

Modular Affective Judgments: A Defense of the Judgment Theory of Emotion

“The heart has its reasons, of which reason knows nothing.”

— Blaise Pascal

I. Emotions as Judgments

The idea that emotions are more than mere feelings or physiological syndromes — that they involve cognition, evaluative judgments, and engagement with the world — has become widely accepted among emotion theorists (Deigh, 1994; Robinson, 2004; Solomon, 2004). The older, Jamesian model, which identified emotions with physiological changes, has been thoroughly supplanted by the theory of emotions as judgments. Nussbaum (2001) identifies four features of emotions which do not fit with the older view. (1) Emotions are *about* something. If I am afraid, then I am afraid *of* something. (2) The objects of emotions are intentional objects. If I am afraid of a snake, my intentions reach out to “grasp” the snake; I see it as being in a particular relationship to me, as threatening me. (3) Emotions embody beliefs about objects. My fear of the snake includes the belief that it is dangerous and that I have no control over what it is going to do. And (4) emotions are concerned with

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value and well-being. I fear the snake because it is a threat to my well-being (2001, pp. 27-31). In Nussbaum's view, emotions are both evaluative and eudaimonic: they are "forms of evaluative judgment that ascribe to certain things and persons outside a person's own control great importance for the person's own flourishing."¹ Thus, fear can be thought of as a judgment that someone or something threatens our safety or the safety of someone we care about. Anger can be thought of as a judgment that we or someone or something we care about is being badly treated or taken advantage of. Compassion can be thought of as a judgment that someone is suffering and needs assistance. And disgust can be thought of as a judgment that something is unhealthy and should be avoided.²

As Solomon (2004) points out, however, the idea that emotions are judgments does not mean that emotions are necessarily or exclusively conscious deliberative judgments of the sort that only rational animals like ourselves might make.³ In Solomon's view, emotions may also be non-reflective, non-deliberative, inarticulate, or even kinesthetic judgments. Emotions may involve complex cognitive judgments of the sort that might be involved in grief, as well as simple modular or non-linguistic judgments that might be involved in jumping away from what appears to be a spider in the dresser drawer. Thus, the slogan "emotions are judgments" must

¹ Ibid. p. 22. I will use Nussbaum's term, 'eudaimonic', to mean "pertaining to one's own well-being", including the sense in which emotions protect the organism from harm and in which they may therefore be evolutionarily adaptive.

² Disgust at spoiled food is a paradigm case of disgust. But people also speak of being disgusted by lower forms of life (crawling maggots), certain sexual behaviors, and even non-sexual forms of immorality. It is not clear that all of these attitudes represent the same emotion, nor that they are all emotions.

³ In this essay, I use the word 'conscious' to mean "aware of at the level of rational reflection." I use the word 'modular' to refer to a level of awareness and processing that is "below," and not directly under the control of, this "conscious" level of awareness.

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not be taken to mean that emotions are identical to propositional judgments. While propositional judgments are clearly involved in sophisticated emotions like grief and envy, emotions seem to involve other kinds of judgments, as well.

Although the judgment theory has considerable intuitive appeal, it has been challenged on the grounds that it is too simplistic and that it identifies emotions too closely with propositional judgments. Thus, Deigh (1994) points out that not all instances of emotion require beliefs or other propositional components, and that our emotions and beliefs frequently conflict with one another. For example, one can experience fear upon looking down from a precipice, even when one knows that one is in no danger of falling. Moreover, animals and human infants experience what appear to be emotions, even though they are incapable of holding propositional beliefs. Robinson (2004) points out that it is also possible to have propositional judgments without emotion. Thus, I might get angry about being cut off in traffic, but it isn't necessary that I do so: I can judge that I have been cut off and remain dispassionate. Greenspan (1980) raises another difficulty for the judgment view when she points out that emotions often conflict with one another in ways that are inconsistent with their being propositional judgments. For example, I can feel both happy and sad that a colleague has been appointed department chairperson instead of me; this is the familiar phenomenon of having "mixed emotions." But although conflicting emotions can be held simultaneously, it seems impossible that I can simultaneously hold the conflicting propositions: I cannot simultaneously believe that my colleague's winning was a good thing and also that it was a bad thing. With propositions, it has to be one or the other. Thus emotions, insofar as they can mix, cannot be propositional judgments. And finally, Ekman (1980) and Griffiths (1997) have identified a sub-

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category of emotional responses called “affect programs” that happen so fast there is no time for conscious propositional judgment to occur. An example of this kind of emotion is the familiar fear response when we jump back at what appears to be a large green snake slithering through the grass in the back yard, only to identify it (a second later and with our heart still pounding) as the garden hose. Griffiths distinguishes these affect programs from what he calls “higher cognitive emotions,” which include emotions like grief, love, and embarrassment, and which require conscious intentionality at the level of rational awareness (i.e., the involvement of the cerebral cortex).

We can summarize these objections as a set of four challenges that any successful judgment theory will have to meet: (1) explain how it is possible to have emotions that are independent of, or conflict with, conscious beliefs; (2) explain why many (or most) of our judgments fail to arouse our emotions; (3) explain how it is possible to have mixed emotions; and (4) explain the sense in which affect programs qualify as judgments. Solomon construes his own view as broad enough to meet these challenges, but the problem with his account is that it is insufficiently detailed to allow us to understand how it is meant to work. On Solomon’s account, emotions must span “conscious and non-conscious awareness, have as objects both “propositions and ordinary objects of perception,” and “involve appraisals and evaluation without involving (or excluding) reflective appraisals and evaluations” (Solomon, 2004). But this reads more like a wish list than a theory, and after listing all of these parameters Solomon disappoints us by failing to explain in detail how they can all be met. Moreover, insofar as emotions are a part of human psychology, we would expect a theoretical account of emotions to attempt to square itself with relevant psy-

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chological research. But Solomon is mostly dismissive when it comes to the challenges that recent research present to his theory, thereby playing right into the criticisms of Griffiths, who observes that the authors of most philosophical accounts of emotions fail to square their theories with the abundant psychological data that is available. Thus, in addition to the four challenges listed above, we need to add a fifth challenge, which is: (5) to explain in greater detail, and in a way consistent with psychological research, how a judgment theory of emotions meets challenges 1-4 above.

My goal in this paper will be to defend the judgment theory by showing how these objections can be addressed within the broad outlines of a theory of emotions as judgments. In Part I of my defense I will explain why it makes sense to think of affect programs as judgments and why emotions sometimes conflict with conscious beliefs. In Part II, I will suggest how affect programs and higher cognitive emotions might be related, which will lead us to an explanation for why all propositional judgments do not elicit an emotional response and how emotions can mix and contradict one another. I will conclude with a brief discussion of a recent paper by Robinson (2004), who presents a model similar to my own but who uses it to attack rather than defend Solomon's view, and I will attempt to reconcile our conclusions.

II. A Defense of the Judgment Theory – Part I

The term “affect program” is used by Griffiths (1997) and Ekman (1980) to refer to a subclass of emotions that are pan-cultural, automated, and modular. These responses are activated by perceptual stimuli and produce distinctive facial changes, musculoskeletal responses, vocal changes, hormonal changes, and autonomic nerv-

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ous system changes. They are pan-cultural in that they occur throughout the human population independent of culture; automated in that they unfold without the need for conscious direction; and modular in that they appear to operate independently of cortical functions. Ekman identifies six human affect programs — surprise, anger, fear, disgust, sadness, and joy — each of which is associated with a distinctive facial expression that is pan-culturally uniform and recognizable. His conclusion is that the existence of such programs indicates that a great deal of emotional processing is automatic and pre-programmed. The stimulus required to activate the program may vary among individuals and cultures — some people may be afraid of snakes, some may be afraid of spiders, some both, and some neither — but once activated, the emotional response proceeds according to a program that is more or less independent of conscious control.

Ekman has speculated that the entire emotional response — from stimulus recognition to the triggering of a physiological reaction — can occur independently of conscious control (Griffiths, 1997, pp. 92-93). He suggests that there is an “automatic appraisal mechanism” which compares perceptual information to “memories” about classes of perceptual stimuli that have previously elicited an emotional response. If the perception resembles one of these memories, then the associated emotional response is triggered. Indeed, there is a fair amount of experimental evidence that supports this hypothesis. For instance, Zajonc (2000) reports experiments in which participants were preconsciously primed with either a smiling face or a frowning face and then presented with Chinese ideographs which they were asked to iden-

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tify as meaning something “good” or “bad.”⁴ Ideographs preceded by a smiling face were judged as “good” significantly more often. The interpretation offered is that positive affect that was preconsciously induced by the smiling faces caused the difference in judgments. In another set of experiments, Knight (Knight et al., 2003) reports that auditory stimuli below the conscious perceptual threshold can trigger a conditioned fear response.⁵

If Ekman is correct, then affect-program emotions represent the appraisals of a modular affective system that operates at least quasi-independently of conscious input and control. Such a system would square both with experience and with common sense theorizing about human evolution. The sudden fear we experience when we mistake the garden hose for a snake would have obvious survival value for the savannah-dwelling creatures we once were. The modular recognition system saves time compared to a conscious deliberative process, thereby enabling us to react more quickly, and the emotional jolt grabs our attention and primes our body to respond.

Whether or not these affective appraisals are *judgments* will of course be a matter of controversy. But I see no reason under Solomon’s own account not to call them judgments. According to Solomon, “... I have long argued that emotions as judgments should not be confused with singular summary judgments... nor should a judgment be thought to be something deliberative, articulate, or fully conscious”

⁴ In this type of experiment, participants are shown pictures of human faces (either smiling or frowning) for just a few milliseconds before the ideograph is presented. Because the interval in which the faces are shown is so short, participants are not conscious of having seen any faces at all. That such pre-conscious priming can have an effect is taken as evidence that affective response can be generated independently of conscious perception and judgment.

⁵ Participants were conditioned to expect a loud burst of white noise after a particular tone. In trials where the volume of the tone was adjusted so that it was not reported as being heard by the participants, a skin conductance response (an indicator of fear) was still observed following the tone, indicating that conscious awareness was not required for the fear response to be triggered.

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(2004, p. 77). They also fit with Nussbaum's theory in that are both evaluative and eudaimonistic. Therefore, I think it is quite safe to call them judgments as long as we are clear about the system that is making them and about the fact that they are rendered not as propositions, but as changes in affective state.

III. Defense of the Judgment Theory – Part II

I have argued that affect-program emotions represent the judgments of a modular eudaimonistic system whose output is rendered in terms of affect. If this is accepted, then we are half-way toward answering the objections raised against the judgment theory. We can already respond to Deigh's objection (#1) that emotions sometimes conflict with conscious beliefs. On the account given above, the fear we experience on the edge of a precipice represents the judgment of a modular affective system that errs on the side of caution. Our belief that we are safe has little influence over this modular system.⁶ We have also explained the sense in which affect programs qualify as judgments (#4) and, in doing so, we have gone some way toward addressing objection #5, which was to provide a more detailed explanation of how the judgment model might work and to show how it is supported by empirical observations.

What is needed before we can address the remaining objections is to extend the account given in the previous section to include the higher cognitive emotions. The apparent difficulty with doing this is that higher cognitive emotions such as

⁶ One might wonder why the modular judgments of the automatic appraisal mechanism and conscious deliberative judgments do not diverge more often than they do. One possible answer is that in most individuals affective judgment can be brought into line with the conscious rational judgment by condi-

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love, hate, envy, grief, and nostalgia require higher cognitive functions, and hence cannot be accounted for entirely in terms of a modular affective system. Griffiths therefore treats them as distinct phenomena from the affect programs. But the idea I hope to make plausible is that, although higher cognitive emotions do require conscious intentionality, the judgments that generate the affects are formed by more or less the same modular system as the affect-program emotions.

This idea might seem odd, but we can begin to temper our skepticism by observing that it has two important things going for it. First, it gives a good account of several important phenomenological aspects of emotions. For instance, it is a well-known fact that we cannot simply decide to experience an emotion. We cannot will ourselves to fall in love, for example.⁷ Wherever the decision to fall in love is made (if it even makes sense to talk of such decisions), it isn't within the realm of conscious rational deliberation. It seems plausible, then, that love might be a function of a modular affective system. A related phenomenological aspect of emotions is that we often discover that our feelings about someone or something are deeper than we think they are. Again, this is consistent with the theory that emotional evaluation is conducted by a system that is separate from deliberative, rational evaluation.

The second thing that the modular affective model has going for it is that it makes good evolutionary sense. This model implies that our primitive affective capacities were adapted and built upon as our cognitive capacity grew. We have already seen that there are good evolutionary reasons for retaining a modular affective

tioning — for example, repeated exposure to precipices under safe conditions can gradually extinguish the fear response.

⁷ Ronald de Sousa's talks about this phenomenon in terms of an "antinomy of activity and passivity". See Ronald de Sousa, *The Rationality of Emotion* (Cambridge: MIT Press, 1987), 10-12.

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judgment apparatus. Likewise, there are good reasons for making this system more powerful by incorporating input from the higher brain. Reproductive success for our human ancestors would depend on their being able to get along in the social group and rise to positions of dominance. This would require evaluations and appropriate responses for when one is in the wrong (shame) and for when one's social position is threatened (envy, anger). Group bonding and the raising of children would require care (love), and care seems entail sadness (grief) at the death of the one who is loved. The principle of economy would suggest that evolution made use of existing affective structures rather than construct entirely separate ones. It seems plausible, then, that even higher cognitive emotions are built upon some kind of modular affective appraisal, and that the same modular system that is responsible for affect programs is also involved in higher cognitive emotions.

We can begin to build a theoretical bridge between affect programs and higher cognitive emotions by considering an emotion such as anger. Anger is one of Ekman's six affect programs (it is expressed in terms of a pan-culturally recognizable facial expression) but it can also have propositional objects, and thus it is a higher cognitive emotion as well. If we compare instances of instances of both types of anger — the sudden flush of anger characteristic of an affect program and the slow burning anger characteristic of a higher cognitive emotion — we see differences, but we also see many resemblances.⁸ First, there is the characteristic affect. Then there is the cause of the emotion, which is frequently an insult or an encroach-

⁸ I discount here what might be termed "metaphorical anger," where persons take a negative attitude toward something and describe themselves as being "angry" but where there is no affective involvement. Emotion, in the model I am proposing, has to include some kind of feeling or physiological response.

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ment on our space or on our rights. The characteristic facial expressions of both forms of anger also seem to be very similar: we have all seen people turn beet-red, grit their teeth, storm around aggressively, and throw things in response to a proposition (their political rival has beaten them again, or someone has taken something that they were deeply attached to). In other words, the gulf between affect programs and higher cognitive emotions might not be as great as Griffiths would have us believe.

If there is a relationship between affect-programs and higher cognitive emotions, what might it be? At this point we can only speculate, but one possible model is that the same modular affective system that triggers the affect programs also triggers the higher cognitive emotions. This would entail associations in the automatic appraisal mechanism not only between perceptual stimuli and emotional responses but also between conceptual stimuli (i.e., beliefs) and emotional responses. Conceptual stimulus-response associations could be learned in childhood by observing paradigmatic responses of adults and older children, and by listening to stories.⁹ Objects of intentionality are evaluated by the modular affective system as resembling or not resembling a paradigm scenario for a particular emotional response, and if the match is close then a response is triggered.

If this account is correct, then higher cognitive emotions are not so very different from affect programs. Higher cognitive emotions give the modular affective system a broader set of objects to operate on but it is still the modular system that does the evaluation and produces the affective output. This would enable us to apply the same conclusions we reached about affect-program emotions to the higher cogni-

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tive emotions. Higher cognitive emotions represent the judgments of a modular affective system that learns by association, evaluates objects according to their resemblance to paradigm scenarios, and renders its judgments in terms of affective state.

IV. But are Emotions Really Judgments?

With objections #1, 4, and 5 answered and with a plausible account of higher cognitive emotions on the table, we are now ready to answer the remaining objections to the judgment theory. Objection #2, that not all judgments are associated with an emotional response, is accounted for by the separation between higher cognition and the modular affect system already described. We cannot decide to fall in love because the “decision” is made by a modular system over which deliberative rationality does not have direct control. In order for an emotional response to be triggered, an object of intentionality has to be associated by the modular affective system with an emotional response. Those associations are not created rationally; they are learned through observation, stories, and by association with paradigm scenarios.¹⁰

Objection #3, that emotions can mix and contradict one another but judgments cannot, is also accounted for by the model. The output of the modular affective system is given in terms of affects — and affects (as Greenspan herself admits)

⁹ Ronald de Sousa’s idea of “paradigm scenarios” nicely compliments this model. Our repertoire of emotions is built up, de Sousa claims, by association with paradigm scenarios that tell us what objects we ought to respond to and in what ways we ought to respond (De Sousa, 1987, p. 182).

¹⁰ We can sometimes “call up” emotional responses when a particular social or professional situation seems to require them (i.e., when we are acting a part), but we do this by recalling imagery which our affective appraisal mechanism already associates with the emotional response we desire to manifest. This is a genuine emotional response, but it is not a genuine response to the situation we are in; it is a response to the imagery we recall. It is merely an act.

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can mix. The mixing of emotions seems plausible and appropriate given the eudaimonistic role that Robinson and Nussbaum see emotions as playing. It would be a severely handicapped and short-lived animal that could only experience one emotion at a time. An animal that could not experience fear and attraction simultaneously would wind up either heedlessly rushing into dangerous situations, or missing out on many potential rewards. Either way, the chances for that animal's long term survival would be slim.¹¹

It is, of course, still possible to question whether it is correct to call emotions “judgments,” or whether some other word is more appropriate. I have tried to make the case that it is reasonable to think of emotions as judgments and I have attempted to clarify just what kinds of judgments they are, but some writers still might balk. For instance, Robinson (2004) has given an account that is similar to the one I have given, but she attacks rather than defends Solomon and concludes that emotions are not judgments but “appraisals.” Robinson uses the empirical data of Ekman and Zajonc to arrive at the same conclusion I do, which is that at least some emotions involve affective appraisals that occur “below consciousness and independently of higher cognitive functioning.” She then ties higher cognitive emotions to automatic appraisals with the idea that the higher emotions are triggered automatically, but also associated with and followed up by cognitive evaluations. In other words, emotions are processes involving both affective and higher cognitive evaluations. Her com-

¹¹ The longer duration of higher cognitive emotions can be accounted for by the ability of upper brain to focus its attention on particular objects, coming back again and again to the object that provoked the emotional response. The emotion, in turn, causes the upper brain to keep its attention focused on the object, which then reinforces the emotion in what can become a vicious cycle of reinforcement. This feedback loop seems to explain both the duration of higher cognitive emotions and the “I can't stop thinking about it” phenomenon that occurs when we are emotionally engaged with something.

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plaint against Solomon is that the term “judgment” obscures the complexity of this process.

One useful point that Robinson makes is that there is probably a limited set of physiological responses that can be generated — corresponding roughly to fear, anger, sadness, and enjoyment — but the range of emotions we can identify far exceeds this narrow range of physiological responses. What makes up the difference? On Robinson’s account it is the cognitive evaluation that goes along with the affective evaluation which gives each emotion its distinctive character and enables us to discriminate between similar emotions such as shame and guilt, and jealousy and envy. In other words, the affective appraisal might produce physiological responses that are indistinguishable in each of the paired emotions, but the cognitive appraisal would make the difference. This seems very plausible and in-keeping with an evolutionary explanation that preserves the functionality of the “lower” affect program responses while adding the power of conscious deliberative assessment.

Our disagreement about whether emotions are judgments is probably partly semantic, but it may also hinge on the quality of the appraisals that the modular affective system is capable of. Robinson characterizes emotions as rough and ready preliminary assessments — almost like snap judgments — that are made before the more discriminatory conscious evaluative system makes its subtle determinations. But there is evidence that our unconscious appraisals can be quite discriminatory. We may get a feeling that something is wrong long before we can consciously make out what it is. For instance, Gladwell (2005) relates the fascinating tale of a forgery of a Greek *kouros* (sculpture of a male youth) that was nearly purchased at great cost by the Getty Museum. The museum employed the latest quantitative methods to rule

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out forgery, all of which indicated that the sculpture was authentic. But some of the experts who viewed the statue immediately sensed that something was wrong with it, although they were unable to articulate what it was. It later turned out that the experts were right and the quantitative analyses were wrong. What the experts had perceived was later identified as a mixing of styles in different parts of the statue. Thus, it seems that our feelings can be quite discriminatory in terms of what they tell us about the world. And it stands to reason that the affective appraisal mechanism might be more sensitive than Robinson is willing to allow. Perhaps it is in this sense, then, that emotions deserve to be called judgments. For as we all know, and as Pascal reminds us, the heart can sometimes be the wisest organ in the body.

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