Title:
Rethinking Cognitive Mediation: Cognitive Behavioral Therapy and the Perceptual Theory of Emotion

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Abstract: Empirical assessments of Cognitive Behavioral Theory and theoretical considerations raise questions about the fundamental theoretical tenet that psychological disturbances are mediated by consciously accessible cognitive structures. This paper considers this situation in light of emotion theory in philosophy. We argue that the "perceptual theory" of emotions, which underlines the parallels between emotions and sensory perceptions, suggests a conception of cognitive mediation that can accommodate the observed empirical anomalies and one that is consistent with the dual-processing models dominant in cognitive psychology.

Key words: Psychotherapy, emotion theory, judgmental theory of emotion, perceptual theory of emotion, informational encapsulation, psychodynamic psychotherapy

Some of the most common psychological disturbances, such as anxiety disorder, phobias and depression, involve emotions or more generally affects. Helping clients learn to change and regulate patterns of emotional responding is thus commonly regarded as being central to the therapeutic process (Greenberg and Safran 1987, Oakley and Jenkins 1996, Lacewing 2004, Corsini 2008). Clearly then, emotion theory appears relevant to the therapeutic domain. While many philosophers have devoted much energy to developing new accounts of emotions in recent years, few have researched what these developments might mean for our understanding of psychotherapy.[i] The aim of this paper is to see what contemporary emotion theory in philosophy implies with respect to the claim that psychological disturbances are mediated by consciously accessible cognitive structures, a claim that is widely considered to be a fundamental theoretical assumption of Cognitive Behavioral Therapy (CBT). We begin in the first section by sketching some salient empirical findings and theoretical considerations that seem to call this postulate into question and which, according to some authors, justify a move away from therapeutic approaches to CBT that prioritize cognitive interventions. Section two turns to recent theorizing in the philosophy of emotion and outlines what we call the "perceptual theory" of emotion by contrasting it with the so-called "judgmental theory". In the third section, we suggest that a tacit

commitment to the judgmental theory, according to which emotions involve verbalizable, conceptual cognitions, may help account for the empirical and theoretical difficulties presented in the first section. Here, we also argue that the perceptual theory, according to which emotions involve largely non-verbalizable, "non-conceptual" representations, can ground a conception of cognitive mediation that is responsive to the findings of the relevant evaluation literature, consistent with the dual-processing models of social cognition currently dominant in psychology, and maintains the necessity of cognitive interventions in CBT.

Empirical and theoretical challenges to cognitive mediation

One of CBT's distinguishing features is that it depicts human beings, including those suffering from psychological problems, as fundamentally rational beings who act on the basis of thoughts, knowledge, and beliefs. CBT's key therapeutic inference is that, since irrational cognitions are taken to mediate psychological disturbances, eliciting cognitive change is central to their effective treatment (Blagys and Hilsenroth 2002). More specifically, CBT assumes that many common psychological disorders, like depression and anxiety, depend on deficient social learning processes which give rise to those disorders and which play a key role in maintaining them (Brewin 1996, Wilson 2008). It is this functionalist etiology that positions CBT as therapeutic paradigm distinct from pharmacotherapy (with its putatively reductionist neurological etiology) as well as classical psychodynamic psychotherapy (with its idea that psychological disturbances are the signs of conflicted dynamic interactions between the id and the ego's defenses forged in the course of early life traumas) (Farmer and Chapman 2008, Wilson 2008).

Beyond these generalities, however, CBT is in practice highly variable and heterogeneous. Far from being a single therapeutic modality, "CBT" is an umbrella term that embraces a range of divergent and sometimes rival psychotherapeutic schools. What these approaches have in common is that they

combine so-called “cognitive” with “behavioral” therapeutic interventions (Brewin 1996, Farmer and Chapman 2008, Wilson 2008). Hence, it has been suggested that one useful way to distinguish the various schools of CBT from one another is to consider the relative weight each one assigns to cognitive versus behavioral therapeutic interventions and in relation to the specific cognitive and behavioral strategies that they maintain in their respective therapeutic tool kits (Brewin 1996, Farmer and Chapman 2008, Wilson 2008).[ii]

With regards to the basic difference between cognitive and behavioral interventions, cognitive interventions are those that attempt to alter dysfunctional emotions and behavior by raising rational challenges, typically expressed verbally, to underlying maladaptive appraisals, core beliefs, and patterns of inference. In Beck’s (1967) classic analysis, for instance, depression involves a “cognitive triad” comprising a negative view of the world, the future and the self. For the sake of guiding the client through a process of explicit, verbal, and rational reappraisal of these negative views, the therapist may have recourse to such cognitive interventions as “Socratic dialogue”, “guided discovery”, and “collaborative empiricism”. Behavioral interventions do not attempt to rationally challenge underlying appraisals, beliefs and inferences. Instead behavioral interventions are broadly understood as embracing strategies which aim to help clients unlearn by other means the specific patterns of thought and mental representation involved in psychological disturbances. Behavioral interventions like “exposure”, “imaginal rehearsal”, “assertiveness and communication training”, and “mindfulness exercises” encourage changes in patterns of behavior in order to adjust the cognitions involved in social information processing and social functioning (Brewin 1996).

Cognitive mediation: a therapeutic intervention and explanatory mechanism

Contrary to possible first appearances, then, cognitive interventions and behavioral interventions share a common core. They both assume that the patterns of emotional responding which

are symptomatic of psychological disturbances have a cognitive basis. Cognitive interventions and behavioral interventions both seek cognitive restructuring, but they take different routes to achieve this aim: cognitive interventions use the explicit cognitive system whereas behavioral interventions bypass it (Brewin 1996).

It is generally agreed that the scientific credentials of CBT largely rest on the fact that CBT is testable and has strong empirical support (Farmer and Chapman 2008, Wilson 2008). Yet the very research program on which CBT's claims to effectiveness is based has apparently begun to yield evidence that undermines its central therapeutic postulates. What is questioned, primarily, is the postulate that rationalist therapeutic methods that directly challenge clients' maladaptive thoughts and beliefs are responsible for positive changes in their feelings and behavior (Hayes 2004, Lawson 2005, Longmore and Worrell 2007, Farmer and Chapman 2008). Some equivocation regarding the effectiveness of cognitive strategies for specific disorders notwithstanding, Longmore and Worrell (2007)—in what is to date the most comprehensive review of the empirical evidence relevant to the question of cognitive interventions' effectiveness—conclude that the cognitive interventions in CBT may be therapeutically superfluous insofar as they do not significantly add to the effectiveness of the behavioral interventions. Therapists may not need to challenge thoughts in cognitive behavior therapy, Longmore and Worrell advance.

Longmore and Worrell's (2007) case turns on an important distinction between cognitive mediation as a therapeutic strategy and cognitive mediation as the "mechanism" (182) that is postulated to explain the symptom improvement. As a therapeutic strategy, cognitive mediation is an intervention that aims to change the cognitive structures underpinning symptoms. As a mechanism, cognitive mediation is a causal claim, which implies that changes to the cognitive structures underlying symptoms are what cause symptoms to improve. We observed earlier that cognitive mediation in both

senses is integral to cognitive interventions as well as to behavioral interventions. For ease of reference, let us call the latter theoretical supposition of CBT—namely, that symptoms improve when the cognitive structures underlying them change—the cognitive mechanism postulate.

Longmore and Worrell (2007) caution cognitive behavioral therapists against assuming too readily that, since emotional states involve cognitions, then any change in an individual's patterns of emotional response must be due to a prior change in the cognitive structures underlying those emotional responses. They claim, in other words, that the inference from the (rather trivial) observation that emotions involve cognition to the (more controversial) cognitive mechanism postulate is unwarranted. Whether the aim is pursued by using cognitive interventions or behavioral interventions, changing cognitive structures is the cognitive behavioral therapist's characteristic means to relieving the disturbing emotional responses associated with common psychological disorders.

Empirical considerations

Worrell and Longmore base their claim that the cognitive mechanism postulate lacks validity on a review of the findings of evaluation studies of CBT, the main points of which we now summarize.

One finding is that positive cognitive changes can occur in clients even where no therapeutic attempts are made to elicit them using CBT. For example, a meta-analysis by Oei and Free (1995) has examined studies comparing the effectiveness of CBT and drug treatment. Just as one would expect given the assumptions that emotions depend on cognitive structures, this review consistently found positive correlations between symptom change and cognitive change, finding that has been reproduced by a more recent study focusing specifically on social phobia (McManus et al. 2000). The more significant conclusion of the Oei and Free research was that CBT alone and drug treatment without CBT produced similar results in terms of both cognitive and symptom measures.

Longmore and Worrell read these results as suggesting that CBT has long been riding on the mistaken assumption that the therapeutic causal arrow is unidirectional, running from cognitions to symptoms. Longmore and Worrel reason that if interventions such as the use of psychotropic medications that are intended primarily to control symptoms, not to change cognitions, appear have an equal impact on cognitive structures, it may not be *necessary* to act directly on the patient's cognitive structures in order to provide relief from psychological disturbances. Undoubtedly, Longmore and Worrell conclude, "cognitive change was *part* of the improvement seen in treatment" but, as the relative effectiveness of pharmacotherapy attests and contrary to the cognitive mechanism postulate, cognitive changes is not the invariable "*cause* of improvement" (2007, 182). In other words, "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.

Another body of evaluation research that Longmore and Worrell (2007) take as a challenge to the cognitive mechanism postulate comprises a set of component studies which indicate that cognitive interventions are relatively less therapeutically effective than behavioral interventions. The conclusion of several similarly designed studies comparing cognitive interventions and a specific BI called "exposure and response prevention" in the treatment of obsessive compulsive disorder show that there is generally no significant difference in treatment outcomes between "pure" cognitive interventions and exposure and response prevention (Longmore and Worrell 2007, 179, 180). One of the most robust findings was that exposure and response prevention alone produced higher recovery rates at 3-months follow up (13% for CBT with CI and 45% for exposure and response preventionalone).

If, following Farmer and Chapman (2008), we take for granted that the cognitive mechanism postulate is valid, the finding that behavioral interventions are more effective than cognitive interventions in treating *symptoms* may seem best interpreted as indicating that behavioral interventions

are more effective at changing *cognitions* than cognitive interventions. Longmore and Worrell (2007), however, are more cautious. In light of the results of the Oei and Free (1995) and other research showing that it is possible for cognitive changes to occur in the absence of direct attempts to change them, it may be better to seek an explanation of these findings that does not assume that symptom changes are the mere effect of prior cognitive changes (i.e., the cognitive mechanism postulate). While Longmore and Worrel find little reason to doubt that symptoms depend on cognitive structures and that symptoms and cognitions change together, it should remain an open question, as they see it, whether CBT works by altering cognitions. Unless the symptom improvements that correlate with the application of cognitive interventions were demonstrated to be *mediated* by changes in underlying cognitive structures, the possibility would remain that CBT is effective, not because it succeeds in altering cognitions, but by some other (as yet unaccounted-for) means (Longmore and Worrell 2007, 182).

That Longmore and Worrell take the observation that pharmacotherapy and CBT have an equal impact on symptoms *and* cognitive structures to undermine the cognitive mechanism postulate may at first blush appear naïve. Surely there are means by which to modify symptoms' cognitive ground other than through direct, purposeful intervention. For example, Ellis's (1962) idea of "feedback loops" furnishes one plausible alternative explanation for the positive effect of pharmacotherapy on cognitive structures: while on medication, the previously experienced unpleasant feelings are absent, leading the subject to interpret the situation as being less unpleasant, which in turn may generate more positive cognitive evaluations (see also Salkovskis and Clark, 1991). Be that as it may, Longmore and Worrell advance that, taken together, the recent evaluation studies of CBT "reveal a worrying lack of empirical support for some of the fundamental tenets of CBT" (2007, 185), one which warrants, in their view, further investigation into the relationship between cognitive change and symptom improvement in

psychological disturbances.

Theoretical considerations

In addition to these empirical challenges to the cognitive mechanism postulate, several authors have suggested that the cognitive mechanism postulate and, in particular, CBT's emphasis on the primacy of cognition in mediating psychological disorders stands in tension with recent developments in social psychology (Brewin 1996, Segal, Williams, and Teasdale 2002, Hayes 2004, Lawson 2005, Longmore and Worrel 2007). According to these authors, a new working consensus has emerged in social cognition theory around three basic claims: (i) rationality does not usually govern people's choices; (ii) human beings are equipped with not one but two distinct cognitive systems—an automatic, rapid, and largely unconscious "intuitive system" that operates mainly in familiar, everyday situations, and a slow, deliberate, verbalizable "reasoning system" that is triggered by novel, unexpected and otherwise problematic situations (see Haidt 2001, as well as Bargh, 1994, Wilson, Lindsey and Schooler 2000)—and; (iii) newly learned cognitive schemas and representations do not simply replace old ones, but new and old representations can compete with one another for dominance in the cognitive processing of social information. These assumptions about social cognition are sometimes considered to define the so-called "third wave of the cognitive revolution" in the cognitive sciences (Lawson 2005).

Some seem to regard these theoretical considerations as sufficient justification for a refinement and reformulation of CBT which would see cognitive behavioral therapists increasing their reliance on behavioral approaches (e.g., Farmer and Chapman 2008, Wilson 2008, Lawson 2005). More radically, others call for a "third wave" of CBT to correspond with the third wave of the cognitive revolution. In this view, cognitive behavioral therapists should wholly exclude rationalist methods aimed at

challenging the content of dysfunctional thoughts and beliefs—for all intents and purposes taking the "C" out of "CBT" (e.g., Hayes 2004). In sum, whereas, the empirically grounded skepticism about the efficacy of CBT tends to focus on the cognitive mechanism postulate, the theoretically grounded skepticism tends rather to focus on the efficacy of cognitive interventions in CBT, of rationalist therapeutic approaches. The objection is that the classical, cognition-prioritizing formulations of CBT hold that rational considerations are typically what prompt people to change their beliefs, an assumption that does not comport with the current state of knowledge in cognitive psychology.

Yet the principles of the third wave of the cognitive revolution do, in our view, seem to provide grounds for a deeper critique of CBT, one which threatens to undermine the cognitive mechanism postulate. The potential for old and newly learned schemas to compete with one another for dominance in the processing of social information significantly complicates the relationship of dependency between symptoms and cognitions. Indeed, if changes to explicit, verbalizable cognitions do not always reflect patterns of action, choice and feeling, then even those therapeutic interventions that *succeed* in changing verbalizable cognitions—irrespectively of whether they are achieved through pure behavioral interventions, pure cognitive interventions, or a mixture of both—may *fail* to alter the client's patterns of behavior and emotional response. From this perspective, cognitive interventions are Haidt's "wag-the-other-dog's-tail illusion", the interpersonal version of the "wag-the-dog's-tail illusion" (see 2001, 823), come to psychotherapy. The therapist thinks that she can change her clients' maladaptive beliefs and inferences by rebutting them. But since reasoned persuasion rarely changes anyone's mind, thinking that cognitive interventions might work therapeutically is analogous to thinking that you can make a dog happy by wagging its tail for it.

Whereas early emotion theories tended to be “cognitivist”, recent discussions in the philosophical literature on the emotions have led to doubts about the viability of cognitive models of the kind that seem to underlie CBT.[iii] In particular, the phenomenon of emotional recalcitrance, in which emotions and cognitions such as evaluative beliefs or judgments conflict, suggests that emotions and such cognitions are largely independent. As has been widely recognized, emotional recalcitrance creates a problem for standard cognitivist emotion theories—or more precisely for the *judgmental theory*—and militates in favor of an account of emotion that stresses the analogies between emotions and sensory perceptions.

According to most contemporary emotion theorists, emotions are (or necessarily involve) evaluative representations.[iv] This is often taken to mean that emotions are kinds of judgments (Solomon, 1976, Nussbaum 2001). Thus, fearing something would consist at least in part in making an evaluative judgment, such as the judgment that there is danger. However, emotions have also been thought to involve representational content that is more primitive, in the sense that it need not be conceptually articulated.[v] On this *perceptual theory*, emotions are better regarded as resembling sensory perceptions (see de Sousa 1987, 2002, Tappolet 1995, 2000 and 2005, Charland 1995, Stocker and Hegeman 1996, Johnston 2001, Wedgwood 2001, Döring 2003 and 2007, Deonna 2006, Prinz 2004 and 2006).

According to the perceptual theory, emotions are perceptions of values. Thus, fear would consist in the perception of something as fearsome, disgust in the perception of something as disgusting, shame in the perception of something as shameful, and so forth for every distinct kind of emotion. On this account, emotions consist in the representation of something as having a certain value, such as being fearsome, disgusting or shameful. Importantly, agents need not possess the concepts *fearsome*, *disgusting* or *shameful* to experience the corresponding emotions of fear, disgust or shame—although

of course agents may (and often do) possess the concepts to which their emotional experiences correspond.

The argument for the perceptual theory is an argument by analogy. It is based on the observation that emotions and sensory perception, which can be taken to be paradigm cases of perceptual experiences, share a number of important features.[vi] A first point that emotions and sensory perceptions have in common is that they are both usually conscious states, which are characterized by *phenomenal properties*. There is a way it is like to see something as yellow, just as there is a way it is like to experience fear or disgust. A second point is that both emotions and sensory perceptions are characterized by *automaticity*, in the sense that they are not directly subject to the will. A third feature that emotions and sensory perception share is *world-guidedness*: in the same way as sensory perceptions, emotions are usually caused by states of affairs or events in the world. Fourthly, both emotions and sensory perception appear to have *correctness conditions:* emotions can be assessed in terms of their appropriateness, such as when we criticize fearing an innocuous spider.

Now, this last point might be thought to entail that emotions are evaluative judgments, that is, a propositional attitude, which requires the possession of concepts – to judge that something is fearsome, for instance, you need to possess the concept of fearsomeness. However, there are good reasons to think that the representations involved in emotions are neither propositional nor conceptual.[vii] For one thing, many emotions can be experienced by beings that do not seem to possess concepts in the relevant sense, such as animals and newborn children. Fear and disgust are examples of basic emotions that can be experienced by such beings (Morreal 1993, Deigh 1994). A further consideration that supports the possibility that emotions involve non-conceptual content is emotional recalcitrance. A typical case of emotional recalcitrance is when someone fears something even when she judges that it is not fearsome. All emotional kinds allow for such conflicts with evaluative judgments. We can be disgusted by a

particular dish while judging that it is not disgusting, ashamed of as having big ears, while believing that this is not something shameful, etc. The problem with the view that emotions involve an evaluative judgment is that one would have to attribute contradictory judgments to the person who experiences the emotion. For instance, we would have to say that she judges that the object of our fear is fearsome, while also judging that it is not (see Rorty 1978, Greenspan 1988, Deigh 1994, D'Arms and Jacobson 2003).[viii]

It might be objected that recalcitrance is only a feature of pathological cases; in normal cases, emotions adjust themselves to judgment.[ix] The main point to stress here is that even if it is clear that resolving the conflict often requires that the emotion aligns itself to the judgment, this is certainly not always true. The emotion is not always to blame, for it may well be the judgment which is, in fact, erroneous. Suppose you are walking home at night and someone follows you. You might feel a pang of fear while also judging that you are perfectly safe. Now, it could well be the case that in fact, your judgment got things wrong: as you painfully realize minutes later, the follower was a thug. In such cases, emotions might seem to key us to certain vital facts in a way higher order cognitive faculties could not (see Jones 2003). To be sure, some instances of emotional recalcitrance can be regarded as pathological. Consider arachnophobias and post-traumatic stress disorder (PTSD). However, and this is our second point even if one grants that arachnophobia and PTSD involve recalcitrance, it cannot be this association with recalcitrance as such that defines them as pathological. Recalcitrance is largely a normal and acceptable part of emotional experience. One's refusal to step out onto the observation deck of the Empire State Building while remaining adamant that it is safe is undoubtedly a sign that one has been attacked by vertigo but few would consider it, in and of itself, to be symptomatic of psychological disorder. What makes phobias and PTSD psychological disorders is, among other things, the *degree to which* their emotional reactions are miscalibrated to the eliciting circumstances, and the extent to which

these emotions impact negatively on the person's life.

The phenomenon of emotional recalcitrance speaks strongly against the view that emotions involve conceptual contents. In fact, emotional recalcitrance directly militates in favor of the perceptual account by suggesting a further feature that is common to emotions and to sensory perceptions (D'Arms and Jacobson 2003, 142, Prinz 2006, 157-158). For what happens in emotional recalcitrance seems to be analogous to what happens in cases of visual illusions. Just as with the Müller-Lyer illusion, where you see lines as being of different lengths even though you are perfectly aware that they are of equal lengths, so too phobia can involve seeing something as fearful and yet believing that it is not. "In such cases", Jesse Prinz writes, "emotions are like optical illusions: they persist even when we know that they are misrepresenting the actual situation" (2006, 157-158). Emotions thus appear to be informationally encapsulated, in the sense that in the processing of information, the system's access to beliefs and desires is restricted. So, both emotions and sensory perceptions have what is generally considered to be the most important characteristic of modular systems—namely, informational encapsulation (see Fodor 1983 and 2000, 63).[x]

It should be clear that the perceptual theory does not entail that emotions are mere feelings, such as headaches or tickles. According to the perceptual theory, emotions have representational content. Does this mean that emotions involve cognitions? This depends on the meaning one assigns to the term "cognition". If one takes cognitions to be verbalizable, conceptual representations, the answer is no. But on a more liberal use of the term "cognition", which allows for both non-conceptual cognitions and conceptual cognitions, emotions do indeed involve cognitions. In this broader sense, which we recommend, "cognition" is taken to refer to psychological states that represent the way the world is (Lacewing 2004). Thus, emotions can be said to consist in *intuitive cognitions*, as contrasted with the *verbalizable, or conceptual, cognitions* that are part of the reasoning system (see Haidt 2001).[xi]

Finally, let us stress that the perceptual theory need not deny that there are differences between emotions and sensory perceptions. One difference is that emotions presuppose informational states: when you experience fear at a wolf you come across in the woods, you need to see or hear, or at least have some belief about the wolf. In cases in which it is a belief or a judgment that plays the role of informational basis, a change in your belief or judgment naturally come with a change in your emotion. Thus, if your fear is due to the fact that you believe that there is a wolf loose in the vicinity, you should stop experiencing fear on realizing that the wolf has been captured.

To sum up, the numerous analogies between emotions such as fear (and we would argue moods such as elation, anxiety or sadness), on the one hand, and sensory perceptions, on the other hand, seem to give us good reasons to adopt the perceptual theory of the emotions.[xii]

Cognitive Mediation *vu par* the Perceptual Theory of Emotion

How can the perceptual account of emotion help us rethink cognitive mediation in CBT? Our suggestion is that taking on board the perceptual theory of emotion would provide CBT with the theoretical resources to account for (i) the inefficacy of cognitive interventions relative to behavioral interventions without problematizing the idea that emotions involve cognitions. It would also provide (ii) an explanation of how CBT can effectuate cognitive change without supposing that behavioral interventions work by testing and challenging beliefs.

With respect to the theoretical problem of the explaining why cognitive interventions tend to be less effective than behavioral interventions without denying that emotions involve cognitions, the perceptual theory of emotion differs from the judgmental theory by claiming that emotions involve cognitions that are non-conceptual. Like contemporary social cognition theory, the perceptual theory distinguishes two qualitatively distinct kinds of mental content. Some mental content is verbalizable,

slow, deliberate and propositional. This is the type of cognition involved in the "reasoning system". Other mental content, that which is involved in the "intuitive system" cognition, is implicit, automatic, fast and non-conceptual. As explained above, the cognitive content involved in emotions is of the latter sort. The perceptual theory holds that emotions are partly constituted by non-conceptual evaluative content; in contrast with the judgmental theory, it does not assume that the evaluative content of emotions must be verbalizable and consciously accessible. The distinction between conceptual and non-conceptual content allows the perceptual theory to accommodate what, on the judgmental theory, becomes a discrepancy between two surface features of emotional experience: that emotions involve cognitions and that emotional reactions are sometimes inconsistent with explicit beliefs and judgments. The perceptual theory has a ready explanation for the empirical evidence concerning the relative therapeutic inefficacy of cognitive interventions: cognitive interventions may succeed in changing verbalizable content but not the non-conceptual evaluative content involved in emotions.[xiii]

The foregoing explanation for cognitive interventions' ineffectiveness relative to behavioral interventions already suggests a solution to the second theoretical problem of accounting for CBT's mechanism without supposing that behavioral interventions work by testing and challenging beliefs. Longmore and Worrell's (2007) skepticism about the cognitive mechanism postulate was based, recall, on evidence to the effect that therapeutic modalities besides CBT (i.e., ones that *do not* explicitly seek to test and challenge beliefs) may be as effective in changing beliefs as CBT (i.e., ones that *do*). This is only a problem if we ascribe to the reasoning-system conception of "cognition" which comes with the adoption of a judgmental theory. By contrast, an account of cognitive mediation that is consistent with the perceptual theory would actually *deny* that CBTs works by "challenging thoughts", in the sense of consciously accessible beliefs and judgments. Behavioral interventions in CBT might work relatively well for essentially the same reason that cognitive interventions work relatively less well: because

behavioral interventions are better adapted, in comparison with cognitive interventions, to altering the non-conceptual evaluative content that emotions involve.

To substantiate our proposed perception-theory based alternative conception of the cognitive mechanism postulate, let us call the set of processes that occur when a person moves from one kind of affective state to another—where "affective state" is meant to include both occurrent emotions as well as moods—*affective dynamics*. Distinct models of affective dynamics are entailed by the judgmental and the perceptual theory of the emotions.

According to the first model, which seems to underlie cognitive interventions in CBT, what happens in successful psychotherapies is that the client corrects her evaluative judgments by being argued out of maladaptive beliefs—conceptual cognitions—such as "dogs are dangerous". Now, the problem with this model is that it fails to appreciate that emotions are informationally encapsulated. For instance, it has trouble accounting for the fact that people can and frequently do fear things that they judge to be innocuous. Thus, even the successful deployment of cognitive interventions where the client becomes convinced that disturbance-related evaluative beliefs are irrational may have little emotional impact.

According to the perceptual model of affective dynamics, by contrast, moving out of a state of psychological disturbance involves emotionally perceiving the world differently. In recovering from depression, for example, one shifts from an emotional perception of the world as bleak to a more positive emotional perception. Similarly, it is not that an arachnophobic individual necessarily entertains false beliefs about spiders—of course, she might well, and indeed often does have false beliefs—but that she emotionally perceives spiders as dangerous. What she needs to do in order to overcome her arachnophobia is to emotionally represent spiders more positively.

A useful analogy for understanding this process is with sensory *gestalt switches*, such as

illustrated in the famous duck-rabbit figure. In the same way as someone moves from seeing a figure as a duck to seeing it as a rabbit, a person would be made to perceive a more positive aspect of the same situation. A variety of factors might be thought to influence what aspect of an ambiguous figure you will see. Similarly, it is likely that a variety of means are available for influencing emotional gestalt switches. Directing someone's attention to certain features of a situation, for instance, is likely to have an impact on what they feel with respect to that situation. Given that the representations involved in emotions are non-conceptual, it is natural to appeal to the different therapeutic strategies employed by behavioral interventions. But this does not exclude the possibility that other techniques work as well.

This discussion has so far focused on bringing the perceptual theory of emotion to bear on theoretical problems pertaining to the psychological mechanism and cognitive mediation of CBT. We close this section with a remark concerning the implications of rethinking the theoretical base of CBT in terms of the perceptual theory of emotions.

The perceptual theory does not warrant the exclusion of cognitive interventions from CBT. There is a certain temptation it seems to overstep the conclusions that can be reasonably drawn from the phenomenon of informational encapsulation. Empirical evidence appears to suggest that cognitive interventions may be superfluous insofar as the inclusion of cognitive interventions in a CBT complement does not add to its therapeutic efficacy. As pointed out above, one response to these findings is to follow Farmer and Chapman (2008) in concluding that behavioral interventions are the "primary active ingredients in CBT" and to champion a BI-focused conception of CBT. Note, however, that informational encapsulation points only to the *possibility* of inconsistencies between conceptual evaluative content and emotional reactions. Accepting that emotions are subject to informational encapsulation entails neither that emotional reactions never cohere with conceptual cognitions, nor that people never abandon beliefs on the basis of rational considerations, nor even that people should not

strive for consistency in this regard. Hence, a conception of CBT grounded in the perceptual theory leaves room for therapeutic interventions that target conceptual thoughts. There is no need to deny that such interventions could be successful. Given the evidence in favor of cognitive interventions efficacy, whatever theoretical framework CBT adopts it will have to be consistent with the empirical evidence that behavioral interventions are more therapeutically effective than cognitive interventions without ruling out that negative emotions can be alleviated by presenting them with information that challenges them rationally. To illustrate the point that the perceptual theory does not exclude cognitive interventions as a potentially successful therapeutic intervention with the analogy of gestalt switches, whether you believe that what you see is a rabbit might well make a difference in what you see. Moreover, emotions have informational bases, so that when a belief or a judgment plays the role of informational basis, changes in your belief or judgment should come with an affective change.

Conclusion

Assessments of CBT and recent developments in cognitive psychology challenge the cognitive mechanism postulate, a key theoretical assumptions of CBT. Studies have shown that it may be possible to elicit positive changes in the cognitive structures involved in common psychological disturbances without using therapeutic interventions that specifically target them. This finding raises doubts about the therapeutic utility of CBT's signature therapeutic practice of attempting to restructure beliefs and inference patterns. Furthermore, as we discussed, component studies indicate that cognitive interventions are relatively therapeutically ineffective in comparison with behavioral interventions. This finding seems to confirm the widespread assumption in contemporary social cognition theory that explicit reasoning processes do not have a significant impact on beliefs, and suggest additional grounds to doubt that explicitly "challenging thoughts" may be part of the explanation for CBT's success as a

therapeutic modality. Finally, considering that emotions are informationally encapsulated, even where rationalist strategies succeed in changing beliefs, such strategies may not result in symptom improvement. In this way, the phenomenon of informational encapsulation helps to account for why symptom improvement may not be sought most effectively by trying to directly modify cognitive structures. Nevertheless, these theoretical difficulties do little to diminish the basic, empirically grounded claim that CBT is an effective intervention in a range of common psychological disorders. Evaluation studies confirm and reconfirm this. However, if CBT's effectiveness is not attributable to its use of therapeutic strategies that directly influence cognitive structures then, pending a plausible alternative, CBT lacks a theoretical account of its own psychodynamic mechanism.

By analyzing these issues through the lens of rival philosophical accounts of emotion—namely the judgmental *vs.* the perceptual theory of emotion—this paper has tried to show, in the first instance, that these theoretical worries are a foreseeable result of CBT's tacit adherence to the questionable judgmental theory of emotion. In the second instance, we argued that the problems of explaining the relative inefficacy of cognitive interventions, the data showing that pharmacotherapy and CBT may have an equal impact on symptoms and cognitive structures, the difficulties raised by the phenomenon of informational encapsulation are largely resolved by substituting CBT's standard judgmental conception of cognitive mediation—i.e., that the evaluative content of emotions must be verbalizable and consciously accessible—with the one suggested by the perceptual theory of emotion—i.e., that the evaluative content of emotions is non-conceptual. The way forward for CBT, we advance, is to consider adopting a revised account of affective dynamics based on the perceptual theory and, by analogy, modeled on the idea of the *gestalt switch*. On this account, the effectiveness of therapeutic intervention is understood in terms of its ability to encourage perceptual shifts towards more positive evaluative representation of the objects of our emotions: the world, one's self, and one's life.

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[i] There are a number of notable exceptions: Lacewing (2004), Charland (2006) and Whiting (2006).
[ii] The approach to understanding the differences between the varieties of CBT in reference to the distinction between cognitive and behavioral interventions is limited, however, by the fact that the usual labels for the different schools of CBT are often uninformative in regards to this distinction. For example, Beck's (2005) "Cognitive Therapy" makes extensive use of behavioral strategies. Two of the central therapeutic techniques of what Wilson (2008) labels generically "Behavior Therapy"—i.e., "Dialectic Behaviour Therapy" and "Acceptance and Commitment Therapy"—can also, Wilson says, be regarded as forms of cognitive therapy. Ellis's "Rational Emotive Behavior Therapy" (Ellis and Dryden 1997), despite the name, is generally considered to be the most unalloyed form of cognitive therapy (Lacewing 2004, Wilson 2008). Finally, cognitive and behavioral interventions feature prominently in Lazarus's (1989) "Multimodal Therapy", even though the appellation makes no direct reference to CBT.
[iii] Note that the term "cognitive" is used here in a narrow sense that refers to articulated and verbalizable thought, and not in the broader sense, which includes all representational states. For that latter sense, see Lacewing 2004. For a discussion of the distinction between "cognitive" and "perceptual" theories of emotions, see Charland 1997.
[iv] But see Whiting 2006.
[v] See Tappolet 1995 and 2000, chap. 6; Tye 2006, pp. 13-14; Prinz 2006, p. 61.
[vi] A full presentation and defense of the argument for the perceptual theory of emotion greatly exceeds the limitations of this forum. For comprehensive accounts, see Tappolet (2000, 2005, and 2010) and Prinz (2006).
[vii] Thus, the concept of concept we have in mind here is the philosophers' rather than the psychologists (see Bermudez 1998, Machery 2009).
[viii] Instead, one might suggest that the propositional attitude in question is a thought (Greenspan 1988) or a construal (Roberts 2003), i.e. a state that fails to involve a commitment to the truth of the proposition One problem with this suggestion is that thinking of something as fearsome, or construing something as fearsome, would not explain why we are tempted to avoid what we fear.

[ix] This objection is from Peter Zachar, who argued that normal emotions are not subject to recalcitrance.
[x] See Prinz 2006 for the claim that emotions appear to have all the characteristics of modules as Jerry Fodor (1983, 2000) characterizes them (see also Charland 1995, Griffiths 1997, Öhman and Mineka 2001, Prinz 2004,, and more generally Faucher and Tappolet 2006.)
[xi] Thus, though we would agree with Demian Whiting (2006) that the treatment of dysfunctional emotions should not necessarily proceed by challenging the eliciting cognitions (understood as conceptual cognitions), our reasons for this are different from the ones he cites. Our conception of emotions makes room for what we have called intuitive cognitions.
[xii] On moods, see Solomon 1976, Lyons 1980, Lazarus 1991, 48, Prinz 2004.
[xiii] Note that this proposal is quite independent from the claim, popularized by Haidt's intuitionist model of social cognition, that rational persuasion and reflection rarely explains changes in people's judgments. Haidt might be right, but our point is rather that, because CIs seeks to elicit changes in the wrong sort of cognition—i.e., *conceptual* evaluative content—even (in the possibly rare cases) where CIs does change relevant verbalizable thoughts, its effect on emotional reactions is likely to be limited.