CHAPTER 1

The Philosophy of Emotions and Its Impact on Affective Science

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Philosophers' fascination with the emotions is as old as philosophy itself. A great many leading philosophers since Ancient Greece and throughout the Middle Ages, the Early Modern Period and up to the present time have proposed complex theories of emotions and of their value or disvalue with respect to knowledge, the good life, and morality, three historically dominant philosophical concerns. What has changed over time is the degree to which philosophical and scientific investigations of the emotions have differed from one another.

Many of the major figures in the history of Western philosophy were philosopher–scientists, namely pioneers of *natural philosophy*, the subfield of philosophy devoted to the inquiry into nature that in the 19th century started being singled out as "science." Since the 19th century, science and philosophy have differed in their methods, conceptual tools, and research questions, and the extent to which they should be separate intellectual pursuits is itself a topic of continuing philosophical reflection.

At first blush, there are some differences between the research programs of contemporary philosophers of emotions and affective scientists. Philosophers of emotions seem more inclined than affective scientists to engage in the armchair analysis of emotion concepts. They often explicitly aim to vindicate common-sense ideas about emotions, and find inspiration in the history of philosophy or in literary texts. Philosophers' standard method is to rely on reflective intuitions, developed through personal experiences of emotions and thought experiments, and try to come up with a theory of emotions that is all-encompassing, elegant, intuitively compelling, and capable of shedding light on other concepts of philosophical interest.

Affective scientists, on the other hand, generally do not consider the preservation of common-sense ideas about emotions to be a valuable objective, citing a litany of cases in which science has proven common sense wrong, as exemplified for instance by the conflict between folk physics and modern physics. The standard operating procedure of affective scientists is to form and test scientific hypotheses, typically modest in scope, through intersubjectively available empirical methods. When they engage in more general theorizing about emotions, affective scientists are often content to formulate theories of emotions that accommodate a particular set of empirical data, and are helpful for scientific explanation, prediction, and control in a given subfield of inquiry.

Despite these prima facie differences, it would be a mistake to conclude that the philosophy of emotions is not relevant to the present-day concerns of affective scientists. First, a sizable proportion of contemporary philosophers of emotions are self-described *naturalists*, in the sense that they reject the pertinence of the broad methodological divide I have outlined so far, suggesting in-

stead that the type of knowledge about the world revealed by philosophy should not differ in kind from the type revealed by affective science.

These naturalistic philosophers consider the empirical data about emotions to be both a constraint on, and an inspiration for, philosophical theorizing. Unlike specialized affective scientists, who favor depth over breadth, naturalistic philosophers of emotions tend to become conversant in a variety of empirical literatures, learn to translate their disciplinary concerns and terminologies into a common language, and try to mediate among competing scientific viewpoints, often with the ultimate objective of integrating them into a coherent whole.

Second, many of the questions contemporary philosophers ask about emotions overlap with questions asked by affective scientists. Principal among those is the question of what emotions are. But several more specific issues at the forefront of affective science are attracting the attention of philosophers of emotions as well, including the nature of emotional experience (e.g., Ratcliffe, 2008), the structure of collective emotions (e.g., von Scheve & Salmela, 2014), the influence of emotions on decision-making (e.g., Elster, 2010), the impact of emotions on action (e.g., Döring, 2007), the role of emotions in morality and art (e.g., Prinz, 2007; Matravers, 1998), the possibility of unconscious emotions (e.g., Lacewing, 2007), the power of music to elicit emotions (e.g., Robinson, 2005), the use of emotions in film (e.g., French, Wettstein, & Saint, 2010), the influence of emotions in the law (e.g., Nussbaum, 2004), the natural kind status of folk emotion categories (e.g., Charland, 2002; Griffiths, 2004a), the ability of emotions to deliver epistemic information (e.g., Brady, 2013), the connection between emotional expressions and the origins of language (e.g., Green, 2007; Bar-On, 2013), and the nature and value of specific emotions (e.g., Haybron, 2008, on happiness; Steuber, 2006, on empathy; Brogaard, 2015, on love; Kelly, 2011, on disgust; D'Arms, 2013, on envy; Deigh, 1999, on guilt; Clark, 2010, and Velleman, 2001, on shame; Macnamara, 2012, on gratitude; Martin, 2014, on hope).

We can make significant progress on all these topics by applying theoretical tools developed in various areas of philosophy (see also Deonna, Teroni, & Tappolet, 2015). Just to mention a few examples, distinctions between dispositions and occurrences developed in metaphysics can help draw more refined emotion taxonomies, distinctions among varieties of consciousness developed in philosophy of cognitive science can clarify the various senses in which an emotion can be unconscious, distinctions between historical and forward-looking notions of function developed in philosophy of biology can provide a solid foundation for functional accounts of emotions, and theories of mental content developed in philosophy of mind can shed light on whether and how emotions have representational qualities.

Finally, the history of the philosophy of emotions, intertwined as it is with the history of affective science up to the 19th century, is a key resource for reconstructing where the "big ideas" that shape contemporary emotion research come from. A historical approach can help us better articulate and evaluate these ideas, and develop a sharp understanding of the costs and benefits of alternative theories of emotions. In this chapter, I trace the origin of the three ideas that have historically constituted the primary attractors in the project of defining emotions: the idea that emotions are *feelings*, the idea that emotions are *motivations*, and the idea that emotions are *evaluations*.

I begin by illustrating how these ideas have been introduced and developed by philosophers, and then highlight a few examples of how they continue to influence debates in emotion theory writ large. In the course of this exploration, it will become apparent that the science and the philosophy of emotions are deeply interconnected and can put their proprietary theoretical tools at the service of projects of common interest. It will also emerge that, although the area of consensus on the distinctive characteristics of emotions has increased over time, we are far from having reached consensus on what emotions are. I suggest in conclusion that failure to define emotions despite centuries of cross-disciplinary efforts demands significant changes in the methodological presuppositions of emotion research.

As we consider theories introduced at different times and in different languages, a caveat on terminology is in order. A variety of terms have been used over the centuries to designate what we now call "emotion," a term that came into use in the English language during the 17th and 18th centuries as a translation of the French term *émotion* but did not designate "a category of mental states that might be systematically studied" until the mid-19th century (Dixon, 2012, p. 338; see also Dixon, 2003; Solomon, 2008). Such alternative terms include, among others, "passion," "sentiment," "affection," "affect," "disturbance," "move-

ment," "perturbation," "upheaval," "appetite," and their Greek, Latin, German, or French cognates.

None of these terms was used precisely as we use it today, none overlaps completely with our contemporary "emotion" category, and none was used in the exact same way by different authors. In the interest of simplicity, I disregard the nuances of translation between alternative terminologies, and count as emotion theories all theories that focus on affective categories that are "close enough" to what we call emotions today, in the sense that they comprise a sufficient number of the more specific states (e.g., joy, anger, fear) we count as emotions in contemporary taxonomies.

Emotions as Feelings, Motivations, and Evaluations

Theorists of emotions disagree vigorously on what emotions are, but they tend to concur on what I call the *diagnostic features* of emotions. These are the features we commonly use to infer that an emotion is under way, and they involve causes, constituents, and effects of emotions. An example can help us draw out our intuitions. Suppose the chair of your department pops by your office one day to nonchalantly tell you that you were denied tenure, after 6 years of strenuous efforts and despite having met all publicly stated tenure requirements. Further suppose that this piece of dreadful news makes you extremely angry. Which features are involved in this episode of anger?

First, it seems likely that you engaged in a certain type of *evaluation* of the events that unfolded: you appraised them as constituting a major slight to you. Second, a sequence of *physiological changes* is likely to take place, involving, say, slight tremors, decrease in saliva flow, and increases of heart rate, blood pressure, rate of respiration, and gastric activity. Third, your face, body, and voice are likely to manifest distinctive *expressions*: eyes locked on the department chair, eyebrows lowered and pulled together, expanded chest, stiff posture, and loud and high-pitched voice. Fourth, you are likely to undergo an unpleasant *subjective experience* that involves feeling hot and ready to engage in aggressive action. Fifth, your *mental processes* and *behavioral dispositions* are likely to change from their baseline states.

You immediately interrupt whatever else you were doing and focus your attention on the interaction at hand, first heatedly stating that denying you tenure is completely unfair and misguided and then, as soon as the department chair urges you not to take it personally, yelling at him to get out of your office. You then briefly close your eyes, try to calm down your breathing, imagine what your spouse's reaction to the news is going to be, consider where else you could apply, and immediately form an intention to appeal the decision. Your judgment of your department as a whole changes ("What a snake pit!"), and you come to realize how deeply you cared about tenure, despite your prior claims to the contrary.

Which of the many features of this prototypical anger episode *is* your anger? Is it the evaluation, the subjective experience, the expressions, the physiological changes, the disposition to engage in mental and physical actions, or a combination of all such features, plus perhaps some other ingredient? Furthermore, is getting angry beneficial or detrimental to you? These are some of the questions that have divided emotion theorists for centuries, leading to a plethora of competing accounts of emotions and their functions. Although such accounts differ across multiple dimensions, they can be usefully sorted into three broad traditions with deep philosophical roots, which I call the *feeling tradition*, the *motivational tradition*, and the *evaluative tradition*. Such traditions identify emotions with, respectively, distinctive conscious experiences, distinctive motivational states, and distinctive evaluations of the eliciting circumstances.

Each tradition comes in several varieties, and some theories do not fit comfortably within any one tradition. Furthermore, most theories combine aspects of several traditions. Nevertheless, it is helpful to sort theories into traditions of primary membership. This can allow us to highlight similarities among theories over time and across disciplines, and to unveil persistent theoretical challenges faced by each tradition. Most importantly, the historical investigation reveals that no tradition has developed a clear lead over its competitors. As a result, no view about what kind of psychological structures emotions are has gained widespread consensus. This remarkable fact sets affective science apart from other scientific pursuits, and it demands an explanation I provide in the chapter's methodological coda.

Aristotle at the Crossroads among Traditions

A good place to start our historical journey is Aristotle's account of emotions, which anticipates many of the themes of the three traditions I wish to distinguish and has exerted a major influence

on the subsequent history of emotion theory. Aristotle's account is a rich hybrid that could be slotted into either the *feeling tradition, motivational tradition, or evaluative tradition*, depending on which aspect one decides to emphasize. This is due in part to the fact that Aristotle never provided a systematic theory of emotions (Cooper, 1999, pp. 406–407), offering instead a number of insightful but disjointed reflections on the nature and function of emotions throughout his ethical treatises (*Nicomachean Ethics, Eudemian Ethics*), his book on the nature of the soul (*On the Soul*), his writings on poetry (*Poetics*), and most prominently, his work on the art of public speaking (*Rhetoric*).

Aristotle's discussion of the emotions begins with a distinction between passions (*pathê*) and actions (*praxeis*) that has been taken for granted by most emotion theorists ever since (but see the section "The Motivational Tradition" for a discussion of some important exceptions). Whereas actions are things we *do*, Aristotle tells us, "in respect of the passions we are said to be moved" (*Nicomachean Ethics*, 1106a4–5). As pointed out by Kosman (1980, p. 105), the distinction between *praxeis* and *pathê* in Aristotle is a "special instance of a more general structural duality, that of *poiein* and *pashein*, doing and being done," which are for Aristotle distinct "categories of being." The identification of emotions with things that happen to us, or things by which we are acted upon, or things we undergo, is one of the most enduring legacies of Aristotelianism.

It strongly influenced early modern accounts of emotions (James, 1997) and it is still embedded in the very metaphors we use to speak about emotions in ordinary language. For example, "we 'fall' in love, are 'consumed' by envy, 'haunted' by guilt, 'paralyzed' by fear" (Averill, 1980, p. 267). Many of the adjectives we deploy to refer to the emotions are "derived from participles" (Gordon, 1987, p. 373)—"frightened," "surprised," "joyed," "irritated," "upset"—another sign of how ingrained the idea of passivity is in our folk conceptualization of emotions.

Initially, Aristotle may seem to be a straightforward founder of the *feeling tradition*. Besides emphasizing that the passions are things that happen to us, as feelings do, Aristotle explicitly identifies passions with feelings. As he puts it, the "passions [are] all those feelings that so change men as to affect their judgments, and that are also attended by pain [*lupe*] or pleasure [*hedone*]" (*Rhetoric*, 1378a19–21). Pain and pleasure must be understood here as having bodily underpinnings, since Aristotle tells us that "all the affections of soul involve . . . a concurrent affection of the body" (*On the Soul*, 403a16–19). Examples of passions discussed in some detail by Aristotle include anger, calmness, friendliness, hatred, fear, confidence in the face of danger, shame, kindness, pity, indignation, envy, and emulation.[1]

Aristotle's interest in how feelings "change men as to affect their judgments" was related to his primary rationale for studying them. His most detailed account of the passions is in the *Rhetoric*, whose practical objective was to help public speakers become more persuasive, especially in the context of political oratory and lawsuits. The ability to control one's own and the audience's passions, Aristotle thought, would make the orator more effective.

This makes Aristotle an early emotion regulation theorist, and a sophisticated one at that. He implicitly distinguishes between what regulation theorists now call *extrinsic regulation* (the regulation of other people's emotions) and *intrinsic regulation* (the regulation of one's own emotions; Gross, 1998). With respect to intrinsic regulation, Aristotle recognizes that we cannot choose our passions the way we choose our actions, but adds that the dispositions to undergo the passions can be chosen. This is because such dispositions are associated with *character*, something that according to Aristotle can be voluntarily shaped over time by means of a process of *habituation*. The objective of the sage should be for Aristotle *metriopatheia*—namely, moderation in the passions—which requires experiencing them with respect "to the right person, to the right extent, at the right time, with the right motive, and in the right way" (*Nicomachean Ethics*, 1109a25).

Concerning extrinsic regulation, Aristotle suggests that the regulation of other people's passions demands learning what kind of frame of mind is typical of people who experience a certain passion, what kinds of people are such that a certain passion is experienced toward them, and what kinds of circumstances characterize the experience of a passion.

This explains Aristotle's interest in the *evaluations* associated with the passions, which are for him ultimately feelings caused, and possibly partially constituted by, distinctive evaluations. For example, fear is "pain or disturbance due to imagining some destructive or painful evil in the future" (*Rhetoric*, 1382a23); shame is "pain or disturbance in regard to bad things, whether present, past or future, which seem likely to involve us in discredit" (1383b15); and envy is "pain excited

by the prosperity of . . . people who are like us or equal with us" (1387b21).[2]

Aristotle insightfully points out that since emotions have both an evaluative dimension and a bodily dimension underlying the feelings of pleasure and pain, two options are available for defining them. For example, a "physicist would define an affection of soul differently from a dialectician; the latter would define e.g. anger as the appetite for returning pain for pain, or something like that, while the former would define it as a boiling of the blood or warm substance surrounding the heart. The latter assigns the material conditions, the former the form" (*On the Soul*, 403a29–403b2). For Aristotle, an emotion is a combination of *matter* and *form*, where the matter is what makes up the entity, and the form is the structuring principle that shapes the matter to constitute a certain type of entity.

Aristotle's distinction between types of interest-dependent definitions raises the question of whether being caused by a particular evaluation is essential to being a passion, or whether a passion can just be a feeling of pleasure and pain with its attendant bodily underpinnings. I do not take a position on this thorny issue here, but note that whether evaluations merely cause the emotions or partially constitute them matters for establishing whether Aristotle can be counted as one of the founders of the *evaluative tradition*, which is also often traced back to his work (e.g., Power & Dalgleish, 2008; Nussbaum, 2001).

Finally, passions are for Aristotle closely associated with actions, although once again, whether being a motive for action is constitutive of being a passion is up for debate. At the very least, we can count Aristotle as an early sympathizer of the *motivational tradition*. In some cases, Aristotle makes the tie with action explicit. For example, he tells us in the *Rhetoric* that (as defined by the dialectician) anger is "an impulse, accompanied by pain, to a conspicuous revenge for a conspicuous slight directed without justification towards what concerns oneself or towards what concerns one's friends" (*Rhetoric*, 1378a31–1378b1). Similarly, a friendly feeling toward someone amounts to "wishing for him what you believe to be good things, not for your own sake but for his, and being inclined, so far as you can, to bring these things about" (1380b36–1381a2). This being said, it is notable that no other accounts of the passions in the *Rhetoric* include explicit mention of an impulse or motivation (*orexis*) for action (Cooper, 1999, p. 420).

In the rest of this chapter, I explore how different authors have articulated the identification of emotions with feelings, motivations, and evaluations, and highlight a handful of especially interesting contributions. I emphasize from the beginning that in some cases a different reading of the multiply interpretable textual evidence is possible with respect to specific authors. Historical scholarship will have to be the ultimate arbiter of where various theories of emotions stand in terms of their tradition of primary membership. My main interest here is not to contribute to historical scholarship, but to sketch in broad strokes a historically plausible family tree in light of which contemporary attempts to define emotions in philosophy and affective science can be better connected and understood. I present the resulting family tree in Figure 1.1, and will proceed to illustrate its various parts in what follows.

The Feeling Tradition

The *feeling tradition* holds that emotions are feelings of a distinctive type, where a feeling is a conscious experience or a sensation or a subjective quality or a quale or a what-it-is-likeness. This view has largely dominated the study of emotions from Ancient Greece to the 20th century, and it has never stopped being influential, in part because it seems to capture folk intuitions about emotions better than its alternatives. When asked to rank in order of importance five "attributes" of emotion—facial expressions, vocal expressions, feeling states, cognitive changes, and autonomic changes—English speakers reliably pick feelings as most important (Panksepp, 2000).[3]

Although many emotion theorists since Aristotle have identified emotions with feelings, I begin my discussion of the modern feeling tradition with René Descartes. Besides having formulated what became the orthodox theory of emotions from the 17th century to roughly the end of the 19th century (with some exceptions along the way), Descartes offers the first rigorous formulation of one of the two main approaches to the *feeling tradition* that still influence contemporary research. I characterize the approach followed by Descartes, and later by Hume, Locke, and several other early modern philosophers, as the *atomistic perceptualist approach*. This approach identifies emotions with types of perceptual feelings, and assumes that such feelings are, as William James later put it, "psychic atoms."

The second approach of contemporary relevance is James's *constructionist approach*, according to which emotions are feelings that can be further

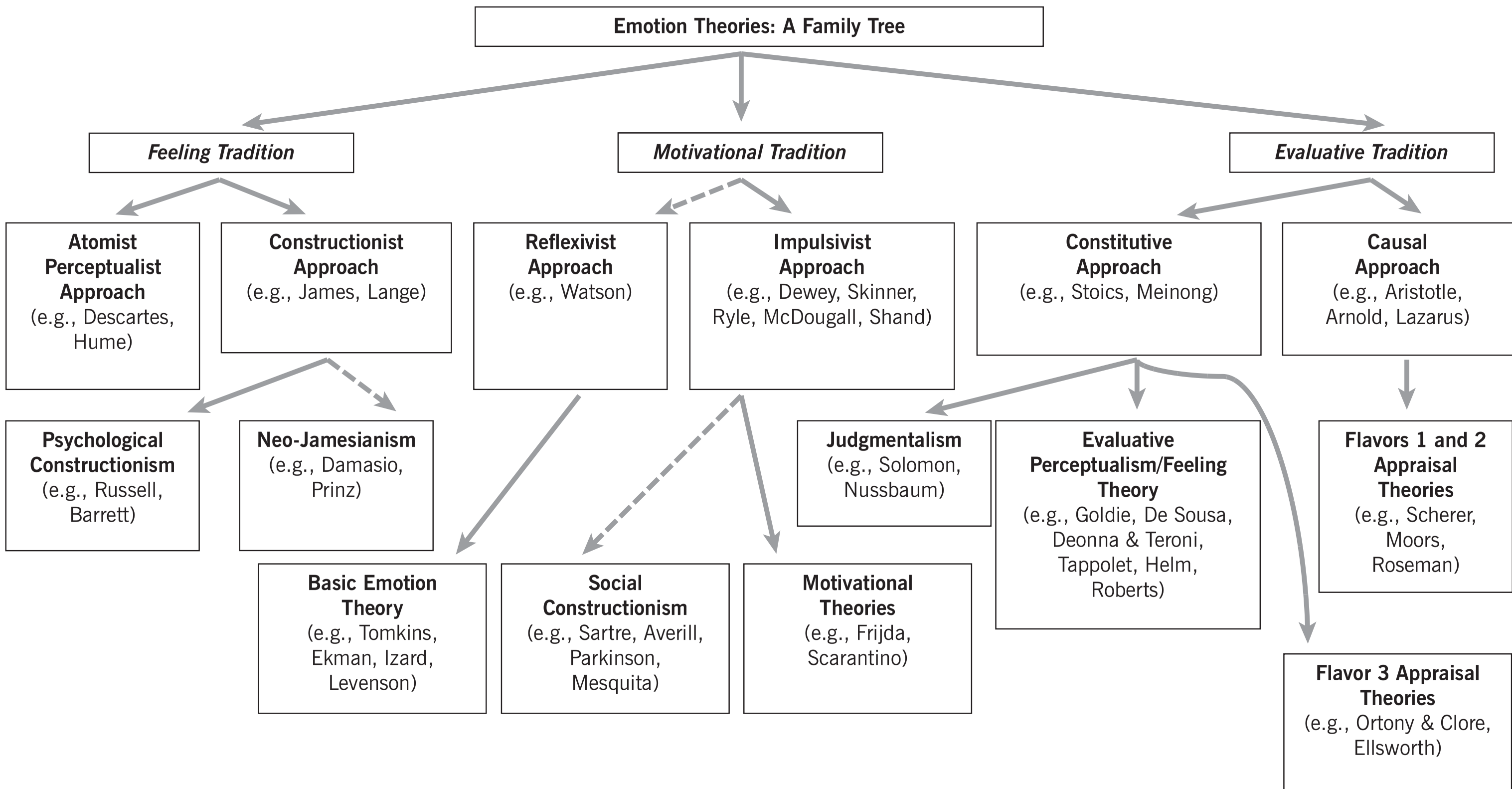

FIGURE I.1. A family tree for theories of emotions. Dashed lines are meant to signal more tenuous connections among traditions, approaches, and research programs than solid lines.

decomposed into building blocks, a view meant to usher psychology into a new scientific phase. I first illustrate these two approaches, and then consider two research programs in contemporary affective science which carry the Jamesian torch in different ways—namely, psychological constructionism and neo-Jamesianism (see Figure 1.2).

Cartesian Passions: The 17th- to 19th-Century Orthodoxy

Descartes presents his theory in *The Passions of the Soul* (1984), a treatise that begins with a sweeping dismissal of all emotion theories that came before: "the defects of the sciences we have from the ancients are nowhere more apparent than in their writings on the passions" (PA, a.1). Descartes, a dualist, decries their failure to distinguish between soul and body as distinct substances, and to investigate separately the functions of each. The functions of the body are for Descartes motion and heat. The function of the soul is the production of thoughts, of which two varieties can be distinguished: actions and passions. The actions of the soul are "acts of will" (e.g., the will to love God, the will to go for a walk), whereas the passions of the soul—in the broadest sense—are "perceptions . . . found in us," rather than willed.

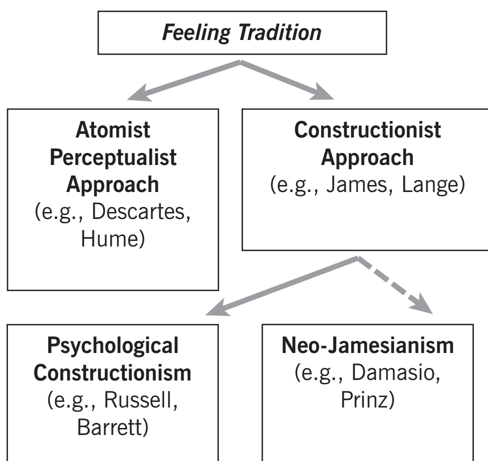

FIGURE 1.2. The *feeling tradition* and some related contemporary developments. The dashed line between the *constructionist approach* and *neo-Jamesianism* indicates that, although neo-Jamesianism is inspired by James's analysis of emotions, it is not a variety of constructionism.

Perceptions found in us come in two varieties: some are caused by the soul (e.g., the perception of an act of will) and some are caused by the body. And here we come to the key distinction: for Descartes, some of the perceptions caused by the body are referred to external objects, some are referred to the body, and some are referred to the soul itself. The first are sensory perceptions (e.g., visual perceptions, auditory perceptions), the second are bodily perceptions (e.g., pain, thirst, hunger), and the third are the passions properly understood. Cartesian passions in this narrower sense are "perceptions we refer only to the soul [and] whose effects we feel as being in the soul itself" (PA, a.25). The idea is that whereas our sensory experiences are of external objects (e.g., we perceive red apples) and our bodily experiences are located in the body (e.g., we perceive a pain in the foot), we experience our passions directly in the soul. For example, we may be afraid of a tiger and facial movements may accompany our fear, but for Descartes the feeling of fear is in the soul itself rather than in the external world or in the body.

As a result, Descartes thinks, emotions are "so close and so internal to our soul that [we] cannot possibly feel them unless they are truly as it feels them to be" (PA, a.26). What he means is that, since the passions do not involve implicit causal hypotheses about which external objects caused them or where in the body they are located, they cannot be felt in the soul without actually being in the soul. A corollary of this view is that the passions become objects of infallible introspective access: we may be wrong about what causes our passions, but we cannot be wrong about the very existence of our passions (see Kenny, 1963).

Descartes distinguishes among six primitive passions (admiration, love, hatred, desire, joy, and sadness) and an open range of nonprimitive passions, which are species of primitive passions (e.g., cheerfulness is a species of joy) or compounds of primitive passions (e.g., pride is a compound of joy and love). Since animals, unlike humans, do not have a soul, Descartes concludes that none of these passions is available to them.

Descartes makes it clear that the distal cause of the passions is an *evaluation*, whereas their proximal cause is the motions of the pineal gland brought about by "animal spirits" (the finest particles of matter). For instance, Descartes tells us that "wonder" is a "sudden surprise of the soul" which is caused by "an impression in the brain . . . which represents the object as something unusual and consequently worthy of special consideration"

(PA, a.70).[4] Love and hatred are instead caused by evaluating an object as, respectively, "agreeable" or "harmful" (PA, a.79). Descartes also emphasizes that the passions have an important function: "they move and dispose the soul to want the things for which they prepare the body." So the feeling of fear "moves the soul to want to flee," the feeling of courage "to want to fight," and so on (PA, a.40). But neither the evaluative nor the motivational elements, although part of the causal chain from perception of external objects to behavior, are part of the passions. For Descartes, "only the final, culminating, reactive, simple and unitary mirror-feeling in the soul of all that [is] going on in the body, could be called 'the emotion' " (Lyons, 1999, p. 28). It is the very idea of feelings as *simple* and *unitary* "atoms" that James's constructivist psychology called into question at the end of the 19th century.

Hume's Rejection of the Reason–Passion Dichotomy

As Anthony Kenny (1963) put it, "it was Descartes' formulation of the problems concerning the emotions which was to influence the later history of philosophy and the early attempts to make psychology into an experimental science" (p. 11). Descartes' influence on the philosophy of emotions is revealed by the fact that most early modern philosophers, despite significant differences in their overall philosophy, thought of emotions as species of perception (e.g., Locke, 1690/1975, describes them as "internal sensations"; Hume, 1739/1992, describes them as "secondary impressions"; Hutcheson, 1728/2002, describes them as "perceptions of pleasure and pain"). Classical British empiricists like David Hume, and especially John Locke, strongly emphasized the atomistic aspect of the passions, trying to show that, just like all other mental states, they are either simple mental states or reducible to a combination of simple mental states (see Deigh, 2010, for further discussion).

Hume's analysis is especially notable because it calls into question the divide between reason and passion that most emotion theorists had taken for granted until then. Hume begins by describing the passions as "impressions of reflection"—namely, perceptions caused either by other impressions or by ideas, which are copies of impressions. But the passions themselves are not ideas and consequently have "no more a reference to any other object, than when I am thirsty, or sick, or more than five foot high" (T 2.3.3.5).[5] What follows is that the passions cannot be "contradictory to truth and reason." For Hume, "this contradiction consists in the disagreement of ideas, considered as copies, with those objects, which they represent" (T 2.3.3.5). But since the passions are not copies of anything, the conflict between reason and passions cannot take place.[6]

And since the passions are for Hume the only psychological entities that can direct the will to action, reason cannot affect actions except by courtesy of the passions. This is what lies behind Hume's trademark claim that "reason is, and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them" (T 2.3.3.4). Reason can determine what is the best means for achieving a practical end picked out by the passions, but it cannot pick out a practical end of its own, because it has no access to the direction of the will.

Notably, this approach to action explanation is still dominant in contemporary philosophy, and it has been enshrined in the so-called *Humean theory of motivation*, according to which all intentional actions are caused and rationalized by pairs of beliefs and desires, which are regarded as distinct, mutually irreducible kinds of mental states (Smith, 2010). Beliefs have a mind-to-world direction of fit, because their aim is to fit what the world is like (cognitive direction of fit), and desires have a world-to-mind direction of fit, because their aim is to change the world so as to be satisfied (conative direction of fit; Searle, 1983).

The dominance of this model is testified by the attempt made by several philosophers to explain *emotional actions* in terms of beliefs and desires, on the assumption that the only way for emotions to affect actions is by causing, or by being constituted by, belief and desire pairs. This Humean model has been influentially criticized by Hursthouse (1991), who focuses on the counterexample offered by "arational actions"—namely, "weird" emotional actions like jumping up and down out of joy or kicking a door out of anger or gouging the eyes out in someone's picture out of hatred.

In such cases, Hursthouse (1991) argues, the Humean model collapses, because we cannot find any belief–desire pair that would cause and rationalize such emotional actions. In Hursthouse's view, a better explanation of arational actions is that they are performed because one is in the grip of an emotion, which has a distinctive motivational force irreducible to belief and desire psychology. The debate on whether the *Humean theory of motivation* can explain emotional actions

has flourished in recent philosophy of emotions, and a number of proposals, both in favor of and against Humeanism, are available (see Smith, 1998; Goldie, 2000; Döring, 2003, 2007; Kovach & De Lancey, 2005; Scarantino & Nielsen, 2015).

Descartes' assumption that the mind consists in what lies within one's consciousness also had a profound impact on the emerging science of psychology. Early champions of experimental psychology like Wilhelm Wundt and Edward Titchener took it for granted that introspection offers us privileged access to the inner world of conscious experience, and they defined psychology as the science that studies consciousness through properly trained introspection, a view that oriented the young science of psychology until the rise of behaviorism in the early 20th century.

The Jamesian Revolution: Feelings as Constructions

The second approach I distinguish within the *feeling tradition* is the *constructionist approach* associated with James's theory of emotions, presented in "What Is an Emotion?" (1884), in the 25th chapter of *The Principles of Psychology* (1890), and in "The Physical Basis of Emotion" (1894).[7] James believed that a truly scientific theory of the emotions required understanding their *physiological* causes rather than treating them as *psychic* and *atomic* phenomena that take place in the soul, a characterization applicable to the theories offered by Descartes, Hume, Locke, and many other early modern philosophers.

James complained that emotions had been described until then as "the internal shadings of emotional feeling," where feelings were understood as "psychic entities" whose bodily underpinnings, although perhaps typical, were not essential. "The trouble with the emotions in psychology," he wrote, "is that they are regarded too much as absolutely individual things. So long as they are set down as so many eternal and sacred psychic entities, like the old immutable species in natural history, so long all that *can* be done with them is reverently to catalogue their separate characters, points, and effects" (1890, p. 449).

James judged the "merely descriptive literature of the subject, from Descartes downwards, [as] one of the most tedious parts of psychology" (James, 1892, p. 374). Besides being tedious, James (1890) believed that theorizing about the emotions in terms of internal shadings of emotional feeling resulted in endless classification lacking in scientific rigor. What the scientific theory of emotion needed was a "generative principle" that could only be discovered by regarding the emotions as "products of more general causes" rather than individual psychic entities to be introspectively distinguished and labelled (1890, p. 449).

Since "the general causes of the emotions are indubitably physiological," James concluded that focusing on physiology offered emotion theorists the promise of a generative principle that could do for the understanding of emotions what the generative principle of heredity and variation had done for the understanding of species—namely, allow it to get "on to another logical level" (1890, p. 448).

According to Mandler (1990, p. 180), James developed "the first constructionist psychology, attempting to understand the processes that generate and construct behavior and conscious experiences." Mandler notes an important change in scientific psychology between the 19th and the 20th century. Nineteenth-century psychology was "generally atomistic—mental phenomena were seen as the concatenation of nuclear ideas, feelings, and thoughts," whereas 20th-century psychology was interested in the "mechanisms and processes that produced or generated feelings and thoughts, and when there was an interest in basic building blocks, it rarely invoked ideas, feelings, or thoughts" (1990, p. 179).

James pioneered this very transition, suggesting that emotional feelings are not "simple and unanalyzable," as generally assumed within the *feeling tradition*, but rather constructed out of more basic ingredients. For James (1884), an emotion is a "secondary feeling indirectly aroused" when organic changes occur in a reflex-like fashion as a result of being exposed to an exciting stimulus. This approach makes it possible to conceive of emotions "as something other than individual sensations or feelings each identifiable by a distinctive sensory tone or quale" (Deigh, 2001, p. 1249). Most importantly, this approach allows James to explore how these secondary feelings are *constructed* out of the combination and integration of more basic processes not specific to emotions.

On James's original account, there is no *psychic entity* (e.g., no evaluation) that mediates between the mental perception of some exciting fact and the bodily expression. Rather, "*the bodily changes follow directly the PERCEPTION of the exciting fact*" and "*our feeling of the same changes as they occur IS the emotion*" (1884, p. 190).[8] This amounts to a reversal of common sense, according to which we cry because we are sorry, we run because we

are afraid, and we strike because we are angry. On the contrary, according to James, "we feel sorry because we cry, angry because we strike, afraid because we tremble" (p. 190). On this view, since emotions are feelings resulting from perceiving changes in expressions, physiology and behavior, and such changes must occur prior to being perceived, emotions do not cause the diagnostic changes associated with them (see Deigh, 2014, for further discussion).

In developing his theory, James makes a distinction between what he calls the *standard* or *coarser* emotions and the *intellectual* or *subtler* emotions. The former are those in which the bodily disturbance is clear, and they include surprise, curiosity, rapture, fear, anger, lust, greed, grief, rage, and love. However, James acknowledges that there are also emotions "whose organic reverberation is less obvious and strong" (1890, p. 449). For these subtler emotions, which include "moral, intellectual, and aesthetic feelings," as well as "feelings of pleasure and displeasure, of interest and excitement," James's theory seems at first sight less apt. However, James insists that, although muted, the bodily sounding board must be at work for the *subtler* emotions as well, lest they simply amount to "a cold and neutral state of intellectual perception" (p. 451). To support his claim that bodily feelings are necessary for emotions, James simply argues that nothing emotional is left once we subtract bodily changes from emotions. As he puts it, "emotion dissociated from all bodily feeling is inconceivable" (p. 452).

Contemporary Developments: Neo-Jamesianism and Psychological Constructionism

James's theory has arguably had a more profound impact on 20th-century emotion theory and research than any other previous theory, either as an inspiration or as a foil. Contemporary neo-Jamesians and psychological constructionists have both singled out James as a central predecessor, but they have found inspiration in different aspects of his work. Neo-Jamesians like Antonio Damasio and Jesse Prinz have focused on the *bodily side* of James's theory, whereas psychological constructionists like James Russell and Lisa Feldman Barrett have focused on the *constructionist side*. Let us briefly consider these developments in turn.

James thought of bodily changes primarily in terms of autonomic bodily changes, which comprise physiological reactions such as changes in heart rate, blood pressure and blood flow distribution, respiration, and activity of the sweat glands (but note that James, 1890, had also included changes in expressions and emotional actions). Neo-Jamesians have added to this list *hormonal changes* such as changes in the catecholamine hormones epinephrine and norepinephrine, *musculoskeletal changes* such as changes in muscle tension and feedback from facial expressions of emotion, and, most importantly, *neural changes* consisting of the activation of the somatosensory brain areas. On this view, emotional feelings need not be caused by feedback from peripheral bodily changes, and can (at least in some cases) simply consist of brain activations (Damasio, 1994, calls these "as-if" bodily changes).[9]

An additional difference is that many neo-Jamesians have rejected James's identification of *emotions* with *feelings*, and suggested that emotions and feelings have importantly different functions. Damasio argues that "an emotion is a collection of changes in body state connected to particular mental images" (1994, p. 145), with the function of initiating automatic and stereotyped bodily responses. Feelings are instead the "experience of such changes in juxtaposition to the mental images that initiated the cycle [emphasis removed]" (p. 145) and their function is to "open the door for some measure of willful control of the automated emotions" (Damasio, 2003, p. 80). They do so through their role in practical reasoning. When deliberative options are considered, they elicit memories of past emotions experienced in comparable situations. Such memories activate *somatic markers*—namely, "gut feelings" that mark options as positive or negative in light of their expected emotional consequences, and aid the decision process.

Damasio (1994) posits somatic markers to explain the intriguing correlation between ventromedial (VM) prefrontal cortex damage and the incapacity to make rational decisions in a variety of domains. Patients with VM damage have been characterized as irrationally Hamlet-like when faced with trivial decisions such as choosing a date for their next doctor's appointment, irrationally risk prone when faced with gambling decisions, irrationally impatient when faced with decisions demanding deferred gratification, and irrationally antisocial when faced with decisions involving respect for norms.

Damasio's (1994) *somatic marker hypothesis* is that all these forms of irrationality are due to the loss of the ability to "mark" options as positive or negative in the prefrontal cortex. The debate on

whether the empirical evidence supports Damasio's somatic marker hypothesis is still ongoing (see, e.g., Dunn, Dalgleish, & Lawrence, 2006; Reimann & Bechara, 2010). Another important recent advance is Prinz's addition to the neo-Jamesian toolbox of a theory of intentionality applicable to perceptions of bodily changes, a development I discuss in the section "Contemporary Developments I: Evaluative Theories in Philosophy and Their Challenges."

A second descendant of James's theory is *psychological constructionism*, which has followed James in emphasizing that emotions are put together out of building blocks that are not specific to emotions (Gendron & Barrett, 2009). Constructionists deviate from James in assuming more (and partly different) building blocks. One is especially common: *core affect*. As Russell (2003, p. 147) puts it, core affect is a "neurophysiological state that is consciously accessible as a simple, nonreflective feeling that is an integral blend of hedonic (pleasure–displeasure) and arousal (sleepy–activated) values." Different constructionists describe how affective episodes are built out of core affect and other ingredients in different ways.

For example, in the work of Barrett (2006, 2009, 2012, 2015), conceptualization plays a key role. On her view, being afraid amounts to categorizing a core affective state of high arousal and high displeasure under the "fear" concept. Being happy amounts to categorizing a core affective state of high arousal and high pleasure under the "happiness" concept. This view has been criticized for conflating emotions with verbal labeling, for making it impossible for adult humans to mislabel their own emotions, and for preventing infants and animals from having emotions in the first place (e.g., Scherer, 2009; Scarantino, 2015; see Barrett, 2015, for a reply).

Russell, another prominent psychological constructionist, allows emotion episodes to be constructed without the involvement of categorization, since on his view conceptualization only affects the *meta-experience* of emotion, that is, the experience corresponding to the realization that one is afraid (see Scarantino, 2012a; Russell, 2012a, 2012b, for further discussion).

What most varieties of psychological constructionism accept is James's view that emotions do not *cause* their diagnostic features but rather *emerge* from them. This shift corresponds to a transition between measurement models of emotions. The traditional *latent variable model*, according to which emotions precede and cause the variation in their diagnostic indicators, is replaced by psychological constructionists with an *emergent variable model*, which "posits that emotions do not cause, but rather *are caused by*, their measured indicators" (Coan & Gonzalez, 2015, p. 213).

For example, Russell (2003) criticizes the "traditional view of an emotion episode," according to which the "antecedent [stimulus] causes the emotion, which causes all its various 'manifestations' " (p. 151). If emotions were internal entities with such causal powers, Russell (2009, p. 1262) continues, it would follow that "because the various components stem from a single [causal] entity, they [would] cohere in tight packages." The empirical evidence tells us that they do not, and that there is major variability with respect to each component (see the section "Contemporary Developments I: Basic Emotion Theory and Social Constructionism"). Russell concludes that this calls into question the view that emotions are "internal entities [with] certain powers, such as the power to cause their own components" (2015, p. 432).

Some Challenges for the Feeling Tradition

As we have seen, various elements of the *feeling tradition* have been incorporated into contemporary research programs in affective science. Yet, the *feeling tradition* as a whole progressively lost its dominance in the course of the 20th century. Many challenges were raised to the idea that emotions are essentially feelings, but three stand out for their long-term impact and for how they are shaping contemporary attempts to revive the feeling tradition (see the section "The Evaluative Tradition").

The first is the *problem of differentiation*—that is, the problem of distinguishing among different emotions. Against James's bodily feeling theory, for example, Cannon (1929) objects that "the responses in the viscera seem too uniform to offer a satisfactory means of distinguishing emotions" (pp. 351–352; see also Baldwin, 1894). More generally, critics of feeling theories argue that—regardless of the nature and origin of the emotional feelings postulated by different feeling theories—not all differences among distinct emotions are reflected in differences among the subjective experiences associated with them.

One reason for this is that different emotions like, say, indignation and annoyance may involve indistinguishable feelings (Bedford, 1957). Another reason is that some emotions may not be felt in the first place, and so cannot differ from other

emotions in light of the quality of the subjective experiences associated with them. This possibility became prominent when Freud (1915/1997) rejected the Cartesian assumption that the mind consists of what we are conscious of, and proposed instead that consciousness is just the tip of an iceberg, with the bulk of mental processes occurring below the surface of consciousness.

Specifically with regard to emotions, Freud points out that "in psychoanalytic practice we are accustomed to speak of unconscious love, hate, anger, etc." (1915/1997, p. 126). Notably, however, Freud himself does not recommend a literal interpretation of this way of speaking, because "it is surely of the essence of an emotion that we should feel it, i.e. that it should enter consciousness" (1915/1997, p. 126).[10]

On Freud's view, an unconscious emotion is a feeling that is "perceived, but misconstrued" (1915/1997, p. 126), in the sense that "by the repression of its proper presentation it is forced to become connected with another idea, and is now interpreted by consciousness as the expression of this other idea" (1915/1997, p. 110). An example of such a misconstrued feeling would be an episode of romantic love for a first-degree cousin with its attendant feelings but whose phenomenology is mistaken for one of, say, friendly attachment. In such case, there are feelings associated with being in love with one's cousin, but the *idea* that one loves one's cousin never gets a "proper presentation" to the person's conscious mind, due to repression. Later theorists have argued that emotions themselves, rather than just ideas connected to emotions, can be unconscious, although the debate on the possibility of unconscious emotions is still unsettled in both philosophy and affective science (e.g., Lacewing, 2007; Winkielman & Berridge, 2004; Winkielman, 2013).

The second problem for feeling theories of emotion is the *problem of intentionality*. I consider this problem to comprise two related subproblems. The first is the problem of *aboutness*: emotions appear to be about objects. For example, we are not just angry, sad, or afraid, but angry, sad, or afraid *about* particular things. The second is the problem of *correctness*: emotions appear to be *correct* or *incorrect* with respect to the objects they are about. For example, it seems correct to be angry about having been cheated on by one's spouse, sad about the death of one's mother, and afraid of a deadly snake nearby. This view of intentionality conceives of the relation between the emotion and what the emotion is about as a representation relation: emotions are about objects in the sense that they *represent* them in a particular way and can do so correctly or not.

As several analytic philosophers argued in the late 1950s and early 1960s (and as was argued in the 19th century by Franz Brentano and his students, such as Alexius Meinong and Carl Stumpf), Hume was simply wrong about the fact that an emotion "contains not any representative quality." If being afraid were just like being "thirsty, or sick, or more than five foot high" (T 2.3.3.5), as Hume had put it, it would be mysterious why fear is *about*, say, a tiger and what makes it *appropriate* with respect to it. One is not "thirsty, sick, or more than five foot high" about anything, and being thirsty, sick, or more than five feet tall are not the sorts of things that can be appropriate or inappropriate. The attempt to explain why emotions are about objects that they can represent correctly or incorrectly—the problem of intentionality as I understand it in what follows—was one of the primary reasons for the emergence of the evaluative tradition in emotion theory (see the section "The Evaluative Tradition").

The third problem is the *problem of motivation*—namely, the problem of accounting for how emotions can motivate actors to pursue certain ends (e.g., to flee danger in the case of fear, to help a needy person in the case of pity). This problem was especially significant for James's theory. According to James, emotions are caused by bodily changes, but they have no causal influence on action. James gave the job of motivating action to *instincts*, where an instinct is "defined as the faculty of acting in such a way as to produce certain ends, without foresight of the ends, and without previous education in the performance" (1890, p. 383).

Once actions are brought about by instincts, the bodily changes they involve are perceived, giving rise to emotions. From this it follows that "every object that excites an instinct excites an emotion as well."[11] But "the emotional reaction usually terminates in the subject's own body," James adds, whereas "the instinctive reaction is apt to go farther and enter into practical relations with the exciting object" (1890, p. 442). This very assumption was called into question by the proponents of the *motivational tradition*, who argued that if emotions terminated in the subject's own body and had no practical relations with the exciting object, they would lack the significance that we commonly ascribe to them (e.g., Dewey, 1894, 1895; McDougall, 1908; Shand, 1920).

The final straw for the *feeling tradition* was the emergence of behaviorism in the early 20th

century, which undermined the core idea at the foundation of the tradition—namely that emotions should be conceptualized as special states of consciousness. As Watson put it in a brusque putdown, "nearly 40 years ago James gave the psychology of the emotions a setback from which it has only recently begun to recover" (1925, p. 140). But feeling theories have since become fashionable again and are making a comeback in new and more powerful forms, as contemporary feeling theorists try to answer the challenges of explaining how emotions as feelings can be differentiated, intentional, and motivationally powerful (see the section "The Evaluative Tradition").

The Motivational Tradition

The *motivational tradition* holds that emotions are motivational states of a distinctive type, or patterns of behavior of a distinctive type. I distinguish two approaches within the *motivational tradition*. The *impulsivist approach*, which identifies emotions with behavioral impulses (i.e., states of being set or disposed or ready for a certain pattern of behavior), and the *reflexivist approach*, which identifies emotions with reflex-like behaviors (see Figure 1.3). Generally speaking, talk of motivation is appropriate only when the reflex connection between stimulus and response is broken. But since *reflexivist* and *impulsivist* approaches both identify emotions as "modes of behavior" in a broad sense of the term, it makes sense to discuss them as members of the same tradition.

After introducing some highlights from the history of the *motivational tradition*, I explore how it has inspired various developments in contemporary emotion theory, most significantly the emergence of basic emotion theory, of motivational theories of emotions and of social constructionism.

Dewey between Darwin and James: Emotions as State of Action Readiness

Many in the history of emotion theory have emphasized that emotions involve impulses to behave, starting as we have seen with the Aristotelian accounts of anger and friendly feelings. Philosophers throughout the Middle Ages were especially keen on developing the "motivational side" of Aristotle's theory, characterizing emotions as types of "willings" (Augustine), "wantings" (Anselm, Abelard), or "motions" (Aquinas), although the extent to which such accounts give primacy to motivations over feelings and evaluations is up for debate (see King, 2010; Lyons, 1980; Power & Dalgleish, 2008).

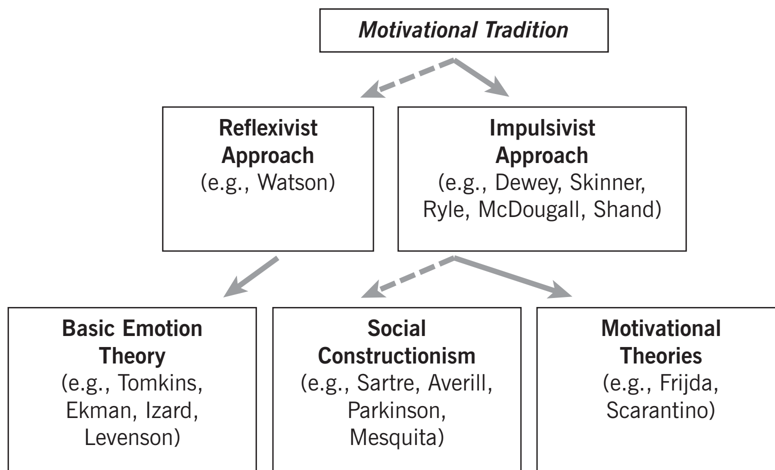

FIGURE 1.3. The *motivational tradition* and some related contemporary developments. The dashed line between the *motivational tradition* and the *reflexivist approach* is meant to signal that talk of motivation is strictly speaking inappropriate when it comes to reflexes. The dashed line between the *impulsivist approach* and *social constructionism* indicates that, although social constructionists are inspired by the idea that emotions have an active side, they do not necessarily identify emotions with motivational states.

The first to provide a detailed theory of emotions as motivational states is arguably John Dewey (1894, 1895), with whom I associate the beginning of the *impulsivist approach*. Dewey's general aim in his "The Theory of Emotion. (I) Emotional Attitudes" (1894) and "The Theory of Emotion. (2) The Significance of Emotions" (1895) was to propose a synthesis of Charles Darwin's (1872) theory of emotional expressions with William James's (1884) theory of emotions.

Darwin, in *The Expressions of the Emotions in Man and Animals* (1872/1965), had proposed three principles for explaining emotional expressions, suggesting that they often operate in concert. A great many emotional expressions emerge for Darwin according to the principle of *serviceable associated habits*. Consider the baring of the teeth, produced by various species when in anger. For Darwin, this expression is an involuntary vestige of a voluntary action—biting—that used to be serviceable in the ancestral past of the species and kept being associated to the state of mind that brought it about by force of habit or by reflex.

Once an expression has been established through the principle of serviceable associated habits, other expressions can be generated through the subsidiary principle of *antithesis*. According to it, states of mind opposed to those that elicited expressions according to the principle of serviceable associated habits recruit expressions in morphological antithesis to them. For example, if a dog in an angry state of mind displays a fixed stare, walks tall, and holds its tail stiff and upright, a dog in a placid state of mind will not look intently, crouch, and lower and wag its tail. Finally, according to the principle of the *direct action of the nervous system*, some emotional expressions are the direct result of the excitation of the nervous system. Darwin cites as examples the "trembling of the muscles, the sweating of the skin, the modified secretions of the alimentary canal and glands" (Darwin 1872/1965, p. 81).

Dewey (1894) notes that Darwin's theory of expressions is incompatible with James's theory of emotions. According to James, an emotion emerges once an expression (and other bodily changes) is perceived: the agent first bares his or her teeth, and then anger ensues. According to Darwin, the emotion comes first, and the expression follows: the agent first gets angry, and then the teeth are bared as a means of expressing anger. Dewey makes two main suggestions to improve upon both accounts and make them compatible.

In opposition to Darwin, Dewey rejects the view that we should "start from the emotion and attempt to derive the movements as its expression" (1894, p. 564). Expression for Dewey only makes sense from the point of view of the observer, which takes facial and postural movements to be *signs* of the emotion. Since Darwin's principles do not assume that being a sign of emotion relative to an observer explains the origin of the sign, Dewey suggests focusing on facial movements *qua* movements, and explore how such movements relate to practical ends.[12] As Dewey notes, in the case of serviceable associated habits the "principle of explanation *actually* used . . . is that of survival . . . of acts originally useful not *qua* expressing emotion, but *qua* acts—as serving life" (p. 555, emphasis in original).

The principle of antithesis poses a bigger challenge, because movements are alleged to have emerged simply because they are opposite of movements that used to be serviceable, without having been serviceable themselves. Dewey rejects this interpretation, because it turns antithesis into a mysterious causal force. As an alternative, Dewey argues that the movements Darwin proposes to explain through the principle of antithesis can also be explained in light of the practical ends they serve. For example, he suggests that the movements of a dog in a placid state of mind were serviceable because they helped the dog receive "favor and food" from the master. Dewey acknowledges that the kinds of facial movements Darwin explained through the principle of direct discharge are a "breakdown of . . . teleological coordination" (p. 560), thereby allowing for exceptions to the rule that facial movements must be serviceable as portions of some useful activity.

The second suggestion, contra James, is to stop thinking of emotions merely in terms of how they feel, and construe them instead as "modes of behavior." As Dewey puts it, emotions "are too important and too relevant in our lives to be in the main . . . the 'feel' of bodily attitudes which have themselves no meaning" (1894, p. 563). For Dewey, an emotion "in its entirety" is "a mode of behavior which is purposive" (an idea Dewey gets from his revision of Darwin) and "which also reflects itself into feeling" (an idea Dewey gets from his revision of James; Dewey, 1895, p. 15).

Since James focuses only on the phenomenological dimension of emotions while neglecting the teleological one, Dewey concludes that James never intended to deal with "emotion as a concrete whole of experience, but with an abstraction from the actual emotion of that element which gives it its differentia—its feeling *quale*" (1895, p. 16). This interpretation allows Dewey to remove from

James's theory its "paradoxical air." When James tells us that "we feel sorry because we cry, angry because we strike, afraid because we tremble," Dewey points out, "the very statement brings out the idea of *feeling* sorry, not of *being* sorry" (p. 15). But when we say that someone is sorry or angry or afraid, Dewey continues, "we do not simply, or even chiefly, mean that [such person] has a certain 'feel' occupying his consciousness." Rather, "[w]e mean he is in a certain practical attitude, has assumed a readiness to act in certain ways" (pp. 16–17).

Dewey adds that there is yet another important element in emotions, besides feelings and modes of behavior, namely, the "'object' or intellectual content" of the emotion, which is "always 'about' or 'toward' something" (1895, p. 17)—for instance, an episode of fear may be about a frightening bear. But Dewey emphasizes that "the mode of behavior is the primary thing," in the sense that it "carrie[s] with it the—concept of the bear as a thing to be acted towards in a certain way, and of the 'feel' of our reaction" (p. 24). This is to say that the mode of behavior of running away from a bear at the same time endows the bear with the property of being an object to be run away from, and it generates the feeling of fear.

McDougall, Shand, and the Emergence of Evolutionary Accounts

The *impulsivist approach* was further articulated by William McDougall in *An Introduction to Social Psychology* (1908/2001) and by Alexander Shand in *The Foundations of Character* (1920 see also Stout, 1899; Mead, 1934; Young, 1943; Leeper, 1948; Bull, 1951). These two monographs share the distinction of being the first book-length accounts to characterize emotions as evolutionary adaptations selected for their ability to motivate behavior toward ends.

McDougall and Shand reaffirm the tight connection between emotions and instincts already proposed by James and Dewey, but formulate two different accounts of how emotions and instincts relate. Shand argues that instincts are subordinate to emotions, which are "penetrated throughout by an impulse" (1920, p. 179) that organizes the instincts and directs them to an end (e.g., the instincts of flight and concealment are directed by fear toward protection from danger). Shand adds that, as we "cannot understand the organs of the body without a knowledge of their functions," so we cannot understand "the emotions without a knowledge of their ends" (p. 197). He singles out six primary emotions (fear, anger, disgust, curiosity, joy, and sorrow), and describes them in ways that are very reminiscent of contemporary accounts of basic emotions (Ekman, 1999): they appear early in ontogeny, they are present in animals, they are independent of other emotions, they can be evoked by innate stimuli, and they are manifested in instinctive behaviors.

McDougall (1908/2001) understands emotions as "emotional excitement[s] of specific quality" that emerge as a result of the operation of instincts already "directed to some particular mode of action" (p. 285; e.g., fear is the emotional excitement associated with the instinct to flee, which is directed toward protection from danger). For McDougall, there are seven primary emotions (fear, anger, tender-emotion, disgust, positive self-feeling, negative self-feeling, and wonder) and they are primary because they are the "immediate inevitable result and subjective expression of the excitement of an instinct, an innate disposition specifically directed to some particular mode of action" (p. 285). McDougall (1923, pp. 316–317) eventually distinguishes between a broad and narrow meaning of "emotion." According to the narrow meaning, the emotion is the feeling; according to the broad meaning, the emotion is the complete instinctive process.

The relevance of the pioneering efforts of McDougall and Shand is that they added an evolutionary dimension to the *motivational tradition* and opened the door for functionalist accounts of emotions, which characterize emotions not just in terms of their diagnostic features but also in terms of the evolutionary problems they solve. This research program came to maturity with the emergence of basic emotion theory in the 1970s (see the section "Contemporary Developments I: Basic Emotion Theory and Social Constructionism").

The Behaviorist Detour: Emotions as Behavior Patterns

Behaviorism dominated psychology roughly from the second decade of the 20th century to the cognitive science revolution in the 1960s (see Bechtel, Abrahamsen, & Graham, 1998). Its core commitment was that psychology is the science of behavior rather than the science of consciousness. As a result, psychology should change its methodology, and replace introspection of conscious states with observation of behaviors. In the initial phase of behaviorism, it was assumed that facts of behavior can be wholly explained without invoking internal psychological processes. This is the sort of behaviorism championed for instance by John B.

Watson, the first pioneer of *classical behaviorism*, and by B. F. Skinner, arguably the most influential developer of the research program and the father of what came to be known as *radical behaviorism*.

In the later *neo-behaviorist* phase of the movement, behaviorists like Edward Tolman and Clark Hull rejected the blanket opposition to internal states advocated by classical and radical behaviorists, and allowed the positing of internal states understood as "intervening variables" that mediate the stimulus–response connection (see, e.g., Mowrer, 1947; Miller, 1951, for a neo-behaviorist analysis of emotions as motivations). Behaviorism also had a philosophical wing focused on the meaning of mental terms (*analytical behaviorism*). This variety of behaviorism, best represented by Gilbert Ryle's (1949/2009) work, held that sentences ascribing mental states can be translated into sentences ascribing behavioral dispositions (see also Carnap, 1959; Hempel, 1935/1980; Wittgenstein, 1953).

Although I am including all behaviorist accounts within the *motivational tradition*, it is clear that classical and radical behaviorism are at best *sui generis* members of the tradition because of their staunch opposition to internal states. The rationale for including not only neo-behaviorism but classical and radical behaviorism as well into the *motivational tradition* is that even ruthlessly anti-mentalistic theories such as the ones offered by Watson and Skinner tried to identify emotions with behavior patterns, which is what motivational states predispose one to. It consequently seems fitting to consider such theories closer to the *motivational tradition* than to either the *feeling tradition* or the *evaluative tradition*.

With these caveats in mind, we can distinguish two approaches to the study of emotions within behaviorism. The *reflexivist approach*, paradigmatically associated with Watson, identifies emotions with reflexive behavioral patterns (on a broad interpretation of what counts as behavior). The *impulsivist approach*, best exemplified by the convergent work of Ryle and Skinner, identifies emotions with, respectively, behavioral dispositions or changes in the probabilities of operant behaviors.

According to Watson, emotion is a "hereditary 'pattern-reaction' involving profound changes in the bodily mechanism as a whole, but particularly of the visceral and glandular systems. By pattern reaction we mean that the separate details of response appear with some constancy, with some regularity, and in approximately the same sequential order each time the exciting stimulus is presented" (1919a, p. 195). In this model, emotions are inherited physiological pattern reactions, which are basically Jamesian emotions without the attendant feelings. Watson contrasts reflexive *emotional* reactions with *instinctive* reactions, which are not "internal and confined to the subject's body" but lead to "adjustment of the organism as a whole to objects" (p. 197). Watson therefore limits the notion of emotional behavior in two important ways: the "behavior" consists primarily of physiological changes (but see below), and such changes are reflexive in nature.

The problem Watson had to face is that emotions in adults rarely if ever manifest such distinctive physiological patterns. So he focused on the emotions of infants, for which he thought reflexive patterns are more easily detectable. Watson distinguishes between three emotional stimulus–response patterns allegedly present in infants: fear, rage, and love, where love is understood "in approximately the same sense that Freud uses sex" (1919a, p. 199). He proposes that all kinds of adult emotions result from infant fear, rage, and love through complex processes of classical conditioning, although his suggestions on this point remained very vague.

For example, fear in an infant is the pattern of responding to loud sounds and loss of support with the unconditioned emotional responses of "catching of the breath, clutching randomly with the hands (the grasping reflex invariably appearing when the child is dropped), blinking of the eyelids, puckering of the lips . . . crying" (1919b, p. 170). Rage is the pattern of responding to restraint with "crying . . . quickly followed by screaming . . . [while] the body stiffens and . . . slashing or striking movements of the hands and arms result; the feet and legs are drawn up and down; the breath is held" (p. 170). Love is the pattern of responding to the striking of the skin or sex organs or to patting and rocking with "a smile . . . attempts at gurgling, cooing" (p. 171).

But Watson is not entirely consistent on limiting emotional reactions to physiological changes. For example, he tells us that in "older children" the reactions of fear include "flight and hiding" (1919b, p. 170), those of rage include "kicking, slapping, and pushing" (p. 171), and those of love include "the extension of the arms which we should class as the forerunner of the embrace" (p. 171). This enlargement in the scope of behavior beyond mere physiological changes was brought to fruition by other behaviorists, who included physical actions in the class of emotional behaviors, and aban-

doned the assumption that such reactions had to be reflexive.

Whereas Watson acknowledges that ordinary emotion terms refer to mental states (feelings) but argues that psychology, if it wants to be a true science, must redefine emotions in terms of behaviors and the stimuli that cause them (Watson 1913, 1919a), philosophical behaviorists like Ryle (1949/2009) argue that a close study of emotion ascriptions in ordinary language reveals that emotion terms in most cases do not refer to feelings at all, but rather to dispositions to behave. This claim, which Ryle generalizes to all mental state ascriptions, becomes the centerpiece of his attack on Cartesian dualism, grounded in the idea that the language of mental states does not (at least not primarily) refer to a realm of private mental occurrences.

To have a disposition, Ryle (1949/2009, p. 31) tells us, "is not to be in a particular state, or to undergo a particular change; it is to be bound or liable to be in a particular state, or to undergo a particular change, when a particular condition is realized." The dispositions to which (most) emotion terms refer, Ryle emphasizes, are "indefinitely-heterogeneous," in the sense that they have an open range of manifestations of different kinds.[13] For example, "When Jane Austen wished to show the specific kind of pride which characterized the heroine of 'Pride and Prejudice,' she had to represent her actions . . . thoughts and feelings in a thousand different situations" (p. 32). Being proud involves being disposed to engage in actions like rejecting an invitation from someone who slighted us in the past, in thoughts like reminiscing about one's own successes, in painful feelings when one is snubbed, plus innumerable other manifestations depending on the circumstances. On this view, describing a person as proud is not saying that he or she is having a feeling (or any other kind of occurrent mental state), but that he or she is disposed to engage in an open range of actions, thoughts, and feelings.[14]

Skinner (1953, 1957) offers an account of emotions that combines reflexivist and impulsivist elements. He suggests that emotions either consist of behavioral reflexes or behavioral dispositions, where the latter are understood as "change[s] in probability that the organism will behave in a given way" (1957, p. 158). For example, a stimulus can either elicit "the emotional reflex pattern of anger" or "a predisposition to attack someone," which amounts to an increase in the "probability of abusive, bitter, or other aggressive behavior" and a "decrease [in] the probability of generous or helpful behaviour" (1957, p. 215). The behaviors to which emotions predispose are operant behaviors, that is "active behaviors that *operate* upon the environment to generate consequences" (1953, p. 65, emphasis in original). In another reminder of the fact that classical and radical behaviorists belong to the motivational tradition only in an "inverted commas sense," Skinner concludes by describing the emotions as "excellent examples of the fictional causes to which we commonly attribute behavior" (1953, p. 160).

Behaviorism collapsed as a research program in the 1950s. Already in the 1920s and 1930s psychologists such as Edward C. Tolman and Wolfgang Köhler had argued against the stimulus–response paradigm for its dismissal of intervening variables, pointing out that the mentalistic notion of *purpose* was constitutive of the very notion of behavior. However, the nail in the coffin of behaviorism came with an influential review of Skinner's (1957) *Verbal Behavior* by Chomsky (1959), who argued that "verbal behavior" (i.e., the production of speech) cannot be explained without reference to the mental mechanisms generating it, more specifically to a "mental grammar" (a set of rules that specify syntactically correct utterances). Chomsky's critique of Skinner generalizes to all behaviors that were the focus of behaviorist psychology: it seems impossible even to characterize behaviors as being of the same kind without making at least implicit assumptions about the mental states and processes that cause them (e.g., intentions).

Contemporary Developments I: Basic Emotion Theory and Social Constructionism

Following the demise of behaviorism, the *motivational tradition* was soon revived by several authors, in particular by Robert Plutchik (1962, 1970; Plutchik & Kellerman, 1980), who proposed an emotion theory rather similar to that of McDougall, as well as by other psychologists such as Silvan Tomkins (1962–1992/2008), Paul Ekman (1980, 1992a, 1992b, 1994, 1999, 2003; see also Ekman & Friesen, 1969), and Carrol Izard (1969, 1971, 1977, 1980, 1992).

Tomkins offers a theory of *affects* intended to show that "the primary motivational system is the affective system," whereas "the biological drives have motivational impact only when amplified by the affective system" (2008, p. 4). Tomkins suggests that the motivational power of affects comes from their feeling pleasurable or painful. His core

assumption is that such hedonic feelings emerge from the perception of facial changes providing "motivating feed-back."

Reminiscent of James, Tomkins claims that "affect is primarily facial behavior [and] [s]econdarily bodily behavior, outer skeletal and inner visceral behavior" (2008, p. 114). These behaviors, Tomkins proposes, are organized by subcortical *affect programs*, which evolved partly because the facial behaviors they produce are communicative. Note that this is an important departure from Darwin's (1872/1965) original proposal that facial changes are vestiges of serviceable actions that did not evolve in order to communicate.

The task of providing empirical evidence for the claim that affects are associated with distinctive facial expressions was left largely to Ekman and Izard, who were then Tomkins's students and developed contemporary basic emotion theory. Basic emotion theory's core commitment is that basic emotions are solutions to recurrent evolutionary tasks: "each basic emotion prompts us in a direction that, in the course of our evolution, has done better than other solutions in recurring circumstances that are relevant to our goals" (Ekman & Cordaro, 2011, p. 364).

This is an idea that, although already present in Shand and McDougall, became especially prominent in emotion theory with Plutchik's (1970) work. "In order to provide a general definition of emotion," Plutchik argued, "we need to use the functional or adaptational language." On his view, "an emotion is a patterned bodily reaction of either protection, destruction, reproduction, deprivation, incorporation, rejection, exploration or orientation, or some combination of these, which is brought about by a stimulus" (p. 12). These eight biological functions individuate Plutchik's eight primary emotions (fear, anger, joy, sadness, acceptance, disgust, anticipation, and surprise), from which all other emotions can be derived as "all colors can be considered to result from a mixture of just a few primary colors" (p. 9).

Ekman (1980, 1992, 1994) further develops the idea that emotions must be defined in adaptationist terms, and starts referring to a subset of the emotions we distinguish in folk psychology (happiness, sadness, anger, fear, disgust, and surprise) as *basic emotions*, to emphasize that he regards them (or more precisely, the mechanisms that underlie them) as "biologically basic"—that is, as domain-specific evolutionary adaptations. Over time, Ekman expands the roster of basic emotions, suggesting that evidence of biological basicness is likely to also be found for amusement, contempt, embarrassment, excitement, guilt, pride in achievement, relief, satisfaction, sensory pleasure, and shame (Ekman & Cordaro, 2011).

But Ekman (1999) also adds, "I do not allow for 'non-basic' emotions" (p. 57), implying that he is unwilling to regard anything as an emotion if its generating mechanisms did not develop during evolutionary time as a solution to a fundamental life task. Accordingly, other items commonly called "emotions" in folk psychology are reclassified by Ekman as belonging to other psychological categories that, while having affinities to emotions, are not themselves emotions. These other categories include "emotional plots" (e.g., love), moods (e.g., depression), and affective personality traits (e.g., hostility).

To illustrate his understanding of evolutionary life tasks, Ekman (1992b) started relying on evolutionary psychologists Tooby and Cosmides, who give the following examples: "fighting, falling in love, escaping predators, confronting sexual infidelity, experiencing a failure-driven loss in status, responding to the death of a family member" (Tooby & Cosmides, 2008, p. 117; see also Keltner & Haidt, 2001). Besides being defined as domain-specific evolutionary adaptations, basic emotions are associated by Ekman with 11 diagnostic characteristics. They include distinctive universal signals, distinctive physiology, automatic appraisals tuned to distinctive universals in antecedent events, distinctive developmental appearance, presence in other primates, quick onset, brief duration, unbidden occurrence, distinctive thoughts, memories and images, and distinctive subjective experiences (Ekman 1999).[15] However, with the possible exception of distinctive universal signals, none of these characteristics is deemed to be a necessary feature of a basic emotion (see, e.g., Russell, Bachorowski, & Fernández-Dols, 2003; Matsumoto, Keltner, Shiota, Frank, & O'Sullivan, 2008; Cordaro, Fridlund, Keltner, Russell, & Scarantino, 2015, for a summary of the debate on facial expressions).

Ekman's crucial assumption is that, as soon as the basic emotion program is activated, a "cascade of changes (without our choice or immediate awareness) occurs in split seconds in: the emotional signals in the face and voice; preset actions; learned actions; the autonomic nervous system activity that regulates our body; the regulatory patterns that continuously modify our behavior; the retrieval of relevant memories and expectations; and how we interpret what is happening within

us and in the world" (Ekman & Cordaro, 2011, p. 366).

These changes, Ekman emphasizes, are "inescapable," in the sense that "the instructions in the affect programs run until they have been executed" (Ekman & Cordaro, 2011, p. 367). Although the list of behaviors activated is broader than the list invoked by Watson, the assumption of inescapability makes Ekman a member of the reflexivist strand of the motivational tradition. This connection must be qualified, however, because Ekman explicitly denies that basic emotions are full-fledged reflexes. This qualification emerges in his discussion of the difference between surprise (a basic emotion) and startle (a physical reflex; Ekman, Friesen, & Simons, 1985). Ekman tells us that reflexes such as startle, unlike emotions such as surprise, are easy to elicit, are shown reliably by every subject, cannot be totally inhibited, and cannot be simulated with the correct latency.

Yet, the differences posited by Ekman are differences of degree rather than kind. The inescapable responses activated by affect programs are reflexlike, as they manifest the very features singled out by Watson in his description of emotional reflexes: they "appear with some constancy, with some regularity and in approximately the same sequential order each time the exciting stimulus is presented" (Watson, 1919a, p. 195). An important qualification is that, in the case of basic emotions, an *appraisal process* mediates between the stimulus and the cascade of responses, which for Ekman follow inescapably only after the stimulus is appraised as exciting. A corollary is that in the case of basic emotions, unlike in the case of physical reflexes, a stimulus that elicits a basic emotion in one subject may not elicit it in another due to differences in the appraisal processes.

In addition, Ekman makes it clear that the inhibition of basic emotions is never complete, from which it follows that neither full-fledged reflexes nor basic emotions can be totally inhibited. Rather, the cascade of inescapable behavioral changes can be *regulated* after it has occurred, with a swiftness that depends on the feature under consideration. Facial changes, Ekman suggests, can be regulated within less than a second. But "the changes in our respiration, perspiration, and cardiac activity . . . have a longer time line, some stretching out to 10 or 15 seconds" (Ekman & Cordaro, 2011, p. 367), during which they cannot be interrupted.[16]

This assumption—that basic emotions are associated with an inescapable cascade of bodily changes—has been heavily criticized by psychological constructionists, who have pointed out that the empirical evidence does not support it (Russell, 2003; Barrett, 2006). Specifically, psychological constructions have argued that, contrary to what the hypothesis of an inescapable cascade of changes would predict, there is no one-to-one correspondence between anger, fear, happiness, sadness, or any other basic emotion, and any neurobiological, physiological, expressive, behavioral, or phenomenological responses, and that such diagnostic markers are not strongly correlated with one another. This variability, psychological constructionists conclude, calls into question the very idea that "emotions have ontological status as causal entities [and that they] exist in the brain or body and cause changes in sensory, perceptual, motor, and physiological outputs" (Barrett, 2005). As we have seen in the section "Contemporary Developments: Neo-Jamesianism and Psychological Constructionism," skepticism about the causal powers of emotions has motivated emergent models of emotions, according to which emotions are the effects of changes in sensory, perceptual, motor, and physiological outputs, rather than their causes (Coan & Gonzalez, 2015).

The social constructionist approach found its first advocates in the 1920s, 1930s, and 1940s, when a number of anthropologists and social scientists started questioning Darwin's (1872/1965) evidence for the universality of emotional expressions (e.g., Allport, 1924; Landis, 1924; Klineberg, 1940). These researchers initiated what we may call the "cultural variability" strand of social constructionism, related to the thesis that emotions are different in several essential respects in different cultures. These differences have since been shown with respect to both the emotion lexicon (e.g., Russell, 1991; Wierzbicka, 1999) and the diagnostic features of emotions (Mesquita & Frijda, 1992), which vary to some extent across cultures.

The strand of social constructionism that is more germane to the *motivational tradition* is the "social role" strand, related to the thesis that emotions fulfill social functions by virtue of which they should be considered actions or roles or moves rather than passions.[17] Jean Paul Sartre (Sartre & Frechtman, 1948) can be considered the first to offer a general, although idiosyncratic, theory of emotions as social roles, a view further developed in the early 1980s by philosophers (e.g., Harré, 1986; Armon-Jones, 1986), psychologists (e.g., Averill, 1980), and anthropologists (e.g., Lutz, 1980). In recent times, Parkinson (1995, 2008, 2009), Parkinson, Fischer, and Manstead (2005),

Griffiths (2004b), Mesquita and Boiger (2014), and Van Kleef (2009) and others have developed sophisticated social constructionist proposals that add to the social constructionist approach themes from the evolutionary tradition.

Sartre argues that an emotion is "an organized system of means aiming at an end" (Sartre & Frechtman, 1948, p. 32). This "finality" gives emotions their significance and it is what physiological accounts in the style of James miss out on, because "physiological facts . . . taken by themselves and in isolation . . . signify almost nothing" (p. 17). What distinguishes emotions from straightforward actions is for Sartre the way they go about fulfilling their ends: they do so in a *masked* or *covert* fashion. As Sartre puts it, "[emotion] is called upon to mask, substitute for, and reject behavior that one cannot or does not want to maintain. By the same token, the explanation of the diversity of emotions becomes easy; they represent a particular subterfuge, a special trick, each one of them being a different means of eluding a difficulty" (p. 32). Sartre's central idea is that we emote when the opportunity to pursue our ends in nonemotional ways turns out to be unavailable or unappealing. On this view, we emote by substituting a behavior that is openly instrumental with one that is covertly instrumental. Emotion researchers have since explored this Machiavellian aspect of emotions from a variety of research perspectives (e.g., Frank, 1988; Solomon, 1980; Griffiths & Scarantino, 2009; Slaby & Wüschner, 2014).

The idea that emotions are covertly instrumental was further developed within the social constructionist camp by Averill, who argues that "an emotion is a transitory social role (a socially constituted syndrome) that includes an individual's appraisal of the situation, and is interpreted as a passion rather than as an action" (1980, p. 139). The idea here is that emotions are means of resolving conflicts among norms at the social level, and they do so in part because of the widely shared Aristotelian assumption that we are overcome by our passions. This is what Averill calls the "myth of passions," a self-deceiving assumption that comes from having "limited self-awareness" about the social functions of emotions (see also Peters, 1962). For example, Averill tells us that anger is a way to solve the conflict between societal norms that prohibit violence, and societal norms that demand protection of one's own rights from wrongdoers. By being "overcome" by anger, individuals manage to protect their rights by inflicting violence, and they are justified in doing so because they inflict violence while being acted upon by a passion that partially suspends responsibility (Averill, 1980, p. 66).

In more recent times, social constructionism has shifted from an understanding of emotions as solutions to *social-level* problems to an understanding of emotions as solutions to *interpersonal* problems. These efforts are inspired in part by influential work on the strategic dimension of emotional expressions by Fridlund (1994), Russell (1997), Fernández-Dols and Carroll (1997), and Fernández-Dols and Ruiz-Belda (1997) among others. Parkinson (1995) states for instance that "many of the occasions for emotion arise from local negotiations in the course of everyday personal interaction and do not directly reflect societally prescribed norms" (p. 162). On this view, anger is not a solution to a conflict between societal norms but a solution to a local problem of negotiation between parties who are interfering with each other's goals. The social transaction relies on emotional expressions that convey assessments (you are to blame) and behavioral intentions (I will hurt you unless you stop). This shift from the societal to the interpersonal is accompanied by a new attention to the dynamic unfolding of emotions, understood as open-ended interactive processes in which emotional responses are not preordained at the beginning of the sequence, but rather shaped over time by each interactant's ongoing responses.

Contemporary Developments II: Motivational Theories of Emotions

The *impulsivist approach* has been further articulated by Nico Frijda (1986, 2007, 2010), who has described emotions as "modes of relational action readiness, either in the form of tendencies to establish, maintain, or disrupt a relationship with the environment or in the form of mode of relational readiness as such" (1986, p. 71; see also Frijda, Ridderinkhof, & Rietveld, 2014; Ridderinkhof, 2014). The first mode of *relational action readiness* is that of an *action tendency*, which is a state of readiness "to execute a given kind of action." What *kind* of action it is will depend on what *kind* of "end result" is being pursued. For example, fear is associated with the action tendency of "avoidance," characterized by the end of achieving one's "own inaccessibility" with respect to a certain stimulus. Disgust is associated with the action tendency of "rejecting," characterized by the end of "removal of object."

States of "readiness as such," the second variety of modes of relational action readiness, come in two flavors: "null states" and "activation modes." According to Frijda (1986), sadness is a *relational null state* [emphasis added], namely, a state of "explicit absence of relational activity" (p. 22). Joy, on the other hand, is the "manifestation of *free activation* [emphasis added]" (p. 38). Frijda emphasizes that "null states, activation modes, and action tendencies proper . . . all are modifications of action tendency in a general sense: they all represent modes of readiness, unreadiness included, for relational action" (p. 71).

Frijda's (1986) most distinctive contribution is his claim that emotions should be identified not just with generic states of action readiness but with states of action readiness that have *control precedence*. Emotion, he tells us, "has action control precedence in two senses." First, "it can interrupt other processes and block access to action control for other stimuli and other goals." Second, "it invigorates action for which it reserves control and invests that control with the property of indistrability or persistence" (p. 460).

Scarantino (2014) has developed a self-described "motivational theory of emotions" that is in many ways similar to Frijda's own, but is more closely integrated with basic emotion theory, and, most importantly, includes a theory of intentionality suitable for motivational theories. On Scarantino's view, emotion systems are behavioral programs that are flexible on the input and output sides, and provide solutions to recurrent evolutionary problems in the form of "motive states" with control precedence—namely, states of readiness to achieve a prioritized goal while allowing for some degree of rational control.

Emotion episodes correspond to the activations of such programs. Such episodes are shaped over time by the interaction between prioritized modes of action readiness (a domain-specific adaptation) and rational control (a domain-general capacity). This interaction can lead either to the inhibition of the action readiness or to its variable and context-dependent manifestation.

This proposal aims to combine two insights: (1) the idea that (a great many) emotions are evolved solutions to fundamental life tasks, and (2) the idea that the distinctive design advantage of emotions stems from their ability to combine speed and flexibility of execution. Scarantino (2015) argues that basic emotion theory in its traditional, Ekman-inspired formulations only heeds to the first insight while neglecting the second.

As a result, a fundamental tension is created within the research program, because it makes little evolutionary sense to assume both that basic emotions are solutions to abstract problems like avoiding dangers or removing obstacles and that they elicit responses in a reflex-like fashion (see also Scarantino & Griffiths, 2011).

This is because abstract problems like avoiding dangers or removing obstacles require different adaptive responses in different circumstances. To account for this fact, the traditional assumption that affect programs activate a cascade of inescapable responses (Traditional BET) must be replaced by the assumption that they inescapably activate "motive states" with control precedence (the New BET; Scarantino, 2015).

A motive state is a goal-oriented "general direction for behavior [that operates] by selectively potentiating coherent sets of behavioral options" (Gallistel, 1980, p. 322; see also Morgan, 1957; Pacherie, 2001). The determination of which behavioral option, if any, is ultimately chosen is left to rational control, which operates under the constraints of urgency and limited informational access that define control precedence.

In addition, Scarantino (2014) argues that emotion systems can have intentionality, or the capacity to represent, by virtue of their functions. The background philosophical theory of representation being assumed here is *teleosemantics*, according to which traits represent what they have the function of indicating (Dretske, 1988; Prinz, 2004b). On this view, the fly detection system in a frog represents flies or edible objects because it has the function of indicating them. By the same token, fear represents danger because it has the function of selectively potentiating avoidance options in the presence of danger. Similarly, anger represents slights because it has the function of selectively potentiating attack options in the presence of slights (see Scarantino, 2014, 2015, for further examples and discussion).

Some Challenges for the Motivational Tradition

While the *motivational tradition* continues to influence the contemporary emotion debate in the ways described and others, it faces its own share of problem cases. Some critics have questioned whether defining emotions as modes of behavior, or states of action readiness, can solve the problem of differentiation. As Bedford (1957, p. 84) puts it, "the same, or similar, behavior, can be differently,

yet correctly, interpreted in different circumstances, for example as anger, indignation, annoyance, exasperation, or resentment." The idea, once again, is that behaviors are not sufficiently fine grained to distinguish among different emotions. This problem is especially biting for the *reflexivist approach*, which is committed to the assumption that behavioral responses are reflex-like, but has failed to marshal convincing evidence for the existence of biobehavioral signatures for different discrete emotions.

But the problem also affects the *impulsivist approach*, which faces a variety of potential counterexamples to the claim that any two emotions are differentiated by the action tendencies they involve. First, many emotions do not appear to motivate actions at all. Grief and depression, for example, seem to involve a general depotentiation of the will to act. Second, regarding "backward-looking" emotions like regret, it is unclear which action tendency they could elicit, because they focus on what happened in the past, which cannot be changed. Third, emotions like existential joy involve the selective potentiation of behavioral options, but the range of these options is so wide that it is difficult to pinpoint which action tendency is associated with them. Fourth, it seems possible for the same action tendency to be associated with different emotions (e.g., avoidance may be associated with both anger and unrequited love), and for different action tendencies to be associated with the same emotion (approach and avoidance may both be associated with anger), provided such tendencies are described at a sufficiently abstract level of analysis.

One option for dealing with some of these problem cases, as mentioned before, is the one suggested by Frijda (1986), who introduced the hypothesis of modes of "relational readiness as such." Frijda's proposal can in principle take care of the cases of grief and depression, arguably associated with a "null state" and existential joy, arguably associated with a state of "free activation." A second option is to include mental actions along with physical actions. Depression and regret may lack distinctive physical action tendencies, but they appear to be associated with distinctive mental action tendencies that have control precedence. For example, one of the symptoms of depression is compulsive mental rumination, and regret is strongly associated with a tendency to counterfactually think about what would have happened had one made different choices. A third option is to allow multiple action tendencies to be comprised within the same emotion, as proposed in Frijda and Parrott's (2011) recent theory of action tendencies as universal and biologically based *ur-emotions*. Whether or not a combination of these proposals can solve the problem of differentiation remains to be seen (see, e.g., Reisenzein, 1996; Prinz, 2004b; Tappolet, 2010; Eder & Rothermund, 2013, for critiques of motivational approaches).

The other significant liability for the *motivational tradition* is that in many of its versions it does not solve the problem of intentionality (but see Scarantino, 2014). If fear were simply a tendency to avoid, why would it be inappropriate in the absence of danger? If anger were simply a tendency to remove obstacles, why would it be inappropriate in the absence of a slight? And in what sense would fear and anger be about objects, if they were merely modes of behavior? Answering these questions requires giving evaluations a more central role in the identification of emotions, since evaluations seem to be precisely the sorts of things that are about objects and can be appropriate and inappropriate with respect to them.

These problems led the *motivational tradition* to lose ground in the 1960s and 1970s in favor of the *evaluative tradition*. The transition from one research tradition to the other was facilitated by the general shift in the understanding of minds ushered in by the cognitive revolution, which replaced the understanding of mind as behavior proposed by behaviorism with a new understanding of mind as a computer that processes information according to rules. The cognitive revolution made internal cognitive states and processes respectable again, and sent emotion theorists in search of alternatives to both behaviorist theories and feeling theories of emotions.

The Evaluative Tradition

The *evaluative tradition* holds that emotions are essentially distinguished from one another by the evaluations they involve, where an evaluation is a cognition, or an interpretation, or a judgment, or a thought, or a construal or some other kind of mental representation of the eliciting circumstances. I distinguish between two approaches within the *evaluative tradition*: the *constitutive approach*, which takes emotions to *be* evaluations of a distinctive type, and the *causal approach*, which takes emotions to be *caused by* evaluations of a distinctive type (always or typically; see Figure 1.4).

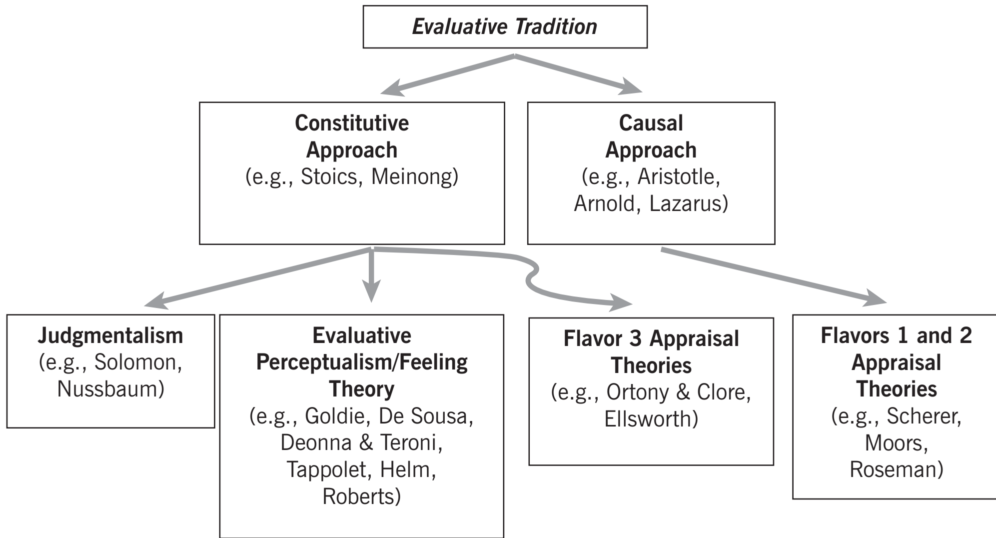

FIGURE 1.4. The *evaluative tradition* and some related contemporary developments.

The two approaches are often conflated, but they differ in their historical origins, objectives, and implications. Importantly, only the *constitutive approach* is a direct competitor of the *feeling* and *motivational traditions*. The *causal approach*, on the other hand, is at least in principle compatible with the idea that emotions are essentially feelings or motivations, because it only claims that emotions are caused by evaluations while (at least potentially) remaining agnostic on what emotions are. I illustrate some highlights from the history of the *evaluative tradition*, and then discuss some related contemporary developments, most significantly the transition from judgmentalism to other evaluative research programs in philosophy, and the emergence of appraisal theories in psychology.

The Stoics on the Passions

The *constitutive approach* has attracted most of the work in recent philosophy of emotions, and it has its roots in the Stoic theory of the passions. Although Stoicism offered a variety of views on the nature of emotions, what we now call the Stoic theory of the passions is the theory of emotions introduced by Chrysippus, the third head of the Stoic school of Athens (ca. 206 BC), and prominently defended by the Roman Stoic Seneca (4 BC–65 AD; see Sorabji, 2000). According to Chrysippus, passions are false judgments of appropriateness, a position that clearly identifies emotions with evaluations of a special type—namely, judgments.

The Stoics understood judgments as assents to impressions (*phantasiai*), and assumed that the capacity to give assent requires reason, which emerges in humans at age 14 and is not available to nonhuman animals. Unlike judgments, impressions do not require reason. An impression is that by virtue of which the world *appears to be a certain way*, prior to, and in potential opposition with, what one judges the world to be like. Chrysippus distinguishes between two forms of assent involved in undergoing a passion. First, the assent to the impression that something good or bad is happening or will happen, and second, the assent to the impression that it is appropriate to react in a certain way.

According to Chrysippus, there are four primary passions: distress (*lupe*), pleasure (*hedone*), fear (*phobos*), and appetite (*epithumia*). All other passions are subspecies of the four primary ones. Sorabji (2000) describes the primary passions as follows:

> Distress is the judgment that there is bad at hand and that it is appropriate to feel a sinking. Pleasure is the judgment that there is good at hand and that it is appropriate to feel an expansion. Fear is the judgment that there is a bad at hand and that it is appropriate to avoid it. Appetite is the judgment that there is good at hand and that it is appropriate to reach for it. (p. 30)

On this view, what is judged to be appropriate to the goodness or badness at hand are what the Stoics called *movements of the soul*, which are either bodily changes (sinking or expansion, as in the case of distress and pleasure) or action tendencies (avoiding and reaching, as in the case of fear and appetite). This indicates that the Stoics made room for diagnostic features other than evaluations, but also that they held a very peculiar notion of passion, because they assimilated having a passion with engaging in a complex evaluative judgment to the effect that something is good/bad and it is appropriate to reach for it/avoid it.

Suppose you detect a tiger, start trembling, manifest increased heart rate, develop an impulse to flee, and have feelings associated with such bodily changes and action tendency. On all theories of emotions we have considered so far, under such circumstances you would be afraid. Not so on the Stoic theory: you are not afraid as long as you do not judge avoiding getting mauled by the tiger to be good. And you should not do so, the Stoics added, because judging avoiding getting mauled by the tiger to be good would amount to considering your own life and health to be good. Nothing for the Stoics is good or bad except the presence or absence of a virtuous character. Alleged goods like life, health, wealth, honor, power, beauty, and strength, and alleged bads like death, disease, poverty, dishonor, powerlessness, ugliness, and weakness are in reality "indifferents," because they are not good or bad in all circumstances and whether we obtain or avoid them is not in our power.

The Stoic sage selects appropriately and virtuously among the indifferents, aiming at things such as health, or honor, or the well-being of one's friends. But the sage never thinks that goodness or badness are at stake in achieving the aims of these actions, so he or she reaches a state of *apatheia*, or freedom from the passions. Since the passions consist of erroneously judging these indifferents as being good or bad, they should be avoided.[18]

The Stoic doctrine of *apatheia* has exerted a major influence on debates on the value of emotions ever since, but the doctrine of emotions as evaluations was much less influential until recently, and even some of its sympathizers misrepresented it throughout the centuries (Sorabji, 2000, pp. 375–384). There were of course exceptions, constituted by theorists who, at various historical junctures, tried to understand emotions in more "cognitive" terms. A prominent example of a Stoic-inspired theory that gives pride of place to "ideas" in the identification of emotions is Baruch Spinoza's (1677/1955) theory of the passions as presented in *Ethics*. On Spinoza's view, passions are "the modifications of the body, whereby the active power of the said body is increased or diminished, aided or constrained, and also the ideas of such modifications" (p. 130). Such ideas are "confused" for Spinoza, from which it follows (on his view) that the mind entertaining them is passive rather than active, a point analogous to the Stoic proposal that emotions are false judgments. Spinoza distinguishes three primary passions: desire, joy, and sadness. All secondary passions are derived from desire, joy, and sadness in combination with ideas that distinguish one passion from the other. For example, love is joy accompanied by the idea of external cause, hatred is sadness (or pain) accompanied by the idea of external cause, and regret is desire to possess something kept alive by the remembrance of other things that exclude the existence of what is regretted.

The Rise of the Evaluative Tradition

A turning point for the *evaluative tradition* was the publication of Franz Brentano's *Psychology from an Empirical Standpoint* (1874/1995), which brought the challenge of explaining the intentionality of emotions center stage. Brentano (1874/1995, p. 88) influentially argued that "every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object." Among the paradigmatic examples of intentional states, Brentano lists the emotions: "in love [something is] loved, in hate hated, in desire desired."[19]

Brentano's (1874/1995) views mark the beginning of an important transition in psychology. For Brentano and his followers, psychology is no longer simply the science of consciousness, but also as the science of intentional or representational states. This view eventually led to modern cognitive psychology and its consuming concern with mental representations (Reisenzein, 2006). In the aftermath of Brentano's claim that all and only mental states are intentional states, the challenge of explaining why and how emotions can be about objects acquired new urgency.

In a discussion of precursors of the *evaluative tradition* of emotion theorizing in the 19th century, Reisenzein (2006) points to Stumpf (1899) and particularly Meinong (1894) (see also Reisenzein & Schönpflug, 1992). Meinong, a student of

Brentano, proceeds from Brentano's (1874/1995) assumption that emotions are object-directed. This assumption, Meinong argues, implies that emotions presuppose a "cognitive representation of [their] object" (Reisenzein, 2006, p. 923).

Meinong (1894) goes on to propose that the "cognitive representations" of emotions can be used to differentiate emotions from one another, and thereby provide an alternative solution to the problem of emotion differentiation that had plagued feeling theories and motivational theories of emotion. Although the cognitive theory of emotion developed by Meinong went largely unnoticed at the time, he indirectly influenced modern cognitive emotion theory in psychology (e.g., Weiner, 1986) through his student Frizu Heider (1958), who incorporated Meinong's analysis in his reconstruction of common-sense psychology (see Reisenzein & Mchitarjan, 2008).

However, the heyday of the *evaluative tradition* only came in the late 1950s and early 1960s, and it was the result of the convergent work of philosophers like C. D. Broad (1971), Errol Bedford (1957), George Pitcher (1965), Anthony Kenny (1963), Irvin Thalberg (1964), and R. S. Peters (1970), and psychologists like Magda Arnold (1960) and Richard Lazarus (1966). Philosophers focused on the inability of previous theories of emotions to explain how they can be object-directed and normatively assessable, whereas psychologists focused on the inability of previous theories to explain how emotions are caused. The first project led to the emergence of modern evaluative theories of emotions in philosophy, and the second project led to the emergence of appraisal theories in psychology. Let us consider these two developments in turn.

The first analytic philosopher in the English-speaking world to brand emotions as cognitions by virtue of their object-directness was Broad (1971). He argues that there are two kinds of experiences: those that have an "epistemological object" and those that do not. Experiences of the first sort are directed toward something, whereas experiences of the second kind are such that undergoing them is not being "*aware of a certain object*, real or fictitious," but rather "feeling in a certain way" (p. 283). Broad concludes that "emotions . . . are *cognitions*" because they are experiences with an epistemological object (p. 283; emphasis in original).

A related theme becomes prominent at around the same time, and it is the idea that emotions are normatively assessable, in the sense that they can be appropriate or inappropriate with respect to the objects toward which they are directed (Broad, 1971; Pitcher, 1965). Broad distinguishes between two dimensions of normative assessment: (1) an emotion is *misplaced* just in case it is felt toward an object that either does not exist or does not exist with the attributes under which it is emotionally responded to; and (2) an emotion is *inappropriate* just in case it is felt toward an object that the emotion does not fit, either in kind or in intensity.

To illustrate the first dimension of normative assessment, Broad (1971) argues that an emotion directed toward a nonexistent murderer that is the object of a *hallucinatory perception* would be *totally* misplaced, because there is no real ontological object corresponding to it. An emotion toward an existing person *falsely believed* to be an assassin would instead be *partially* misplaced, because there is a real ontological object—an existing person—but it does not have the attributes under which it is emotionally responded to.

These considerations bring to the fore an important characteristic of the emotions—namely, that they presuppose for their existence the presence of a perception, belief, memory, or other mental representation of the objects toward which they are directed. To fear a tiger, one must perceive it, or believe it about to appear, or remember it, or mentally represent it in some other way. Deonna and Teroni (2012) have referred to this as the *nonevaluative cognitive basis* of emotions. As Broad (1971) emphasizes, the cognitive basis of emotions is one possible object of normative assessment for emotions (misplacement), even though it focuses on mental states that are distinct from emotions.

With respect to the second dimension of normative assessment (inappropriateness), Broad (1971) states that once we have cognized a particular object as having certain characteristics, there is an appropriate and an inappropriate way to respond emotionally to it. For example, if an object has been cognized as threatening, fear rather than joy is the appropriate emotion toward it. If an object has been cognized as a man experiencing undeserved pain, amusement or satisfaction are not the appropriate emotions toward it. These examples raise a potential ambiguity concerning Broad's notion of appropriateness, which I illustrate by focusing on the second example.

The most likely interpretation of what Broad (1971) is suggesting is that it is *epistemically inappropriate* (or *unfitting*) to be amused or satisfied when a man experiences undeserved pain, in the sense that these forms of amusement or satisfaction violate standards that are internal to the

emotions of amusement and satisfaction themselves (in a sense to be specified). But there are other ways in which these emotions may be inappropriate. For example, it is *morally inappropriate* to be amused or satisfied at another's undeserved pain, because these forms of amusement or satisfaction violate moral standards. In addition, it may be *prudentially inappropriate* to be amused or satisfied at another's undeserved pain (at least with public manifestations) because one would come across as a nasty person and possibly be sanctioned for it. One of the challenges in current philosophy of emotions is to articulate a clear and principled distinction between these varieties of appropriateness, a project that is at the core of the contemporary debate on emotions and values (see the section "Contemporary Developments II: Sentimental Values and the Situated Affectivity Movement").

Kenny on the Material and Formal Objects of Emotions

The difference between epistemic appropriateness or fittingness and other forms of appropriateness became clearer with Kenny's (1963) influential distinction between *material* and *formal* objects of emotions. Kenny's distinction is derived from scholastic philosophy, and it applies not only to emotions but also to perceptions and actions. Kenny (p. 132) introduces the distinction as follows: "Anything which can be φ-d is a material object of φ-ing . . . The formal object . . . is the object under that description which *must* apply to it if it is to be possible to φ it. If only what is P can be φ-d, then "thing which is P" gives the formal object of φ-ing." Let us unpack this philosophical mouthful.

First, the definition states that "anything which can be φ-d is a material object of φ-ing." For example, anything that can be seen, stolen, or feared is a *material object* of such perceptions, actions, and emotions. Since you can see a car, the car is a material object of seeing. Since you can steal a phone, the phone is a material object of stealing. Since you can fear a tiger, the tiger is a material object of fearing. But now ask yourself: "Which 'description . . . must apply to [a material object] if it is to be possible to φ it?'" For example, which description must apply to the car for it to be possible to see it, to the phone for it to be possible to steal it, and to the tiger for it to be possible to fear it? Kenny (1963) would answer that only what is *visible* can be seen, and only what *does not belong to you* can be stolen, and only what is *believed to be a threat* can be feared. But "if only what is P can be φ-d, then 'thing which is P' gives the formal object of φ-ing." So "thing which is visible," "thing which does not belong to you," and "thing which is believed to be a threat" describe the *formal objects* of, respectively, seeing, stealing, and fearing.

To sum up, formal objects place restrictions on what the material objects of perceptions, actions, and emotions can be, and they do so in a way that is "internal" to the mental attitude under consideration. Kenny's way of spelling out the sense in which they are internal is to suggest that the appropriateness of, say, an emotion to its formal object is *logical*: "each of the emotions is appropriate—logically, and not just morally appropriate—only to certain restricted objects" (1963, p. 134).

Kenny (1963) here is referring to the logic of the *concepts* involved, or to their conceptual entailments. For example, one may say that the very concepts of seeing, stealing, and fearing determine what the formal objects of such mental attitudes can be. It is the very concept of seeing that determines that you can only see what is visible. And it is the very concept of stealing that entails that you cannot steal what is already yours. And it is the very concept of fear, Kenny concludes, that entails that one must believe the stimulus feared to be bad.[20] As we shall see, the idea that there are conceptual connections between emotions and appraisals is at the core of one of the varieties of contemporary appraisal theory (see the section "Contemporary Developments III: Three Flavors of Appraisal Theory and Their Challenges").

The idea that emotions have material and formal objects has since become widely accepted in the philosophy of emotions. Each emotion can have an open range of material objects, which vary all the time and can be the same for different emotions. We can be afraid of different things at different times, and the same material object can be feared or admired by two different people, or by the same person at different times. The material object can be an individual (e.g., we can be afraid of Tom), or a proposition describing an event or a state of affairs (e.g., we can be afraid that Tom will try to kill us).

Formal objects, often referred to as *core relational themes* or *evaluative properties* or *values*, have found a semi-canonical formulation in Lazarus's (1991) description of core relational themes for emotions. Figure 1.5 illustrates some examples.

As pointed out by Fabrice Teroni (2007), formal

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

FIGURE 1.5. A representative list of *formal objects/core relational themes* (Lazarus, 1991).

objects have been assigned three main jobs in the philosophy of emotions: individuating different emotions, making emotions intelligible from the point of view of the emoter, and accounting for the conditions of epistemic appropriateness for emotions (see also Mulligan, 2007). First, formal objects can tell us how any two emotions differ from one another. For example, we may say that sadness is different from fear because the formal object of the former is having suffered an irrevocable loss, whereas the formal object of the latter is danger.

Second, formal objects can make an emotion intelligible (or justified or warranted or reasonable) from the point of view of the emoter by informing us about how the emoter describes the material object toward which his or her emotion is directed. For example, if we wonder why John responded with shame to being complimented for his degree, learning that John interpreted being complimented for a degree that he in fact had acquired using improper means as a failure to live up to an ego ideal makes shame intelligible from his point of view.

Third, formal objects provide the criteria for deciding whether emotions are epistemically appropriate or fitting. For example, when we wonder about whether it was epistemically appropriate for Jennifer to get angry at her boss's compliment on her skirt, the question we are asking is whether her boss' compliment on her skirt constitutes a demeaning offense against her. If it is, then Jennifer's anger is epistemically appropriate or fitting with respect to the unsolicited compliment.[21]

Contemporary Developments I: Evaluative Theories in Philosophy and Their Challenges

A great many contemporary philosophers of emotions are convinced that the reason why emotions are so tightly connected with formal objects is that an emotion *is* essentially an evaluation that a given formal object is instantiated by a given material object.[22] This is the core thesis of modern evaluative theories of emotions in philosophy, which hark back to the Stoic suggestion that emotions are judgments. But whereas for the Stoics emotions are judgments that a certain movement of the soul is appropriate, for contemporary philosophers emotions are evaluations to the effect that a formal object is instantiated (by some material object).

Various proposals have been made concerning what type of evaluation an emotion is. Until quite recently, the most popular option was *judgmentalism*, developed by Robert Solomon (1976, 2003) and Martha Nussbaum (2001) among others. "I still hold the claim that emotions are judgments," states Solomon (2003, p. 210), and Nussbaum (p. 4) writes that "emotions are appraisals or value judgments." Solomon gives the following examples: "'I am angry at John for taking . . . my car' entails that I believe that John has somehow wronged me . . . My anger is that judgment . . . If I do not find my situation awkward, I cannot be ashamed . . . If I do not judge that I have suffered a loss, I cannot be sad . . . to have an emotion is to hold a normative judgment about one's situation" (Solomon 2003, p. 8).

Judgmentalism became popular because it seemed to solve most of the problems that had afflicted previous traditions of emotion theorizing. Most significantly, it provided a straightforward solution to the problem of intentionality, explaining both why emotions are about objects and what makes them appropriate or inappropriate to such objects. If emotions *are* judgments, then they are about whatever the judgments with which they are identified are about, and they are appropriate whenever such judgments are true.[23] In addition, judgmentalism appeared to solve the problem of differentiation: emotions can be distinguished in terms of the *content* of the judgments with which they are identified.

These advantages notwithstanding, judgmentalism is now considered to be flawed. First, it does not provide a satisfactory solution to the problem of motivation. If emotions simply were judgments

to the effect that a certain formal object is instantiated, they would lack independent motivational force. This is because judgments have a mind-to-world direction of fit, as their objective is to "fit" what the world is like rather than to motivate action directed at changing the world, as in the case of desires (Searle, 1983).

To this objection, judgmentalists have replied that desires to act are either conceptually connected to (e.g., Solomon, 2003) or caused by (e.g., Lyons, 1980; Nussbaum, 2001) the judgments with which emotions are identified.[24] These replies are *ad hoc*, however, because no convincing explanation is given for why emotion judgments are conceptually or causally connected with action desires by virtue of their content. A better strategy is to explicitly add a conative dimension to judgmentalism, and propose that emotions are combinations of beliefs/judgments and desires. Versions of this belief–desire theory of emotions have been developed by both philosophers (Marks, 1982; Green, 1992) and psychologists (Reisenzein, 2012; Castelfranchi & Miceli, 2009), but the jury is still out on whether they succeed in solving the motivational problem and are overall satisfactory (Brady, 2013; Scarantino, 2014).[25]

The problems with judgmentalism, however, go deeper. An issue that has attracted significant attention is that of *rational recalcitrance*, the phenomenon instantiated when emotions are in tension with one's judgments, as when a snake-phobic subject experiences fear of a snake picture while at the same time holding the belief that the snake picture is not dangerous (D'Arms & Jacobson, 2003). In these sorts of cases, judgmentalists are forced to describe recalcitrance as the holding of contradictory beliefs, a position many consider to ascribe to emoters the wrong kind of irrationality (Helm, 2001; Döring, 2008; Benbaji, 2012; Brady, 2007; Tappolet, 2000; Faucher & Tappolet, 2007).

Another problem with judgmentalism is that, if we identify emotions with evaluative judgments, we cannot explain how emotions sometimes precede and cause such judgments (Brady, 2013). For example, we may first feel ashamed at being seen in public with a lover who is half our age, and then form the evaluative judgment that our behavior constitutes a failure to live up to an ego ideal. But if shame were the judgment that our behavior constitutes a failure to live up to an ego ideal, it could not causally contribute to the formation of such a judgment, because nothing can cause itself.

Finally, judgmentalism has been charged with the inability to account for the emotions of infants and animals, because nonlinguistic creatures cannot make judgments on the standard understanding of judgments, and with the inability to account for the special phenomenology of emotions, because making judgments seems to lack the distinctive subjective quality of emotions, most significantly their "hotness" and their "bodily" dimension (see, e.g., Leighton, 1985; Deigh, 1994; Tappolet, 2000; Scarantino, 2010; Deonna & Teroni, 2012; Reisenzein, 2012, for further discussion of the flaws of judgmentalism).

Recent philosophy of emotions has been largely focused on replacing judgments with other evaluative constructs capable of solving judgmentalism's flaws while preserving its two main assets: the ability to provide solutions to the problems of intentionality and differentiation. The two evaluative constructs most often proposed as replacements for judgments are *evaluative feelings* (e.g., Whiting, 2011; Kriegel, 2014; Helm, 2001; Greenspan, 1988; Goldie, 2000; Salmela, 2002; Deonna & Teroni, 2012) and *evaluative perceptions* (e.g., De Sousa, 1987; Tappolet, 2000; Johnston, 2001; Roberts, 2003; Zagzebski, 2003; Prinz, 2004b; Döring, 2007; Elgin, 2008; Charland, 1995). The qualifier "evaluative" is meant to emphasize that these notions differ from the notions of feeling and perception we have considered so far in that they are constitutively linked to evaluative properties.

Popular proposals include the idea that emotions are intentional feelings of import organized around commitments (Helm, 2001), perceptions of value (Tappolet, 2000), embodied appraisals (Prinz, 2004b), feelings of comfort or discomfort directed toward thoughts (Greenspan, 1988), combinations of bodily feelings and feelings towards (Goldie, 2000), affective perceptions (Döring, 2007), concern-based construals (Roberts, 2003), and evaluative attitudes consisting of feelings of one's body being ready to act (Deonna & Teroni, 2012).

These proposals are all clear improvements over judgmentalism, but it is up for debate which of them, if any, provides a viable account of emotions. Given the current state of the debate, a viable account would need to at least explain the differentiation and intentionality of emotions, solve the motivational problem, provide a plausible account of the phenomenal side of emotions, account for emotional recalcitrance, and explain why infants and animals can have emotions. Opinions dif-

fer as to whether any evaluative theory succeeds in satisfying all these desiderata (e.g., Deonna & Teroni, 2012; Salmela, 2011; Dokic & Lemaire, 2013; Brady, 2013; Scarantino, 2014).

An important distinction within modern evaluative theories concerns the way they account for the relation between formal objects and evaluations. According to what I call the *direct strategy*, formal objects are descriptions of what is directly perceived or felt by the emoter. For example, Goldie (2002) thinks that "emotions involve two kinds of feeling," one contingent and the other essential. The contingent feeling is a *bodily feeling*, "the feeling from the inside of the condition of one's body as being a certain way or as undergoing certain changes" (p. 235). The essential feeling, which Goldie calls the *feeling toward*, is "the feeling one has towards the object of one's emotion" (p. 235). On this view, to fear an object is to feel one's body in turmoil (bodily feeling) and to directly feel the dangerousness of the object (feeling toward).

According to the *indirect strategy*, formal objects describe the conditions of appropriateness of perceptions/feelings rather than what is directly perceived or felt. An example of such a strategy is offered by Prinz's theory of emotions as "valent embodied appraisals." On Prinz's neo-Jamesian view, fear is a combination of an *embodied appraisal* consisting of "a racing heart and . . . other physiological changes" (2004b, p. 69) with the function of being elicited by dangers, and a negative *valence marker* that says "less of this."[26] As I mentioned earlier, in a teleosemantic theory of representation, mental states represent what they have the function of indicating (Prinz, 2004b; Dretske, 1988). So Prinz proposes that perceiving a racing heart represents danger because it has the function of indicating it. On this view, the agent directly perceives bodily changes (the nominal content) and indirectly perceives the core relational theme (the real content) by virtue of what the bodily changes represent.

Another example of indirect strategy is offered by Deonna and Teroni's (2012) attitudinal theory, according to which emotions are felt bodily attitudes of action readiness. On this view, fear is the feeling of one's body being poised "to act in a way that will contribute to the neutralization of what provokes the fear" (p. 80), an attitudinal feeling that is only correct in case what provokes the fear is dangerous. In this case, formal objects constitute the conditions of correctness of feelings of action readiness.

Contemporary Developments II: Sentimental Values and the Situated Affectivity Movement

I want to briefly discuss two further areas of growing debate in contemporary philosophy of emotions. The first concerns the relation between emotions and values (see Roeser & Todd, 2014; Deonna & Teroni, 2012, 2015; D'Arms & Jacobson, 2000, forthcoming). So far we have asked whether emotions are evaluations that a certain formal object or value is instantiated. For example, we have asked whether fear is the evaluation that something is dangerous. But there is another question philosophers of emotions ask, namely, whether values themselves are to be understood in terms of the emotions they elicit. For example, should we understand dangerousness in terms of fear responses, or is dangerousness a property we can make sense of independently of fear?

The two questions are not independent of one another. At a minimum, one's theory of how values are apprehended through emotions and one's theory of how values are constituted should be compatible. For example, if one thinks that emotions are required to shed light on values, emotions themselves should not be defined in terms that presuppose those very values, on pain of circularity. Several positions on the connection between emotion concepts and value concepts are available in the contemporary debate, which has focused primarily on so-called *sentimental values*, exemplified by things like the funny, the disgusting, the shameful, and the enviable.

The three main competitors are *realism*, *dispositionalism*, and *neo-sentimentalism* (Tappolet, 2000; Rabinowicz & Rønnow-Rasmussen, 2004; Jacobson, 2011; Deonna & Teroni, 2012). *Realism* is the thesis that we can make sense of what it is for some X to have a certain sentimental value by relying on response-independent properties X has. For example, suppose someone were to propose that the disgusting is whatever is contaminating, or that the funny is whatever is incongruous (Jacobson, 2011). On this view, sentimental values would be objective properties like mass, charge, and spin—namely, properties instantiated independently of any actual or potential response to the property bearer.

A challenge for *realism* is to explain away the intuition shared by many that things would continue to be contaminating or incongruous, but would stop being disgusting or funny unless there

were creatures around capable of being disgusted or amused by them. A possibility would be to abandon the claim that emotional responses are irrelevant to establishing values, but stick to the view that we can make sense of the disgusting and the funny in terms of descriptive properties alone. For example, one could propose that the disgusting corresponds to whatever descriptive properties the disgust mechanism is designed to track or that the funny corresponds to whatever descriptive properties the amusement mechanism is designed to track.

This proposal faces another challenge, namely, making sense of the fact that ascriptions of sentimental values are "normatively loaded," in the sense that they "carry a claim to interpersonal authority in virtue of their putative correctness and are the subjects of significant and trenchant disagreement" (Knapp, 2003, p. 270). For example, when we state that a certain behavior is disgusting, we seem to be implying that other people should find it disgusting too, and we would engage in reasoned debate with anyone who considered the behavior not to be disgusting at all. The central point is that neither claims to interpersonal authority nor disagreements stop once all the descriptive properties of the behavior have been agreed upon. This calls into question the possibility of reducing sentimental values to descriptive properties, suggesting the presence of an inescapable evaluative dimension to sentimental values.

Dispositionalists and *neo-sentimentalists* agree that we cannot make sense of the disgusting or the funny in merely descriptive terms, but offer different recipes for connecting sentimental values with emotional responses. *Dispositionalists* propose that we can make sense of what it is for some X to have a certain sentimental value in terms of the emotional responses X is disposed to elicit. One challenge is to get clear on the nature of the relevant dispositions: What are their triggers, manifestations, and bearers? Suppose we propose that the disgusting and the funny are, respectively, what would elicit disgust and amusement in ordinary people in standard circumstances. This proposal also faces the challenge of making sense of normatively loaded ascriptions. It seems that by calling a certain behavior disgusting, people are not simply reporting on the fact that ordinary people in standard circumstances are typically disgusted by it, but that disgust is the right emotional response to it.

This is the intuition that drives *neo-sentimentalism*, according to which the only way to make sense of what it is for some X to have a sentimental value is to appeal to the emotional response it is *appropriate* to have toward X.[27] On this view, to be disgusting or funny is to be the *fitting target* of disgust and amusement, respectively. This view holds, along with *realism*, that something can be disgusting or funny even if ordinary people in standard circumstances would not be disgusted or amused by it. It follows *dispositionalism*, on the other hand, in holding that we cannot understand sentimental values except by way of the emotional responses they elicit, although it crucially adds that such responses can be mistaken.

Neo-sentimentalism seems to offer a more straightforward account of normatively loaded discourse than competing accounts, in the sense that if ascribing a sentimental value is endorsing an emotional response, it becomes clear why such ascriptions have a claim to interpersonal authority and are objects of disagreements when endorsements clash. But it faces the difficult challenge of distinguishing the right from the wrong types of appropriateness. For example, it is certainly the case that a joke may be funny even if it is morally inappropriate, from which it follows that the funny cannot be what elicits a morally appropriate response. The problem is that it has turned out to be exceedingly difficult to explain what kind of appropriateness is the *right kind* without presupposing the very sentimental values that the account is supposed to shed light on.

The second area of growing debate in contemporary philosophy of emotions is connected to *situated approaches* in the philosophy of cognitive science, also called "four-E" approaches to emphasize that their proponents see cognition as "embodied," "embedded," "enactive," and "extended" (see Robbins & Aydede, 2009; Shapiro, 2014, for an overview of the field). Recently, this literature has started paying attention to the emotions (see, e.g., Griffiths & Scarantino, 2009; Maiese, 2011; Colombetti, 2014; Colombetti & Thompson, 2008). Proponents of four-E approaches generally do not offer complete theories of emotions, but try to emphasize the intimate connection between emotions and bodily and environmental processes.

A recent extensive treatment of emotions and affectivity from this perspective is Colombetti (2014). Drawing in particular on the "enactive" approach developed by Varela, Thompson, and Rosch (1991) and Thompson (2007), Colombetti argues that the mind is pervasively affective and not neatly divided into cognition and emotion. Colombetti also draws upon dynamical systems

theory to reconceptualize emotional episodes and moods as self-organizing patterns of the whole organism (see also Freeman, 2000; Lewis, 2000, 2005; Thompson, 2007).

Central to several proposals within this tradition is an emphasis on emotion and affectivity as complex *experiential* phenomena, which connects four-E approaches to the philosophical tradition of phenomenology. For example, both Ratcliffe (2008) and Colombetti (2014) draw on classic phenomenological treatment of the "lived body" found in Edmund Husserl, Maurice Merleau-Ponty, and others, to argue that emotions can involve bodily feelings while retaining their intentional relatedness to the world (see also Slaby, 2008; Hutto, 2012; Gallagher & Zahavi, 2012).

As for the relation between emotion and the world, theorists who see emotions as "embedded" or "situated" have pointed out that affective phenomena are deeply environmentally supported. Recurrent reference can be found in this literature to the metaphor of "scaffolding" (Griffiths & Scarantino, 2009; Colombetti & Krueger, 2015), which is meant to emphasize that structures in the environment (both material and social) are necessary to enable affective phenomena to develop in the specific ways they do.

More radical approaches propose that the physical machinery that realizes affective states may include not just neural and bodily processes but also parts of the environment. Emotions and other affective states, it has been suggested, can sometimes become "extended" into the world. This approach applies the hypothesis of "extended cognition" to the domain of affectivity. In a classic example, the mind of Otto, a patient afflicted by Alzheimer's disease, is said to be extended outside his brain to include the notebook entries he uses to remember facts, because Otto relates to such notebook entries in a way that is relevantly similar to how a normal person relates to his or her intracranial memories (Clark & Chalmers, 1998). In various papers, Krueger (2013a, 2013b, 2014) has argued, drawing largely on developmental psychology (especially the development of caregiver–infant interactions), that emotions can be "extended" over several agents and accordingly be "jointly owned." Stephan, Walter, and Wilutzky (2014) have proposed that physiology, expressions, and appraisals can be "extended," whereas Colombetti and Roberts (2015) argue for the "extension" of dispositional affective states (such as dispositional emotions and temperaments), and Roberts (2015) proposes that even emotional feelings can be "extended."

Contemporary Developments III: Three Flavors of Appraisal Theory and Their Challenges

The second main approach within the *evaluative tradition* is the *causal approach*. The notion of appraisal, present in the work of a great many emotion theorists starting with Aristotle, became the object of scientific investigation with the work of psychologists Magda Arnold (1960) and Richard Lazarus (Speisman, Lazarus, Mordkoff, & Davison, 1964; Lazarus, 1966, 1991, 2001).[28] Arnold argues that psychological emotion research since James has mainly focused on clarifying the causal relation between bodily changes and the experience of emotion. What only a few theories have dealt with, she states, is "the problem of how cold perception can cause either the felt emotion or the bodily upset" (1960, p. 93). Call this the *problem of causation*.

Arnold's (1960, p. 171) solution to this problem is her suggestion that "to arouse an emotion, the object must be appraised as affecting me in some way, affecting me personally as an individual with my particular experience and my particular aims." She coins the term "appraisal" to designate this process, emphasizing that her "analysis goes back to Aristotle and Thomas Aquinas" (Arnold, 1960, p. 193). Arnold also adds "that the only approach that promises a solution of the problem of how perception arouses emotion is a careful phenomenological analysis," (p. 170), of the kind offered by Sartre, among others. As Sartre put it, the phenomenological approach investigates "psychic events . . . insofar as they are significations and not insofar as they are not pure facts" deprived of an interpretation of what they signify for us (Sartre & Frechtman, 1948, p. 19).

Apart from introducing the term "appraisal," Arnold develops appraisal theory in several important respects. First, she argues that the appraisal process is usually "direct, immediate, nonreflective, nonintellectual, automatic, 'instinctive,' 'intuitive'" (1960, p. 175). This understanding of appraisal was implicitly appealed to by Lazarus (1984) in an influential debate with Zajonc (1984) on whether affective reactions necessarily require cognitions. Lazarus argues that they do, and Zajonc denies it. It became clear during the debate, however, that the two parties understood cognition in different ways: Lazarus labeled as "cognitive" even simple and "nonintellectual" forms of information processing, whereas Zajonc reserved

the label of "cognition" for the more sophisticated varieties of information processing.

This led Leventhal and Scherer (1987, p. 16), in an attempt to "steer the emotion-cognition controversy away from potentially sterile semantic arguments about what is a cognition," to introduce the idea that appraisals/cognitions can occur at different levels of information processing. In the latest iteration of the theory, four such levels are distinguished (Scherer, 2009): (1) a neural circuit level, which comprises genetically determined pattern-matching mechanisms, (2) the schematic level, which comprises memory traces from prior learning experiences, (3) an associative level involving cortical association areas, and (4) a conceptual level involving propositional knowledge.

Second, Arnold (1960) begins to unveil the internal structure of the appraisal process, suggesting that appraisals are made along three dimensions: eliciting circumstances can be evaluated as good or bad, present or absent, and easy to attain or avoid. For example, according to Arnold, the cognitive cause of fear can be described as the appraisal of an event as bad, absent but possible in the future, and hard to avoid; whereas the cause of joy can be described as the appraisal of an event as good, present, and easy to maintain.

This transition from a *molar account* of appraisal, in which the appraisals of different emotions are considered unitary mental states, to a *molecular account* of appraisal, in which the appraisals are broken down into components that can be independently studied, is a key insight of psychological appraisal theories of emotion (the molecular–molar distinction was introduced by Smith and Lazarus, 1990). These theories replace the "one-sentence" philosophical analyses of evaluations in terms of formal objects with a detailed structural account that tries to shed light on their internal composition or attributes on a limited number of appraisal dimensions.

It soon became clear that the three dimensions of appraisal proposed by Arnold (1960) are not sufficient, and also not optimally chosen, for explaining the differentiation of emotions. To overcome this limitation of Arnold's theory, additional or alternative appraisal dimensions have been subsequently proposed by a number of psychologists (e.g., Smith & Ellsworth, 1985; Frijda, 1986; Lazarus, 1991; Roseman, 1996; Scherer, 2001; Ellsworth & Scherer, 2003; Roseman & Smith, 2001; Oatley & Johnson-Laird, 1987).

Lazarus (1991, 2001) proposes to distinguish between *primary appraisal*, whose function is to determine whether and how any of the subject's goals are affected by an event, and *secondary appraisal*, whose function is to determine how best to cope with the event once it has been classified as furthering or thwarting the subject's goals. More specifically, primary appraisal comprises three component processes: (1) the appraisal of *goal relevance*, (2) the appraisal of *goal congruence or incongruence*, and (3) the appraisal of *type of ego involvement*. Secondary appraisal also comprises three components: (1) the appraisal of *blame or credit*, (2) the appraisal of *coping potential*, and (3) the appraisal of *future expectancy*. On this view, guilt is caused by the appraisal of an event as goal relevant, goal incongruent, involving a moral transgression, and one for which the self is to blame (coping potential and future expectancy appraisals are left open).

Other appraisal theorists have endowed the appraisal process with even more structure. For example, Scherer (2001) distinguishes between no fewer than 16 dimensions of appraisal, called stimulus evaluation checks (SECs), which can be grouped into four classes representing "the major types or classes of information with respect to an object or event that an organism requires in order to prepare an adequate reaction" (p. 94): appraisals of relevance, appraisals of consequences, appraisals of coping potential, and appraisals of normative significance.

Agnes Moors (2014) has drawn a helpful distinction between two "flavors" of appraisal theory. Flavor 1 appraisal theories assume that the "molecular" appraisals of an event on the different appraisal dimensions are integrated into a "molar" appraisal, which is the immediate cause of emotions such as anger, fear, disgust, and so on. Lazarus (2001, p. 64) has suggested, for example, that "we should combine the partial meanings [of molecular appraisals] into a terse, integrated gestalt or whole [the molar appraisal], which is what characterizes the . . . cause of the emotion."

Flavor 2 appraisal theories, on the other hand, assume that the molecular appraisals can cause individual emotion components (e.g., the action tendency to flee), or even parts of these components (the direction of fleeing), without a prior "synthesis" into a molar appraisal. Theories of this kind often do not even try to specify the patterns of appraisal that cause anger, fear, and so on, and assume that the appraisal process can have a wide range of combinations of appraisal outputs, only some of which will lead to familiar, discrete emotion categories.

Scherer's (2009, p. 1314) *component process model* theory is an example of a flavor 2 theory, because it assumes that "emotion differentiation is the result of the net effect of all subsystem changes brought about by the outcome profile of the SEC sequence," namely, the sequence of SECs along the 16 dimensions mentioned earlier. For example, once a stimulus has been appraised as novel and goal relevant, causal effects of this (partial) appraisal can already be detected on various organismic subsystems (e.g., orienting responses, heart rate deceleration, vasomotor contraction, skin conductance responses). Depending on the further appraisals made, these effects may or may not culminate in the emergence of a familiar, discrete emotion.

Another example of flavor 2 theory is Cunningham, Dunfield, and Stillman's (2013) *iterative processing model*, a theory that combines themes from appraisal theory and psychological constructionism and seeks to ground the recurrent nature of appraisals in the heterarchical organization of the brain (see also Barrett, Ochsner, & Gross, 2007). What distinguishes this proposal from most other appraisal theories is that it draws on connectionist approaches developed in computational cognitive neuroscience (e.g., O'Reilly, Munakata, Frank, & Hazy, 2012) to model how discrepancies between expectations and experiences of the internal or external world give rise to dynamic reprocessing of information through iterative cycles that eventually lead to changes in affect and discrete emotions.

To capture all self-described psychological appraisal theories, we need to add a third "flavor" of appraisal theory to this taxonomy. Flavor 3 theories are appraisal models that, unlike flavor 1 and 2 models, deny a causal role to appraisals (e.g., Clore & Ortony, 2013; Ellsworth, 2006, 2013). Flavor 3 appraisal theories understand appraisals as being entailed by emotions, in the sense that having an emotion of a given kind (e.g., fear) necessarily requires appraising the eliciting stimulus in a particular way.

An example of flavor 3 theory is Ortony, Clore, and Collins's (1988) "OCC model." Originally, this model was proposed as a causal appraisal theory, since its goal was to "explain how people's perceptions of the world—their construals—cause them to experience emotion" (p. 12). More recently, however, (some of) the authors have reinterpreted the model differently, and it now falls squarely into the flavor 3 camp. Clore and Ortony (2013, p. 339) state that they "do not treat appraisal as a process occurring in real time that *causes* emotions." Their proposed notion of appraisal "focuses solely on structure [and] specifies the features of the prototypical situations represented by each kind of emotion." In other words, having an emotion is now understood as representing the world in a certain way, where this representation does not precede the occurrence of the emotion and consequently does not cause it.

There is an analogy between this way of thinking of emotions and philosophical judgmentalism. Instead of identifying, say, guilt, with the judgment that one has transgressed a moral imperative, as philosophical cognitivists would have it, flavor 3 appraisal theorists identify guilt with the appraisal that one's behavior is goal relevant, goal incongruent, involves a moral transgression, and the self is to blame for it. Similarly, instead of identifying fear with the judgment that danger is at hand, flavor 3 appraisal theorists identify fear with the appraisal that the stimulus is goal relevant and goal incongruent (i.e., a "bad outcome").

Crucially, the connection between emotions and appraisal outputs is presumed to be conceptual rather than empirical, just like the connection between emotions and formal objects (see the section "Contemporary Developments I: Evaluative Theories in Philosophy and Their Challenges"). This point is made explicitly by Clore and Ortony (2013, p. 339), who write that "just as no empirical research will ever disprove that bachelors are unmarried, evidence . . . cannot show that fear involves an anticipation of bad outcomes." It cannot show it in the sense that it need not show it: fear *must* involve the anticipation of bad outcomes in the same sense in which being a bachelor *must* involve being unmarried. No amount of empirical investigation is required to draw this conclusion, which is available simply by reflecting on the conceptual entailments of the terms involved.

Flavor 3 appraisal theory does not solve the problem of causation raised by Arnold (1960), because it does not tell us how the emotions come about (see Moors, 2013, for more on this point). Furthermore, the interpretation proposed by Clore and Ortony (2013) raises a worry for appraisal theory writ large. The worry is that some of the theories that claim to be flavor 1 and flavor 2 appraisal theories may rely only on evidence that allows them to establish "flavor 3" claims, namely, conceptual connections between emotions and appraisals rather than contingent causal relations.

This challenge has been raised by various researchers over the years (Oatley, 1992; Parkinson

& Manstead, 1992; Parkinson, 1997; Russell, 1987; Frijda, 1993). For example, Parkinson (1997, p. 65) argues that "much of the self-report evidence that is used to defend an empirical relationship between appraisal and emotion actually provides more direct support for a conceptual relationship because the implemented indices of emotion depend on people's everyday interpretations of the vocabulary of affect." Appraisal theorists of flavors 1 and 2 have replied that the empirical evidence for the causal version of appraisal theory relies on evidence that goes well beyond self-reports, as it includes patterns of brain activity, autonomic system changes, and facial/vocal expressions (Scherer, 2009).

Another challenge for flavor 1 and flavor 2 appraisal theories is to find a proper place for appraisal into the emotion as a whole. Specifically, causal appraisal theorists must decide whether the appraisal is also a part of the emotion or (just) its cause. Some causal appraisal theories assume that the appraisal is not part of the emotion. For example, Arnold writes that "we can now define emotion as the felt tendency toward anything intuitively appraised as good (beneficial), or away from anything intuitively appraised as bad (harmful) . . . accompanied by a pattern of physiological changes organized toward approach or withdrawal. The patterns differ for different emotions [emphasis removed]" (Arnold 1960, p. 182).

The claim that the patterns differ for different emotions implies that for Arnold (1960) appraisals are not indispensable for differentiating among emotions. On the other hand, the option of using appraisals to differentiate among emotions remains available, because emotions are defined by Arnold as felt action tendencies *caused* by emotion-specific appraisals (see also Gordon, 1987; Reisenzein, 2012). Proposals that rely on appraisals to differentiate among emotions without considering them to be parts of emotions have a long and reputable history in philosophy (see Lyons, 1980).

Other appraisal theorists, however, explicitly take appraisals to be part of the emotions (e.g., Lazarus, 1991; Scherer, 2005). For example, according to Scherer's component process model of emotions, "emotion is defined as an episode of interrelated, synchronized changes in the states of all or most of the five organismic subsystems in response to the evaluation of an external or internal stimulus event as relevant to major concerns of the organism" (p. 697). Hence, an emotion is instantiated if any three of the following five components are engaged in synchronized changes: an appraisal component, an autonomic physiology component, an action tendency component, a motor expression component, and a subjective feeling component.

A consequence of this definition is that an emotion may have an appraisal as a proper part. But this is at first blush incompatible with the claim that appraisal causes emotion, because nothing can cause itself. Various solutions have been offered for this problem (cf. Moors, 2013). The solution proposed by Moors and Scherer (2013) is that when appraisal theorists who regard appraisal as a part of the emotion state that appraisal causes emotion, this is mere *façon de parler*. What theorists like Scherer and Lazarus really mean is that appraisal causes all components of emotion other than itself—namely, autonomic changes, action tendencies, motor expressions, and subjective feelings.

It seems fair to say that the *evaluative tradition* has succeeded in at least two important respects. First, most theorists now accept that theories of emotions should account for the intentionality of emotions. A sign of this newly found realization is that contemporary feeling theories (e.g., Goldie, 2000; Prinz, 2004b) and contemporary motivational theories (e.g., Scarantino, 2014) in philosophy all offer tentative accounts of the intentionality of emotions. Second, most theorists now accept that a subject's appraisal of the eliciting situation is a major determinant of the differences among different emotions. This insight is now shared by psychological theories of emotions of all stripes, including basic emotion theory, social constructionism, and psychological constructionism. Whether the *evaluative tradition*, in both its constitutive and causal approaches, can successfully tackle its outstanding challenges remains to be seen.

Methodological Coda

At the end of this survey of emotion theories across centuries and disciplines, we may ask whether there has been significant progress in emotion theory since Ancient Greece. There seem to be both good news and bad news on this front. The good news is that there is now much greater consensus regarding the characteristics of emotions that need to be explained.

The majority of emotion theorists currently agree that (1) emotion episodes involve, at least in prototypical cases, a set of expressive, behavioral,

physiological, and phenomenological features diagnostic of emotions; (2) each diagnostic feature has a range of variability; (3) evolutionary explanations can be given for at least some emotions and/or their components; (4) most aspects of emotions are affected by sociocultural factors; (5) the physical seat of emotions is the brain; (6) emotions motivate actions in distinctive ways; (7) emotions are generally object-directed; (8) emotions have a cognitive basis, consisting of other mental states they presuppose (e.g. memories, perceptions, etc.); (9) emotions can be appropriate or inappropriate with respect to their objects; (10) there are different forms of appropriateness for emotions (e.g., epistemic, moral, prudential); (11) appraisals can help differentiate emotions; (12) appraisals range from primitive to sophisticated forms of information processing; (13) at least some emotions are present in infants and animals; (14) emotions can be in tension with our reflective judgments; and (15) emotions play a functional role in a variety of domains (e.g., rational deliberation, morality, aesthetics).

Although much of this may not sound especially surprising at this stage of the game, we should keep in mind that all of these ideas have at some point in the history of emotion theory been either denied or neglected.

The bad news is that we are apparently not much closer to reaching consensus on what emotions are than we were in Ancient Greece. As soon as we try to define the emotions, or even just to transition from the generalities I have listed to the pesky details (Do emotions cause the diagnostic components, or do they emerge from them? What, exactly, can be evolutionarily explained with respect to emotions?), the consensus among today's emotion researchers abruptly ends, and competing research programs start engaging in fierce fighting. The emotion community continues to be divided on the nature of emotions, on the terminology suitable for describing them, and on the experimental techniques to study them.

Why is there still so much disagreement on what emotions are after centuries of concerted efforts? One possible explanation is that emotion theorists have not been sufficiently ingenious or lucky in the exploration of their subject matter. On this view, what they need is more time, and perhaps the insights of a Darwin or a Newton. After all, the body of common knowledge about emotions has increased over time, which gives hope that, at some point, a universal theory of emotions will emerge and command general assent.

An alternative possibility brought up at various times in the history of emotion theory by affective scientists (Duffy, 1934, 1941; Barrett, 2006; Kagan, 2007, 2010; Mandler, 1975; Russell, 2003; Zachar, 2006) and philosophers alike (Rorty, 1980; Griffiths, 1997; Scarantino, 2012b, 2012c) is that emotions simply are not all of one kind. A philosophical way to make this point is to say that the folk categories designated by English terms such as "emotion," "anger," "fear," "happiness," "sadness," "shame," and "guilt" do not designate natural kinds. A natural kind is (roughly) a category whose members are sufficiently alike to allow for extrapolation from properties of category samples to properties of the category as a whole. Emotions, it is claimed, are too heterogeneous to fit this definition.[29]

Most of the theories examined in this chapter presuppose that folk emotion categories designate natural kinds. Their central theses are presented as claims of the form "emotions are *K*" or "fear is *K*," where *K* stands for a kind of psychological structure. This formulation presupposes *universalism*, namely, the idea that a single account of emotions (or at least a single account of fear, anger, shame, etc.) can fit all cases (Scarantino, 2012c). As described, the three historically most influential ways of filling in the blank have replaced *K* with *feelings*, *motivations*, and *evaluations*, respectively. The debate on the nature of emotions has generally focused on whether any of these replacements can satisfy all scientific or philosophical constraints on, and purposes of, a theory of emotions. The result has been the fragmented family tree I have outlined in this chapter, in which no theory seems to be fully satisfactory on all dimensions of assessment.

However, if emotions are not all of one kind, *universalism* is simply the wrong methodological presupposition, and the project of filling in the blank in claims of the form "emotions are *K*" or "fear is *K*" becomes doomed to failure, even if Darwin or Newton were to take a shot at it. Fortunately, *universalism* is not the only game in town. Two methodological alternatives seem especially promising, because they have led to major progress in other areas of research. The first is what we may call *componentialism*, the view that we should search for the fundamental building blocks of natural phenomena.

An example of a successful componential strategy can be found in the search for the nature of matter, which started with pre-Socratic suggestions that all matter is ultimately constituted by a

single basic element (e.g., Thales proposed water, Anaximenes air, and Heraclitus fire) or a handful of elements (e.g., Empedocles suggested four: air, fire, water, and earth), and ended with the discovery of the chemical elements in the 18th century. Chemical elements are defined as substances that cannot be further decomposed into simpler substances using common chemical processes and can combine to form an infinite number of compounds.

A similar strategy has been proposed by psychological constructionists in the affective realm. These emotion theorists believe that the emotion categories of folk psychology are too heterogeneous for purposes of scientific investigation and aim to discover "elemental—but still psychological—building blocks" (Russell, 2003, p. 146) out of which emotion episodes are constructed. The heterogeneity of folk emotion categories does not preclude the success of this strategy, because even if all things we call emotions, angers, fears, and so on cannot be captured by a common definition (or theory), their *components* may still have scientifically relevant dimensions of similarity.

The second methodological strategy I call *pluralism*. Unlike psychological constructionists, pluralists think that discrete emotion categories are still a proper object of scientific investigation, as long as we accept that they have to be heavily revised (e.g., split into subcategories) in order to do scientific or philosophical work. The core assumption of *pluralism* is indeed the belief that there is a plurality of distinct natural kinds comprised within the same folk categories.

An example of this approach can be seen in research on memory. Memory scientists started from the assumption that the folk psychological category of "memory" designates a unique information-retention mechanism, but eventually came to realize that memory needs to be "divided into multiple forms or systems-collections of processes that operate on different kinds of information and according to different rules" (Schacter, 2004, p. 644). Today, it is commonly accepted that multiple memory systems exist (e.g., short-term memory, long-term memory, procedural memory), are activated by different tasks, and differ on a number of important theoretical dimensions (e.g., duration, storage modality, capacity, neural underpinnings).

Pluralists suggest the time has come for emotion theory to undergo a similar transformation—that is, to take seriously the idea of multiple emotion systems, and possibly even multiple anger systems, multiple fear systems, multiple disgust systems, and so on (Scarantino, 2012a, 2012b, 2012c; LeDoux, 2012). Just as the fact that the folk psychological category of "memory" is not a natural kind is compatible with the existence of a plurality of more specific natural kinds of memory (e.g., short-term memory, long-term memory, procedural memory), so the fact that the folk psychological categories of "emotion," "anger," "fear," and so on are too heterogeneous to designate natural kinds is compatible with the existence of natural kinds of emotion, natural kinds of anger, natural kinds of fear, and so forth.

A possible moral of this chapter is that *universalist* theories of emotions are inadequate, although they each account for a portion of the empirical data and therefore tell us something valuable about what *some* emotions are. The inference to the best explanation for why, despite centuries of efforts, we have failed to unveil a *universalist* theory of emotions that accounts for all the empirical data on what we call emotion, fear, or anger in English while achieving all our other theoretical purposes is that there is not such theory to be found. Whether a *componential* or a *pluralist* strategy will bear more fruits in the long run remains to be seen. But as both strategies start from the shared assumption that folk emotion categories are too heterogeneous for the theoretical purposes of philosophers and affective scientists, they promise to deliver the sort of progress that has eluded universalist theories so far.

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Notes

1. Aristotle's list, as several other lists I introduce in this chapter, contains some items that in contemporary taxonomies would clearly qualify as emotions (e.g., fear), other items that would clearly not qualify (e.g., emulation), and some borderline cases (e.g., calmness). I do not discuss the origin and import of these discrepancies in what follows, but they suggest that the overlap between the contemporary emotion category and the other affective categories I consider (e.g., passion, sentiment, affect) is only partial.
2. Aristotle does not explicitly associate all passions with either pain or pleasure. For example, he does not explain whether friendliness, kindness, confidence in the face of danger, contempt, and hatred involve either pleasure or pain. This is either an oversight on Aristotle's part or evidence that feelings of pain and pleasure are not strictly necessary for an Aristotelian passion to be instantiated.
3. The solitary exception is constituted by philosophy students, who indicate instead cognitive changes as being more important attributes than feelings.
4. Descartes also offers a description of the concomitant movements of the animal spirits that function as proximal causes of such passions.
5. Hume accepts that the passions can be unreasonable, but he thinks they are so only derivatively, namely by virtue of the judgments that accompany them (what we now call the *cognitive basis* of emotions; see the section "The Rise of the Evaluative Tradition"). For example, it is for Hume unreasonable to fear a person on the false assumption that he or she exists, or to buy a gift for someone we hate on the false assumption that he or she will suffer as a result. The mistake here, Hume thinks, does not lie with the emotion, but with our judgments about what exists or about what is a good means to an end.
6. This view contrasts with Descartes' analysis, according to which emotions represent the goodness or badness of things, and do so (most of the time) in an exaggerated way (James, 1997). But note that not everyone agrees that Cartesian passions are representational (see e.g., Greenberg, 2007, for a dissenting opinion).
7. Since James's theory is very similar to Carl Lange's (1885/1922) theory, independently developed at the same time, it is common to refer to the James–Lange theory of emotions. I will disregard Lange's contribution in what follows.
8. James's mature account, as Ellsworth (1994) first emphasized, also comprises an evaluative dimension, captured by the idea that the perceptions of the exciting fact that directly cause bodily changes are evaluations of the stimulus situation (see also Reisenzein, Meyer, & Schutzwohl, 1995). This aspect was added by James only in 1894, in response to critiques his theory had received from, for instance, Worcester (1893) and Irons (1894). These writers had argued that the same stimulus (e.g., a bear) can elicit different emotions in different subjects. James acknowledged that objects can be evaluated in different ways, and consequently lead to different emotions: "The same bear may truly enough excite us to either fight or flight, according as he suggests an overpowering 'idea' of his killing us, or one of our killing him" (James, 1894, p. 518).
9. In a footnote, James himself hinted at the possibility that some emotions may correspond to neural changes that have no counterpart in real bodily changes: "it is of course possible that the cortical centres normally percipient of . . . organic sensations due to real bodily change, should become *primarily* excited in brain-disease, and give rise to an hallucination of the changes being there. . . . Trance, ecstasy, &c., offer analogous examples—not to speak of ordinary dreaming" (James, 1884, note 4; see Prinz, 2004b; Reisenzein & Stephan, 2014, for further discussion).
10. Deigh (2001) has suggested that this passage does not offer conclusive support to the interpretation that Freud did not believe in the existence of unconscious emotions. On Deigh's view, appreciating that for Freud emotions can literally be unconscious is "essential [for] understanding Freud as having . . . broken completely with the Cartesian conception of the mind" (p. 1250).
11. The converse does not hold for James, as there are emotions not generated by instincts. James (1890) writes, "emotional reactions are often excited by objects with which we have no practical dealings. A ludicrous object, for example, or a beautiful object are not necessarily objects to which we do anything; we simply laugh, or stand in admiration, as the case may be." As a result, James concludes that "the class of emotional, is thus rather larger than that of instinctive, impulses, commonly so called" (p. 442).
12. Skepticism about the usefulness of the notion of emotional expressions is at the heart of Fridlund's (1994) *behavioral ecology view* of facial displays, which focuses on how facial changes convey social motives, and rejects the assumption that automatically expressing emotions to recipients is in the evolutionary interest of emoters. The view that facial expressions are largely audience-dependent has since gained wide ascendancy in the literature on emotional expressions (see Russell, Bachorowski, & Fernández-Dols, 2003, for a review).

13. Ryle (1949/2009) acknowledges that emotion terms may also refer to *feelings* that "wax and wane in a few seconds" (p. 85), but he describes them somewhat disparagingly as "thrills, twinges, pangs, throbs, wrenches, itches, prickings, chills, glows, loads, qualms, hankerings, curdlings, sinkings, tensions, gnawings and shocks" (p. 70).
14. We must distinguish this case from the case of action readiness discussed by Dewey (1894, 1895). A person can be proud in the Rylean dispositional sense even while he or she is sleeping, by virtue of what would happen were he or she to wake up, and were other circumstances to be fulfilled. But a person cannot be angry in the Deweyan dispositional sense while sleeping, because being angry in such sense requires the actual activation of aggressive behavioral options.
15. Several basic emotion theorists also assume that basic emotions are associated with distinctive hardwired neural circuits (e.g., Izard, 2011; Levenson, 2011). The debate on the existence of such circuits is unresolved (see, e.g., Panksepp, 2000; Panksepp & Biven, 2012; LeDoux, 1996; LeDoux & Phelps, 2008; Lindquist, Wager, Kober, Bliss-Moreau, & Barrett, 2012; Barrett & Satpute, 2013).
16. We should note the existence of a minority view within basic emotion theory that is *impulsivist* rather than *reflexivist*, in that it assumes that, except in rare cases, basic emotions lead to impulses to behavior rather than reflex-like behaviors (e.g., Levenson, 2011; Scarantino, 2014, 2015; see also Roseman, 2011).
17. Several social constructionists focus on the interpersonal social functions played by emotions while remaining agnostic on what emotions are at the intrapersonal level. But since they generally tend to emphasize the active side of emotions and the fact that emotions do not just happen to emoters but are means to fulfill ends, it seems fitting to include them as *sui generis* members of the *motivational tradition*.
18. Since the class of Stoic passions is not coextensive with our class of emotions, the claim that we should strive for *apatheia* is not equivalent to the claim that we should strive for freedom from all emotions. In fact, the Stoics explicitly admit some emotions as legitimate. The *good emotions* are labeled by the Stoics as *eupatheiai*, and three varieties of them are distinguished: joy (*khara*), will (*boulesis*), and caution (*eulabeia*).
19. Brentano (1874/1995) emphasizes a peculiar feature of the intentionality relation, namely that the object toward which a mental state is directed need not exist. This feature has led a number of philosophers to doubt that the intentionality relation can be explained in physical terms, because one of its relata need not exist in the physical world. Others have suggested instead that the intentionality relation can be naturalized despite this peculiarity (see, e.g., Mendelovici & Bourget, 2014, for further discussion).
20. As it turns out, Kenny (1963) was right on the assumption that there are conceptual entailments between emotions and formal objects, but wrong on the assumption that one must believe that a stimulus is bad in order to fear it, due to the phenomenon of rational recalcitrance (D'Arms & Jacobson, 2003). As I discuss later in the chapter, philosophers are now identifying emotions with mental representations other than beliefs to account for recalcitrance.
21. For an exploration of the complex connections between the three job descriptions for formal objects, see De Sousa (1987) and Teroni (2007). For skepticism about the usefulness of the notion of formal object, see Deigh (1994).
22. Although formal objects are generally instantiated by material objects, there are exceptions to this rule. In so-called *objectless emotions*, no material objects are seemingly present. For example, in objectless anxiety the world at large appears to be dangerous, without anything in particular appearing to be dangerous. Cases of this sort can be handled in several ways. Objectless emotions can be handed out to a theory of moods, or they can be considered to be emotions with an especially broad material object (e.g., the world at large), or they can be considered to be emotions without material objects. The discussion of these possible solutions and others lies outside the scope of this chapter.
23. See De Sousa (2002) and Salmela (2006) on the topic of emotional truth.
24. Some have also suggested that emotions provide reasons to act without motivating to act (see, e.g., Tappolet, 2010).
25. Reisenzein (2012) has recently distinguished among three main versions of the belief and desire theory in psychology and philosophy: 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.
26. Another notable neo-Jamesian account of emotions is Robinson (1995, 2005).
27. Two important formulations of the view can be found in D'Arms and Jacobson's *Rational Sentimentalism* (see D'Arms & Jacobson, 2000) and in Rabinowicz and Rønnow-Rasmussen's *Fitting Attitude Theory* (see Rabinowicz & Rønnow-Rasmussen, 2004).
28. As Scherer (2001, p. 28) puts it, all appraisal theories that have appeared in the last 40 years are

"based, at least in part, on the pioneering efforts of Arnold and Lazarus."

29. There is a rich debate in philosophy concerning whether emotions are natural kinds (see, e.g., Nussbaum, 2001; Ben-Ze'ev, 2000; Charland, 2002; Prinz, 2004a; Griffiths, 2004a; Scarantino, 2009, 2012c; Clark, 2013).

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