to restore (if possible) this negative equilibrium. A sensible tactic might be to block negative stimuli to prevent further episodes of the hyper-emotion, and to try to shift the emotional balance into a more favorable position. Thirdly, it makes total sense if we attempted to pursue the above via non-cognitive means, given that the emotions are non-cognitive entities as described in the first two chapters of this thesis. In this fashion, an outline of those reasonable conjectures is given below.

It should be noted that what comes next are just thoughtful speculations that it is possible to be empirically tested in the future for their validity. I make the following three hypotheses by taking into consideration two things. The nature of the emotions which in my view are feelings of specific kind, as argued in previous chapters. Second, I also take into account the principles of the HEToPI, and more specifically the one which states that the transition from normal life to pathology is due to the emergence of a specific super negative emotion.

1. Addressing the particular Emotion(s) involved

While it seems obvious, it is not always the case that therapy is aimed onto the specific emotions of the individual. For instance, phobias are often treated with anti-anxiety medication, while it is not at all clear that anxiety is the main concern, rather than the emotion of fear. While it is common that more than one unwanted emotion to co-exist in affective disorders, the HEToPI talks about a specific emotion that presents itself in extreme intensity. At times, two emotions may stand out and, in this case, they should probably be treated simultaneously. Below, there is table of conditions and reported emotions by Johnson-Laird, F. Mancini & A. Gangemi.

Table 7 shows the frequencies of emotions at the onset of various illnesses according to an epidemiological survey. The table is as presented in the 2006 medical hypothesis by P. N. Johnson-Laird, F. Mancini & A. Gangemi. Published by APA in Psychological Review, 2006, Vol. 113, No. 4, 822–841

Table 7
The Results of the Epidemiological Study: The Frequencies of Basic and Complex Emotions as the First Emotion at the Onset of a Psychological Illness

	Basic emotions					Complex emotions			
Illness	Anxiety	Fear	Sadness	Anger	Disgust	Guilt	Shame	Other	Total
Obsessive	14	0	0	0	2	7	2	0	25
Hypochondria	13	6	0	0	0	0	0	0	19
Agoraphobia	13	11	0	0	0	0	1	1	26
Depressive	5	1	13	5	0	5	1	1	31
Total	45	18	13	5	2	12	4	2	101

Note. For 106 patients, where 5 patients were unable to recall the onset of their illnesses.

For example, depressed patients should not be treated for fear issues or disgust issues, unless a dual diagnosis is confirmed. Likewise, agoraphobics should address anxiety and fear in equal terms, as other emotions appear to be unaffected. Of course, the above table needs to be re-confirmed by more studies with a greater number of participants but nevertheless, Johnson-Laird, F. Mancini & A. Gangemi's theory gives us a clear idea about what to work on. It tells us that for every patient, we need to assess which emotion(s) need our attention, and which emotions don't.

It can also be inferred that we should be cautious not to dump all the emotions of the patient; only the one(s) that lead to pathology. Medication, for instance, often blunts the whole array of emotions including emotions that aren't affected by mental illness. This is something that bothers patients significantly, as they mostly want specific unwanted feelings to be mitigated only. This matter is further discussed in the next chapter.

In any case, the HEToPI tells us that a specific list of problematic emotions for every single patient, should be compiled. This is a somewhat different idea, much different from the generic model of illness that assumes that the same symptoms (emotional, behavioral or cognitive) are, more or less, experienced in common by all patients. Without claiming that most clinicians are unaware that not all patients feel the same, it should be noted that specific patterns of thought, behavior and emotions are generally described differently for MDD or GAD. Hence, if the premises of the HEToPI are adopted, an approach aiming the very specific emotions involved could be the *by default* strategy. That would be a fairly distinct strategy from what happens now in clinical settings, where individuated treatment of emotions is taken into account. However, individuated treatment of emotions relies heavily on evaluations of each clinician, rather than being the course of action

dictated by clear-cut guidelines. The explicitly individuated treatment of the problematic emotions of each patient appears to be a good strategy, but it might be best adopted as the standard strategy in light of the postulations of the HEToPI.

2. Blocking negative stimuli

It is reasonable to hypothesize that it might be beneficial if negative stimuli are blocked for a defined period of time. The rationale behind my supposition is this: according to the HEToPI, disease is primarily a product of intense emotions. Those emotions have piled up for some considerable amount of time resulting in unfavorable emotional balance. For that reason, it might be useful to block new stimuli that give rise to new aberrant emotions that lead to illness. This conjecture comes in contrast to Cognitive and Behavioral Models. Such models recommend therapy that trains the patients to deal with cognitive, emotional and behavioral difficulties while they continue their lives as normal. For the majority of the cases, an outpatient mode of treatment [31] is usually recommended, on the premise that faulty thinking and unhealthy behaviors need to be amended in real-life settings.

I am not entirely sure if the outpatient mode of treatment serves treatment logistics in the best way, or it'd better a short-term inpatient mode of treatment be adopted - at least, for the acute phase of the illness. The unfavorable emotional balance of patients who are in the acute phase of the illness, may be a serious impediment for psychotherapeutic improvement. Given that patients in real-life conditions will probably continue to be exposed to stimuli that give rise to new aberrant emotions, it can be hypothesized that new adverse real-life experiences can only but tilt the scale towards the stockpile of negative emotions. Adding more and more negative emotional experiences can be detrimental. This is because it is highly likely that when a great number of negative experiences are added, the emotional equilibrium to be substantially shifted towards the negative side, to the point that emotional equilibrium to be exceptionally difficult to be attained- if not impossible. I am making the supposition that a short, voluntary commitment to institutions that can secure shifting the emotional equilibrium from very negative to positive, might be beneficial in the long run. Although this suggestion might sound peculiar at first, I

[31] By outpatient treatment we mean therapy or counselling when the client is not admitted to hospitals, residential programmes, or other inpatient settings.

will try to explain in the next chapter that the cost/benefit ratio of prolonged, outpatient treatment might not be as favorable as we tend to think it is.

3. Combination of all available non-cognitive means

Following the previous hypothesis, that it might useful if negative stimuli be blocked as much as possible, I speculate that a "loading" dose of non-cognitive treatments might be required. A combination of non-cognitive therapeutic means could probably be tried, in conjunction/during, the period when patients are shielded from stimuli that provoke negative emotions. The idea is that double action (promoting positive feelings while simultaneously blocking negative feelings) could probably speed up restoration of the previously disturbed emotional equilibrium. Non-cognitive means may include medication, behavioral interventions without cognitive elements, and some other interventions. All of them are described in detail at the next chapter. At the final chapter, I provide empirical evidence that such non-cognitive means, individually, have positive impact on the treatment of affective disorders. The supposition I make here is that a combination of more than one non-cognitive means, might fetch better outcomes than applying one non-cognitive means at a time. For instance, a group of depressed patients were treated with the antidepressant venlafaxine alone, and another group with venlafaxine and bright light therapy (an alternative non-cognitive means described in the next chapter). After 4 weeks of treatment, 76% of patients treated with venlaxafine plus BLT attained the target HDRS score (the intended depression rate score) (≤13) vs. only 44% of patients treated with venlaxafine alone ($p<0.05$), (Guzel Ozdemir P. et al, [2015]). In the same fashion, the hypothesis that can be made is that a concerted application of a number of non-cognitive means to have a strong positive impact on the mental health of the patients.

To reiterate the above, it could make sense if we tried to employ non-cognitive interventions to target individual emotions according to the HEToPI model. Those high-intensity emotions appear to do the damage, so it might be beneficial to attempt to mollify them as much as possible.

However, it could be argued here, that in clinical situations, focus is directed at treating patients holistically. It could be argued that this includes a multitude of approaches both cognitive and non-cognitive. There is not the sort of isolation

between mental phenomena. In response, I wish to point that what I'm saying is somewhat different. My conjecture is that the approach should be more targeted towards specific emotions carefully identified for each patient, and that it might be beneficial to shunt for a while (i.e., the acute phase) a holistic approach whose components may be non-cognitive means. During that spell, it might help to solely focus on targeting specific emotions by a combination of non-cognitive means so as to restore feeling equilibrium before proceeding to anything else. In such case, isolation of mental phenomena might be needed for some time.

The general mood the patients are in (most probably because of having experienced a ton of negative feelings), should also be taken care of. The general mood the patients are in, may play a significant role regarding the frequency and intensity of the emotion(s) that lead to pathology. Thus, mood management techniques can be applied collectively with interventions targeting individuated emotions. Why moods matter and what techniques are available for mood management, is the first topic of the final chapter of this thesis.

As I'm moving on to the closing chapter of this thesis, I want to give a very brief outline of what I intend to deal with. I will discuss various non-cognitive means to address problematic emotions, including medication. I will make special reference to limitations of medication which is seemingly one of the mightiest available non-cognitive means to treat disorder. I will speculate that we might need better drugs than the ones available today. Drugs that could selectively adjust the potency of specific super-emotions (feelings) according to what the HEToPI dictates. Lastly, I will close this thesis by doing some guesswork; I will say that it might be not entirely groundless to investigate whether voluntary short inpatient treatment aiming to restore emotional balance would fetch results more favorable than outpatient treatment.

5.5 Conclusion of Chapter.

This chapter has had a dual role. Firstly, I presented the HEToPI, a theory much different from cognitive considerations of psychological illness. Its main tenet is that in each affective disorder, a high intensity negative emotion transitions patients from normality to pathology. Upheld by two studies, the authors found that sufferers are excellent reasoners on topics related to their disorder, as well as on a

greater range of topics. The theory appears to be in position to provide answers to questions that the Cognitive Model cannot. In that context, the HEToPI can possibly contribute to the development of a broader model of treating mental disorder whereby, treating the specific negative feelings directly would be the main purpose.

The second part of this chapter was dedicated in attempting to form hypotheses based on the principles of the HEToPI along with the presumption that the emotions involved in psychological illnesses are specific feelings. Were any of those hypotheses be empirically tested and found eligible for further exploration, it could be possible that they might have a positive impact and contribution in adjusting psychotherapeutic practices.

CHAPTER 6

From Theory to Practice: The Potential Significance of the Feeling Theory in the Treatment of Affective Disorders

Introduction

KEYWORDS: Moods, Mood Management, Medication, Monoamine Hypothesis, Outpatient/Inpatient Treatment

The previous chapters were dedicated in refuting the idea that mental illness is caused by abnormal thinking and in promoting the concept of excessive feeling responses as the ones that lead to day-to-day, short cognitive distortions that have a fuelling role. In this chapter, I am examining the more practical implications of the Feeling Theory of Emotions. I finished the previous chapter by saying that the HEToPI prompts us to investigate some hypotheses regarding treatment of common affective disorders. These hypotheses are:

a) to seek and focus treatment on the specific emotion that leads to pathology, b) to block as much as possible stimuli that trigger negative emotions (at least for the acute phase of illness) and c) to use a bundle of non-cognitive means to restore emotional equilibrium, before attempting to engage in psychoeducation. I will argue that psychoeducation[32] via cognitive and dialectic means can have an educational and prophylactic role, but barely an actively efficient role during the severe juncture of mental illness.

Managing the mood the patients are in, I will claim, may contribute synergistically (along with targeting the intensity of the suspected hyper-emotion) to the amelioration of emotional symptoms. For that reason, I start this last chapter by examining the role of moods and how strategies based on the Mood Management

[32] Psychoeducation refers to systematic psychotherapeutic intervention for patients and/or family that aids to better understand and cope with mental illness.

Theory, can have a pivotal role in preventing and ameliorating excessive emotional reactions.

Medication, its effectiveness, and its deficiencies along with a presentation of an innovative model that links specific emotions with specific combinations of the three basic monoamines, are discussed next. My speculation is that any model that would enable us design drugs that selectively adjust the power of certain emotions, might be preferable to currently available medication whose mechanism of action is to seemingly blunt an array of emotional responses.

Other non-cognitive ways to cope with affective disorders is what follows. Behavioural Therapies that lack cognitive elements require special attention, because they seem to deservedly belong to the arsenal of potentially efficacious, non-cognitive ways to treat affective disorders. Next, a number of non-cognitive means (e.g., light therapy, dark therapy, or systematic exercise) are assessed.

I aim to finish this chapter by criticizing the current model of psychiatric therapy according to which outpatient treatment is adequate for the majority of cases which are deemed as "light". I cite data that show that it might not be satisfactorily functional after all. Instead, I shall support that there might be another possibility: an inpatient, relatively short-treatment therapy model whereby emotional equilibrium is to be attained. Of course, this a supposition which if tested, might provide a good alternative to the current model of treating affective disorders. It remains to be seen if it could probably result in longer-lasting therapeutic outcomes.

6.1 What are Moods, and the Moods Facilitation Hypothesis

The hypothesis I want to defend here is that the moods the patients are in, play a significant role in the development of psychological illness. According to the HEToPI an aberrant emotion leads to pathology and my hypothesis is that negative moods nurture those aberrant emotions. I call this the Mood Facilitation Hypothesis. I will argue for mood management techniques that may contribute to inhibiting the unravelling of such aberrant emotions. My goal is to show that there is some kind of strong interdependence between emotions and moods and that by

controlling the latter, many disproportional emotions could be kept at bay. But what are moods? And how is the Mood Hypothesis related to the HEToMI?

Moods are commonly defined as feeling states that are diffused, not tied (or weakly tied) to certain objects and situations, and they are also observed to change more slowly than emotions, (Lormand [1985]; Watson, [2000]; Rottenberg & Gross, [2003]). According to this view, they are distinguished from emotions which are thought to be acute, and necessarily tied to certain objects and situations.[33] While moods may last hours or days, emotions usually last seconds or minutes. They are commonly given positive or negative valence: we say that "I'm in a good or in a bad mood", but often, this valence becomes more explicit. We refer to irritable mood, sad mood, anxious mood, phobic or obsessive mood[34].

A second theory considers them as generalized emotions and as intentional states (Solomon [1993], Goldie [2000]). What differs is the specificity of their objects; emotions have specific objects while "mood enlarges its grasp to attend to the world as a whole", (p.71, Solomon [1993]). Because of the difference in object(s), "the distinction is thus a matter of degree' (p. 17, Goldie [2000]).

A third description sees them as non-intentional states, not as generalized emotions, but as states of vigilance, quite distinct from emotions. (C. Price, [2006]). Price makes exclusive reference to irritability and apprehension; on this account, overlooking a jibe is less possible "at the expense of making it more likely that the subject's anger is disproportionate or misplaced", (p.66, [2006].

I am very sympathetic with the first view with a difference mind: moods and emotions alike, are non-intentional, non-representational states. They are both feeling states, they differ in intensity and duration, and the former, may not be accompanied by the *distinct* physiological perturbations of the latter: e.g., the upset stomach, the elevated heartbeat, or the pupil dilation observed in substantially intense fear and anxiety. I'm referring to distinct physiological markers, for it is likely that moods involve some kind of physiological changes, albeit much less intense to the point that make those two entities distinguishable. There might be physiological manifestations, but they are usually subtler. It could be supported that

[33] this is the cognitivist approach, because according to the Feeling Theory, emotions are not intentional. The Theory postulates that CMSoENs are intentional, while pure emotions are about nothing.

[34] Phobic mood or obsessive mood could be defined as states that facilitate specific emotional reactions, namely fears (albeit in the form of phobic fears) or fixations on specific topics. When being in a phobic mood for example, one might have the propensity or the predisposition to experience fears more often than if he were not in such mood.

moods be thought of as precursors of emotions, but it should also be noted that moods and emotions are not always *necessarily* linked via a causal relationship. For it is conceivable that someone to be in a depressed or anxious mood and never experience strong sad, or anxious emotions. Likewise, someone might experience strong emotions without being in the relevant mood.

The second consideration of moods seems to me as the most problematic of all. According to this consideration, being in an anxious mood means that you remain anxious "about everything this morning, or about nothing in particular, or that you are anxious about everything *and* nothing" (Goldie [2000], pp. 17-18). It seems to me that this idea is controversial in itself. As I argued in chapter 1, the questionable concept of mental states that are intentional and non-intentional simultaneously, it's only employed to save the intentionality thesis from potential threats.

Finally, Price's account on irritability and apprehension is promising, yet very specific. It seems reasonable to describe irritability and apprehension as states of vigilance designed for sensitivity rather than accuracy, but it's doubtful how we could apply this kind of terminology to positive moods (i.e., joy, or content).

In affective disorders, moods are supposed to facilitate specific emotional reactions. Let me call this the Mood Facilitation Hypothesis. For instance, in anxiety disorders prevailing anxious mood is thought to facilitate strong anxious emotional reactions (e.g., panic attacks, specific phobias) as a response to certain anxious mood-relevant stimuli (Barlow, [2002]). For mild depression, depressive mood is believed to facilitate sad emotional reactions (i.e., feelings of unexplained sadness, or hopelessness and crying spells) as a response to certain depressive stimuli, (Rosenberg, [1998]).[35]

[35] For severe depression on the other hand, this facilitation has been disputed: Jonathan Rottenberg, tested the Mood-Facilitation Hypothesis on *severely* depressed patients. The findings of his study indicate that "counter to intuitions, major depression is associated with reduced emotional reactivity to sad contexts", (Rottenberg, [2005]). In contrast to milder forms of depression (e.g., neurotic depression, or agitated depression), patients diagnosed with severe depression displayed monotonous sad expressions, reported "considerable sadness to neutral emotional material and reported little differential response to acutely sad material", (Rottenberg, Gross, & Gotlib, [2004]). Of course, these findings do not directly threaten the Mood Facilitation Hypothesis, in general. Because it is possible that our current conceptualization of depression to be "not entirely accurate". In severe depression, it seems likely that the absence of emotional responses to be the main characteristic, and not the crying spells or the bouts of sad feelings. Unlike mild forms of depression which are driven by neurotic, anxious emotions, apathy, unresponsiveness, emptiness and lack of emotional sensitivity might be its prominent aspects (Peeters, Nicolson, Berkhof, Delespaul, & deVries, [2003]). Therefore, in severe depression (which might be dubbed as "apathetic depression"), negative mood facilitates what exactly is supposed to facilitate: lack of emotional returns/apathy. In this case it would be reasonable to clearly distinguish between unresponsive

With all these in mind, it suffices to say that moods in most affective disorders, may function as pre-disposing states that, potentially, increase the likelihood full-blown emotional responses to be brought about which may be misplaced, excessive, or disproportionate.

Figure 1. merely shows the difference between normal and abnormal mood:

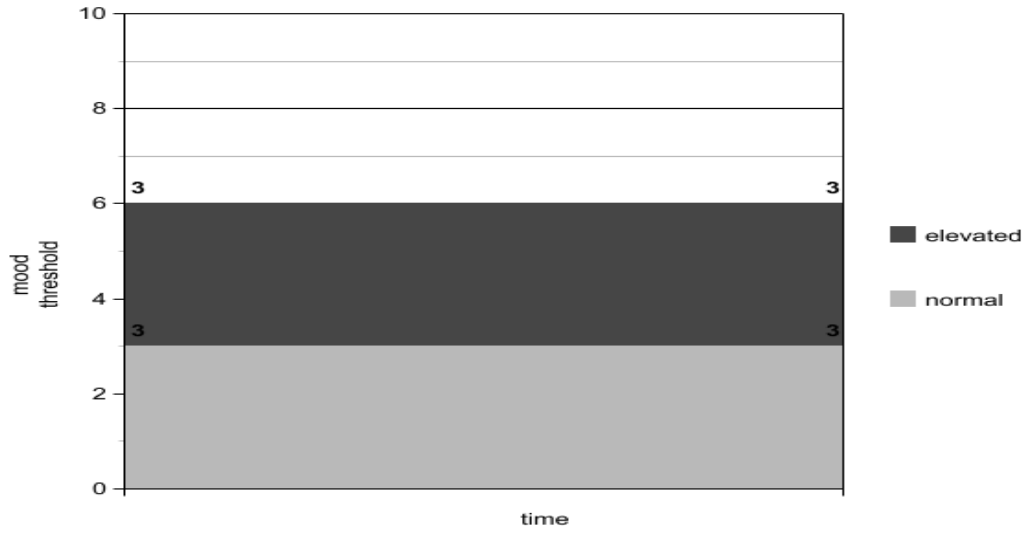
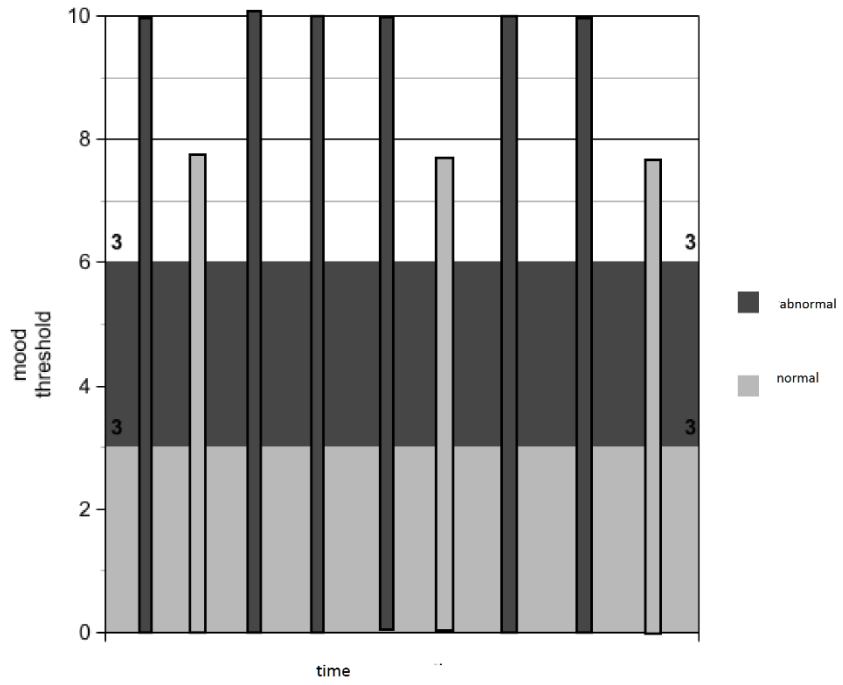


Figure 2., illustrates a possible relationship between normal/abnormal mood, and frequency and intensity of experienced emotions.

severe depression where the exceptionally low mood and the lack of emotions themselves describe the illness, and other, mixed forms of depression where depressive, anxious, phobic and obsessive symptoms overlap. In the first case, extremely low moods prevent sufferers from experiencing any kind of emotions, while in the second, negative moods seem to facilitate a variety of emotional responses (with crying spells and bouts of sad feelings standing out). Therefore, a good differentiation could be between affective disorders whose moods and emotions are strongly correlated, and severe forms of depression where negative moods do not instigate emotional reactions.



In this graph we see that, in theory, normal mood might result in less acute and less frequent emotions. To the contrary, abnormal mood might result in more acute and more frequent emotions upon the relevant stimuli. In my hypothetical example graph (fig.2), during the same time period there are 6 high-intensity emotional reactions and only 3 low-intensity emotional reactions. The darker grey areas represent abnormal mood and more intense, more frequent full-blown emotions, while the light grey areas represent normal mood and sparser, less acute emotions. Of course, the depiction of emotions as illustrated at fig. 4.1 (see below) is not appropriate. Emotions normally build up abruptly and subside gradually. Negative emotions, last longer than positive ones and even though they crop up suddenly, they tend to persist overtime. They are more noticeable, perhaps because they require our attention and our response. Unlike positive emotions which may vanish with constant satisfaction, negative emotions probably wean off slowly because they are vital for our survival (Frijda N, *The Laws of Emotion*, [2007]). Therefore, a schematic depiction of acute negative emotions must not probably look anything like in fig. 3.1, but rather, it must look something like the sketch shown below, in fig. 3.2.

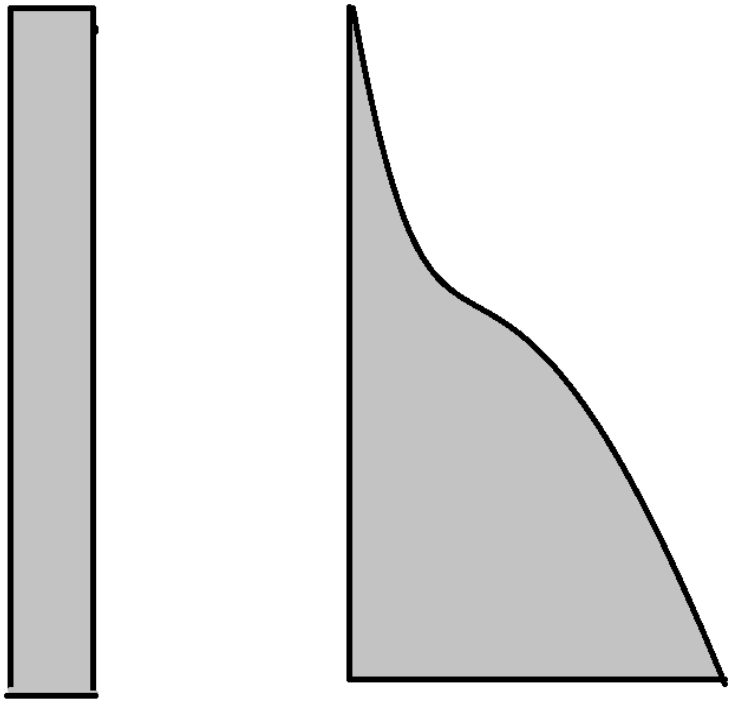


Fig. 3.1

Fig 3.2

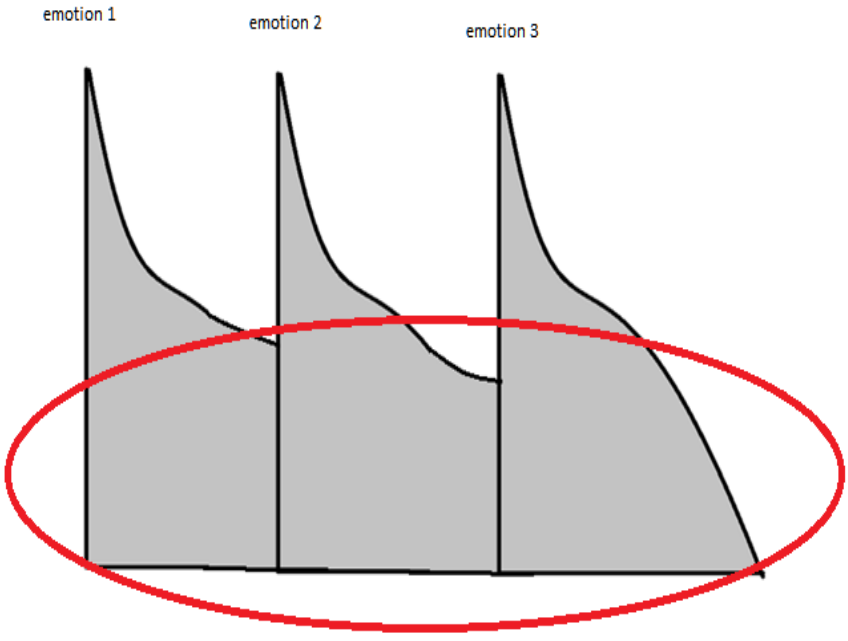


Fig. 4

If someone could visualize the position of emotions (as in fig. 4.) placed on the mood threshold/time graph (fig.1), he would probably realize that the moods/intense emotions relationship is a bidirectional one. Not only abnormal negative moods may result in more frequent and more intense emotional responses, but it is possible that the existence of isolated, dense, excessive emotional experiences to define our moods. Take for instance very close-knit bouts of acute anxiety, or phobic reactions. Because these negative emotions dissolve gradually, it is possible that someone gets into being in a state of negative mood, without necessarily having been in one, before experiencing these bitter negative emotions. Imagine Mary being exposed to consecutive fear-provoking stimuli, as in watching consecutive horror films. Before she has the time to recover from one episode of fear, she's exposed to a second, a third, and so on (fig. 4). We can perceive an accumulated "fading area" of negative, fearful emotions that probably creates its own, overall moody "dark grey" area (marked in fig.4). Even if she hadn't been in an unfavorable mood before her exposure to fearful stimuli, she might probably end up into being in a negative, phobic one. Of course, this relationship is circular; even if Mary is now in a negative, phobic mood *because* of her experiencing consecutive acute adverse emotions, the fact that she's now in this mood might be in itself ruinous in her experiencing more negative emotions in the future. Moods and emotions must be intertwined by a bidirectional, circular loop. As I said earlier moods and emotions are not necessarily causally linked as we can have the one without the other. But still. a close causal relationship must be very common. Mood manipulation, therefore, seems to be a sensible strategy to follow.

6.2 Moods and the HEToPI

According to the Hyper-Emotion Theory of Psychological Illness, the high peaks of emotional responses are the ones that cause most frequently psychological illnesses, and not invalid reasoning, or reasoning based on misconceptions, misperceptions, or false beliefs. Invalid reasoning, misconceptions, misperceptions, or false beliefs may be the cause of mental illness but only in cases that is abundantly clear that such factors have had a causal role. In a nutshell, psychological illness is a transition from normal life to abnormal emotions. Gangemi, Johnson-Laird & Mancini [2006] stress that this transition is unconscious and cannot be controlled. It's unconscious in that patients are not able to explain

why their emotions are aberrant in intensity. More specifically (and I quote), patients "can tell therapists that they are frightened of a panic attack in an elevator, that they need to wash in a precise way to prevent contamination, or that their blurred vision is a sign of sclerosis. They can tell therapists the cause of their emotions, but they cannot explain why they feel them to a degree that is out of proportion to the situation", (p. 837, [2006]. So, what the therapy goals might be in this case, and what is the role of moods?

The authors recommend that: a) the transitions be undone, and b) the otherwise expert patterns of inference that amplify their effects be tackled (p.837, [2006]). It is obvious that the second recommendation requires cognitive treatment. Patients need to be informed about the principles of the theory, and once this is done, they need to work with their therapist in order to effectively de-construct their "expert patterns of inference" which pertain topics relevant to their illnesses. In reality, the second recommendation demands that some kind of Cognitive Therapy is applied, with the sole difference that its aim shouldn't be about dealing with faulty thinking. Instead, this tailor-made therapy must consider that the patients' inferences are, in principle, correct and that they only reflect their distressed emotional world.

In relation to the suggestion that patterns of inference be tackled: I can't see how this approach might make any substantial difference than any other type of Cognitive Therapy, and how it might avoid all the aforementioned problems of CT analyzed at the previous chapters. If the problem is primarily affective in nature and cognitive mediation does not induce symptomatic change, it is all the more difficult to imagine how cognitive treatment can have any kind of serious impact to profound, uncontrollable emotions. And even if CT happens to be partially successful in tackling "the otherwise expert patterns of inference that amplify their effects", one can only hope to temporarily ameliorate the amplifying effect of those patterns for they don't appear to be the root of the problem. In other words, the therapist needs to convince the patient that he must deal with inferences that are logically not delusional or entirely irrational, caused by emotions that can't be controlled; not a very convincing strategy. Think of the depressed patient who believes that he's "a worthless human being", or the anxious individual who "compulsively focuses attention on the symptoms of his distress, and on its possible causes and consequences, as opposed to its solutions".

If the HEToPI is true and Cognitive Therapy is the treatment of choice, those patients would face the following dilemma: either to try to tackle their beliefs which according to the theory are fine but simply echo the high intensity emotions they

experience, or to attempt to directly deal with those deviant emotions. It seems to me, that the first horn of the dilemma suggests something difficult. For it is difficult to imagine why patients would ever sensibly agree to attempt to change their way of thinking if they knew in advance that this way of thinking is simply a side effect, a side-product of their emotional imbalance. Furthermore, if the problem does not lie into longstanding, deep-seated beliefs as cognitivists say but in short, day-to-day, moment-to-moment, terse cognitions caused by aberrant emotions, patients would have to strive to deal with them, each one at a time. A situation highly dissuasive and discouraging that reminds us of the Ancient Greek myth of the Hydra of Lerna: an endless effort to fight short dysfunctional thoughts, caused by consecutive dysfunctional feelings that resembles Hercules continuous efforts to behead Hydra's countless heads.

The other recommendation is the transitions be undone. This could be done by trimming or, even better, by abolishing those high intense emotions(feelings) once they have been formed. The even better alternative is to attempt to prevent them from ever being experienced. This is the point where mood management techniques can step in. If correctly applied, they can prevent as much as possible aberrant emotions that transition to pathology to obtain. That's the ideal use. But such techniques can also be of use once those aberrant emotions occur. Mood management techniques can make aberrant feelings as sparser and as less intense as possible (unlike in fig. 4). Therefore, Mood Management is what I deal with next. After having talked about Mood Management I will allude to a number of other, non-cognitive ways to deal with high intensity emotions.

6.3 Mood Management

If moods are pre-dispositional feeling states that may result in high-intensity negative emotions, and if high intensity negative emotions are responsible for the onset of Mental Illness, mood management can be a useful tool in preventing Hyper-Emotions and in breaking the vicious cycle. It can be useful in a) maintaining a positive mood and subsequently, preventing those aberrant emotions from ever occurring and b) ameliorating adverse emotional states once they have occurred by inducing more appropriate emotions that affect changes, or counteract those

negative emotions. This approach may include anything: from cultivating positive feelings, to encouraging a person to behave in certain ways (Whiting, [2006]).

Mood Management is logically tied to mood optimization. It is supposed to follow a hedonistic principle: people, are inherently motivated to end negative affective states and promote/preserve positive ones. Based on this principle, Zillmann and Bryant [1985] formulated the Mood Management Theory, originally described as the Affect-Dependent Stimulus Arrangement Theory, [Zillmann & Bryant [1985]; Zillmann [1988]). The authors stated that individuals attempt to optimize their mood by augmenting positive affect and minimizing aversive mood states by re-arranging their stimulus environments. Zillmann supports that people do that, without being necessarily cognizant of it. Thus, Mood Management Theory seems to be, by and large, a non-cognitive approach, and rightfully belongs here along with other recommended non-cognitive ways to deal with aberrant emotions.

The theory has been proposed as an alternative to traditional means of stimulus arrangement. While conventional means require significant effort (e.g., a walk in the park, or playing a football game with friends), individuals are offered the opportunity to symbolically achieve this goal via the use of modern technology and a plethora of selection of media content. There are four principal features that typify media content in terms of their mood-altering effects:

i. How content leads to increase or decrease in arousal (the excitatory potential characteristic)
ii. How messages are highly or less ingested by users (the absorption potential characteristic)
iii. How much are messages related to the current mood of the individuals (the semantic affinity characteristic) and finally,
iv. How messages with positively hedonic value are thought to be more competent in discharging aversive and maintaining pleasurable moods compared to messages of negative affective valence (the hedonic valence characteristic).

All of the above distinct dimensions have been tested empirically. The theory's predictions that, both, over-stimulated and under-stimulated feeling states are perceived as unpleasant and that individuals will unconsciously try to achieve excitatory homeostasis by choosing stimuli that effectuate balance, were confirmed

by Anderson et al., [1996]. The researchers found a positive relationship between stress and exposure to comedy programs, and a positive link between boredom and relative indifference, to action-packed films. Substantial support in favor of selective exposure to media content has been also indicated by self-report diary studies (Knobloch & Zillmann, [2002]), or other empirical surveys, (Meadowcroft & Zillmann, (1987)).

If the HEToPI is correct, then it seems that upon identification of the prominent emotion(s) in each psychological diagnosis, these emotions can be offset by induced positive feeling states. As seen earlier, Johnson-Laird et al., [2006] provide a comprehensive table of the frequencies of basic and complex emotions as the first emotion at the onset of a psychological illness. For instance, agoraphobia and hypochondria are very high in anxiety and fear. It is possible, that GAD, agoraphobia and hypochondria to have good results if systematic mood management techniques are applied, and because only anxiety and fear appear to stand out, relaxing, hedonic content could be enough to bring upon excitatory homeostasis that might help patients to overcome their current state of over-stimulation.

Au contraire, other conditions might require more caution. For example, OCD seems to be high in guilt too, which means that it may require special treatment. It is apparent that anxiety and fear (stumbled upon frequently in OCD patients) are emotions that produce high levels of arousal, and thus, they need to be countered by relaxing stimuli. Guilt is thought to be a stressful emotion, but it also can be thought of as a composite emotion that contains depressive elements. It has been defined as a mixture of disappointment, anger, and fear (TenHouten, W. D. [2007]), or it has been described as a combination of three basic emotions: disgust, sadness and surprise (Murphy & Hampton in *Forgiveness and Mercy*, Cambridge Press, [1988]). Therefore, caution is required in the case of OCD because while many of its highly arousal aspects may need relaxing stimuli to be counterbalanced, sadness and disappointment (aspects of OCD that are probably masked by the disorder's anxious "character") might demand specific, discreetly excitatory techniques to be employed. OCD also contains (according to the HEToPI) elements of disgust and this, should also be taken into account when selecting the appropriate stimulus during mood management sessions.

Likewise, depression requires special treatment as regards the choice of stimuli because even if sadness is the arresting emotion identified by Johnson-Laird et al., it is also relatively high in anxiety, anger and guilt. Furthermore, I argued that

depression may come in many forms with the most conspicuous difference to be between "apathetic" depression and its milder forms. While arousal initially seems to be the desideratum at any cost, milder forms look as if they need to be treated with a careful selection of stimuli because they comprise of both over-stimulating and under-stimulating emotions.

Depression and semantic content affinity has also been tested by Zillmann, Hezel & Medoff [1980], Biswas, Riffe & Zillmann [1994], and Knobloch, Weisbach, & Zillmann, [2004]. The first study indicated that participants in bad mood did not show a preference for comedy programs, contrary to what is logically anticipated. The second examined selective exposure to news stories; it confirmed congruent results in mood optimization as regards female participants, but their male counterparts did not show significant mood-congruent exposure patterns. The third study showed that "romantically unhappy individuals were drawn to rather than repelled by sad love songs, demonstrating that individuals in negative affective states do not necessarily avoid media content with high semantic affinity", (Reinecke L., [2017]). In this case, the HEToPI can be enlightening once again. It appears that depression must be a more complex phenomenon than initially was thought to be, and the HEToPI by pinpointing the specific emotions involved, could explain why sufferers do not always strive for hedonic pleasure as well as the difference between genres in that matter. Remember that in Johnson-Laird's table #7 (see page 163 in this thesis) we saw that sadness scores more than double in anxiety, anger and guilt in depressed individuals, but the last three emotions are still there in relatively high amounts.

Of course, genre differences are not solely responsible for content selection. Personality characteristics, cultural influences, or the individual's worldview possibly play a significant role (Zillmann, [2000]. In addition, emotional and informational utility may affect unconscious decisions that are not in line with the purported hedonistic media content seeking. The former refers to a theoretical construct of meta-emotions whereby individuals (consciously, or unconsciously) reach the conclusion that negative emotions do have a positive value and provide emotional gratification (e.g., in terms of empathy or situational appropriateness, Oliver, [1993]). The latter refers to useful informational comparisons (e.g., someone might feel better by comparing the situation he's in, to the ones of other people who fare far worse, (Mares and Cantor, [1992])). Hence, the cases of OCD and depression tell us that the problem is multi-factorial. Apart from the complexity

of the emotions involved, individualistic and situational parameters play a critical role.

All in all, the Mood Management Theory provides a compelling basis, on which productive strategies and techniques could be developed in order to be integrated into broader, non-cognitive techniques to effectively cope with mental illnesses.

The important point here is that the Mood Management Theory be viewed in light of the premises and the principles of the HEToPI. It seems utterly important when designing mood management techniques, the levels of arousal and the valence of the specific emotions experienced by the sufferers to be taken into account. For example, if fear is one of the predominant emotions in hypochondriasis, some kind of fearlessness must be infused to the patient's psyche, at least during the acute phase. Re-assurance, encouragement, confidence, or instilling faith could comprise the initial content of the messages to be lined up for the treatment of hypochondriacs. And such a mix of messages, might be required to be "consumed" systematically and for sufficient time in order the patient to be in position to deal with his fears. On the other hand, it has been argued that even if hypochondriacs feel better when re-assured, this is temporary, and they frequently go back to experiencing again their fears. In this case, the obsessive elements of the illness that resurrect negative feelings and thoughts need to be examined. Specific content that has to do with guilt (a constituent emotion of hypochondria, as described in Johnson-Laird's table) is possibly required in this case to be added into the mix.

Similarly, the content of the media earmarked for the treatment of depressive patients has to factor into the specifics of the type of depression the patients experience; extremely absorbing messages with weak references to the current mood, and strong, hedonic excitatory potential might be beneficial for catatonic types of depression, whereas the levels of arousal need to be closely monitored for individuals suffering from mixed anxiety–depressive disorder. In the first case the media content is supposed to primarily address cognitive elaboration and rumination, while in the second, it is supposed to address constant worrying too (a highly aroused state), on top of everything else.

Table 7, illustrates a general guide of the predominant emotions at the onset of each disorder, based on empirical observations. It is possible that patients often suffer from comorbid illnesses whose symptoms frequently overlap. Therefore, it is likely that more than one emotion -at various levels of arousal-, to be implicated and it seems to be vital that these emotions be properly identified along with a

correct diagnosis. The more accurate identification of the emotions involved and the more precise their measurement is as regards their level of arousal and their semantic affinity, the more individualized the content of the messages can be.

Mood Management offers a realistic and promising framework to work on. But a variety of factors must be counted in. It must not be seen as a simple as "watch a comedy once in a while", or "play some upbeat music" plan of action. The introduction of interactive media offers new opportunities to better differentiate between the individual effects, in a case-to-case basis. The HEToMI provides the theoretical background for individualized diagnoses regarding the prevalent aberrant emotions both at the onset, and throughout the development of the mental illness for each, and every patient. Mood management techniques must shift from being an unconscious, circumstantial selection of media content, to becoming an informed, systematic and effective way to prevent, or treat dysfunctional emotions. New technology allows us to design this kind of content and unlike the traditional non-interactive media stimuli that present the same content, structure, and appearance to all users, we can now create custom-made, personalized stimuli according to the imperatives of the HEToMI.

Non-Cognitive Ways to Treat Dysfunctional Emotions

I will now go on to talk about other, non-cognitive ways to address dysfunctional feelings. These include medication as well as behavioral interventions lacking cognitive elements. When it comes to medication, I present a theoretical model that links specific neurotransmitters with specific emotions. One of the reasonable conjectures drawn by the HEToPI is that particular emotions are responsible for illness. Therefore, this theoretical model can provide insights as to how best design medication targeting those particular emotions.

I am also assessing here less researched means of dealing with negative emotions (feelings) such as light/dark therapy, systematic exercise and laughter yoga. The idea is that all these means could be employed in a combined fashion in order to obtain higher gains. We may have synergistically higher benefits if we do so, and this is in line with the derived suppositions from the HEToPI mentioned in the previous chapters.

6.4 Medication and its Limitations

Our mightiest weapon in the arsenal of non-cognitive ways to battle affective disorders is undoubtedly medication.

Pharmacotherapy for depressive and anxiety disorders works. As does psychotherapy, even if it is possible to work for questionable reasons, as argued in the previous chapters. For instance, Cuijper's et al. recent meta-analysis on the efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders, shows comparable results. More specifically, the difference between psychotherapy and pharmacotherapy after treatment in MDD, GAD, social anxiety disorder and panic disorder was statistically non-significant, with a narrow lead of drugs over psychotherapy. For dysthymia pharmacotherapy seems to be substantially more effective than psychotherapy, while the opposite seems to be true for OCD, (Cuijper et al., [2013]). But generally, the fact that pharmacotherapy works for mental illness, is a *reductio ad absurdum* proof that mental disorders are disorders of our feelings, above all. We cannot establish a direct relationship between bio-chemical brain functions and thoughts, so medication probably works indirectly: it fixes something that produces those thoughts. This something must be the feelings. If, on the other hand, medication worked directly on thoughts, we would have known their causal relationship (which we don't).

But pharmacotherapy is not without its problems and limitations. Most antidepressants used to treat depressive and anxiety disorders, come with a long list of adverse health effects and side effects. Apart from two forthwith obvious adverse effects (suicidal behavior for those under twenty-five, and the risk of miscarriage during pregnancy), users report a variety of side effects (especially during the first month of use) that oftentimes result in early discontinuation and lower success rates (Stone et al. [2009]; Nikfar & Rahimi et al. [2012]). Patients most often complain for sexual difficulties (diminished sexual drive, failure to reach orgasm, and/or erectile dysfunction), and weight gain (Grant & Potenza [2012]; Papakostas [2008]). A few compounds have the opposite effect (e.g. moclobemide may improve overall sexual function and bupropion may decrease appetite), but generally, the most prescribed and frequently used drugs affects adults in these two aspects. In some cases, sexual dysfunction might persist for months or years after the complete withdrawal of the drug (Csoka AB., Csoka A., Bahrick A., Mehtonen OP. [2008]). This is worrisome because these two side-effects are serious enough to add new

causes for aberrant emotional reactions, or to augment pre-existing ones. Adding more problems is the last thing the bedraggled patients need, but the brute reality is that most modern antidepressants not only produce adverse effects and side effects, but "a discontinuation syndrome occurs in approximately 20 percent of patients after abrupt discontinuation", (Warner Ch., Bobo W., Warner C., Reid S., Rachal J. [2006]). While the exact mechanism of antidepressant withdrawal syndrome is not yet fully understood, it has been hypothesized that there is a deficiency of one or more important neurotransmitters upon hasty stopping of the drugs (Renoir T., [2013]). The latter gives some support to the idea that a deficiency of neurotransmitters is somehow linked to symptoms.

Furthermore, emotional liability (high volatility in emotional reactions) is often listed as a symptom of serotonin toxicity (too much serotonin that may cause agitation, insomnia, tremor, increased body temperature and confusion; Boyer & Shannon [2005]). Milder changes in mood and emotions, are also observed in some patients who don't typically suffer from serotonin syndrome, and these changes are frequently present at the first 4-6 weeks of treatment. Oftentimes, therapists prescribe anxiolytic, or other mood-stabilizing drugs for a very short period of time along with the antidepressant regimen to counteract possible mania-like manifestations.

But while emotional liability might be considered a collateral damage at the beginning of treatment that subsides over time, emotional blunting seems to persist. Emotional blunting is not only important because it is serious in itself, but because it possibly provides new insight for the development and treatment of mental disorders if they are examined through their ramifications at an emotional level. For all intents and purposes, the theoretical extensions of emotional blunting seem to be so important, that a separate sub-paragraph is duly deserved.

6.4.1 Emotional Blunting

Emotional blunting, or emotional "numbness", is the perceived experience diminution in emotional responsiveness following treatment with a variety of classes of antidepressants. Due to the fact that it is not described as a potential side-effect, its importance was initially underestimated, and only small-scale epidemiological studies were undertaken (Opbroek et al., [2002]; Price et al., [2009]; Sansone and

Sansone, [2010]). The first commentaries date back to the 1990s after the introduction of SSRIs, when a restriction in the range of emotions associated with normal living was reported (Hoehn-Saric et al., [1990]; Oleshansky and Labbate, [1996]. Patients described inability to cry, or a type of a "narrowed range of affect", even when the conditions for real emotional reactions obtained (Bolling and Kohlenberg, [2004]). Fava et al, [2006] went on to claim that some form of apathy is present in nearly 30% of the patients treated with SSRIs, but most researchers agree that diminished emotional responsiveness should be distinguished from apathy. The latter explicitly refers to a complete absence of emotion, (as in "apathetic" depression mentioned earlier), whereas the former refers to restricted affect that normally pertains intensity and duration. Many people say that they simply "don't care", or "don't mind as they should have", while others state that they feel emotionally detached. There was no specific tool to measure the phenomenon until 2012, when Price et al. introduced the Oxford Questionnaire on the Emotional Side-effects of Antidepressants (OQuESA).

The most extensive and comprehensive study ever undertaken is the one by Goodwin et al. [2017], in which 669 depressed patients on treatment and 150 recovered (formerly depressed) controls participated. The results showed that almost half of the patients (52% of men versus 44% of women) experienced significant emotional numbness regardless of the antidepressant agent they used (SSRIs, SNRIs, tricyclic antidepressants as well other atypical antidepressants, were all included in the research). There was a small inconsistency for the users of bupropion, who reported less emotional restriction compared to all other drugs. It needs to be noted that bupropion is a norepinephrine-dopamine reuptake inhibitor (NDRI) that has not a direct effect on the serotonergic system, which indicates that serotonin is perhaps linked to "numbness" more than the other two neurotransmitters. The nearly 50% rate found in this last survey, comes in contrast with the older Opbroek et al. study, where almost 80% of patients chronicled clinically significant dampening in their emotional responses. It is vital therefore, that similar studies to be replicated in the near future so as the exact percentage of patients who suffer from in-treatment and post-treatment "flat affect" to be determined. The perception of reduced affect is significantly different in men and women: Men reported a more negative perception of the phenomenon than women, and overall, 37% of the patients reported a negative perception of this condition while 38% perceived it as positive. Also, higher levels of emotional blunting are associated with patients who scored high at the Hospital Anxiety and Depression scale (HAD-D and HAD A). Finally, more "flat affect", is associated

with poorer quality of remission in depressive and anxiety symptoms. No definitive explanations have been given as of now; Opbroek et al. have simply put forward the hypothesis that antidepressants "reduce the function of specific brain areas involved in emotional processing. An example of such an area is the anterior cingulate", (p.150, [2002]).

The implications of "blunting" are not just ethical; they are practical too. It is not only that we wish patients to stop experiencing excessive negative emotions, but we should want them to experience the whole spectrum of emotions in proportional ways. If the Feeling Theory and the HEToMI explain mental disorder by referring to excessive emotions, a horizontal, across-the-board diminution of *all* emotions must be undesirable in the long run. The fact that almost half of the patients report the "flat effect" as positive, can be logically explained by mere comparisons. If for example, a patient has been suffering from excessive emotional reactions for a very long time which are both part and causes of his illness (say, more than a year, or two), it makes total sense to expect this patient to rate his post-treatment state of mind (the "numbness"), in favorable terms compared to his pre-treatment, chaotic emotional life. But we can't be certain that this emotional dullness will be equally appreciated in favorable terms in the future. We can't be certain that successfully treated people will not want to experience joy, or fear, or sadness when the appropriate conditions obtain, once their emotional turmoil has abated.

Secondly, it can be claimed that the blunting effect is one more indirect proof that the excessive feelings are responsible for the onset and maintenance of disorder. Modern antidepressants which are used for depression, anxiety and OCD are not known to induce agreeable feeling states like euphoria, as other substances do (amphetamines, cocaine etc.). This is why they are not considered to be addictive, (Haddad [1999]). So, if the sweeping reduction of emotional responses works, then anything that protruded before this horizontal trimming must have been the culprit.

Thirdly, it can be hypothesized that blunting is not just an unlisted symptom, but it's in fact the prominent effect that newer antidepressants have on affective disorders. It can be hypothesized that they just happen to be symptomatically efficacious, by suppressing everything. This last hypothesis is highly compatible to both the Feeling Theory and the HEToPI. Antidepressants may dim extra-intense feelings and that's how they seem to be effective at first glance, for more than half of the patients. For a number of lucky patients this numbing effect is just enough to allow them to "breath", or to make way for some more positive feelings to grow

and get into the surface; for others, this across-the-board emotional diminution never works, feels unreal and disproportional to the situations of life.

To give an idea about side-effects and regularity of occurrence, side-effects that lie in the range of around 10% are labelled as frequent, those reported by 1 in 100 as less frequent, and anything below this, as "rare", or "very rare". In fact, many physicians prescribe some drugs off-label, for their side-effects which might be of particular use in some cases (e.g. mirtazapine for insomnia (Winokur et al., [2000], Schittecatte et al., [2003]), or paroxetine for pre-mature ejaculation, (McMahon CG, Touma K., [1999]). Keep in mind, that these adverse effects are listed as "frequent" at the most, and they don't reach nearly anything like the *astounding* 50-80 % rate of "blunting" the users of antidepressants describe! Therefore, we should not talk about a frequent side-effect, but we should be talking about THE effect, their *de facto* mode of action.

What's unfortunate, is that the most powerful weapon in our "non-cognitive treatments" arsenal, probably works in an unorthodox way. On the one hand, the likelihood that it works by blunting everything reinforces the idea that excessive feeling reactions do the damage, but on the other, numbing everything produces emotional imbalance. It would have been very fortunate to know how specific emotions are associated with specific neurotransmitters. Until recently, there was no theoretical or practical model to link specific neurochemical substances, with specific emotions. Such model would allow us to work on the "excessives" only, without damaging whatever is essential for a healthy and balanced emotional life. Lövheim's Cube does propose such a link, and it is explained at the next paragraph. Before Lövheim's Cube, the basics of the Monoamine Hypothesis of Mental Disorder (the hypothesis that led to the manufacturing of modern antidepressants) are explained.

6.4.2 Emotions, Monoamine Neurotransmitters and the HEToPI

The three main monoamine neurotransmitters (serotonin, norepinephrine, and dopamine) are claimed to play a significant role in mood and behavior. Low synaptic levels of monoamines have been speculated to be implicated in etiology of psychological illnesses. Under this premise, restoring synaptic monoamine levels to normal (the Monoamine Hypothesis) is believed to fix electrical dysfunction

caused by low synaptic concentrations that is asserted to be responsible for abnormal mood (Krishnan V, Nestler E., [2008]).

One the one hand, different types of antidepressants have been proven to be effective in reducing symptoms in affective disorders. Even though studies vary in their conclusions regarding the efficacy rates for anxiety and depression, the preponderant view is that drugs that block monoamine transporters (serotonin transporters, dopamine transporters and norepinephrine transporters) result in an increase in extracellular monoamine concentrations that are deemed to be therapeutic (Sitte; Freissmuth, [2007]). By and large, this is the Monoamine Hypothesis.

The Monoamine Hypothesis and its offshoots (e.g., the Monoamine Oxidase Hypothesis, according to which an overly active enzyme is responsible for lowered levels of monoamines), put forward a hypothesis about their role in mental illness. But they are not very explicit on their role on *specific* emotions. They do not explain how different levels of monoamines are jointly linked to particular emotional states. Granted that according the HEToPI particular emotions and their intensity must be our primary concern, a model that explains how different levels of monoamines are associated to particular emotions could be very helpful in designing and manufacturing drugs that could target those particular emotions. One such model is Lövheim's Cube, and it is explained in detail at the next paragraph.

6.4.3 Lövheim's Cube: A Theoretical Model for better medication addressing particular emotions.

Hugo Lövheim [2012], proposed a speculative model that fits eight basic emotions into a three-dimensional model comprising the monoamine axes. It is known as the "Lövheim Cube of Emotions". The model includes the basic emotions as referred to by psychologist Silvan Tomkins: Two positive: Interest/excitement and enjoyment/joy, one neutral: Surprise/startle, and five negatives: Distress/anguish, fear/terror, shame/humiliation, contempt/disgust and anger/rage, (Tomkins S., [1982]; Tomkins S., McCarter R., [1964]). In this hypothetical three-dimensional model, the eight basic emotions are placed on an orthogonal coordinate system. Serotonin (5-HT, 5-hydroxytryptamine) is represented on the x-axis, dopamine

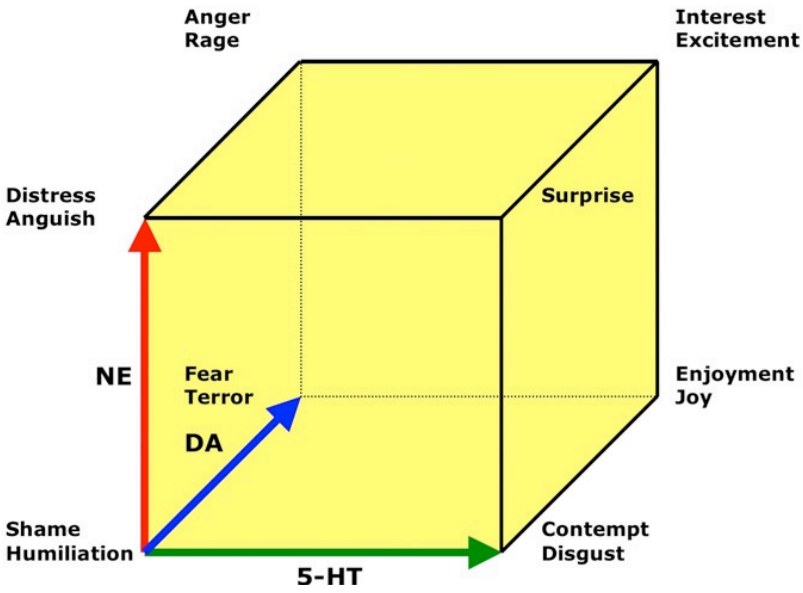
(DA) on the z-axis, and noradrenaline (NE) on the y-axis. The combination of the extreme values, either low or high on the three axes, represent the extremes of emotional expressions. For instance, shame/humiliation lies on the far-left lowest corner of the cube where all serotonin, noradrenaline and dopamine concentrations measured at the synaptic cleft are at their lowest, whereas interest/excitement lies on the far-right highest corner of the cube where all the above monoamine concentrations are at their highest.

The following is a table of the proposed combination of specific monoamines with those 8 basic emotions, along with a schematic depiction of the three-dimensional model (fig.6):

Table 2.

Basic emotion	Serotonin	Dopamine	Noradrenaline
Shame/humiliation	Low	Low	Low
Distress/anguish	Low	Low	High
Fear/terror	Low	High	Low
Anger/rage	Low	High	High
Contempt/disgust	High	Low	Low
Surprise/startle	High	Low	High
Enjoyment/joy	High	High	Low
Interest/excitemet	High	High	High

Fig. 6



The author makes two important notes:

The first is that "an infinite number of combinations of different levels of the three neurotransmitters are possible, but all lie within this space, and within the eight "extreme values", defined by the eight possible combinations of either zero or maximum effect of the three monoamine systems respectively", (p. 342, [2012]).

The second is that the model should not be seen as an indication that the monoamines are independent. This means that 'complex systems of feedback mechanisms most likely regulate and control, in a reciprocal way, how the monoamine systems interact and affect each other', (p. 342).

Regarding the first note, the hypothesis is that extreme values probably denote extreme emotional experiences. For example, absolute fear or "freezing fear" is a combination of the highest levels possible of dopamine, and complete absence of serotonin and norepinephrine concentrations. But less intense forms of fear could be represented by the combination of less than extreme values of dopamine and/or total absence of serotonin and norepinephrine, or concentrations of the last two at very low levels.

Regarding the second note, it is possible that the different combination of concentration levels among the three main neurotransmitters make them function as communicative vessels. If something is wrong in one, all others are affected. This dynamic interaction probably explains why regulating one monoamine system through pharmaceutical intervention (i.e., the serotonin system), often results in the partial regulation of the other monoamine systems too.

It must be borne in mind that the Monoamine Hypothesis (MH) is not a hypothesis that definitely establishes causal relations. All the MH says, is this: whenever there is reporting of physical, behavioral, cognitive and emotional symptoms, it often happens that abnormal synaptic monoamine concentrations to be observed. The MH doesn't say that some chemical imbalance *is* the cause of those symptoms and even if this was the initial impression, this kind of rhetoric is being lately abandoned. Regarding specific feelings – which is my focus on that matter- the MH doesn't proclaim that, say, increased extracellular serotonin concentrations cause feelings of sadness, or anxiety. It merely relates two distinct observations: the observation that symptoms' reporting is very often accompanied by a functional deficiency of catecholamines, and the observation that an increase of synaptic levels of monoamine neurotransmitters at binding sites through the actions of various psychotropic agents, may result in the amelioration of those symptoms. But it doesn't relate them *causally*. As of today, there is no definitive conclusion regarding the precise mechanism through which monoamines are implicated in mental disorder. In layman's terms, we have to assume that the monoamine system is under suspicion for its role in mental illness, but that is all; we still don't know exactly how.

What's for sure, is that we can't connect psychotropic agents with aetiology. Some psychotropic agents induce specific states. To make it clearer, consider the following: iproniazid produces euphoria to most people, or benzodiazepines produce sedation and calmness. We can't claim that lack of euphoria and lack of calmness are because of lack of iproniazid or lack of benzodiazepines in the system of the individuals respectively. It would be like saying that because aspirin often cures headaches, headaches are caused by some deficiency of aspirin! Thus, the MH does not provide a concrete hypothesis regarding specific chemical functions in the brain and specific emotions. It only provides insights on the general connection between symptoms in general, and possible treatment.

Contrarily, Lövheim's Cube does provide a model whereby all basic emotions are explained by means of general bioavailability of the monoamines in the brain. Basic

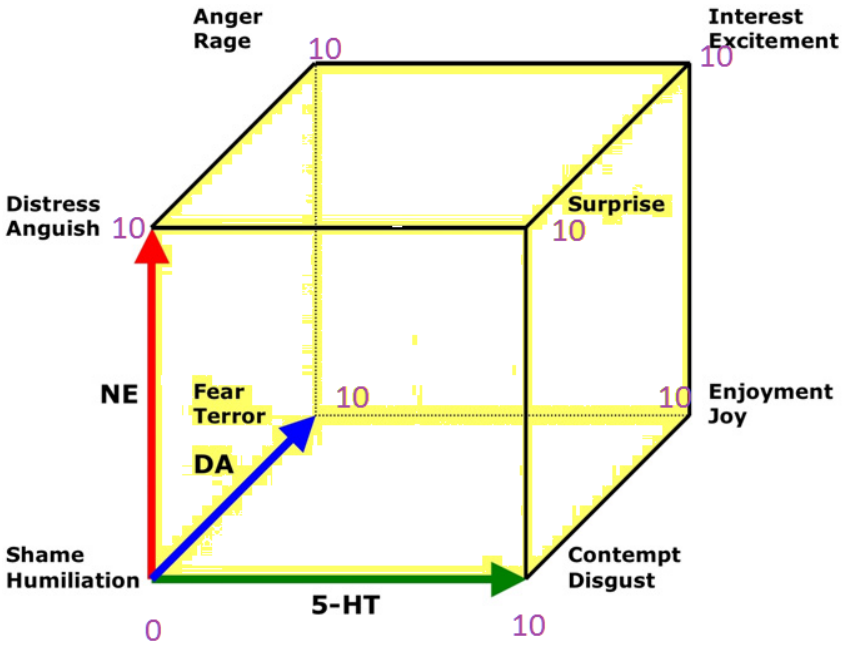
emotions are referred to as low/high dopaminergic, noradrenergic, and serotonergic combinations. Unlike the MH which relates pre-synaptic, or post-synaptic bundle damage (see Hinz, Stein & Uncini) to an array of symptoms -be it physical, emotional, cognitive, or behavioral-, the Cube explains feelings only as expressions of monoaminergic axis dynamics. The missing link here is a theory that could spot the emotional culprits as first causes of the illness, and this is no other than the HEToPI. If the model is correct, we could design therapies targeting the specific emotions stated as principal at the onset of various disorders, by adjusting the corresponding levels of the monoamines involved. Of course, it should be stressed once more, that every patient experiences a unique variety of feeling symptoms, with varying levels of intensity and frequency. Furthermore, many disorders often overlap with each other. But the usefulness of the model according to the author is that even if it is speculative and needs to be empirically tested, it "might contribute to a better understanding of emotional regulation in healthy as well as in mentally ill people, and possibly lead to more specific treatments with psychotropic drugs", (p. 346, [2012]). Additionally, intensity, arousal, or relaxation are nicely depicted by potency combinatorial strength values of the three monoamines on the orthogonal axes. The latter provides an extra useful indication: If disorder according to the HEToPI is explained by extra-strong feelings, minor adjustments to the potency of the responsible emotions might be needed, and not an across-the-board manipulation of all emotions. Here are some examples that could be applied on dysregulated emotions that are prominent in mental illnesses:

Depression according to HEToPI involves a lot of sadness, but anxiety, anger and guilt are also manifested, albeit in lesser amounts. On Lövheim's Cube, sadness is conceptualized "as the inability to reach the basic emotions of enjoyment/joy and interest/excitement respectively, both located on the high-serotonergic side of the cube", (Lövheim, p.345, [2012]). If sadness and lack of interest or pleasure is the prominent problem, it is advisable to boost all three neurotransmitters (serotonin, noradrenaline and dopamine) to their extremes at first. This could be done to the expense of the other emotions observed, and a good strategy would be to deal initially with the prominent emotional problem, and then attempt to adjust everything else.

Lövheim talks of acute psychosis which "might be characterized by the supposedly high-dopaminergic basic emotions – an emotional palette restricted to the high dopaminergic side of the cube", or "possibly of symptoms of mania that could be

characterized as an emotional palette comprising high serotonergic basic emotions only", (p.345). I think that we could fine-tune more than this; we could focus on the excessiveness of specific emotions as described by Johnson-Laird et al. For example, we might not want to eradicate anxiety altogether in hypochondria, agoraphobia, or generalized anxiety disorder where anxiety is one of the main excessive feelings, but simply lower down the levels of noradrenaline (say to 6, or 7 out of 10) in the system of the patient. That might lead to less intense feelings of perceived anxiety, instead of blunting the individual's responses to any anxiety-provoking stimulus. If we want to tackle fear, we should similarly lower down dopamine levels and if we want to boost enjoyment/joy we should be careful with noradrenaline levels, and be generous with serotonin and dopamine. The point here is that the Cube provides a theoretical model which could allow us to tamper with the intensity of the emotions that are deemed problematic, or suitable for augmentation. For that reason, I have made a minor modification to the Cube (Fig. 7) where values marked as 0 and 10 represent absolute values of general bioavailability of every monoamine, and their endless possible combinations.

Fig.7



The advantage of fine-tuning is obvious: less disproportionate emotional reactions, more real-life like ones. Working on the premises of the Cube could possibly lead

to more specific treatments with wiser use of psychotropic drugs that are already available, or could lead to the development of new drugs that target and regulate specific monoamine levels without flattening everything.

In summary, currently available medication remains our most powerful non-cognitive means to combat affective disorders, but it broadly fails to fetch unobstructed and permanent results because it focuses on a mono-dimensional concept of mental disorder. According to this concept, depression or anxiety are concrete diseases which have physical, emotional, cognitive and behavioral symptoms. Indication in this case of most psychotropic agents is about aiming to cure disease. But we can't be certain that major depression or generalized anxiety disorder are diseases like liver toxicity, or Alzheimer's disease are. The latter are thought of as diseases that produce certain symptoms, while we can't be that positive about the former. A different model could conceptualize depression and anxiety as illnesses made up of their symptoms and not *vice-versa*. In this case, fighting the symptoms is to fight the illness; if excessive emotional symptoms are the principal cause, then future drugs could be inspired by the principles of the HEToMI and be more emotion-specific and more emotion-sensitive. My conviction is that if the next generation of substances could target and regulate disproportional feelings, dysregulated behavioral and cognitive symptoms would be normalized in a more stable fashion. To this direction, Lövheim's model or any other model that links bio-chemical processes with *distinct* emotions, could pave the way for individualized, emotion-oriented treatments. To my knowledge, no such treatments have been developed so far.

6.5 Behavioral Therapy without Cognitive Elements

Behavioral Therapy is an umbrella term for types of therapy to treat mental illness, based upon the principles of behaviorism. It uses a variety of techniques to reinforce desirable behaviors and eliminate unwanted, or maladaptive ones. It mainly follows the assumptions of I. Pavlov's classical conditioning [1947] and B.F. Skinner's [1937] operant conditioning. In the first case, a neutral stimulus is paired with a triggering stimulus through a repetitive process. The neutral stimulus becomes activated and potentially useful in signaling and modifying maladaptive behavior. In the second case, punishments and rewards are employed to weaken

or strengthen behavior according to what is needed. During the 1970s, the role of cognition in the field of Psychology led to the "cognitive revolution". Eventually, two of the most influential approaches (Rational Emotive Behavior therapy (Ellis [1962]), and Cognitive Therapy (Beck [1979])) merged to form Cognitive-behavioral therapy (CBT). There is vigorous debate as to whether the cognitive elements of therapy are responsible for the efficacy of the treatment. As already mentioned, there exists preliminary evidence pointing to the negative (Jacobson, [1996]). Jacobson's suggestion that the behavioral components of CBT alone might work just as well as CBT itself, revitalized interest in purely behavioral treatments. The so-called 3rd wave of behaviorism shifted from therapies whose cognitive components played the most important role, to therapies favoring radical behaviorism - the philosophical position that treats everything we do (including private events like feeling and thinking) as behavior that can be studied profitably (Skinner, [1947]). Radical behaviorism puts a strong emphasis on the environment and asserts that careful study of experiential factors that determine the behavior of humans and animals alike, can help us design operations involved in the modification of behavior. Third wave CBT includes among others: Mindfulness-based cognitive therapy (MBCT) (Teasdale, [1995], Acceptance and commitment therapy (ACT) (Hayes, [2004]), Meta-cognitive therapy (MCT) (Wells, [2008]) and Compassionate mind training (CMT) (Gilbert, [2005]). What's common in all these therapies is that they don't aim to challenge long-standing beliefs. They aim to make the patient capable of defusing and accepting difficult thoughts (or feelings), so as no longer be needed to be avoided by doing nothing, without touching deep cognitive matters (Hayes [1999]; Hayes [2004]). Increased awareness and acceptance without engaging in any kind of judgments on certain cognitions and feelings (mindfulness), is a popular method of many of those therapies. Behavioral Activation (BA) on the other hand, is based on the premise "that increased activity (i.e., activation) and the resulting contact with positive consequences is sufficient for the reduction of depressive symptoms and the subsequent increase of positive thoughts and feelings", (Hopko et al., [2003]). Churchil et al., [2012] found most of these approaches to be more effective than placebo, with results comparable to traditional CBT.

Exposure Therapy is the treatment of choice for specific phobias and OCD (Marks, I., [1979]), and relatively effective for Generalized Anxiety Disorder, Social Anxiety Disorder, and PTSD (Huppert; Roth [2003], Abramowitz et al., [2010]). Based on the principles of classical conditioning, it follows the fear extinction paradigm by which a decline in conditioned fear responses is observed when an

organism already conditioned to fear, is exposed to fear provoking cues in the absence of aversive events. It is thought that the fear extinction paradigm is not closely affiliated to deep, cognitive processes and scientists are starting to explore the neural mechanisms involved. The brain regions involved in fear extinction are structures that are being associated with emotional responses, rather than with higher cognitive processes. Such structures include among others the amygdala, the periaqueductal gray (implicated in freezing fear in animals), and the inferior colliculus (involved in the startle response), (Myers & Davies, p.125, [2007]). Exposure and Response Prevention Therapy (Abramowitz, Deacon, Brett & Whiteside, [2011]) is an even harsher, yet way more effective version of Exposure Therapy with the richest empirical support (Koran, L.M. et al., [2007]): sufferers are not only habituated to the feared stimulus, but they also instructed to proceed to a fear-incompatible behavior by stopping any escape responses.

3rd wave CBT techniques such as ACT, Meta-cognitive therapy (MCT) and Compassionate Mind Training (CMT), do not aim to challenge distortions in thinking. They simply instruct patients to identify, de-reify and eventually neglect unwanted emotions. For harmful thoughts more specifically, these techniques don't engage in any kind of dialectic where patients and therapists bring their arguments on the table so as their validity to be rationally challenged. In most cases they instruct patients to neglect negative thoughts, let these thoughts just be, and do nothing. This is a completely different way of dealing with negative thoughts than the way of cognitive therapy where discussing and challenging negative thoughts is of outmost importance. In a way, it seems, that these 3rd wave techniques are some kind of exposure therapy, for negative thoughts. People get used to living with them without proceeding into cognitive evaluations, without challenging their thoughts which eventually become harmless the way the rat gets used to the «idea» that the red lever is now good, and the green one dangerous. Once again, it looks as if the practice of letting thoughts come-and-go, makes patients feel better each time. It is probably the fact that they built emotional tolerance than cognitive rectification that renders these techniques efficacious, because a) there's no cognitive challenging involved, and b) it's likely that in many cases patients know even before therapy, that their "core" beliefs are unreal, unsubstantiated, or excessive.

Exposure Therapy techniques are the least "cognitive" of all; the fact that they are highly efficacious in treating phobias denotes that the phobic emotions cannot be cognitively appraised. This is because the irrationality of emotions upon specific stimuli (spiders, thunders, the sight of blood etc.) is widely acknowledged by the

sufferers in most cases. Patients get exposed to the stimuli that makes them feel fear or anxiety, but they know in advance that their fear or their anxiety is not rational. Nevertheless, they appear to overcome their fears and anxieties, to some extent. In that sense, it can be said that core beliefs must not be involved in phobias. The hemophobic person for instance (see DSM IV for the definition of blood-phobia), cannot hold the "core" belief that the sight of blood can harm him, nor can he claim that he perceives it as a clear danger to his well-being. Exposure Therapy in this instance, succeeds where Cognitive Therapy fails; it makes patients feel less fear or less anxiety, not by addressing the cognitive aspects of those fears and anxieties for it is likely that the former are mere side-products of the latter. It helps, by making patients feel less and less intense emotions, to the point that these emotions become so weak that they can no longer provoke pathologic behavior. As I argued in chapter 4, there must be a direct, "feeling" mechanism by which behavioral interventions work.

As a conclusion, behavior therapy should not have been -in principle- part of cognitive treatments of mental illness because a pure, behavioral account of illness stands way opposite to a radical, cognitive account of pathology. Utilizing "a set of overlapping behavioral and cognitive techniques" (Roth, [2008]) cannot comport with CBT's tenet that faulty cognitions, (in the form of adamant beliefs), is central to the treatment of psychological disorders. If a far-out cognitive account of affective disorders were true, it shouldn't have been effective too. The fact that it is, prompts us to acknowledge the possibility that a radical cognitive conception of disorder might be simply wrong.

6.6 Other Non-Cognitive Ways to Battle Mental Illness

I will begin by referring to currently available evidence, for a short number of exclusively non-cognitive treatments. The following potentially efficacious treatments do not appear to require cognitive interventions. These treatments should be thought of as purely emotion-oriented, and they look promising in fighting all aspects of affective disorders either as adjunctive, -or in some instances-, as stand-alone treatments, especially for less severe cases. The theoretical implications of the effectiveness of those therapies, are discussed at the end of this paragraph.

Systematic Exercise for Depression and Anxiety. Systematic exercise has been studied as a potential treatment for both, anxiety and depression. A review of randomized clinical trials (RCTs) "suggested benefits of exercise, for select groups, similar to established treatments and greater than placebo" for GAD patients, even if the authors identified methodological limitations, (Stonerock et al., [2015]). Its efficacy in decreasing symptoms of depression has been well established despite the fact that the mechanisms underlying the anxiolytic and antidepressant effects of exercise remain in debate, (Craft & Perna, [2004]). Several physiological and psychological hypotheses have been proposed: The Thermogenic Hypothesis suggests that an increase in core-temperature results in an increase in temperature of the brain stem, which can lead to an overall feeling of relaxation and reduction in muscular tension, (DeVries, [1981]). This hypothesis on the other hand, can only provide explanations on the anxiolytic effects of exercise and not for its anti-depressant properties.

The positive effects of systematic exercise on anxiety and depression have been attributed to an increased release of β-endorphins following exercise. There is a positive relationship between endorphins and a general feeling of well-being, but the question here is whether increased plasma levels of endorphins, can be mirrored to endorphin activity in the brain, (Johnsgard, [1989]). To conclude with the physiological hypotheses on the mechanisms by which systematic exercise could be beneficial, the Monoamine Hypothesis is once more cited as a probable explanation. An increase in the availability of brain neurotransmitters (serotonin, dopamine, and norepinephrine) is observed in plasma and urine after exercise. The question again, as in the case of the Endorphin Hypothesis, is whether the overall neurotransmitters' increase in plasma could lead to an increase of those neurotransmitters in the brain. Some researchers believe that because plasma levels affect brain neurotransmitter levels in rats, we should expect something similar for humans too, (Dunn, Reigle, Youngstedt et al., [1996]).

There is one more hypothesis about how systematic exercise works that does not have a physiological basis. It's been proposed that individuals are distracted from anxious and depressive thoughts while exercising, (Leith L.M, [1994]). If systematic exercise simply distracts people, it must be classified as a purely behavioral approach resembling the de-centering techniques utilized in Mindfulness-based cognitive therapy (R. Larsson, [2013]). Patients, simply engage and focus on something for some time, while they forget about everything else. Distancing

oneself from negative thoughts in this instance, cannot be seen as a radical cognitive treatment.

Light Therapy. Light Therapy seems to offer encouraging anti-depressive results for both, seasonal and non-seasonal depressive disorder. Seasonal Affective Disorder is a condition characterized by depressive (during the winter), or manic (during the summer) symptoms experienced by people, who otherwise, are thought to have normal mental health. In the latest DSM edition (American Psychiatric Association, DSM (Fifth ed.), pp. 123–154, [2013].), SAD is not classified as a unique disorder, but as a recurrent depressive disorder with seasonal patterns. For "winter blues", the reduction of exposure to sunlight is listed as the most probable cause (Rosenthal, N. E.; Sack, D. A.; Gillin, J. C.; Lewy, A. J.; Goodwin, F. K.; Davenport, Y.; Mueller, P. S.; Newsome, D. A.; Wehr, T. A. [1984]). Bright Light Therapy that resembles the intensity of the sunlight, has been recommended for sufferers with results comparable to that of treatment with the potent antidepressant fluoxetine (Lam, R. W.; Levitt, A. J.; Levitan, R. D.; Enns, M. W.; Morehouse, R.; Michalak, E. E.; Tam, E. M. [2006]). Further research is needed, and a point of concern is that there are no concrete specifications set regarding the quality of the lightboxes used, the length of therapy, and the duration of sessions. Even the most cautious review though, the one by the Swedish Council on Health Technology Assessment in Health Care (SBU), admits that "meta-analysis of studies that use light boxes shows that the therapy reduces the severity of depression on a rating scale somewhat more than placebo during the first few weeks, but that the effect is temporary", (SBU, [2007]). The problem according to SBU is not that light therapy doesn't work, but it doesn't last.

Likewise, it has been recommended for non-Seasonal Depression as a promising antidepressant intervention (Tuuaninen, Kripke & endo, [2004]). It has also been suggested as an effective and safe add-on treatment for Bipolar Depression (Yorguner Kupeli N, Bulut NS, Carkaxhiu Bulut G, Kurt E, Kora K, [2017]). Even if Kupeli et al. call for more research to evaluate whether it can be considered as a stand-alone treatment for a specific sub-group of patients, they recommend that it be included "into the therapeutic inventory available for the treatment of non-seasonal depression today, as adjuvant therapy to antidepressant medication", (Even et al., [2008]). The exact mechanism of action is still unknown, but there's

strong evidence that it is the blue light and its relationship with specific photoreceptors that has anti-depressive properties, (Phelps, [2016]).

Dark Therapy. Dark therapy (light deprivation for prolonged time periods) has been tested on rapid cycling bipolar patients. In 2005, a group of Italian scientists enforced darkness from 6 p.m. to 8 a.m. each night for three consecutive days on inpatients affected predominantly by manic episodes. They found that "adding Dark Therapy to Treatment as Usual (TAU) resulted in a significantly faster decrease of Young Manic Rating Scale (YMRS) scores when patients were treated within 2 weeks from the onset of the current manic episode", (B. Barbini et al., [2005]). The main idea was that if light works as an antidepressant, darkness could work as a mood stabilizer balancing manic states. Since then, a newer study has given very auspicious results; Tone Henriksen and her colleagues [2016] replicated Barbini et al.'s earlier work; by applying virtual darkness conditions, they found that "remarkably, some symptoms of mania (YMRS single item scores) were clearly attenuated after a single night of intervention. (p.228, [2016]". As mentioned earlier, the blue light (which among others disrupts the production of melatonin) is hypothesized to induce elation, or even mania to prone individuals, and signals daytime to the biological clock. Blocking it, might create the equivalent of circadian darkness. The hypothesis has been confirmed with the discovery of a novel opsin photopigment in the human eye implicated in light-induced melatonin suppression (Thapan, Arendt & Skene, [2001]; Brainard GV. et al., [2001]). A major difficulty in studying the effects of darkness in manic patients is that it is almost impossible, in practical terms, to keep people in such conditions, for so many hours. That would destroy their normal social life completely. Thus, blocking only the blue wavelengths (400–500 nm) and allowing the rest of the visible spectrum (> 525 nm), seems to be a viable option. Henricksen et al. used amber lenses that obstructed the blue light in their study, with their conclusion being that "Blue light blocking glasses are effective and feasible as add-on treatment for bipolar mania", (p. 221, [2016]).

Laughter Yoga. Laughter yoga is the least researched intervention of all. There's a handful of studies on the effect of laughter therapy on pain and mood. It is based on the premise that voluntary laughter provides physiological and psychological benefits, indistinguishable from the ones when laughing is caused by, or directed

to an external stimulus. Dunbar, Baron et al., suggest that a pain-tolerance effect and a general feeling of well-being in voluntary laughter is probably due to the action of endorphins released. Although stimulus-driven and emotionally valent laughter (called Duchenne laughter) and voluntary laughter involve different neural pathways, the effect is probably the same due to laughter itself, and not simply due to a change in positive affect (Dunbar, Baron, et al., [2011]). The conclusion of a second pilot study is that "laughter yoga may improve heart rate variability (HRV) and some aspects of mood, and this topic warrants further research", (Dolgoff-Kaspar et al, [2012]). Finally, an Iranian group of researchers published the findings of a randomized controlled trial, (Mahvash Shahidi, Ali Mojtahed et al., [2010]. The findings showed that "Laughter Yoga is at least as effective as group exercise program in improvement of depression and life satisfaction of elderly depressed women", (p. 322, [2010]).

Discussion. I wrote earlier that the fact that medication works on cognitive distortions is "a *reductio ad absurdum* proof that mental disorders are disorders of our feelings, above all". The paradigm of the aforementioned non-cognitive ways to treat emotional disorders, makes the case even stronger. When the above non-cognitive treatments work, we see improvements in all domains: thinking, feeling, and behaving. But it is not clear how those simple non-cognitive interventions can improve thinking. An explanation that can be given is that thinking is improved because the emotions (feelings) are improved.

If jogging systematically, sitting in front of a bright lamp, being in darkness for some hours, or laughing for no reason result in the amelioration of manic, anxious, fearful, or depressed *thoughts and beliefs* in diagnosed patients, then the cognitivist theory of mental illness is clearly in jeopardy.

The case of Laughter Yoga, is a clear indication that the cognitivist thesis on emotions (that emotions are necessarily intentional and propositional), is inaccurate. We laugh at something or somebody, or we laugh because of something, they say. On the one hand, the cognitivist can only argue that the joy we experience is necessarily object-oriented: it's oriented to a situation, to a person, or to a memory that can provoke our laughter. But Laughter Yoga demonstrates that the brain cannot distinguish between a "legitimate" cause of happiness, and the absence of a cause altogether. It is joy for no reason, like there can be euphoria after the use of amphetamines or opioids.

Therefore, the above examples reinforce the idea that the story must be like this: Affective Disorders are caused by abnormal feelings. Our minds in an effort to explicate the emotional imbalance, match those feelings to short, negative, cognitions. Cognitivists wrongly identify patterns in those short cognitions, and they attribute them to the existence of deep, long-standing, "core" beliefs. The efficacy of exercise, darkness, bright light or non-intentional laughing strongly indicates that unless these "core" beliefs were a myth, minor and seemingly irrelevant interventions as the above, could have never shaken their robustness. Perceptual theories fail as well; we can't know what the person perceives (in Lazarus representational terms) when in darkness, when exercising, or when seated in front of a strong light. For instance, does the sad person perceive hope when staring at the bright light? Does this person restore its perception of irrevocable loss? How? Why? It is preferable therefore, to stick to the hypothesis that non-cognitive interventions fix what truly needs fixing: the inappropriate, disproportional negative feelings either by diminishing their intensity, or by inducing counter-balancing positive ones.

To close this paragraph let me ingeminate the derived hypothesis of the HEToPI which says that all available cognitive means would be better utilized to battle the suspected primary emotion responsible for psychological illness. Under such hypothesis, medication, behavioral interventions without cognitive elements along with the other non-cognitive means could be probably used in a coordinated manner so as to fight negative feelings and promote good ones. In the next paragraph, I will support that such practice must be probably best exercised in a protected environment, free of negative stimuli. I will try to show why an unshielded environment ("on an outpatient basis" as it is commonly referred to), is not an ideal environment for emotional restoration. I will put forward the idea that a protected environment might be the ideal greenhouse for negative emotions to wither, and positive emotions to flourish.

An alternative proposal to the Outpatient Model of Treating Affective Disorders

6.7 Can we treat affective disorders on-the-go?

The mainstream approach in treating common affective disorders like MDD, OCD, GAD, or specific phobias is on an outpatient basis. Hospitalization is normally limited to severe cases of suicidal ideation in markedly depressed and bipolar patients, and some types of serious psychosis, or schizophrenia. The National Institute of Mental Health (NIMH) estimated that in 1990, less than 7% of diagnosed patients were hospitalized.

The outpatient model recommends patients to continue their lives as normal and receive pharmacotherapy, psychotherapy, or combined treatment. But is this recommendation optimal? I am not sure that it is, and I will try to do the following: I will try to explain why the outpatient model may be suboptimal, and what the alternative is.

6.7.1 The Outpatient Model and its limitations

There is good evidence that the results of outpatient treatment don't last for long, for a good number of patients. Vittengl, Clark, Dunn & Jarrett [2007] report a 29% within 1 year and 54% within 2 years, relapse-recur rate of CBT for depression. Similar numbers (if not even higher) we have for CBT and anxiety. For instance, Christiane Steinerte et al., [2014] concluded that the relapse rate more than two years after psychotherapy is relatively high in depressed and anxious patients. We see therefore that psychotherapy while it works at first, it's not forever. At the medication front, things don't look substantially better. Williams et al. state that "prophylactic antidepressant drug therapy appears efficacious in preventing future relapses across a range of illness because of the very high rates observed after the discontinuation of drugs, (Williams, Simpson, Simpson, & Nahasm [2009]). Similarly, Masaki Kato et al. [2021] conducted the largest meta-analysis to date, estimating an average 40% relapse upon antidepressant discontinuation. They also

proposed adjustments and further antidepressant use to prevent relapse in GAD and MDD patients.

Thus, we observe high rates of relapse, both in pharmacotherapy and in psychotherapy. It is obvious that these disappointing numbers can only be interpreted as CT and drug therapy providing temporary improvement for a great number of patients. Outpatient treatments that provide temporary relief to almost half of the patients may have huge personal, social and financial consequences. Another aspect to consider is that outpatient treatment is not usually brief. For example, Svein Reidar Kjosavik et al., [2016] measured average medication therapy to be anything between 2-4 years depending on age group.[36] Nonetheless, psychotherapy duration appears to be close to pharmacotherapy in duration terms. If we compare average duration of therapy to average relapse times, we could claim that outpatient therapy can be characterized as lasting relatively long. Those long-lasting treatments with frequent relapses often result in "absenteeism with significant social costs because of loss in productivity, as well as in poor social, romantic and interpersonal lives", (Genowska Agnieszka et al., [2017]) Towards that end, the proposed outpatient model might not be as practical and cost efficient, as it initially looks to be.

There are two conjectures that could explain why the outpatient model may not be as effective as it is expected to be.

At first, it can be hypothesized that many patients suffer from negative emotions for a very long time before they reach for help, either because they initially neglect their importance, or because they are afraid of the social stigma. Social stigma is related to avoidance of help-seeking behavior among people with depression and anxiety, something that probably explains the reluctance for prompt medical help. It can also explain the long time spell between acknowledgement that something is wrong, and help-seeking initiation, (A.M. Boerema, A. Kleiboer et al., [2016]). As a consequence, when patients eventually start treatment, they are emotionally burdened to a high degree. The outpatient treatment they receive may not be enough to deal with the huge emotional burden of theirs. It might not be enough in terms of quality (the emotional burden might be too heavy to fight against, on an outpatient basis). Also, it might not be enough in terms of time requirements

[36] Similar long-lasting psychotherapies are often seen, depending on the type of therapy. Traditionally, Psychodynamic/Psychoanalytic Therapy is expected to last a bit longer than Cognitive Therapy but again, duration varies across age and gender groups.

(chronically accumulated emotional burden may require very long times to resolve).

Secondly, and most importantly in my view, the outpatient model possibly underperforms because by instructing living lives as usual, patients' emotional balance keeps being compromised by being exposed to everyday negative situations. It's questionable whether a treatment model that allows for ongoing, negative emotional stimuli to be experienced, can be reasonably successful. Theoretically, patients attempt to resolve cognitive and behavioral deficiencies with their weekly sessions and ameliorate emotional suffering with medication. Yet, by living their lives as normal in an *unprotected* environment, they continue being exposed to stimuli which are -in principle-, *causes* of the illness. Assuming that the HEToMI is correct, and moods are pre-disposing states which stimulate the development of aberrant emotions, which in turn, create their own "grey" moody area, patients are bound to experience a paradoxical situation: they can't escape negative moods that promote intense, bitter emotional episodes which are partly responsible for their moods. This is a vicious circle. By being vulnerable to new, adverse stimuli, one might wonder whether they can eventually succeed in breaking this vicious circle. Moreover, a storm of adverse *feelings* piled up for a very long time may result in a negative attitude regarding predictable future outcomes. If this attitude cannot be adequately explained in cognitive terms but it's better explained in emotional terms, piling up more negative stimuli may -partially, or wholly-, cancel out any positive effects any therapy might have; at least at the acute phase of the illness, or during the first phases of treatment when emotional liability is more prominent than ever. In what follows, I refer to the potential benefits of an alternative, voluntary inpatient Model of Treating Mental Illness.

6.7.2 The potential benefits of a Voluntary Inpatient Model of Treating Affective Disorders

A logical supposition that can be made is that patients suffering from common affective disorders be confined in a sterile, protected as possible, free-from-negative-stimuli environment for a *defined* time spell. Indefinite voluntary confinement in such environment is unfeasible, and it is not what I'm implying here. Rather, I 'm hypothesizing that patients could probably benefit from a "fresh"

emotional start, a resetting of their emotional lives that might potentially assist them in dealing with their illness granted that their illness is deeply emotional to its core. To that direction, it could be examined whether voluntary commitment in institutions/environments where stimuli that might have a negative impact on their feelings are forestalled, and positive feelings are promoted via non-cognitive methods. In conjunction to what I wrote earlier, a combination of non-cognitive means could possibly be employed to target the suspected, primary emotion that does the damage. Such a practice could be tested to find out if it would restore their emotional well-being to satisfactory, pre-illness levels. This restoration process, (which could probably last some weeks conceding that their emotional turmoil has been in play for years or several months at best), might have two possible benefits.

The first is that any type of therapy that would follow this emotional "fresh" start, might be applied to an "emotionally fertile ground". For one, if there are underlying feeling issues it's sensible to support that a fresh emotional resetting is needed, on the grounds that feelings issues are to be addressed directly.

Furthermore, I have argued that cognitive restructuring is not always necessary, especially when disorder is the byproduct of emotional burden. However, I have also argued that there are specific occasions when cognitive restructuring remains a desideratum. Such cases include personality disorder patients, or patients whose cognitive distortions are of pure cognitive origin with no unsettled feelings involved. So, when cognitive restructuring seems necessary (as in the cases just mentioned), one can easily imagine that such restructuring could be more effortlessly implemented to an emotionally balanced individual, rather than to an emotionally chaotic patient. Applying cognitive restructuring to an emotionally balanced patient must resemble seeding a well-plowed plot. By contrast, applying cognitive restructuring to a an emotionally chaotic patient must be like seeding a rough patch of land.

The second possible benefit is that if emotional upheaval is chronic rather than recent, it is highly likely that sufferers might have forgotten how it is to experience a steady, satisfactorily prolonged flow of positive emotions (feelings). By having forgotten how it is to experience positive feelings, patients are probably faced with the following peril: they possibly cannot have a point of reference to contrast positive emotional states, with their negative counterparts. I mentioned earlier in this chapter the hedonistic principle according to which people are supposedly "inherently motivated to end negative affective states and promote/preserve positive ones". It makes sense to say that it must be difficult for many sufferers to

promote/preserve positives states because for them, they are old, fade memories with little or no representational value. By representational value I mean that even when patients are occasionally exposed to positive stimuli, they might not be in position to appreciate fully their importance, anchor on them, or embody them in a meaningful and productive way. For instance, good news might seem a drop in the ocean with negligible positive effect to such patients, even if that good news are of significant importance. This is probably because the emotional ratio of theirs regarding their positive/negative feelings, has been seriously undermined by chronic accumulation of negative emotions. Wherefore, a positive emotional resetting could initiate a process by which people can start looking for ways to attach to positive feelings and avoid negative ones, on the assumption that those positive states are fresh to their memory as pleasant qualia and can be easily contrasted to states that inflict an emotional toll.

At this point, disputatious comments are duly expected. Is it attainable for sufferers to stay away from work or family for some weeks? Or, what the financial or social implications of such voluntary commitment in specialty clinics might be? My answer here is that a short-lived, voluntary model of inpatient treatment whose sole goal is to restore emotional wellness, could be tested against the current, outpatient model which is not as effective as we had wished for: reduced work productivity, broken social and personal relationships which affect not only the sufferers but also those close to them. These are just two parameters which need to be closely examined in light of their economic and social implications. Thus, my supposition is that research is probably needed to test a short-lived, voluntary model of inpatient treatment with the features I described above, against the current outpatient model. We might be surprised only to find out that a mini-inpatient model to be more cost-effective in the long run, and most efficient than the seemingly outdated outpatient model.

Final discussion and some clarifications

The aim and structure of this thesis is two-pronged. It is to investigate the very nature of the emotions, to propose a possible way to appraise different views of emotions and reach some conclusions regarding their persuasiveness. Such views, it must be noted, are oftentimes substantially different from one another. Furthermore, I'm proposing a feeling theory of emotions consisting of three layers, with each layer representing different varieties of emotional states.

It is its aim also, to investigate how a feeling approach to emotions may provide novel insight on how we view mental disorder. To clarify, when I refer to or speak of "mental disorder", I mainly refer to common affective disorders like depression, anxiety, phobias, and some obsessions. I need to make it explicitly clear that I'm not referring to schizophrenia, severe forms of psychosis, bipolar states, or severe forms of catatonic depression where apathy or even lack of any emotional responses are present.

In such an endeavour therefore, it is apparent that objections may be raised, or queries for further clarification may be asked. A number of possible objections and queries are grouped and discussed below.

As regards the character of the emotions I am defending here, many could feel unease with my using of specific examples of emotions to make my point. It could be asserted that the intense fear of panic and anxiety attacks, the unexplained episodes of sadness, or substance-induced emotional feelings that have no object, all such examples, represent pathological, or at least non-ordinary manifestations of affectivity. It could be argued that none of those states are included in any of the lists of basic emotions in the literature (lists that include fear, joy, disgust, sorrow, hope, etc.). Another objection could be that only if one were to accept such phenomena as making up the list of basic emotions, then the claim that emotions are (non-representational) feelings would gain good traction; The criticism, therefore, might be that the premises of my argument seem to assume the truth of my conclusions.

In reply, I have to say two things. Firstly, I use an analytic method (or I hope so) to work from the bottom up, trying to find the most stripped-down examples of emotional experiences in order to track the most basic emotions. This is not an unreasonable way to go forward, for if we can spot the basics, more complex

phenomena can be identified and grouped at a later standing. Moreover, using rare examples is common in philosophy (e.g., see Scarantino's *blindfright* example), and I believe that using rarities makes a good case, mainly for rejecting a theory, if such theory or proposal seem deficient. For instance, I use pathological, or non-ordinary manifestations of affectivity to speak against specific theories of emotions which, in my understanding, cannot accommodate such manifestations of affectivity. It is my way to demonstrate that those specific theories of emotions are not complete so as to be seen as exhaustive, or comprehensive theories.

As regards to whether I'm begging the question I have to say the following. In the first place, I tend to believe that emotions observed in pathology (or other non-ordinary manifestations), are nothing but emotions which happen to be inflated, misplaced, or inappropriate giving the context, but nevertheless, emotions proper. For if they are not, we should answer what such emotions really are. Are they something different? Should we say that these emotions make up a distinct category of emotions, or should they be given a different name? It appears that we don't have good reasons to believe that they are something different, and if we did, we should wait for a new, comprehensive theory of such emotions (or whatever else they might be named).

Such theory would have to elucidate all their cognitive, affective, perceptual, or motivational aspects, and explain in detail any substantial differences of them, from non-pathological, or ordinary manifestations. Whiting in his book [2020], argues that the emotions are original substances. If we thought that such emotional experiences were any different, we should wait for a theory saying that such affective experiences are original entities of some *other* kind, not yet demarcated. Thus, I see nothing wrong in using them to accentuate my argumentation.

Also, I don't think that I am just assuming such phenomena as making up the list of basic emotions. Rather, I am reporting them as being the plainest varieties of mental events, *already* reported. Hence, it appears that my hypothesis seeps out from additive layering whereby each layer, simply describes a more intricate (in terms of complexity) version of the plain variety. It may be true that such phenomena are not included in many lists of basic emotions in the literature. But it is also true that they are *already* mentioned in the relevant literature as objectless emotions. What I do, is that I just place them in a special category for they have a substantial difference with their representational counterparts (that they lack representations). Naming the plainest variety as basic or layer-1 emotions, simply creates room for adding further layers of more complex varieties of emotional

experiences, so as many as possible emotional states be included in a comprehensive theory that could house them all. Lastly, it seems to me that I'm not assuming my conclusion, because by stating that these layer-1 emotional experiences are non-representational feelings, I do the following: I simply log the observation that those layer-1 emotions are stripped from representations, and by being stripped from any representations, I report what is obvious: they can't possibly be anything else but non-representational feelings. This is by no means a radically novel assumption, but instead, a rearrangement and re-identification of sub-groups of emotional experiences already mentioned in the relevant literature.

Regarding possible disagreements on my proposals for a feeling-centered therapeutic approach, it is likely that one may wonder what is distinct about what I put forward here, from what is already in play. After all, the argument might be, non-cognitive ways are already widely used (with medication standing out), either alone or in the context of a holistic approach.

The first to note, is that I have tried to provide a line of thought that could possibly justify concerted use of non-cognitive means (including medication), at least during the acute phase. Nevertheless, the difference that can be spotted is that I hypothesize about endeavours to eliminate as much as possible negative stimuli for a defined period of time. This is not exactly the same with what happens at the moment. The *direct-through-medication* treatment of common affective disorders does not currently dictate abstention from negative stimuli. People under medication live their lives as normal, being exposed to all sorts of stimuli. Therefore, while a holistic approach is many times followed, my conjecture is about adopting a two-fold strategy: concerted use of a variety of non-cognitive means (which is to be seen as non-holistic because of the exclusion of cognitive means), together with avoidance of negative stimuli, for a specific period.

Continuing on the topic of medication, concerns might be raised pertaining the validity and credibility of the model (N.B. the Lövheim model) I 've used to accentuate the need of emotion-specific medication that would leave unaffected emotions untouched.

It is true, that the mentioned model is speculative, and it is also true that specificity of certain neurotransmitters with the emotions has not been, to date, established. However, my using of the aforementioned model is simply indicative of what direction pharmacology-research could follow, if the aim were to work on adjustment of specific emotions implicated in pathology. The ascertainment that

handling of medication to adjust neurotransmitters for different levels of emotions is not possible today, does not necessarily mean that such handling might not be possible in the future. For instance, Kristina Gaisina et al. [2018], proposed a method to calculate emotional states on the Lövheim Cube, and the activity of noradrenalin, dopamine and serotonin systems. Their method involved analysis of skin-galvanic reaction data in conjunction with a specific psychological test. While they found no direct relationship between skin resistance and serotonin and dopamine, they found that noradrenaline can be determined with a high probability, because there is correlation between the value of galvanic skin reaction and the levels of noradrenaline.

Therefore, it can't be ruled out in advance that the other two neurotransmitter levels won't be able to be measured via another method (other than galvanic skin reactions) in the future. If all neurotransmitters of the cube could be able to be measured in the future, a new road would open for pharmaceutical companies to develop drugs affecting specific systems, with specific intervention potency on each of them. The fact that pharmacology in the field of psychiatric medication is quite murky today (because various neurotransmitters are implicated, or because of their interactions and their effects on different neuronal systems), it doesn't necessarily mean that things must stay that way. My using of the Lövheim model is solely to put forward the idea that by focusing research on specific emotions, interest should be redirected to discover ways to manipulate and adapt *excessiveness* of certain emotions, rather dumping everything. To close this and in relation to what I have argued for on the whole, we simply need to consider the absence of medication *specifically* targeting fear; an emotion seemingly abundant in affective disorders, yet treated *en passant* by anxiolytics or antidepressants[37].

Another disagreement that could arise, is that I treat pathological mental phenomena in isolation, and I probably overlook what really is the case in clinical situations. It could be objected that I study and elaborate on cognitive, behavioural, and feeling elements as if they are disentangled from one another, while in reality, they boundaries among them are fuzzy and patients frequently refer to their mental states without being explicit as to whether they refer to cognitive, behavioural, or emotional elements. To that disagreement, I would say that indeed, I treat frequently certain phenomena in some kind of isolation. Also, it is true that while

[37] With the exception of D-cycloserin, an antibiotic that seems to help in the extinction of fear in PTSD patients, but not on its own. It just appears to aid/enhance fear extinction in exposure interventions, (N. Singewald et al. [2014])

the "cognitions", "behaviour" and "emotions" can be theorized and studied separately in philosophy, they are often mixed and appear as complex entities in the clinical settings.

However, it seems to me that there are not sufficient reasons to reject working on "cognitions", "behaviour" and "emotions" as separate entities, perhaps detached from present-day clinical realities. In this way, we may gain insight that could be applied, one day, in clinical settings. After all, the Cognitive Approach to treating mental illness was once a theoretical concept that found its way to clinical applications. There must be no doubt that the cognitive movement was heavily influenced by ancient Greek views on the emotions and rationality[38]. We see that when theorists drew upon an old idea (the idea that the emotions are/involve judgments), they worked on it by separating mental phenomena (the cognitions) in order to develop a specific model. This is a common practice, and sometimes, it is necessary to advance philosophical propositions which don't reflect practical actualities accurately, in order to reach out for a theory that fits the context.

Next, there are two more possible objections that could be raised. The first is that I overlook, or I don't pay much attention to cultural, personal, societal, or other factors that probably shape peoples' internal states. Related to this, it might be objected that I assume that individuals interpret or express those internal states in the same way. It might be objected that I disregard factors (linguistic, societal etc.)

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[38] Robert Montgomery, [1993] notes that even if a one-to-one correspondence cannot be affirmed, fundamental similarities between the two schools of thought are drawn upon in making a comparison between Stoicism and modern cognitive therapy. He goes on to support that the fundamental Stoic belief that the emotions arise from an interaction between reason and the world, has been reiterated by both Beck and Ellis. Donald Robertson [2019] reminds us in *The Philosophy of Cognitive-Behavioural Therapy (CBT)-Stoic Philosophy as Rational and Cognitive Psychotherapy* that the founders of CBT (namely Elis and Beck) "described Stoicism as providing the "philosophical origins" of their approach and many parallels can be found between Stoicism and CBT, in terms of both theory and practice". Ellis himself claimed in exaggeration that "I am happy to say that in the 1950's I managed to bring Epictetus out of near-obscurity and make him famous all over again" (Ellis & MacLaren, [2005], p. 10). He had read extensively the later Stoics, Epictetus, Seneca, and Marcus Aurelius" (Still & Dryden, [2012]) and in his first major publication on REBT he admitted that many of his views (the ones about emotional disturbances included) were "originally discovered and stated by the ancient Stoic philosophers", (Ellis, [1962], p. 54). I could go on for long, but I think it's unnecessary. It is clear that the basic premises of cognitive therapy and the role of emotion and reason can be faithfully seen in old Stoic premises.

which affect how we interpret and configure our mental states (the emotions included).

Starting from the latter, I think it is essential that we adopt a specific, theoretical, mental "vocabulary" whereby different forms of a core emotion (i.e., anxiety or apprehension), may be expressed with terms recognizable by everyone. If we don't, we may notice adverse effects in medical, legal and practical terms. Central theme in my analysis, is that the emotions (and more importantly the basic ones) must share a "what-is-like" qualitative essence across species. It is one thing to say that people interpret or express their internal states differently for whatever reasons (e.g., vagueness due to linguistic incapacity), and another that the emotions they experience, at any given moment, *are* different. To say that there isn't evidence to suggest that we all configure our internal states in the same way, it is not to say that our internal states *are not* such and such. For instance, the possibility that someone interprets and configures his, say, anxiety as something else, does not mean that he is not experiencing anxiety. This is the point where therapists should undertake the difficult task to identify the exact internal states the person is having, so as to adjust treatment accordingly.

As regards my not making special reference to several factors and how those factors may shape the way we configure our emotions, I would say this. I do not dismiss the role of those factors, but I believe that I've already argued that etiology (what causes an emotion) can only result in emotional experiences whose core feeling is the same across species regardless of cognitive capacity, when those emotions obtain (barring intensity and duration). This is hardly a dismissal of the role of external factors, but a suggestion that a shortcut to direct treatment of emotional problems, could be a feasible option to restore more quickly emotional equilibrium.

Lastly, I wish to refer to my suggestion for attempts to eliminate, as much as possible, negative stimuli that trigger negative feelings for a defined time period. My discussion about such voluntary commitment to environments, whereby blocking negative stimuli would be the goal, can surely bring about objections regarding possible practical consequences. What comes readily in mind is that such commitment could be, in itself, an additional negative burden.

In reply, I would say this. The psychological burden of such self-commitment could be coarsely analyzed into two parameters: the first is the negative impact someone might feel because of social repercussions. A kind of social stigma. The second is

the direct effect such commitment may have on the person (unrelated to social effects).

As regards the first parameter, we can observe that what is socially frowned upon at any given moment in time, or among various social subgroups, it is not at another. For instance, psychotherapy or any psychiatric treatment for minor affective ailments used to be less common in the 1800s, than it is today. Likewise, attitudes toward psychotherapy varies across cultures or socioeconomic classes. For instance, Digiun, Jones, & Camic, [2013] showed that the relationship between perceived social stigma and attitudes towards therapy, is moderated by nationality. Today, institutional commitment is mainly limited to severe cases, and most likely tied to higher social shame, compared to outpatient treatment. But there is no good evidence indicating that this must remain necessarily the same. People used to be more critical about treatment (pharmacological or therapy) for non-severe cases, while it is now a common practice in metropolitan areas in the West.

Regarding the intra-personal tensions of such short-lived self-commitment, it can be said that once social acceptance is established, a first negative factor could be eliminated. Second, such institutions that could aim to restore emotional balance, should be clearly dissociated from existing mental health institutions that usually address heavier clinical cases. Currently, hospitalization is commonly perceived as treatment for severe cases, cases which cannot be effectively treated on an outpatient basis. It is my view that what I'm hypothesizing here for, should be touted and subsequently perceived by the general public, as something entirely different from psychiatric hospitalization. Instead, it could be systematically advertised as a health-promoting act. This leads me to the third point, that under the premise that good therapeutic outcomes would be observed, patients could be clearly informed that such flashing self-commitment to be just a tool of a wider strategy, rather than a practice associated with serious social and psychological repercussions.

To summarize, it can be hypothesized that the more clearly the specifications and objectives of such commitment would be explained, the less phycological burden would be expected. It can be speculated that the more such practice would become mainstream, along with a careful design of such institutions that would clearly distinguish themselves from psychiatric hospitals, to have far less negative impact than we expect at the moment.

General Conclusion

A multilayer theory of emotions by which: basic, hedonically consistent-across-species consideration of emotions are to be distinguished from compound states, appears a theory that can shelter the entirety of emotional experiences. At the same time, cognitive, perceptual, or motivational factors can be retained as etiological aspects of the emotions, rather than aspects that would define them as cognitive, perceptual, or motivational entities respectively.

Such a feeling account of the emotions may have implications in developing treatment tactics, dealing with common affective disorders. A feeling-oriented focus could divert attention to systematically target the feelings, deliberately neglecting for some time the possible causes of those feelings. The aim of such strategy can be hypothesized to restore emotional balance before any further conclusive course of treatment is decided. For such tactics to succeed it is conjectured in this thesis that, unlike common practice, patients would benefit from a transitory yet systematic protection from negative stimuli. The speculations of the second part of this thesis could be discussed further down the line and be assessed for their correctitude.

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