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The Motivational Theory of Emotions

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1. Introduction

Having an emotion customarily involves *appraising* a stimulus a particular way, *feeling* a particular way, and being *motivated* to act a particular way. These three aspects offer distinctive entry points for explaining what emotions are. Philosophers have so far built their theories primarily around appraisals and feelings. As a result, two research programs have dominated the philosophy of emotions over the past forty years: Cognitivism and Perceptualism.

I will argue that neither research program has been able to explain how emotions motivate us to act. This is an especially significant omission because it is ultimately what we do when we emote that produces significant personal and social consequences. To remedy this state of affairs, I begin by illustrating three features of emotional motivation that neither Cognitivism nor Perceptualism have been able to provide an integrated account for: impulsivity, flexibility, and bodily underpinnings.

I then introduce a new theory of emotions that offers a cohesive explanation for these three features of emotional motivation. A preliminary statement of what I call the *Motivational Theory of Emotions* (MTE) is that emotions are action control systems designed to prioritize the pursuit of some goals over others. As modern day Cognitivism was inspired by the appraisal tradition in psychology (e.g. Arnold 1960; 1970) and modern day Perceptualism by the Jamesian theory of emotions (James 1884; Damasio 1994), the theory of emotions I propose here is inspired by Frijda's (1986; 2007) psychological theory of emotions as states of action readiness with control precedence.

MTE will be shown to not only explain how emotions motivate better than Cognitivism and Perceptualism, but to also solve two standard problems in the philosophy of emotions: the problem of intentionality (how are emotions "about" the world?) and the problem of differentiation (how are any two emotions different from one another?). Since MTE can solve these familiar problems, and does significantly better on motivation, I conclude that it should be considered a promising new competitor in the philosophy of emotions.

2.   Three Markers of Emotional Actions

It is common practice in science and folk psychology to explain various phenomena by appealing to emotions. Matt's heartbeat increased *because* he was excited. Susan displayed a gape face *because* she was disgusted to have found an insect in her soup. Roger recoiled *because* he was afraid of the suddenly looming car. Cassandra slapped her lover *because* she was angry after having read a flirtatious email he sent to another woman. Stan wrote a pointed letter of complaint about his boss *because* he was angry about having been insulted at a board meeting the day before.

These phenomena include involuntary bodily changes (increased heartbeats, gape expressions), reflex actions (recoiling at a suddenly looming object), intentional actions done "in the heat of the moment" (slapping someone), and intentional actions done while no longer engrossed in the emotional incident (writing a letter of complaint one day after having been insulted). Although all of these phenomena must be explained, my initial focus will be on what I take to be the most prototypical of emotional actions, namely intentional actions done "in the heat of the moment" such as slapping someone out of anger. I will call these *impulsive emotional actions*. Once I formulate an account of impulsive emotional actions, I will further develop it to account for the other types of actions that are caused by emotions.

I will now introduce several markers of prototypical emotional actions, organized under the headings of *impulsivity, flexibility*, and *bodily underpinnings*, to which I collectively refer as the *phenomena of emotional motivation*. Any viable theory of emotions will need to provide a convincing account of these interrelated phenomena.

2.1. Impulsivity

When we act emotionally we typically act impulsively. Impulsive emotional actions are well exemplified by things like "punching someone in a bar brawl, running away in fright, hugging one's fellow supporters in joy at the victory of one's football team, and so on" (Pacherie 2001).[1] Following Frijda (2010), I emphasize two characteristics of impulsive emotional actions in particular.

The first is that in such actions there is a "sense of urge," which comprises "both an expectation of gain after completing [the action], and haste to fulfill it" (Frijda 2010, 571). I understand *urgency* as the "preference for early action over late action" (Elster

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[1] Impulsive emotional actions belong to two different classes. One class is formed by what I call *instrumental impulsive actions*, namely actions performed as a means to a goal that is constitutive of the emotion. For example, we punch someone out of anger with the goal of removing the obstacle he or she represents, and we run away out of fear with the goal of achieving safety. The other type is what I call *displaced impulsive actions*, exemplified by actions like piercing holes in the picture of a hated enemy or kicking a door out of anger. Hursthouse (1991) called actions of this sort *arational actions*, and argued that they are intentional, not done for a reason, and best explained by being in the grip of an emotion. In Scarantino and Nielsen (MS), we offer an alternative explanation of arational actions according to which such actions are *displaced* in the ethological sense of having goals unrelated to the constitutive goals of the emotions that cause them. We argue that displaced actions result from conflicting or thwarted motivations.

2010, 275). Impulsive emotional actions clearly manifest this temporal preference. There is urgency in the punching out of anger, urgency in the kissing out of lust, urgency in the running out of fear.

A second characteristic of impulsive emotional actions is the "use of only part of the available cues that might indicate the adequacy of action" (Frijda 2010, 571). Pacherie (2001, 76) has referred to this aspect as the "shortsightedness" of impulsive actions. I emphasize that we should not straightforwardly equate shortsightedness with irrationality. In some circumstances, the rational thing to do is precisely to engage in an action that uses only part of the available cues for adequacy. This is because using all of the available cues is incompatible with acting quickly, and acting quickly is what rationality demands. In other circumstances, however, the shortsightedness of impulsive actions leads to negative consequences, because the emoter fails to consider key information. My examples will focus primarily on cases of the latter kind.

I distinguish between two sources of shortsightedness: *reduced information gathering* and *information processing biases*. I will label the conjunction of these elements as *partial informational access*. In impulsive emotional actions, the time spent collecting information about what to do is limited by one's preference for acting sooner rather than later. As a result, emoters often fail to consider the long-term consequences of what they do. For example, impulsively slapping someone in a bar fight is not preceded by careful consideration of the long-term consequences—legal, moral, and practical— of engaging in an act of violence.

Besides spending little time collecting information, emoters engaged in impulsive emotional actions also manifest various *cognitive biases* in the way they process information. Their ability to focus attention, recruit memories, draw inferences, evaluate evidence, have accurate perceptions, assign probabilities, assess risks, and so on are all potentially impacted by processing information while in the grip of an emotion (Loewenstein and Lerner 2003; Elster 2010).

For example, when we wake up in a panic to the realization that our house is on fire we may *not remember* that it is freezing outside and fail to pick up our coats on the way out.[2] Or we may fail to *properly evaluate the evidence* about where the fire is most ravaging and end up walking right into it. Or we may mistake the sounds of the crackling fire for human screams. Or we may *overestimate* the risks involved in going back into the house to retrieve vital financial information.

2.2. Flexibility

When we act emotionally we typically also manifest some degree of behavioral flexibility. Flexibility is related to the fact that the same emotion can lead to a number of different actions depending on the circumstances. In fear, we may run, but we may also freeze, shut a door, make a phone call, brandish a gun, keep as quiet as possible, and so

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[2] I thank the volume editors for this example.

on. Similarly, we may slap someone out of anger, but also push them, yell at them, spit on them, threaten them verbally, report them to the police, and so on.

Emotional flexibility, however, is constrained. Although there are many different things we can do when we are in the grip of a certain emotion, not everything goes. For example, people who are in the grip of fear of a tiger coming their way do not generally take a nap, nor do they approach the tiger to pet it. Similarly, people who are in the grip of anger towards their lover do not generally start juggling balls in the air, nor do they invite their lover out for a nice dinner.[3]

Another aspect of emotional flexibility to be explained is that not every instance of emotion leads to action. First, we can be afraid or angry, and do nothing about it. Second, there seem to be some emotions like sadness, grief, and depression that by their very nature seem to lead to actively refraining from actions of all kinds rather than to engaging in specific actions.

2.3. *Bodily underpinnings*

When we act emotionally we also typically manifest concurrent bodily changes that we do not voluntarily choose. These prominently include changes in facial, vocal, and postural expressions, and changes in the autonomic nervous system (Ekman 1999). For example, when we freeze while in the grip of fear our freezing action is often accompanied by involuntary expressions such as upper eyelids raised and lips stretched horizontally and by autonomic physiological changes such as increased heartbeats and sweaty hands. When we slap someone while in the grip of anger our act of slapping is often accompanied by involuntary expressions such as fixed stare, eyes widened, and bared teeth and by autonomic physiological changes such as increased heartbeats and tremors.

Two features of emotional bodily changes must be emphasized. The first is their variability. Although many in the history of emotion science have tried to unveil a one-to-one correspondence between emotion types and types of bodily changes, there is at this point strong evidence that emotions like fear, anger, disgust, and so on are highly variable both at the level of facial, vocal, and postural expressions and at the level of autonomic bodily changes (e.g. Barrett 2006; Scarantino, forthcoming). The second relevant aspect is that bodily changes are often associated with distinctive emotional feelings (e.g. Goldie 2000). For instance, the feelings associated with fear often involve subjective experiences associated with trembling, sweating, having a dry mouth, and so on.

In what follows, I argue that neither Cognitivism nor Perceptualism can provide a satisfactory explanation for the phenomena of emotional motivation I have illustrated in this section. I will then formulate a new theory of emotions designed to account for

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[3] Similar points are raised by Price (2006). I thank the volume editors for emphasizing the importance of flexibility constraints on emotional actions.

such phenomena while addressing some of the standard puzzles in the philosophy of emotions.

3. Can Cognitivism Make Sense of Emotional Actions?

The core idea of Cognitivist theories of emotions is that the identity of an emotion is essentially tied to the cognitions that it involves.[4] We can distinguish two main versions of this idea. The first is *Judgmentalism*, according to which emotions are judgments. The second is *Belief and Desire (B&D) Cognitivism*, according to which emotions are combinations of beliefs and desires.[5]

Since I consider the latter variety of Cognitivism to offer a more promising account of emotional motivation, I will focus on it exclusively.[6] According to B&D Cognitivism, "emotions are identified with (certain sets of) beliefs and desires" (Marks 1982).[7] B&D Cognitivism presupposes the *Humean Theory of Motivation*, according to which "the psychological states that constitute motivations are pairs of . . . desires and . . . beliefs" (Smith 2010, 153) and desires and beliefs have what Hume called "distinct existences." As Smith (2010) goes on to explain, this distinctness amounts to the fact that the "possession of a psychological state of the one kind doesn't entail his possession of a psychological state of the other kind" (155).

The "distinct existences" idea has been cashed out in contemporary philosophy with the proposal that beliefs and desires have different *directions of fit* (Searle 1983). The

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[4] This is what in previous publications I have called *Constitutive Cognitivism*, to be distinguished from two other varieties of cognitivism: *Etiological Cognitivism*, which holds that emotions are caused by cognitions of a particular sort, and *Representational Cognitivism*, which holds that emotions are intentional states of a particular sort (Scarantino 2010).

[5] In psychology, the label "Belief and Desire Theory of Emotions" (BDTE) covers a somewhat larger domain of theories. Reisenzein (in press) has recently distinguished between three main versions of BDTE in psychology: the *causal view*, according to which beliefs and desires are causal preconditions of emotions but not constituent parts of them, the *part–whole view*, according to which beliefs and desires are parts of emotions, and the *fusion view*, according to which emotions result from the fusion between beliefs and desires. What I focus on in this chapter is a version of the part–whole view.

[6] Prominent judgmentalists like Robert Solomon and Martha Nussbaum have argued that emotions motivate because desires are either conceptually connected to (e.g., Solomon 2003) or caused by (e.g., Lyons 1980; Nussbaum 2001) the sorts of judgments with which emotions are identified. I find these accounts eminently ad hoc, because no convincing explanation is given of why emotion judgments are conceptually or causally connected with desires by virtue of their content. On the contrary, it seems quite possible to hold an emotion judgment—e.g., the judgment that something is dangerous—without any desire—e.g., the desire to avoid dangerous things—being involved. I will not try to convince the skeptical reader of this point in this chapter, because even if a good account of why and how emotional judgments are conceptually or causally associated with desires were available, Judgmentalism would still fail to capture the phenomena of emotional motivation for the reasons that apply to B&D Cognitivism. For further critical analysis of Judgmentalism, see Scarantino (2010).

[7] In this chapter, I will not consider hybrid versions of the belief and desire theory like, for instance, Goldie's (2000) proposal that emotions are combinations of *feelingful* beliefs and desires. This theory combines elements of B&D Cognitivism with elements of the feeling theory. For a critical analysis of how Goldie's theory applies to emotional actions, see Scarantino and Nielsen (MS).

direction of fit of a mental state specifies whether such mental state aims to represent how things are (mind-to-world direction of fit) or aims to represent how things are to be (world-to-mind direction of fit). Beliefs are the paradigmatic mind-to-world attitudes because they aim at being true, whereas desires are the paradigmatic world-to-mind attitudes because they aim at being realized.

B&D Cognitivism identifies emotions with pairs of what I call *emotion-constitutive* beliefs and desires.[8] Here is an example of such combinations:

Fear of a tiger is the belief that the tiger is dangerous and the desire to avoid dangerous things

The belief involved may be labeled a *core relational theme (CRT) belief*, because it registers the obtaining of what Lazarus (1991) called *core relational themes* such as *dangers* for fear, *offences* for anger, *losses* for sadness, *moral violations* for guilt, *failures to live up to an ego ideal* for shame, and so on.[9] To explain emotional actions, B&D cognitivists must introduce a further posit, namely what I call an *action-explaining* belief and desire pair, and make the assumption that it was caused by the emotion-constitutive belief and desire pair.

Suppose for instance that we want to explain why Matt started running out of fear of a tiger. First, we would have to posit something like the following action-explaining belief and desire pair:

Matt has a desire to get away from the tiger and believes that by running he will get away from the tiger

Second, we would have to assume that this action-explaining combination of beliefs and desires was caused by the emotion-constituting combination that instantiates being afraid of a tiger, namely believing that the tiger is dangerous and desiring to avoid dangerous things.

The key problem for B&D Cognitivism is that acting on the basis of belief and desire pairs is neither necessary nor sufficient for manifesting the phenomena of emotional motivation I have illustrated in section 2. I will first consider the problem of non-necessity, and then the problem of non-sufficiency.

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[8] Several other proposals have been made concerning what the relevant beliefs and desires should be. For instance, Green (1992) has argued that fearing that a tiger will attack me is constituted by believing with certainty that a tiger will attack me and desiring that a tiger not attack me. This will not do. One clearly need not believe with certainty in order to be afraid. I can have a low degree of belief that a tiger will attack me and still be afraid of it. Reisenzein (in press) has suggested instead that a person fears p if she desires not-p and is uncertain about p. This formulation encounters a second problem, namely that it is not sufficient for fearing that p that one believes that p and desires that not-p. For example, one can believe that an insect got into one's soup and desire that it did not happen, without being afraid of the insect (one will be disgusted instead). The most promising version of B&D Cognitivism connects the content of the emotion-constituting belief with core relational themes, as I go on to suggest in the body of the chapter.

[9] Examples of emotion-constitutive belief and desire pairs can quickly be constructed by making these core relational themes the content of the relevant beliefs. Thus, we can think of anger about Mario's behavior as the belief that Mario's behavior instantiates an offense and the desire to not be offended, guilt about having forgotten to pay back a loan from a friend as the belief that forgetting to pay back a loan from a friend is a moral violation and the desire that one does not commit a moral violation, and so on.

It has often been remarked that emoters in the grip of some emotion E may lack the belief-desire combo with which B&D Cognitivists identify E. The most commonly discussed missing ingredient is the relevant CRT belief. For example, fear of a snake in a snake phobic patient is often not accompanied by the belief that the snake is dangerous, and yet persists in motivating snake avoidance. Emotions are in this sense recalcitrant to reason (D'Arms and Jacobson 2003; Benbaji 2012).

Furthermore, impulsive emotional actions often occur so quickly that it is highly doubtful that they are preceded by the formation of a belief and a desire, and by the mental act of putting the two together in a practical inference. In non-emotional cases, this problem is handled by positing the notion of an *intention-in-action*—e.g., the intention-in-action to run *now*—that is formed on the fly and causes the action without being in turn caused by a belief and desire pair (Searle 1983). Intentions-in-actions are contrasted with *forward-looking (or prior) intentions*, which are intentions to act at a later time and are generally formulated at the conclusion of a standard process of practical reasoning (Searle 1983; Bratman 1987; Pacherie 2008).

This solution is not available to the B&D Cognitivist, because unless the emotion-constitutive belief and desire pair *causes* the intention-in-action, the resulting action will no longer be an emotional one. And as it is doubtful that impulsive emotional actions are preceded by the formation of action-explaining belief and desire pairs, it is *a fortiori* doubtful that they are preceded by the formation of emotion-constituting belief and desire pairs that cause intentions-in-action.

A less familiar problem for B&D Cognitivism is the non-sufficiency of belief and desire pairs for generating emotional actions. I call this the *Unemotional Twin Action Problem*:

Whatever belief, desire, and intention combos may be said to motivate an emotional action, there will be a non-emotional "twin" version of the action caused by the very same belief, desire, and intention combos, namely a version that fails to manifest the right sort of impulsivity, flexibility, and bodily underpinnings. If so, belief, desire, and intention combos are never a sufficient cause of emotional actions.

Consider Regular Matt and Twin Matt. By hypothesis, these two Matts are similar in all relevant respects—e.g. IQ, moral values, age, physical ability, eyesight, etc.—except for the fact that Regular Matt is an ordinary guy who works in a bank whereas Twin Matt is a Delta Force marine trained not to become afraid in dangerous circumstances.[10]

Twin Matt and Regular Matt are visiting a circus after hours and realize that a tiger has escaped her enclosure. Let us assume that they both form a desire to get away from the tiger and believe that they will achieve such objective by running away from the tiger, so they both run away. Furthermore, suppose that these action-explaining beliefs

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[10] This example and the discussion that follows are inspired by a similar example I found in Nash (1989). I thank the volume editors for pressing me to discuss this issue.

and desires are caused in both Matts by the belief that the tiger is dangerous and by the desire to avoid dangerous things.

One good feature of this explanation is that it captures an important aspect of the flexibility of emotional actions. Since the same emotion-constituting belief and desire pair can cause different action-explaining belief and desire pairs, B&D Cognitivism has the resources to explain why some forms of fear lead to running whereas others lead to climbing, shooting a gun, standing still, and so on, depending on the circumstances. All such actions can reasonably be caused by the desire to avoid danger while believing one is in danger.

On the other hand, the B&D account does not have the resources to distinguish between emotional and non-emotional ways of acting flexibly. Being motivated by a belief and desire pair is not sufficient for acting impulsively, for manifesting the constraints on flexibility that derive from impulsivity, and for displaying the bodily underpinnings typical of emotions.

Delta Force-trained Twin Matt coldly assesses the situation, remembering where the exit he just passed through is located. Without breaking a sweat or trembling, he quickly moves towards such exit, while picking up a small child he finds on his way out. Once Twin Matt realizes that the exit door is closed from the outside, he recalls having seen a documentary indicating that standing still without looking at the tiger is the best way to neutralize it, and so he proceeds to remain entirely motionless while holding the child as the tiger approaches.

Regular Matt, on the other hand, starts to tremble and sweat profusely, forgets where the closest exit is located even though he just passed through it, mistakes a shadow for a second approaching tiger, and starts running in a random direction while trampling upon a small child and leaving him face down on the ground. After he reaches a far-away exit, he realizes that the exit door is closed from the outside. Although he also remembers watching a documentary on the advantages of standing still when a tiger is around, he cannot bring himself to do it, and so he frantically climbs a small tree well within the reach of the tiger while the tiger approaches.

Regular Matt's actions display the urgency, partial informational access, constrained flexibility, and bodily underpinnings of prototypical emotional actions, whereas Twin Matt's actions do not. And yet by hypothesis the two Matts are motivated by the very same belief and desire pairs. It follows that being motivated by the sorts of belief and desire pairs posited by B&D Cognitivism is not sufficient for being motivated to act emotionally.

A B&D Cognitivist may reply that it is not the job of action-explaining belief and desire pairs to account for the emotionality of actions: Their job is simply to explain why an action, rather than a happening, is taking place. Supplemental explanations may be offered to capture the emotional element that mere action-causing belief and desire pairs miss. For instance, the B&D Cognitivist may suggest that emotional actions are those in which action-causing belief and desire pairs are in turn caused by emotion-constitutive belief and desire pairs. This rejoinder would not help, because

actions caused by belief and desire pairs that have other belief and desire pairs as their causes are still not going to display the sort of urgency and partial informational access that is characteristic of emotional actions. [11]

4. Can Perceptualism Make Sense of Emotional Actions?

The core idea of Perceptualism is that the identity of an emotion is essentially tied to the perceptions that it involves. The two most promising strategies to account for the phenomena of emotional motivation within this research program are what I call *Reflexive Perceptualism* and *Valenced Perceptualism*.[12]

Reflexive Perceptualism is the theory first defended by William James and further developed by Antonio Damasio. James (1884; 1890) famously proposed that emotions are feelings generated by the perception of bodily changes. Crucially, he assumed that these bodily changes—which on his view include expressions (e.g., grimacing),

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[11] A further line of response B&D Cognitivists could explore is that emotions involve *strong* desires, and that the strength of desire accounts for the phenomena of emotional motivation. This is the line proposed by Marks (1982), who suggested that what is distinctive about emotions is precisely that they involve *strong* desires. "If the primary desire is very strong," Marks writes, the emoter "may be too hasty in some of his inferences, or make a logical misstep, or make a literal misstep for failure to attend carefully to where he is putting his feet, and so on" (235). His view is also that when the desire is strong "a number of physiological changes…are quite naturally connected to the B/D set" (235). This reply is not convincing, because there is no good reason to think that Twin Matt's desires to avoid danger and to run away are any weaker than Regular Matt's desires. On the Humean picture of motivation, the strength of a desire hinges on whether it motivates action when competing with other, incompatible desires. For example, a desire that X be realized is stronger than a desire that Y be realized just in case the agent is motivated to do X rather than to do Y. A strong desire *tout court* is consequently one that is motivationally stronger than a great many other competing desires. But both Regular Matt and Twin Matt are acting on a desire to avoid danger that is strong in this absolute sense, and clearly stronger than any competing desires they may have had when they first saw the tiger, since they both run towards the exit. The difference is that whereas Regular Matt goes about realizing his strong desires to avoid danger and run towards the exit emotionally, Twin Matt goes about realizing them non-emotionally. A final line of defense the B&D Cognitivist could explore is to embed into beliefs and desires whatever properties of emotional motivation the account is missing. This may for instance involve suggesting that the desires involved in emotion are not only "strong" but "urgent," "information-blocking," "bodily," and so on. Besides having a patently ad hoc character (see Scarantino 2010 for a general critique of this common cognitivist strategy), this solution would still leave B&D Cognitivism with the problem that beliefs and desires appear to be non-necessary for the instantiation of an emotion, due to the problems of recalcitrance and speed of impulsive emotional actions.

[12] A third and distinctly less promising strategy is what I call *Primitivist Perceptualism*. It amounts to the stipulation that the sorts of perceptions involved in emotions have the ability to motivate to action. For example, Doring (2003, 224) recently rejected the Humean assumption that all motivation consists of pairs of beliefs and desires, suggesting instead that "the motivational force of an emotion…[is] to be explained in terms of the feeling-dimension of the emotion." On Doring's (2003) view, fear of a tiger is the felt representation of the tiger as dangerous, namely a combination of an "affect" and of an intentional representation. This sort of perceptual primitivism is problematic for several reasons. First, since not every feeling is motivational (e.g., the feeling of one's chair on the back while sitting), the reason why having emotional feelings leads to motivation is left obscure and must be accepted as a brute fact. Second, assuming that emotions do not motivate unless they are felt precludes the possibility of unfelt yet motivating emotions, a contentious commitment better avoided in light of some recent behavioral evidence for unconscious emotions (e.g., Winkielman and Berridge 2004). Thirdly and most importantly, this explanation encounters a version of the

autonomic changes (e.g., trembling) and full-fledged actions (e.g., striking)—follow directly the perception of some exciting fact. They follow it *directly* in the sense that "peculiarly conformed pieces of the world's furniture" will "fatally call forth"—i.e. bring about in a reflex-like fashion—the bodily reactions whose perception is the emotion (James 1890, 191).

Damasio (1994; 2003) rejected James's commitment to the felt dimension of emotions by allowing perceptions of bodily changes to be both conscious and unconscious. He also expanded what counts as a bodily change, including for instance neural changes to the somatosensory cortex (he called these "as if" bodily changes). However, Damasio preserved the Jamesian account of how emotions motivate, describing emotional responses as "automatic and largely stereotyped" (Damasio 2003, 35). He explicitly assimilated their mechanism of operation to that of other automated regulatory processes such as the startle reflex or pain behaviors.

The problem with *Reflexive Perceptualism* is that it completely misses the boat on impulsive emotional actions. Although some emotional actions such as jumping sideways out of fear of a suddenly looming car, or turning around with bared teeth and clenched fists out of anger when suddenly poked in the back are indeed *reflex-like*, most emotional actions do not work that way.

As we have seen, they are *impulsive* rather than *automatic, flexible* rather than *stereotyped*, and involve *variable* rather than *rigid* bodily changes. On Damasio's (2003) view, flexibility enters the picture only after full-fledged practical reasoning enters the picture.[13] This is a mistake, because impulsive emotional actions already manifest flexibility, even though such flexibility is constrained by their characteristic impulsivity.

A second strategy for making sense of the phenomena of emotional motivation is represented by what I call *Valenced Perceptualism*. Its core insight is that emotions motivate because they contain a valenced—i.e. positive/pleasant or negative/

Unemotional Twin Action problem. It may well be the case that both Regular Matt and Twin Matt entertain the felt representation of the tiger as dangerous, but only Regular Matt reacts to it with the sort of impulsivity, flexibility, and bodily underpinnings that instantiate a prototypical emotional action. Simply being motivated by a felt representation appears compatible with both emotional and non-emotional ways of acting, just like being motivated by a belief and desire pair is.

[13] Damasio's (1994; 2003) signature proposal is that emotions and practical reasoning are closely interrelated. According to the *somatic marker hypothesis*, when normal subjects consider options in practical reasoning they elicit memories of past emotions experienced in comparable situations. These emotion-related memories lead to the activation of *somatic markers*, which are "gut feelings" marking options as positive or negative in light of their expected emotional consequences. Damasio emphasizes that the activation of somatic markers "is not a substitute for proper reasoning [but plays] an auxiliary role, increasing the efficiency of the reasoning process and making it speedier" (Damasio 2003, 148). Occasionally, somatic markers signal so strongly that the process of practical reasoning is interrupted and a certain option is rejected or chosen right away. More commonly, somatic markers produce *incentive signals* and *alarm signals* that are further weighed in the process of practical reasoning. The somatic marker hypothesis predicts that the disruption of either the machinery of emotions or the machinery of emotion-related memory will lead to the disruption of the machinery of practical reasoning. This is because if decision-makers cannot rely on memories of past emotional experiences, they will be unable to automatically label options positively or negatively in light of their expected emotional consequences, and their decision-making process will be adversely affected (e.g.,

unpleasant—component. The most sophisticated proposal in this vein comes from Jesse Prinz (2004).

On his view, emotions are combinations of *embodied appraisals* and *valence markers*. *Embodied appraisals* are consciously or unconsciously perceived bodily changes—autonomic, expressive, behavioral, and/or neural changes—that are about core relational themes (Prinz 2004). They are *about* core relational themes in the sense that such themes are *represented* by bodily changes. In turn, bodily changes represent core relational themes in light of a teleosemantic account of representation, according to which mental states represent what they have the function of being elicited by/correlate with (Prinz 2004, 54; Dretske 1988).

On this view, fear is about dangers because it has the function of being elicited by dangers, anger is about offences because it has the function of being elicited by offences, shame is about failures to live up to an ego ideal because it has the function of being elicited by failures to live up to an ego ideal, and so on.

Valence markers, on the other hand, are positive and negative reinforcers that tell the organism, respectively, "more of this" or "less of this."[14] On this view, fear of a tiger is a combination of an *embodied appraisal* consisting of "a racing heart and . . . other physiological changes" (Prinz 2004, 69) that have the function of being elicited by dangers, and a negative *valence marker* that says "less of this."

Importantly, "this" refers not to the external stimulus, but to the emotion itself. Prinz (2004) argues that valence markers are associated with "inner state goals" (194) in the sense that they tell us to either continue how we are feeling (positive valence markers) or to change how we are feeling (negative valence markers).

As a result, "emotions do not impel actions directly" (228). They do so indirectly, because valence markers are ultimately "commands to sustain or eliminate a somatic state by selecting an appropriate action" (229). According to Prinz, this indirect link with actions makes emotions *motives* rather than *motivations*. A "motive provides a reason for action . . . [whereas] a motivation is that which impels us to act" (Prinz 2004, 193). On this view, fear provides a reason for running, but it does not impel us to run.

Motivations, on the other hand, "[tell] us to change how we are acting" by directly specifying "action goals" (194). Thus, motivations are associated with injunctions to act rather than injunctions to change how we feel. Prinz uses hunger as an example of a motivation. Hunger has in common with fear the fact that it contains an embodied

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they will be unable to quickly eliminate options that have previously led to strongly negative consequences). The jury is still out on whether the somatic marker hypothesis is confirmed (see, e.g., Dunn, Dangleish, and Lawrence 2006; Reimann and Bechara 2010). What is clear is that impulsive emotional actions do not result from a standard process of practical reasoning, whatever role somatic markers may play in it.

[14] Prinz (2004) argues that most emotions are characterized by unique valence markers. For instance, fear is associated with a negative reinforcer, whereas happiness is associated with a positive reinforcer. On the other hand, surprise is associated with both negative and positive reinforcers depending on the circumstances.

appraisal (it represents undernourishment) and a negative valence marker (less of this!), but it differs from fear because it also contains an action command (eat!).

A good feature of Prinz's (2004) account is that it easily captures the bodily under-pinnings of emotional actions. Since emotions contain *embodied appraisals*, their bodily aspect is straightforwardly accounted for.[15] The trouble begins when it comes to accounting for the impulsivity of prototypical emotional actions. This is because we can once again imagine Regular Matt and Twin Matt to be motivated by a negative valence marker, but to go about its elimination in, respectively, an emotional and a non-emotional way. Although Prinz did not address this problem, a tentative solution for it can be found within the confines of his own theory.

What we must assume is that valence markers can differ in intensity, and that emotions typically contain *strongly valenced* markers. If we think of emotions as containing highly negative or highly positive valence markers, this can arguably make sense of the urgency and partial informational access characteristic of impulsive emotion actions. For example, fear of a tiger would contain a highly negative valence marker (LESS OF THIS! LESS OF THIS!) with the potential for eliciting a preference for early rather than late action, a limited investment in information gathering and cognitive biases in information processing, presumably driven by the distraction created by attending to a strongly negative or strongly positive marker.

The main problem with Prinz's (2004) *Valenced Perceptualism* is that it posits the wrong kind of flexibility for emotional actions. On the positive side, if emotions contained valence markers that set inner goals, this would lead to multiple action goals that satisfy the same inner goal depending on the circumstances. For instance, the goal of no longer being afraid of a tiger (an inner goal) could be achieved by fleeing the tiger, by climbing a tree, by shooting the tiger, and so on. This is an improvement over James and Damasio, who assumed that emotional responses are always automatic and stereotyped.

On the negative side, if fear simply contained a command to select whatever action achieves the inner goal of eliminating fear, such inner goal could just as well be achieved by ingesting a fear-calming pill or by running towards the dangerous stimulus so as to perish more quickly. But fear of a tiger does not motivate us to the pursuit of such action goals, even though they would indeed serve the inner goal of eliminating fear. Rather, fear motivates us to pursue the goal of avoiding the tiger in a variety of flexible ways. Once the danger constituted by the tiger is avoided, fear dissipates, but this does not show that fear has the inner goal of self-elimination any more than

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[15] Even though Prinz (2004) is tempted by the idea that each emotion type is associated with unique bodily changes or at least a unique range of bodily changes, his account is compatible with the view that different tokens of the same emotion type manifest variability in terms of the bodily changes associated with them. A more troubling aspect of Prinz's (2004) theory is that a great many emotions do not seem to involve distinctive bodily changes at all (e.g., guilt at having forgotten a friend's birthday). This suggests that embodied appraisals are typical rather than necessary for the instantiation of an emotion.

the disappearance of hunger due to eating shows that hunger has the inner goal of self-elimination.

The central ingredient missing from Prinz's theory is the idea that emotions already contain *action goals* rather than *inner goals*. Once we understand in what sense having an emotion *already* involves having an action goal, a new theory of emotions as action control systems becomes available. According to it, bodily changes are organized towards the pursuit of an action goal and the perception of bodily changes becomes a side show to the main act of goal pursuit. The rest of my chapter will be devoted to developing just such a theory.

5.   The Motivational Theory of Emotions

The core idea of the theory of emotions I develop in this chapter is that the identity of an emotion is essentially tied to a prioritized tendency to action (or inaction) with the function of being elicited by a core relational theme. I call it the *Motivational Theory of Emotions*, because it replaces the primacy of the appraisal and feeling aspects of emotions with the primacy of their motivational dimension.

The theory comprises four component parts, which I illustrate in turn: (1) Prioritized action and inaction tendencies, (2) A two-level action control structure that provides a unified account of the phenomena of emotional motivation, (3) An analysis of emotional intentionality, (4) An account of how emotions differ from one another.

5.1.   *Prioritized Action and Inaction Tendencies*

Many in the history of emotion theory have suggested that a significant aspect of emotions is that they have an impact on our tendencies to act. Aristotle already had described anger as an impulse for revenge caused by an appraisal of slight and accompanied by unpleasant feelings, even though in his description of emotions other than anger he neglected to specify the action tendencies involved to focus on the appraisals and feelings associated with emotions.

An early statement of the primacy of actions over feelings can be found in Dewey's (1895) theory of emotions, according to which an emotion crucially involves "a disposition, a mode of conduct, a way of behaving" (16). To exemplify, Dewey remarked that when we say that "John Smith is very resentful at the treatment he has received, or is hopeful of success in business, or regrets that he accepted a nomination for office," what we mean is not "chiefly" that "he has a certain 'feel'" but rather that he has "assumed a readiness to act in certain ways" (Dewey 1895, 16).

The behaviorist movement, both in its psychological (Watson 1919; Skinner 1953) and in its philosophical (Ryle 1949) wings, strongly emphasized the connection between emotions and behavior (to the detriment of all other components of emotions), but it failed to understand emotions as the *causes* of behavior. As Skinner (1953, 160) put it, the "emotions are excellent examples of the fictional causes to which we commonly

attribute behavior." Furthermore, behaviorists had a limited understanding of the complexity of the behaviors associated with emotions. For example, in Watson's (1919) theory all emotional behaviors are conditioned or unconditioned reflexes, a view that, as we have seen, fails to do justice to most emotional actions.

The best worked out account of the relation between emotions and actions in contemporary emotion theory can be found in the work of the psychologist Nico Frijda (1986; 2007; 2010).[16] His trademark contribution is the thesis that emotions are states of action readiness with the distinctive property of *control precedence*. The Motivational Theory of Emotions (MTE) I propose in this chapter is heavily indebted to Frijda's work, but improves upon it in various ways. Among other things, MTE emphasizes the importance of a two-level control structure of emotional actions, it expands on Frijda's original theory to account for reflex-like emotional actions and for planned emotional actions, and, most importantly, it endows emotions with intentionality, an ingredient sorely missing from Frijda's account.

Frijda's (1986) orienting thought is that emotions are types of *action tendencies* (see also Arnold 1960). Action tendencies are in turn understood as "states of readiness to execute a given kind of action," where the kind of action "is defined by . . . [the] . . . end result aimed at" (70). I refer to such an end result as the *relational goal* of the emotion. Frijda (1986) suggests for instance that the "action tendency of anger is interpreted as a tendency to regain control or freedom of action [henceforth, an attack tendency]— generally to remove obstruction" (88). Fear is associated with the action tendency of "avoidance," associated with the relational goal of achieving one's "own inaccessibility" (henceforth, one's own safety) with respect to a certain stimulus. Disgust is associated with the action tendency of "rejecting" (henceforth, expelling), characterized by the relational goal of "removal of object."

These examples indicate that *relational goals* are *abstract goals* that need to be situated in a *concrete context* in order to guide bodily changes. This is typical of most goal-oriented processes, including non-emotional intentional actions. When we decide to get to school by 10am in order to attend a talk, the *overarching action goal* of getting to school by 10am can be achieved through a variety of *situated goals* (e.g., taking a bus at 9:20am, taking the subway at 9:30am) (cf. Pacherie 2008). Each of these situated goals can in turn be achieved by a variety of *motor goals* that directly guide bodily changes. For simplicity of reference, I will distinguish between the *relational goal* of an emotion and its *relational sub-goals*, understood as the collection of *situated* and *motoric* goals by which the relational goal can be achieved.

Frijda (1986) distinguishes between two types of *actions* associated with emotions: *physical actions* involving motor control (e.g., insulting) and *mental actions* involving exclusively mental control (e.g., thinking about insulting). He emphasizes that emotions often lead to mental actions without leading to physical actions, as when

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[16] Kovach and Delancey (2005) have also offered a philosophical account of emotions that emphasizes their ability to motivate. I discuss some aspects of their theory in Scarantino and Nielsen (MS).

we fantasize about slapping our boss without actually engaging in any physical action against him or her.

Frijda's (1986) main contribution is having argued that the sorts of action tendencies with which emotions should be identified have *control precedence*. Absent control precedence, the identification of emotions with action tendencies would be ill-conceived, because there are innumerable action tendencies that have nothing to do with emotions (e.g., the tendency to scratch one's head when thinking hard, the tendency to over prepare for exams, etc.).

Here is how Frijda (1986, 78) describes control precedence:

Action tendencies—and action readiness changes generally—clamor for attention and for execution. They lie in waiting for signs that they can or may be executed; they, and their execution, tend to persist in the face of interruptions; they tend to interrupt other ongoing programs and actions; and they tend to preempt the information-processing facilities…Evidently, then, action tendencies are programs that have a place of precedence in the control of action and of information processing. We therefore say: Action tendencies—action readiness changes generally—have the feature of *control precedence*.

The key idea here is that what gives an action tendency its emotional character is that it seizes control of the emoter with respect to his or her mental and physical actions. Although Frijda did not organize the various components of control precedence into subcategories, it is useful to do so. I propose that an action tendency acquires control precedence—henceforth, it becomes *prioritized*—by virtue of the two functional components of *Precedence* and *Preparation*.

Precedence refers to the fact that an action tendency takes precedence over other actions and states of action readiness. This is manifested by the fact that prioritized action tendencies interrupt other processes in their pursuit of a relational goal, clamor for attention, persist in the face of interruptions, and pre-empt access—in memory, inference, perception, etc.—to information. *Preparation* refers to the fact that in a state of prioritized action tendency we are not simply ready for action, but actively preparing for it. This is manifested by the fact that such states tend to be accompanied by preparatory bodily changes, to clamor for execution, and to wait for signs that they may be executed.

The *prioritization* of an action tendency *comes in degrees*. This is to say that an action tendency can involve a higher or lower degree of Precedence and/or Preparation. A maximal degree of prioritization will be typical of prototypical instances of an emotion such as being afraid of a charging tiger, which will involve an avoidance tendency with maximal Precedence and maximal Preparation. Being afraid of a potentially hostile crowd prior to giving a talk, on the other hand, will involve a significantly lower degree of Precedence and Preparation, even though the avoidance tendency associated with it still "clamors for attention and for execution" to some extent.

As with every degree property, at some point it will become indeterminate whether or not a given action tendency is prioritized, namely whether it involves *enough*

Precedence and/or Preparation to be endowed with control precedence. This may give rise to states of action readiness that, by the lights of the Motivational Theory of Emotions, neither fully qualify as emotions nor fully qualify as non-emotions.

The account I have described so far faces two problem cases. The first is constituted by emotions that are energizing, but do not seem to involve the pursuit of any specific relational goal. A standard example is that of existential joy, which does not seem to predispose the emoter to pursue any relational goal in particular. The second problem case is constituted by emotions such as sadness, grief, and depression that appear to considerably reduce one's willingness to act and pursue all kinds of relational goals.

Frijda's solution to these two problems is to introduce alongside the notion of an *action tendency* the notion of a "state of action readiness as such," which includes both what he calls "activation modes" like joy and "null states" like sadness, grief, and depression. On Frijda's (1986, 71) view, "emotions . . . can be defined as modes of relational action readiness," which can take either the form of an action tendency, an activation mode, or a null state.

I propose we adopt a slightly different taxonomy. The difference between joy, sadness, and fear, I submit, is not that fear has a relational goal whereas joy and sadness lack it, but that the relational goals of joy and sadness are significantly less specific than the relational goal of fear. For joy, I submit, the goal is *to relate as such*. As Fredrickson and Cohn (2008) put it, joy "creates the urge to play, push the limits, and be creative" (782). The joyful person is ready to engage in an open range of actions, and actively prepares for this open engagement with the world with a generalized state of arousal. For sadness, grief, and depression, on the other hand, the goal is *not to relate as such*. The sad/grieving/depressed person is disengaged from the world in an undifferentiated fashion, in the sense that there is not much of anything that they wish to do.[17]

So I propose we distinguish between *focused action tendencies* such as fear and disgust, which have specific relational goals, *unfocused action tendencies* such as joy, which has the generic relational goal of relating as such, and *inaction tendencies*, which have the generic relational goal of not relating as such.

What makes focused action tendencies, unfocused action tendencies, and inaction tendencies members of a theoretically unified category is that, insofar as they are emotions, they all instantiate control precedence. This is to say that fear, joy, and sadness all seize control of the emoter in the sense that the relational goals of, respectively, *achieving safety, relating as such*, and *not relating as such* acquire precedence over other goals, clamor for attention and execution, and pre-empt information processing while the body prepares for, respectively, fearful actions, undifferentiated engagement, and undifferentiated disengagement.

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[17] These remarks are inspired by Frijda's (2008, 72) comment that emotions that correspond to states of action readiness other than action tendencies "have no aim other than to relate or not to relate in general."

5.2. *How The Two-Level Control Structure of Emotional Actions Generates Impulsive Actions*

To understand how emotions lead to emotional actions, the first thing to realize is that, with one notable exception,[18] emotional actions result from a two-level structure of control. One level is constituted by the action and inaction tendencies with control precedence I have just illustrated, which are special-purpose motivational structures. The other level is constituted by a set of general-purpose capacities I refer to as *rational control*, which determines if and how the prioritized (in)action tendency is manifested.

In a seminal book-length treatment of action, Gallistel (1980) pointed out that two-level structures of control are the primary means to achieve behavioral flexibility in the animal kingdom. Although Gallistel (1980) did not explicitly consider emotions, we can think of them as good examples of what he called *central motive states*, namely states that "lay down a frame or general direction for behavior by selectively potentiating coherent sets of behavioral options" (322), with the "lower levels fill[ing] . . . in details within the general pattern" and giving "behavior its flexibility, its ready adaptation to momentary circumstances."

Once prioritized action (or inaction) tendencies have laid down a general direction for behavior and suitably potentiated (or depotentiated) sets of behavioral options, emoters exercise two types of rational control.[19]

Compatibility control involves monitoring that the emotion's relational goals and sub-goals are compatible with the emoter's other goals and value system. For example, an emoter may ask herself whether getting back at her boss after being insulted during a meeting is compatible with her career goals. Or the emoter may ask whether withdrawing from all actions out of depression is compatible with other goals such as getting a graduate degree, making one's partner happy, enjoying the simple pleasures of life, and so on. Additionally, the emoter may ask herself whether a *particular way* of going about fulfilling the emotion's relational goal—e.g. cursing at the boss right there and then in the middle of the meeting, slapping him after the meeting, etc.—is compatible with her goals and values.

The second type of rational control, *executive control*, involves securing that the emotion's relational goal is translated into a set of sub-goals that is instrumentally adequate. For example, once the decision to slap the boss after the meeting is made, executive control monitors the specific bodily changes involved in the slapping action, turning it into an appropriate set of motor goals, and seeing to it that the slapping action is completed successfully. Since sadness, grief, and depression lead to inaction, executive control is significantly curtailed in such emotions, in the sense that it is limited to the sort of executive control involved in actively refraining from action.

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[18] The exception is constituted by emotional reflexes, which I discuss shortly.

[19] The two levels of rational control I introduce for emotions are inspired by Pacherie's (2008) discussion of "tracking control" and "collateral control" in garden-variety actions.

This two-level control structure—the level of prioritized (in)action tendencies and the level of compatibility and executive control—can ground a unified explanation for the phenomena of emotional motivation on which Cognitivism and Perceptualism stumbled.

Impulsive emotional actions come about whenever the interaction between rational control and a prioritized action tendency quickly leads to an intention-in-action, namely an intention to act *now* so as to achieve the relational goal of the action tendency. This intention-in-action causes and guides bodily movements so as to translate the relational goal—e.g., achieving safety—into a sequence of executable relational sub-goals—e.g., reaching an exit, opening a door, shooting a gun, etc.

The impulsivity and bodily underpinnings of prototypical emotional actions, which B&D Cognitivism had a hard time accounting for, follow directly from the fact that the intention-in-action is formed and acted upon while an action tendency with control precedence is up and running. As a result, impulsive emotional actions manifest *urgency*, namely a preference for early versus late action, *partial informational access*, because the investment in information gathering and its quality are constrained by the pre-existence of a prioritized action tendency, and *bodily underpinnings,* because one of the elements of control precedence is bodily preparation.

On this view, the difference between Regular Matt and Twin Matt is that only the former is seized by a prioritized avoidance tendency that "clamors for attention and execution," constraining Regular Matt's ability to perform compatibility and executive controls. Twin Matt, on the other hand, is relying on standard practical reasoning, without having to deal with a state of action readiness that monopolizes attention, pre-empts access to relevant information, prepares the body for action, etc.

The *flexibility* of impulsive emotional actions results from the fact that a prioritized action tendency only determines an abstractly described relational goal, allowing compatibility and executive control to fill in the details. On this picture, emotional flexibility is limited by two constraints that neither Cognitivism nor Perceptualism fully captured. The first is that the actions one selects while in the grip of emotion tend to have sub-goals of the relational goal of the action tendency. This is why fearful emoters do not take fear-stopping pills nor walk towards tigers, contrary to what Prinz's theory would predict. These actions are not means to the relational goal of achieving safety, even though they are means to the inner goal of eliminating fear.

The second constraint is that the presence of a prioritized action tendency makes the selection of certain actions hard to implement. This is why, contrary to what B&D Cognitivism would predict, a fearful agent like Regular Matt would have trouble standing still next to a tiger even if he believed that the best way to achieve safety was standing still and desired to achieve safety. A powerful behavioral tendency to avoid the tiger makes standing still while the tiger approaches hard to achieve.[20]

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[20] Although I have so far focused on flexibility constraints related to impulsivity, another source of constraint on flexibility is constituted by the very bodily changes involved in prioritized action tendencies. As Zhu and Thagard (2002, 31) have pointed out, "[i]t is hard to put a thread through the eye of a needle when

5.3. *Explaining Planned Emotional Actions, Actions Done out of Expected Emotions, and Reflex-Like Emotional Actions*

The two-level structure of control I have introduced can help us understand other emotional phenomena. In particular, it can explain why emotions may not lead to any actions at all and why emotions may lead to actions that are far in time and space from the initial emotional incident.

First, the interaction between prioritized action tendencies and rational control can lead to what I call the *extinction* of the action tendency. It is often the case that the output of compatibility control is the conclusion that pursuing the relational goal of the action tendency is incompatible with the other goals and values of the emoter. For example, if my boss insults me at a board meeting and as a result I form a tendency to attack him, I may quickly conclude that I should not attack him in any form, either now or at a later time, because having a successful career at the firm is more important to me than getting even. In this case, the effect of rational control is to extinguish the prioritized action tendency, a process a careful observer may pick up on by spotting bodily leakages at the level of expressions and autonomic changes, the extinction of which may take a little time (Ekman 1999).

The interaction between prioritized action tendencies and rational control can also have as an outcome the elicitation of a *forward-looking intention* with the same relational goal of the prioritized action tendency (or with a relational sub-goal of it). As I mentioned in section 3, a forward-looking intention is an intention to act at a later time. For example, rational control may lead me not to extinguish the attack tendency I have formed towards my boss, but rather to form a forward-looking intention to write a letter of complaint about him tomorrow (relational sub-goal) or, more generally, to get back at him in some way at a later time (relational goal).

Once these forward-looking intentions cause actions, the result is what I call an *emotional planned action*, a form of emotional action that manifests maximal flexibility and relies on the full force of practical reasoning.[21] Other examples include taking legal action against one's landlord out of anger one month after a heated confrontation, buying a gift for a friend out of gratitude one week after having received his visit at the hospital, writing a letter of complaint to the IRS out of anger every April 15 for years after having been audited.

These sorts of planned actions are properly called emotional just in case three conditions apply. First, the forward-looking intention that causes emotional planned actions

you are in a state of rage or anxiety, simply because you cannot accurately control your hands in such a mood."

[21] Pacherie (2001) refers to what I have called *planned* emotional actions as *semi-deliberate* emotional actions. Her account differs from mine with respect to the role played by action tendencies. Whereas her proposal is that in semi-deliberate actions "the action tendency gets converted into a conscious intention to pursue a certain goal" (2001, 80), my view is that the action tendency must continue to exist and exercise some degree of control precedence after the formation of the forward-looking intention for the resulting planned action to qualify as emotional.

aims to satisfy the relational goal of an earlier prioritized action tendency, or one of its relational sub-goals. So if the relational goal of the attack tendency characteristic of anger is removing an obstacle, the forward-looking intention to write a letter of complaint about the boss the morning after is still a means to realize the goal of removing an obstacle.

Secondly, the forward-looking intention that causes emotional planned actions is formed while a prioritized action tendency is up and running. As a result, forward-looking intentions of this sort may partake at least in part in the short-sightedness of impulsive emotional actions, because they are formed "in the heat of the moment." But unlike intentions-in-action, which immediately cause actions, forward-looking intentions can be revised. This is why we often give up on forward-looking intentions formed during emotional incidents: Although they passed the compatibility control performed while in the heat of the moment, they do not pass the compatibility control performed coldly on the day after.

Thirdly, the prioritized action tendency must not disappear completely after the forward-looking intention has been formulated. For example, I may form a forward-looking intention to write a letter of complaint about my boss the day after, but still spend part of the night obsessively fantasizing about slapping the boss in front of everyone. As a result, in planned emotional actions, when the forward-looking intention finally causes an intention-in-action, an action tendency with some degree of control precedence—perhaps involving only mental actions and little to no bodily preparation—should still be up and running.[22]

Emotional planned actions are not to be confused with *actions done out of expected emotions*.[23] Examples include ingesting a beta blocker prior to a public speech out of the expectation that one will be afraid without it, marrying a high school sweetheart out of the expectation that one will be happy ever after, turning down an opportunity to cheat on one's wife with an attractive woman out of the expectation that one will later on experience guilt. Actions done out of expected emotions rely on our ability to use predicted future emotions as input in a standard process of practical reasoning.

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[22] This is compatible with the fact that the prioritized action tendency may not be up and running at various points during the period between the emotional incident and the emotional action (e.g., during sleep). A borderline case would be one in which I rely on a forward-looking intention formed in the heat of the moment and such intention shares the relational goal of an earlier prioritized action tendency, but the prioritized action tendency has dissipated entirely by the time the forward-looking intention causes an action. I remain neutral in this chapter on whether such planned actions should also be called emotional (Pacherie 2001 suggests that they should).

[23] Actions done out of expected emotions are a species of what Pacherie (2001) calls *fully deliberate emotional actions*. Other species of such genus include using memory and the imagination to elicit emotions (e.g., remembering past slights in order to become angry) and using expected emotions as a commitment device (e.g., announcing one will quit smoking in order to use the expected guilt that will result from infringement to strengthen one's commitment). I do not consider the use of memories of past emotions, imaginings of future emotions, or expectations of future emotions to constitute a species of emotional actions because such uses do not constitute by themselves actions with control precedence, so I reject Pacherie's (2001) suggestion that there exist fully deliberate emotional actions.

My view is that actions done out of expected emotions are not emotional actions, even though they presuppose the ability to have emotions and to predict future emotions. In ordinary English, the distinction between emotional actions (impulsive or planned) and non-emotional actions done out of expected emotions is often blurred. Some may describe the action of taking a beta blocker as being done out of fear (rather than out of expected fear), and the action of refraining from cheating as being done out of guilt (rather than out of expected guilt), even though in neither case an actual emotion has taken place.

The final challenge is that of explaining *reflex-like emotional actions* such as automatically recoiling out of fear of a suddenly looming object or automatically expelling a cockroach from one's mouth out of disgust. In this case, the two-level control structure I have described does not kick in. This is because there is no formation of an action tendency, and action follows directly the perception of the stimulus, without any input from consistency control and executive control.

Frijda's (2007, 31) view is that reflexes are "emotional" in an inverted commas sense at best, but I disagree. This is because, as Frijda himself pointed out, reflexes exhibit the highest degree of control precedence: Reflex-like emotional actions take priority over all other competing processes and involve bodily preparation synchronous with motor execution. In this sense, they are relevantly similar to prioritized action and inaction tendencies.

At the same time, there are many reflexes that have nothing to do with emotions. The knee reflex and the blinking reflex are good examples of non-emotional reflexes. I propose that we distinguish reflex actions that are emotional from reflex actions that are not emotional by focusing on their relational goals: A reflex action is an emotional action just in case it shares the relational goal of a prioritized action tendency. In other words, for reflex actions to count as emotional, there must exist impulsive emotional actions with the same relational goal.

This is why the knee reflex and the blinking reflex are not emotions. There is no prioritized action tendency that shares the goal of either reflex. On the other hand, the avoidance reflex activated by suddenly looming objects is an emotional action because it shares with prioritized avoidance tendencies the relational goal of achieving safety.

It is time to take stock. I have argued that the Motivational Theory of Emotions (MTE) outperforms Cognitivism and the Perceptualism when it comes to accounting for the phenomena of emotional motivation. This, however, is not sufficient to consider it a viable philosophical theory of emotions. MTE must also provide solutions for two standard problems in the philosophy of emotions. One is the problem of intentionality, which requires explaining why emotions are about their core relational themes (e.g., why is fear about dangers?). The other is the problem of differentiation, which requires explaining how emotions differ from one another (e.g. how is guilt different from shame?). In what follows, I will illustrate how MTE deals with these two problems.

5.4. *The Intentionality of Emotions*

Suppose that fear is a prioritized avoidance tendency with the relational goal of achieving safety, as suggested by Frijda (1986). This fact *per se* does not explain why fear is about dangers. Similarly, the fact that anger is a prioritized attack tendency with the relational goal of removing an obstacle does not explain in what sense anger is about offenses. In order to become a workable philosophical theory of emotions, MTE must explain the *intentionality* of emotions, also known as their *ability to represent*.

Cognitivists and Perceptualists follow a similar strategy to account for it. First, they assume that emotions play two representational roles:

(a) A *descriptive role*: Emotions represent what obtains.
(b) An *imperative role*: Emotions represent what needs to obtain.

Second, they assume that these two roles are played by distinct *components* of emotions. For B&D Cognitivists, the two components are *beliefs* and *desires*, which play respectively the descriptive and the imperative role. On this proposal, what explains the intentionality of emotions is that they are partially constituted by beliefs to the effect that the core relational theme (CRT) of the emotion is instantiated. On this view, fear is about dangers and anger is about offences because they are partially constituted by, respectively, the CRT belief that danger is at hand and the CRT belief that one has been offended.

For Prinz (2004), the two components are *embodied appraisals* and *valence markers*, which play respectively the descriptive role and the imperative role. On his proposal, what explains the intentionality of emotions is that they are partially constituted by embodied appraisals that have the function of being elicited by core relational themes. On this view, fear is about dangers and anger is about offenses because they each contain embodied appraisals with the function of correlating with, respectively, dangers and offenses.

I share with B&D Cognitivists and perceptual theorists like Prinz the view that emotions play both a descriptive and an imperative role. Since Frijda's (1986; 2007) original theory only accounted for the imperative side, it needs to be supplemented with a descriptive side. What I reject is the further assumption that descriptive and imperative roles are played by *distinct* components of emotions.

I propose instead that emotions combine descriptive and imperative roles into a unified whole. On the view I propose, emotions have what I have previously called a *mind-to-world-to-mind* (or dual) direction of fit: they represent how things are (mind-to-world) and how things are to be (world-to-mind) at the same time (Scarantino 2010). Millikan (2004) has labeled representations of this sort as *pushmi-pullyu representations*, arguing that they "represent facts and…represent goals, both at once" (157).

What we need to do is to make explicit that (in)action tendencies and action reflexes do not merely represent relational goals: They also represent facts. For the purposes

of this chapter, I accept Prinz's (2004) teleosemantic framework for explaining how emotions represent facts, namely that they do so by having the function of being elicited by them. But I supplement it with the idea that emotions have *at the same time* the function of achieving a certain relational goal. Thus, emotions have what I call an *informational-cum-motivational function.*

According to MTE, what explains the intentionality of emotions is that they are (in) action tendencies or action reflexes with the informational-cum-motivational function of *achieving relational goals while correlating with core relational themes.* On this view, fear is about dangers because it is a prioritized avoidance tendency/reflex with the informational-cum-motivational function of achieving the relational goal of one's own safety while correlating with dangers. Anger is about offenses because it is a prioritized attack tendency/reflex with the informational-cum-motivational function of achieving the relational goal of removing an obstacle while correlating with offences. Sadness is about losses because it is a prioritized inaction tendency with the informational-cum-motivational function of achieving the relational goal of not relating as such while correlating with losses.

I understand *informational-cum-motivational functions* in the *etiological sense,* namely as past effects that explain the current presence of the function bearer (cf. Wright 1973; Wouters 2003). Saying that emotion E has the informational-cum-motivational function of achieving relational goal G while correlating with core relational theme T is therefore saying that the past effects of achieving G in the presence of T explain why E was selected for, relative to some selection process S (e.g., natural selection, cultural selection).

For instance, saying that fear has the informational-cum-motivational function of achieving the relational goal of one's own safety while correlating with dangers amounts to saying that the past effects of attaining one's own safety in the presence of danger explain why fear was selected for. Functions understood etiologically can have normative import, because they characterize what a function-bearer is supposed to do. A corollary is that fear will be *defective* in the absence of danger, anger will be *defective* in the absence of offences, sadness will be *defective* in the absence of losses. In all such cases, emotions do not prioritize relational goals in the presence of those core relational themes that explain why prioritizing such goals in the past was selected for.

5.5. *What Emotions Are and How They Differ from One Another*

I am finally in a position to formulate the definition at the heart of the Motivational Theory of Emotions:

(MTE): 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.

The flowchart (Figure 8.1) summarizes the causal sequence of events posited by MTE (the chart focuses on action rather than inaction tendencies). Emotional episodes start
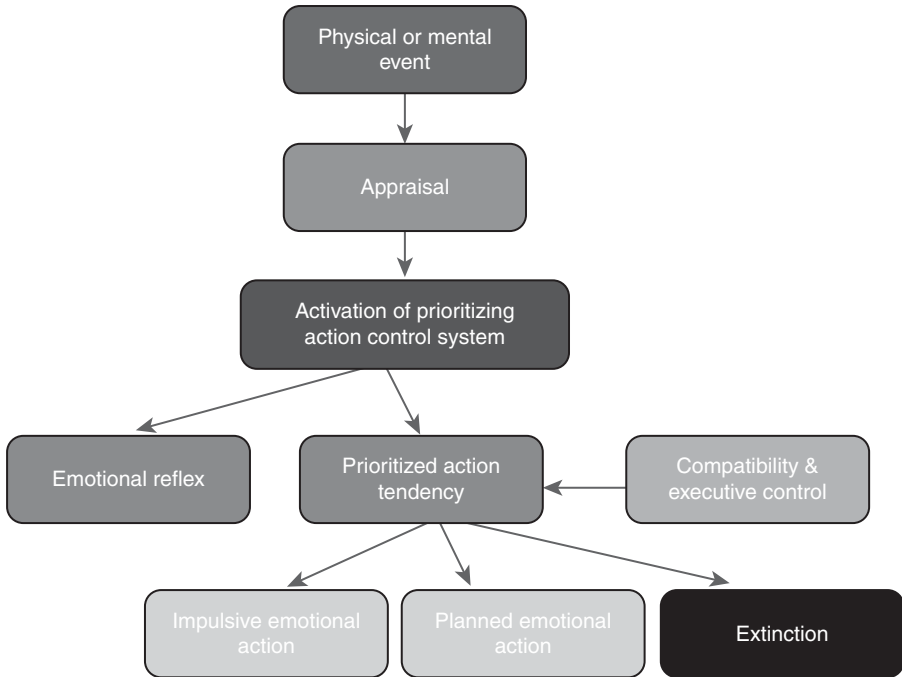
```
          ┌─────────────────────┐
          │  Physical or mental │
          │        event        │
          └─────────────────────┘
                    │
                    ▼
          ┌─────────────────────┐
          │     Appraisal       │
          └─────────────────────┘
                    │
                    ▼
          ┌─────────────────────┐
          │ Activation of       │
          │ prioritizing        │
          │ action control      │
          │ system              │
          └─────────────────────┘
           ╱            ╲
          ▼              ▼
┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│  Emotional   │  │ Prioritized  │◄─│ Compatibility│
│    reflex    │  │   action     │  │ & executive  │
│              │  │  tendency    │  │   control    │
└──────────────┘  └──────────────┘  └──────────────┘
                   ╱     │     ╲
                  ▼      ▼      ▼
         ┌──────────┐┌──────────┐┌──────────┐
         │ Impulsive││ Planned  ││Extinction│
         │ emotional││ emotional││          │
         │  action  ││  action  ││          │
         └──────────┘└──────────┘└──────────┘
```

Figure 8.1

with an initial physical event (e.g., being insulted) or mental event (e.g., recollecting being insulted) whose appraisal activates the action control system with which I identify the emotion (e.g., the anger system). The action control system in turn can either directly lead to a reflex action or to an action tendency with control precedence (e.g., an attack tendency), i.e. one that takes precedence over all other action modalities and involves bodily preparation.

As soon as the prioritized action tendency is up and running, rational control enters the picture, performing compatibility and executive controls. The outcome of such controls can be an impulsive emotional action (e.g., striking), the formation of a forward-looking intention that will eventually lead to a planned emotional action (e.g., writing a letter of complaint), or the extinction of the prioritized action tendency.

MTE adds three main ingredients to Frijda's (1986; 2007) original analysis. First, action reflexes are explicitly included in the domain of emotional actions proper along with prioritized action and inaction tendencies. Second, the identity of an emotion becomes defined in part by its function. Third, the function of emotions is understood in informational-cum-motivational terms, i.e. achieving a certain relational goal in the presence of a certain core relational theme.

Before explaining how MTE distinguishes between different emotions, it is worth emphasizing that *appraisals* and *feelings* no longer play a definitional role in MTE.

This marks a major discontinuity in the philosophy of emotions, because it shifts the focus of analysis from how emotions evaluate (Cognitivism) and how emotions feel (Perceptualism) to how emotions affect action. It would be a mistake, however, to conclude that appraisals and feelings have no important role to play in MTE.

Appraisals are the standard elicitors of prioritized (in)action tendencies and action reflexes. This is because stimuli do not cause emotions per se, but contingently on how they are appraised. I have argued elsewhere that emotional appraisals lie on a continuum (Scarantino 2010). On one end, we have forms of appraisal that operate as a modular input system (e.g., fast, effortless, mandatory, informationally encapsulated, with limited central access and fixed neural architecture). An example is the appraisal of threat involved in reflex fear, which is automatically elicited by suddenly looming objects and loud noises.

On the other hand, we have forms of appraisal that are centrally driven (e.g., slow, effortful, non-mandatory, cognitively penetrable, with full central access, without fixed neural architecture). An example is the appraisal of threat performed by an airplane pilot who gradually, on the basis of various subtle cues, realizes that there is something seriously wrong with the plane, which elicits a prioritized avoidance tendency.

Feelings are also often involved in the activation of the action control systems with which I identify emotions. What is felt according to MTE is that a certain (in)action tendency has acquired control precedence.[24] This complex feeling results from a variety of co-occurring subjective experiences, some associated with the interruption of ongoing actions, some associated with the focusing of attention, some associated with the occurrence of facial expressions, some associated with the occurrence of autonomic bodily changes, and so on.

A basic difference between MTE and traditional theories of emotions is that appraisals and feelings are no longer essential components of emotions. First, exceptions to the rule that prioritized (in)action tendencies and action reflexes are caused by appraisals are allowed. Non-standard mechanisms for the elicitation of prioritized (in)action tendencies and reflexes include chemical induction, brain manipulation, and facial feedback (Izard 1993).

Second, prioritized (in)action tendencies and action reflexes can occur in the absence of concurrent feelings. Candidate examples include unconscious prioritized (in)action tendencies in humans and prioritized (in)action tendencies in simple animals like sea slugs whose ability to have subjective experiences in the first place is highly doubtful.

We now have all the ingredients required to explain how MTE differentiates between different emotions. It does so by means of three elements: (i) emotion-specific (in)action tendencies or action reflexes, (ii) emotion-specific core relational themes,

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[24] Reflexes are too quick for feelings to play a role in their operation, even though feelings often follow emotional action reflexes, as when one starts feeling fear several seconds after a car accident.

Table 8.1

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

and (iii) emotion-specific relational goals. Table 8.1 offers some tentative examples for specific emotions.[25]

Let us consider the distinction between *shame* and *guilt* by way of example (cf. Lewis 2008). According to MTE, shame is a prioritized disappearance tendency/reflex with the function of achieving the relational goal of hiding a flawed self while correlating with failures to live up to an ego ideal. Guilt is a prioritized reparation tendency/reflex with the informational-cum-motivational function of achieving the relational goal of making up for a flawed behavior while correlating with moral transgressions.

This account of their difference is compatible with guilt and shame being indistinguishable at the level of bodily changes, or lacking bodily changes entirely, and being indistinguishable at the level of feelings, or lacking feelings entirely. For example, it may well be that some forms of guilt and shame only consist of mental actions without distinctive bodily signatures, and that some forms of guilt and shame are associated with no subjective experiences at all. But as long as they are associated with prioritized action tendencies that differ in the way I have indicated, the ground of difference between them is not threatened.

Furthermore, this account of the difference between guilt and shame is compatible with significant variation in the complexity of the information processing involved in the appraisals that elicit guilt and shame. Some varieties of guilt and shame (e.g., victim's guilt, shame generated by the presence of high ranking members of one's group) will be elicited by appraisals that display several of the markers of a modular input

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[25] The chart combines Lazarus' (1991) account of core relational themes (with the addition of contamination as the core relational theme for disgust; see Curtis, DeBarra, and Aunger 2011) with suggestions by several authors on the action tendencies and relational goals of specific emotions (e.g., Frijda 1986 on anger, fear, and disgust; Lewis 2008 on shame and guilt; Bonanno 2001 on sadness; Fredrickson and Cohn 2008 on joy).

system (e.g., fast, informationally encapsulated, effortless), whereas other varieties of guilt and shame (e.g., guilt about one's financial success, shame about having been caught violating a promise) will be elicited by appraisals that are centrally driven (e.g. slow, informationally penetrable, effortful). The ground of difference between guilt and shame I have outlined is even compatible with the possibility that guilt and shame may occasionally not involve appraisals at all, as in the (so far) theoretical possibilities of guilt and shame being elicited by direct brain stimulation, chemical induction, and facial feedback.

Finally, MTE offers a recipe for distinguishing between theoretically more homogeneous sub-types of the same folk psychological emotion category. The recipe is to ask what states of affairs emotions have the function of correlating with and what relationship with the environment they have the function of bringing about. In principle, this process can lead to the realization that different instances of the same folk psychological emotion have the function of correlating with different states of affairs and the function of bringing about different relational goals, potentially leading to splitting the original folk category into sub-types.

Disgust is a good candidate for this sort of splitting. Some instances of disgust appear to have the function of producing an action tendency/reflex of oral expulsion while correlating with physically contaminating items such as poisons and parasites, whereas other instances of it appear to have the function of producing an action tendency/reflex of social rejection while correlating with morally polluting items such as racism and hypocrisy (Rozin, Haidt, and McCauley 2008; Kelly 2011). In such a case, it may be theoretically useful to distinguish between two sub-types of disgust—e.g., core disgust and moral disgust—each defined by its own triad of fine-grained action tendencies, core relational themes, and relational goals.

6. Conclusion

In this chapter I have introduced a new theory of emotions—the Motivational Theory of Emotions (MTE). On the view I propose, emotion types are defined and differentiated by their distinctive (in)action tendencies/action reflexes, their distinctive relational goals, and their distinctive core relational themes, on the assumption that the informational-cum-motivational function of each emotion is to achieve the relational goal when the core relational theme is instantiated.

MTE explains what I have called the phenomena of emotional motivation—impulsivity, flexibility, and bodily underpinnings—better than the two currently most popular philosophical theories of emotions, namely Cognitivism and Perceptualism. MTE also accounts for the variety of emotional actions associated with emotions, of which I have distinguished three species: reflex-like emotional actions, impulsive emotional actions, and planned emotional actions.

Finally, MTE has solutions to offer to the problems of intentionality and differentiation, explaining, respectively, what endows emotions with aboutness and what makes any two emotions different from one another. In light of these achievements, I conclude that the Motivational Theory should be considered a promising new competitor in the philosophy of emotions.

Acknowledgments

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