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Thinking with Your Hypothalamus: Reflections on a Cognitive Role for the Reactive Emotions

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In "Freedom and Resentment," P. F. Strawson argues that the "profound opposition" between the objective and reactive stances is quite compatible with our rationally retaining the latter as important elements in a recognizably human life. Unless he can establish this, he has no hope of establishing his version of compatibilism in the free will debate. But, because objectivity is associated so intimately with the rationally conducted explanation of action, it is not clear *how* the opposition of these stances is compatible with the rationality of the reactive attitudes. More to the point, it is not clear how an intellectual activity like shifting from the reactive to the objective stance can *dispel* reactive attitudes *without* thereby also rationally *disqualifying* them. I solve this puzzle by drawing on the idea that one cognitive component of emotions is the rationally optional "shift of attention," a feature which in turn helps to explain a lot about the role reactive emotions can play in the fixation of belief.

Section 1: The Strawson Détente

P. F. Strawson's "Freedom and Resentment"¹ has had a pivotal influence on contemporary discussions of free will and responsibility. However, it has not been quite the influence Strawson had hoped for. Whereas he wished to effect a détente in the debate over the compatibility of determinism with free will and human responsibility, he succeeded merely in changing forever the terms in which this debate is posed. It will never again be posed simply as the question of whether a person whose actions are explainable in causal terms *is really* responsible for what he does, but always hereafter also as a question of whether he is an *appropriate object of the reactive attitudes*. This reposing has resolved little in the dialectic itself, but it has rendered it impossible for anyone to ignore the crucial importance of the reactive attitudes as an animating force in our practice of holding each other truly responsible.

Though it would be gratifying to make a dispositive contribution to Strawson's strategy of détente, I doubt that there is much new to be said

¹ P. F. Strawson, "Freedom and Resentment," reprinted in G. Watson, ed., *Free Will* (Oxford: Oxford University Press, 1982), 59–80.

about his ambitious project and the extent of its success.² But even if minimal progress is possible in that regard, Strawson's introduction of reactive attitudes into the general picture enables us to explore some little-noticed cognitive aspects of the emotions and affective aspects of cognition, which remain little-noticed even in a time when "cognitivism" is still a dominant approach in the theory of the emotions. Naturally, I hope that they will turn out to illuminate some aspects of the free will debate as Strawson has reposed it, but I grant from the outset that incompatibilists are unlikely to be convinced.

As everyone knows, Strawson hoped to achieve a *détente* between incompatibilists and compatibilists (he called them "pessimists" and "optimists") about human freedom and causal determinism, by exacting "a formal withdrawal on one side in return for a substantial concession on the other." (Strawson, reprinted in Watson, 1982, 60. All page references are to this edition.) He hoped that the pessimists could be induced to retreat from "the panicky metaphysics of libertarianism" (80) if the optimists would only acknowledge that the twentieth-century compatibilism dominant then (circa 1960), of the sort generally associated with Schlick, Hobart and Foot,³ offers an unrecognizably drab picture of the human practices which ground the concept of full-blooded responsibility. Strawson was confident that the lacuna in this exclusively consequentialist picture could be filled without resort to postulating agent-causes, noumenal selves and the like. *Détente* could be achieved at a relatively low price, he thought, if all sides would only recognize how "reactive attitudes," like resentment and gratitude, moral indignation and approbation, animate, indeed constitute, the human practice of responsibility.

His main line of argument has found few enthusiastic takers, especially not in the pessimists' camp. (This is what one would expect: Schlickian

² Some notable entries in a massive literature include, J. Bennett, "Accountability," in van Straaten, ed., *Philosophical Subjects: Essays Presented to P. F. Strawson* (Oxford: Oxford University Press, 1980), 14–47; A. J. Ayer, "Free Will and Rationality," in van Straaten, 1980, 187–214; G. Strawson, *Freedom and Belief* (Oxford: Oxford University Press, 1986), ch. 5; S. Wolf, "The Importance of Free Will," reprinted in Fischer and Ravizza, eds., *Perspectives on Moral Responsibility* (Ithaca: Cornell University Press, 1993), 101–18; R. J. Wallace, *Responsibility and the Moral Sentiments* (Cambridge: Harvard University Press, 1994), ch. 2; P. Russell, "Strawson's Way of Naturalizing Responsibility," *Ethics* 102 (January, 1992): 287–302; and G. Watson, "Responsibility and the Limits of Evil: Variations on a Strawsonian Theme," in F. Schoeman, ed., *Responsibility, Character and the Emotions* (Cambridge: Cambridge University Press, 1987), 256–86.

³ M. Schlick, *The Problems of Ethics* (New York, 1939), chap. 7. R. E. Hobart, "Free Will as Involving Indeterminism and Inconceivable without It," reprinted in B. Berofsky, ed., *Free Will and Determinism* (New York: Harper and Row, 1966), 63–94; and P. Foot, "Free Will as Involving Determinism," reprinted in Berofsky, 95–108.

optimists have a lot less to lose.)⁴ Few have been willing to grant that a full “objectivity” of attitude towards persons would result from or be appropriate *if* a general acceptance of determinism were completely to suppress our proneness to the reactive attitudes.⁵ Fewer still have been convinced that the reactive attitudes are genuinely beyond the constraints of theoretical rationality.⁶ But, still, Strawson has forever changed the way philosophers pose the central question...no mean feat.⁷

Section 2: The “Profound Opposition” of the Objective and the Reactive Stances

The centerpiece of Strawson’s argument, and the point of departure for my investigation of the cognitive dimension of the emotions, is his contrast between two stances we take up toward people, the “objective” and the “reactive,” and his claim that they stand in “profound opposition” to each other. In an oft-quoted passage he puts it this way:

What I want to contrast is the attitude (or range of attitudes) of involvement or participation in a human relationship, on the one hand, and what might be called the objective attitude (or range of attitudes) to another human being, on the other. Even in the same situation...they are not altogether *exclusive* of each other; but they are profoundly *opposed* to each other. To adopt the objective attitude to another human being is to see him, perhaps, as an object of social policy; as a subject for what...might be called treatment; as something certainly to be taken account, perhaps precautionary account, of; to be managed, handled or cured or trained; perhaps simply to be avoided....The objective attitude may be emotionally toned in many ways but not in all ways: it may include repulsion or fear, it may include pity, even love, though not all kinds of love. But it cannot include the range of reactive feelings and attitudes which belong to involvement or participation with others in inter-personal human relationships; it cannot include resentment and gratitude, forgiveness, anger, or the sort of love which two adults can sometimes be said to feel reciprocally for each other. If your attitude toward someone is wholly objective, then though you may fight him, you cannot quarrel with him, and though you may talk to him, even negotiate with him, you cannot reason with him. You can at most pretend to quarrel, or to reason, with him” (66, Emphasis in the original).

Though many have questioned one detail or another in Strawson’s catalogue of the objective and the reactive attitudes,⁸ the broad distinction he draws has withstood the test of time: Strawson is obviously onto an impor-

⁴ J. Bennett has been Strawson’s most forceful champion on the optimists’ side. Bennett, 1980.

⁵ D. Pereboom, for example, suggests that rich enough surrogates for the reactive emotions would survive even a mass conversion to a belief in determinism. See his “Determinism *al Dente*,” *Noûs* 1995, 38–39.

⁶ G. Strawson, 1986, Ch. 5.

⁷ Whether this shift of perspective has advanced the causes of clarity and depth in our understanding of the conditions of human responsibility is another matter. The question is whether starting with the concept of ‘holding responsible’ is the best way to pursue an investigation of the conditions of ‘being responsible.’

⁸ See the Wallace, Bennett, and Pereboom references in note 2.

tant division in the kinds of inter-personal attitudes we take up toward each other. It is less clear precisely in what respect(s) these stances are “profoundly *opposed*” to each other. It takes us only so far to note that while the objective stance is animated principally by *epistemic* or *consequentialist* motives, the reactive stance never is. In Bennett’s useful if negative characterization, an attitude is reactive if and only if “it is a pro or con attitude which could *not* explain x’s engaging in *teleological* inquiry into how y works” either as an end in itself, say to satisfy x’s curiosity, or as a means to some further, perhaps policy-oriented or therapeutic, end of x’s.⁹ Illuminating though this is, it still leaves open *what kind of tension* exists between the stances, a matter crucial to Strawson’s ultimate goal of *détente*. For, he clearly holds that taking up the objective stance even toward a normal person, that is to say, one who is subject to none of the standard excusing or exempting conditions, tends to drive out the reactive stance. The quoted passage clearly implies this. Moreover, Strawson goes on to say quite explicitly that “...we *can* sometimes look with something like this same eye on the behavior of the normal and the mature. We *have* this resource and can sometimes use it: as a refuge, say from the strains of involvement; or as an aid to policy; or simply out of intellectual curiosity.” (66–67. Emphasis in the original.) But until he can explain how this dispelling of one stance by the other is possible *without* thereby revealing the reactive emotions to be a rationally defective way to respond to the other, he has no chance of convincing incompatibilists that they are wrong to insist that a belief in determinism renders such attitudes incompatible with “the facts as we know them,” and thus irrational. I pursue this question here, not because I think that Strawson still has a chance to make out his full case (I, along with many others, have long ago given up on that), but rather because no Strawsonian account of responsibility has yet made even the minimal case for the epistemic rationality of reactive attitudes in the face of a particularly puzzling feature of the relationship between cognition and affect.

Section 3: Cognitive Dispelling without Rational Disqualifying

The puzzle is this: how is it possible that a specifically *cognitive* or *intellectual* operation *psychologically dispels* an attitude without in so doing also *rationally disqualifying* the attitude?¹⁰ The psychological operation in question is, of course, the shift from the reactive to the objective stance. Its terminus is specifically cognitive or intellectual in that the constitutive feature of the objective stance is inquiry into how another person functions.

⁹ Bennett, 1980, 38.

¹⁰ This way of posing the question is (with the exception of a couple of adverbs) due to Bennett, 1980, 38.

And, on the face of it, any mental operation which increases a person's capacity to augment his or her justified belief or knowledge ought also to count as a move toward greater rational control over her beliefs about the world. But this suggests that the shift from the reactive to the objective stance is by its very nature a move toward greater rational control over one's beliefs, which reflects badly upon the cognitive role and epistemic status of the reactive stance, and raises the question of how such a move away from it could possibly fail to reveal its cognitive or intellectual inferiority to the objective stance.

3.1: Cognitive Dispelling

Before we can solve the puzzle we must distinguish among kinds of psychological dispelling, for the question is not how one psychological state can *simply* dispel another, in the sense of crowding it out. This simpler phenomenon is a commonplace of what might be called "psychological ecology," for even the best of us can seldom consciously accommodate more than a few complicated psychological states or activities at a time. For example, the proverbial severe headache can dim any remnant of the lust one felt so recently and so insistently. In this case, the psychological item which does the crowding out is a non-intentional state, as is the state which is crowded out.¹¹ Sometimes, however, the state which merely ecologically dispels is distinctly intentional, as for example, when a long aesthetic or political argument produces the weary realization that your prospective sexual partner is an unregenerate devotee of *The Sound of Music* or of Marxist-Leninism, which in turn drives out your lingering lust. With mere ecological crowding, two crucial elements are missing (aside from the lust and a shared aesthetic or political outlook). One mental item, whether intentional or not, plays a purely causal role in dispelling the other, so that the crowding out cannot count as a cognitive operation. Moreover, there is no prospect for any distinctively *inferential* relationships between them. But where the possibility of inference is completely ruled out, so is the cognitive aspect of the relationship. The point is not that cognitive relationships among psychological items cannot be causal at all; it is rather that they cannot be *merely* causal. A

¹¹ This partitioning of mental states into the intentional and the non-intentional is standard in the literature, but it has not gone unchallenged. M. Tye, for example, argues that allegedly non-intentional states like pains and itches do actually have intentional objects. (See *Ten Problems of Consciousness* [Cambridge, MIT Press, 1997].) I cannot linger here to argue for the conventional view. Nor do I need to, for even if Tye is correct, the distinction suggested in the text between merely causal/ ecological crowding out and genuinely cognitive dispelling still holds up. On a more specific level, one might also cavil at the idea that *lust* is always a non-intentional state. This is probably wise, because 'lust' probably covers a range of mental states, some of which may well have intentional as well as merely carnal objects. I owe this insight to Andrea Scotland.

rational inference can perfectly well supervene upon a causal chain; it just has to be the right kind.

And what kind is that?¹² Though the ultimate answer will probably come only from cognitive science, here is a provisional stab. A causal relationship between two mental states counts as “cognitive” or “intellectual” in the sense required only if the explanation of how MS1 drives out MS2 other can plausibly be construed as describing “inferential activity” of the person who instantiates the states. The key phrase is to be interpreted broadly in two respects, to include: 1) a full range of inferential processes from the most to the least conscious (in the sense of, “explicitly registered at the personal level”); and 2) a full range of inference patterns from the strictly deductive on down through the inductive, abductive, heuristic, and so on. (The vagueness is unavoidable.)

Consider the paradigm case in which one psychological state or event cognitively or intellectually dispels another. Ivan is lying in his sick bed pondering the meaning of his life. Hitherto he has believed that he would live forever. But he reflects: “All men are mortal.” “I am a man.” “Therefore, I am mortal.” “But if I too am mortal, then I cannot live forever.” “And I am mortal!” “I no longer am able to believe that I will live forever.” Thus the onset of Ivan’s crisis: he entertains the familiar syllogism, applies it (with horror) to himself, and as a consequence one of his most cherished beliefs about himself is dispelled forever, and in the bargain it is disqualified from any further rational acceptance.¹³

Of course, Strawson would do well to resist this as his model of the sort of relationship of “profound opposition” between the reactive and objective stances, because embracing it would give the game away to the incompatibilist. She insists that what explains the evaporation of the reactive attitude is precisely the person’s coming to form the belief that the other’s action is to be explained causally, conjoined with his standing belief in the principle of macroscopic determinism. But if the underlying pattern which explains the psychological dispelling of resentment or moral indignation is strictly deduc-

¹² We encounter here a recurrent problem in spelling out causal theories or theories with an important causal component in any detail, namely, specifying the difference between “deviant” and the “right kind of” causal chains. Even if I could solve it, trying to do so here would take us too far afield.

¹³ This is not to deny the important point that deductive logic is not, strictly speaking, a normative theory of inference per se, because even with such a “syllogism” in hand Ivan does have the rational option of either drawing the dreaded conclusion or rejecting one or more of the premises. See G. Harman, *Thought* (Princeton: Princeton University Press: 1973). Of course, when the deductive “inference” is so simple and its premises so empirically incontrovertible, such a recourse is bound to exact the price of irrationality elsewhere. For more on the “indeterminacy” of reasons at an especially crucial point in the argument of the present paper, see section 5.

tive in this fashion, then the fact of the dispelling *does* reveal that the reactive attitude is rationally disqualified.

But this leaves Strawson with a tough question to answer: how can the specifically cognitive operation of inquiring into the causes of another person's behavior, informed by the conviction that all (macroscopic) events are explainable in terms of causal laws and facts about the past, reveal in its course why the other person performed precisely the action one was nursing the resentment or indignation about, and can then drive out precisely that reactive feeling by the very fact of producing precisely that knowledge, *without* at the same time revealing the feeling to have been irrational, because it was based on precisely the ignorance of its origins that the shift to the objective stance rectified? This *is* a puzzle.

To solve it Strawson needs to identify a kind of psychological process which is 1) neither merely a matter of ecological crowding nor of doxastic-obligation-creating, but is at the same time, 2) a recognizably cognitive operation in the sense that it enters into and aids recognizably cognitive (i.e. inferential) processing, 3) in doing so tends to dispel or elicit or otherwise transform emotions, but 4) *nonetheless leaves the cognizing-emoting person with the theoretical option of reassuming the emotions without rational penalty*. This is a tall order. If he were able to fill it Strawson would have taken one modest leap forward in his campaign to convince the pessimists to give up their "panicky metaphysics" of the person. ...One leap, but not the whole way, for I don't think that is in the cards. For my purposes, however, it would be enough simply to come up with a likely *candidate* for such a process.

It is tempting to try to explain the phenomenon in question by simply weakening the "rules of inference" which drive the process of dispelling. In our paradigm case, they are strictly *deductive*. Bedridden Ivan employs *modus ponens* to arrive at his unhappy *aperçu*. However, we can easily imagine cases in which a person's mental state is dispelled or elicited or otherwise transformed by virtue of the fact that he follows certain rules of *inductive* inference (if there are any), or even methodological guidelines for making inferences to the best explanation (if there are any rules of *abductive* inference). Consider a variation on the last case: forming the belief that the other is a fan of Bolshevism or of the von Trapp family when conjoined with the "major premise" that (as the film critic Pauline Kael once wisely remarked) "sex is the great leveller, taste the great divider,"¹⁴ drives out a genuinely intentional state, namely the desire that one embark upon a long-term relationship with the other. This inference by no means yields a strictly deductive

¹⁴ In her review of the "West Side Story," reprinted in Kael, *I Lost it at the Movies* (New York: Little, Brown, 1965), 181.

argument for the irrationality of pursuing the affair, but it provides a pretty good indication of it.

But loosening up the “rules of inference” in this fashion is not a very promising route to our ultimate goal, because even though there is considerably more slack between “premise” and “conclusion” when the rules of inference are *non-deductive*, the very fact that the cognitive operation employing them dispels the state *does* tend to reveal the irrationality of the latter. If this were not so, then induction and abduction could play no properly *normative* role in the regulation of belief and desire. But they do.

3.2: *Rationally Optional Shifts of Stance*

Unfortunately, an even half-way satisfying explanation of the phenomenon of cognitive dispelling without rational disqualifying would require much better accounts than we have at present of both the kinematics of how emotions are summoned and dispelled, and the logical-cum-epistemological constraints on their rationality. But, as Amelie Rorty has observed, “behind debates about whether specific emotions are incorrigible stand yet further disagreements about the character of cognition and its relation to affect.”¹⁵ We seem to have painted Strawson (or perhaps ourselves) into a corner.

Happily, Rorty herself and Ronnie de Sousa¹⁶ have done innovative work on the rationality of the emotions which presents us with a real candidate for solving the puzzle about dispelling-without-disqualifying. For, it suggests that emotions have a kind of component with the following interesting properties: it is cognitive in that it plays an intellectual role in the fixation of a person’s belief, but at the same time it is itself immune (mostly, anyway) from rational criticism in terms of the usual epistemic and logical standards of belief-formation. The emerging possibility which interests us (and should interest Strawson) is this: emotions partly constituted by such a component could be dispelled by intellectual operations driven by the component while at the same time remaining rational options for the person should he choose to encourage their reemergence or should they later simply befall him.

¹⁵ A. Rorty, “Introduction,” in A. Rorty, ed., *Explaining Emotions* (Berkeley and Los Angeles: University of California Press, 1980), 3.

¹⁶ Rorty, “Explaining Emotions,” in 1980, 103–26; R. de Sousa, “The Rationality of Emotions,” in Rorty, 1980, 127–52, and *The Rationality of Emotions* (Cambridge: MIT Press, 1987). Though this was not always so. Along with Rorty and de Sousa, R. C. Solomon was also a key contributor to the “cognitivist revolution” in the philosophy of the emotions. See his “Emotions and Choice,” in Rorty, 1980, 251–82, and *The Passions: The Myth and Nature of Human Emotions* (New York: Doubleday, 1976). There is a third alternative to regarding emotions as partly *constituted* by their cognitive components (whether fully or quasi- propositional) and regarding the relationship as purely contingent. One could *individuate* instances of emotion-types in terms of their *essential* causal (cognitive) antecedents and/or consequents. J. Elster, defends such an alternative version in his *Alchemies of the Mind: Rationality and the Emotions* (Cambridge: Cambridge University Press, 1999).

And what sort of component might that be? While it has become an orthodoxy in the philosophy of the emotions to stress their specifically *propositional* cognitive components, most notably the beliefs which partly constitute them, Rorty and de Sousa have been among the few to recognize their cognitive *sub-propositional* components. These might provide us with the cognitive dimension we need to explain the phenomenon of cognitive-dispelling-without-rational-disqualifying.¹⁷

Rorty implies that one serious over-simplification in the usual "cognitivist" conception of the emotions is its over-emphasis on their explicitly propositional components. She suggests, rather, that an adequate cognitivism recognizes a continuum ranging from a) *explicitly propositional beliefs* with well-defined truth-conditions, all the way down to e) *quasi-intentional states* which can, in principle, be specified in (*merely*) *extensional* terms (her e.g.: highly saturated colors are typically more salient for normal persons than less saturated ones). In between, she suggests, we find: b) *vague beliefs* with truth conditions which can be only roughly specified; c) *patterns of intentional salience which can be formulated as general beliefs* (her e.g.: a pattern of focussing on men's behavior as aggressive but competent, rather than hostile and insecure, which might be formulated as a set of predictions about behavior); d) *patterns of intentional salience which cannot easily be formulated as beliefs* (her e.g.: focussing on the military defensibility of a landscape rather than on its aesthetic properties).¹⁸

We are especially interested in components of types c) and d), the *patterns of intentional salience* in an emoting person's *field of attention*. To be sure, reactive emotions can be and no doubt are frequently dispelled also by a change in a person's *beliefs*, both explicitly propositional and vague, as orthodox cognitivism would have it. But this familiar phenomenon is of no help in explaining the very possibility of cognitive-dispelling-without-rational-disqualifying, for the obvious reason that that is precisely the sort of intellectual operation the incompatibilist will seize on to make his case against Strawson. But is that the *only* available explanation of the phenomenon? With help from Rorty and de Sousa we can, I think, see that it is not.

It would be well at this point to remind ourselves of the present dialectic. I am not trying to provide a full vindication of Strawson's insistence that no merely theoretical commitment would, could or should purge our lives of a tendency so deep as our proneness to reactive attitudes. I have already given

¹⁷ For this suggestion to be defensible in the end, two hard questions must eventually be confronted: 1) given the rough characterization of cognitive states as those which are "inference-supporting," does the solution in the text presuppose that sub-propositional states can enter into inferential relationships? And, 2) If so, can they? These are hard questions which it would take us too far afield to try to answer here. I hope I have established a convincing enough explanation of the phenomenon of dispelling-that-is-not-also-disqualifying even without such answers.

¹⁸ Rorty, 1980, 112-13.

up on that project by retreating to the more modest one of explaining how reactive attitudes are not irrational in one specific respect: that a distinctly cognitive operation can psychologically dispel them without by that very fact revealing them to have been irrational. This would not quite make Strawson's case, but it would advance the cause by (in his own phrase) "giving the optimist something more to say" (62) in response to the incompatibilist's likely charge that all psychological dispelling via recognizably cognitive processes must reveal irrationality. From full retreat to wary standoff is not a bad development for the compatibilist at this juncture in the debate.

Section 4: A Case of Suspected Perfidy and Fading Trust

To fix ideas, let us bring the Rorty/de Sousa thesis to bear on a particular case in order to shed what light we can on the phenomenon of cognitive-dispelling-without-rational-disqualifying. Consider one in which the objective and reactive stances are in some tension with each other, as Strawson suggests, *but also in some respects mutually support each other* as the story unfolds. Suppose that you come to suspect that X, a long-time friend, has betrayed personal confidences you have shared with her over many an evening drink during an emotionally hard time. You thought she was a true *confidante* who could be trusted to keep counsel, but there is evidence that she has revealed to a perfect stranger Y aspects of your personal life which are nobody's business but trusted friends. Naturally, you start to feel hurt and angry and resentful. But because X has been such a good friend in the past you start to doubt the force of the evidence. Caught between lingering feelings of friendship and rising resentment, you become especially attuned to her behavior. You notice little things you would have missed before, like her tone of voice in recent encounters, and her too-persistent attempts to mention private aspects of your life in the presence of mere acquaintances, over your gentle requests that she change the subject.

But still, you are not really *sure* that X was the friend who betrayed your confidences. You *feel* (that does seem to be the word for it) that you need more evidence to justify your suspicion and thus your resentment. Again, you pick up on something you ordinarily would never have noticed, much less made anything of. A mutual friend Z lets it drop that he knows something about you which you have never told him and which no one could know unless a close friend of yours had disclosed it. Who? That sets you to thinking about which of your friends knows both Y *and* Z. There are several, but which one was the indiscreet chatterer? You go back over what Z said that the chatterer said. You come to realize that it involved things only X could have known. You start to become more certain that she was the one to have betrayed your confidences to Y.

As the evidence of her perfidy accumulates, it occurs to you (a bit late perhaps) that X might have had a good reason for saying what she said. You think back to all those occasions when she was a real friend to you. You start to become especially alert to the possibility that her motives this time were quite above reproach. Perhaps she truly thought that the troubles you had been having during that difficult time had left their mark and were so seriously affecting your spirits that other friends of yours should be alerted. To be sure, after you explicitly told X that you did not want your confidences to go any further, she did talk about them in public, but perhaps her loquaciousness was just a momentary lapse of judgment, not betrayal. Perhaps X thought that this was the best way to help you get solace and support from a wider circle of people. But you remember, again, that you explicitly asked her not to reveal the facts in question...to anyone! Suddenly her reckless chatter does not seem like a (possibly misguided) attempt to help, but just that...reckless chatter. But still, you remind yourself, X *has* been such a steady and understanding friend for all these years....

These memories and the warm feelings they elicit set you to wondering whether *you* have done something to hurt *her* and to have provoked this kind of reaction...or, whether something horrible is going on in her own life that she hasn't told you about which is clouding her judgment and sending her a bit out of control. But the more you go round and round, seeking some justifying or mitigating fact or other, the more frustrated you get: there simply aren't any. So, your anger and resentment keep mounting. To put it pedantically, you are becoming possessed by "negative reactive attitudes."

The story can take many different turns at this juncture. Scenario One: You still are not certain that X has betrayed your trust, so you keep an eye out for more evidence of her (un)trustworthiness. Scenario Two: Your resentment lingers without overwhelming you, so you are civil to X but remain wary of her. Scenario Three: You start to worry about the effect that all this resentment and anger is having on you, so you resolve to give X the benefit of the doubt and carry on your relationship as though no suspicions had ever arisen. Scenario Four: You have the same worry about being overwhelmed by anger and resentment, but this time you decide to become a motivational psychologist specializing in the dynamics of friendship, trust, and betrayal, in the hope that having a better understanding of both the general phenomenon and X's particular psychology will dispel your feelings once and for all. (And, perhaps into the bargain give you some insight into why you reacted so very angrily.) Scenario Five: You have the same worry, but this time you decide to steep yourself in the literature of incompatibilism. You ponder the arguments of hard determinists. You ponder the arguments of libertarians. As a result you become transformed from a complacent

compatibilist into “a genuine incompatibilist determinist,”¹⁹ thoroughly convinced that because there is a causal explanation for why X did what she did, she was not free to do otherwise in any genuinely responsibility-grounding fashion. Your anger and resentment dissipate; you are amazed you ever could have felt them so strongly. And so on....

Whichever ending the story might have, one theme is pronounced during the narrative. Your reactive emotions—resentment, anger, the temptation to forgiveness, the warmth of friendly nostalgia, and so on—play a distinctively *cognitive* role throughout in regulating your inquiry into the question of whether X has in fact been perfidious. How? As Rorty and de Sousa would put it, by *shifting your attention* from one set of facts to another, and then back over the same set of facts, with more care the second time around; by inducing you to see *patterns of salience* in the facts which you would otherwise have missed; by sometimes slowing you down and sometimes speeding you up, as genuine opportunities for inquiry ebb and flow.²⁰

This is where Rorty’s components c) and d) and maybe even e) might help us to understand the phenomenon in question. (Recall that they involve: c) patterns of intentional salience which can be formulated as general beliefs; d) patterns of intentional salience which cannot easily be so formulated; and e) quasi-intentional states which can in principle be formulated only in extensional terms.) The incompatibilist might (just) be willing to concede that patterns of salience and shifts of attention are cognitive elements involved in the ebb and flow of your resentment and anger in the narrative proper and in culminating Scenarios One, Two and Three. But this is an important concession (at least within our limited dialectical framework), for it involves the recognition that emotions have cognitive constituents other than explicitly propositional ones, which play important roles in the conduct of inquiry. In the narrative proper, you want to know whether X has in fact revealed aspects of your private life. If emotions are actually *constituted* (in part) by quasi-propositional components like patterns of salience in a person’s field of attention, then your resentment and anger play an important role in your attempt to marshal evidence for and against your hypothesis about X’s perfidy.

¹⁹ G. Strawson, 1986, 281–86.

²⁰ Rorty, 1980, 108–14; de Sousa, 1980, 134–42. Though I intend my title, “Thinking with Your Hypothalamus,” to gesture figuratively- and playfully- toward the role of the emotions in directing cognition, there is good reason for a more literal construal. Antonio Damasio’s investigation of patients with a certain kind of frontal lobe lesion indicates that “reduction in emotion may constitute an...important source of irrational behavior.” His hypothesis is that a specific area of the pre-frontal cortex is responsible for processing information it receives from the limbic system about past emotional responses to kinds of situations. When this area is destroyed patients are incapable of feeling certain emotions and thus very bad at practical reasoning in the real world (even though they perform at or above standard levels on reasoning tests). Evidently, the limbic system is importantly implicated in cognitive functioning. For the details, see Damasio, *Descartes’ Error* (New York, Putnam, 1994). (The quotation is at 53.)

Moreover, if the items on the cognitive continuum Rorty identifies are not mutually exclusive in particular cases of taking on or shedding emotions, then compatibilists have an explanation of why your anger and resentment dissipate in Scenario Four which they can offer as a plausible competitor with the incompatibilist explanation. Incompatibilists insist that you no longer feel resentment and anger toward X because you have learned what there is to know about the psychological aetiology of her action. Compatibilists can now reply that there is an alternative explanation for why you have shed your reactive emotions toward X. In shifting to the objective, i.e. the explanatory-cum-therapeutic perspective, you shift also the patterns of salience in your field of attention. But since such patterns are part of what *constitute* an emotional state as the kind of emotion it is, this shift in patterns of salience *entails* that you no longer feel anger and resentment, just as surely as coming to believe (say) that your lover has not sexually betrayed you with another entails that the disagreeable feeling which lingers is not jealousy, or that coming to believe that P has no real connection to you entails that the warm feeling you have about her accomplishments is not pride. Just as explicitly propositional beliefs are among the cognitive *constituents* of emotions, so also are quasi-propositional aspects of attention. It is not simply that your shift of attention from X's behavior in the meeting room to (say) her childhood history contingently *causes* your resentment to dissipate; your shift of attention, more specifically your registration of certain patterns of salience in her behavior, is part of *what it is* for you no longer to feel resentment toward her. But with such an explanation in hand, Strawson can move a crucial step closer to an explanation of how a cognitive shift from the reactive to the objective stance can psychologically dispel an emotion like resentment without thereby revealing it to be cognitively irrational.

Section 5: (One Reason) Why We Have Emotions

There is still a gap in the explanation, however, because we still have to make out a case for the rational *optionality* of such shifts of attention when they play their appointed role in the conduct of inquiry. If, instead, they were always rationally required, then the very fact that your resentment was dispelled (constitutively) by a *non-optional, rationally required* shift in the patterns of salience in your field of attention *would* reveal that you had *indeed* been irrational to have harbored such a reactive feeling towards X in the first place. So, we must ask whether such shifts of attention are really rationally optional in the sense the argument needs. To pursue an answer, let us consider the idea behind de Sousa's characterization of emotions as "determinate patterns of perceptual salience among objects of attention, lines of

inquiry and inferential strategies,” an intriguing formula he offers in the course of some tantalizing speculations about *what emotions are for*.²¹

First, try to imagine what a rational being completely devoid of emotions would be like. This turns out to be surprisingly difficult. The mere fact of a Mr. Spock’s surface impassivity and constant invocation of the virtues of “logic” will hardly do the trick. (My banal example.) de Sousa speculates that such a being would be either “a Cartesian animal-machine” that functions as efficiently as (say) an ant or some kind of Kantian pure rational will. His hunch is that one reason we have emotions is precisely that we are neither insects nor angels, that is to say, neither beings completely equipped *ab initio* with a set of valences set to be triggered upon appropriate and relatively simple environmental prompting, nor beings blessed (or cursed?) with pure practical reasoning capacities which operate with perfect efficiency, always guiding us to the truth.

It is the way de Sousa develops this hunch that interests me. What the “reasoning” of actual insects and mythical angels have in common is “complete determinacy” at both the epistemic level and the practical level which rests upon it. In making their way through their worlds, neither insects nor angels need ever to consider the possibility that they might go wrong. Therefore they have no need of techniques for dealing with the *indeterminacies* that the world might throw in their paths. But we human reasoners do, because for us “there is no such thing as fully determinate rationality.” (135) This is not a concession to philosophical scepticism, but rather the acknowledgement of what actually happens when the various aspects of reason inform human theoretical inquiry about the empirical world and when they guide us on our practical path through it. One kind of *indeterminacy of application* infects all of the “rules and principles” which inform theory and practice, even in the context of justification, certainly inductive guidelines, abductive heuristics and theorems of decision theory. This is true even of the rules of deductive inference, which are formally well-regimented.

This suggests a hypothesis: “the function of emotion is to fill gaps left by (mere wanting plus) ‘pure reason’ in the determination of action and belief.” (136) And this in turn leads to a reformulation (in the manner quoted earlier) of the hypothesis about what the emotions are for, in a way that brings out nicely their guiding role in the conduct of inquiry both as end in itself and at the service of practice: “Emotions are determinate patterns of salience among objects of attention, lines of inquiry, and inferential strategies.” (137) Emotions are valuable *qua* modes of attention for creatures like us, who live in highly variable worlds and whose behavior towards each other is not rigidly stereotyped, because logical considerations alone, even when

²¹ De Sousa, 1980, 134–42. The sentence is quoted at 136. Page numbers in parentheses in the text for the next few pages are from this article.

supplemented by any of the well-recognized epistemic and methodological principles, "do not determine salience, what to attend to, what to inquire about" (136) in contexts in which this kind of focal efficiency is crucial to the advancement and protection of basic interests.

In the present dialectical context, we might take this as an observation about how rational constraints operate either in the context of justification or in the context of discovery. Let us consider each in turn. In the context of *justification* we apply whatever standards are available to the assessment of attitudes. But, as noted a moment ago, no standard determines its own application. Thus, even in the realm of justification, there is a horizon of indeterminacy, at least locally. But this suggests that patterns of attention might be well suited to fill whatever gaps there are in the application of these standards of belief-selection. Even if the members of the set are well-supported roughly equally, it is often important that one endorse one of these beliefs, if only to get on with inquiring, not to mention with living. Shifts of attention are well (though not uniquely) suited to do the job.

De Sousa's hypothesis is even more plausible as an explanation of what goes on in the context of *discovery*, because that is where the *rational optionality* of our attitudes is most unfettered. In our tale of suspected perfidy, for example, your resentment directs and redirects your attention to the facts before you, revealing some patterns to be salient in one way (perfidy) or the other (good faith) and others to be neutral. To be sure, there are more and less effective ways of deploying an emotion like resentment in guiding an "inquiry" about suspected perfidy, but none of them is rationally mandatory, for despite the high hopes of an earlier phase in the philosophy of science there is, after all, no "logic of discovery." An inquirer has a lot of rational slack in deciding what methodological heuristics to employ, including how to direct her attention.²² Thus, the first four scenarios (and probably still others) are *rationally open* to you as you attempt to figure out whether

²² This is not to deny for one moment that there are better and worse ways of conducting inquiry in the context of discovery. Philosophers often invoke hackneyed examples of how intuition, mystical belief, sheer prejudice and the like sometimes operate in the discovery of important scientific truths. But, even though Kekule did discover the structure of the benzene ring after an evening of staring into the fire which prompted a vision of a snake eating its tale, and even though Watson did co-discover the structure of DNA while treating Rosalind Franklin somewhat shabbily, these incidents provide no good reason to recommend to young chemists that they spend inordinate amounts of time hanging around fireplaces, or to young biologists that they take up a sexist stance toward their co-workers. Even absent a *logic* of discovery, there is better advice to give them. My point in this paper might be put this way: *taking up the reactive stance* might well be among the kinds of methodological techniques we might advise some inquirers to employ. Not all inquirers, to be sure. This advice is probably apt only in small-scale inter-personal contexts involving "inquiring" friends and acquaintances. Even there, moreover, the technique will no doubt have to be used with skillful *indirection*, given the essentially non-consequentialist structure of reactive emotions. On a related point, see Section 6.3: "Genuinely Reactive or Merely Epistemically Useful?"

your friend has indeed betrayed your confidence. That is, to say, in each you are free to move from the reactive to the objective stance and *then back again to the reactive*, without thereby revealing yourself to have made an irrational turn.²³ (Scenario Five is a special case. See below.)

Of course, this does not entail that the shift from the reactive to the objective and back again will in fact turn out to have been an equally reliable way in all four scenarios of discovering what the facts of the case are and what attitude you should take up toward your colleague, for there is always the possibility “that in pursuing a rationally optional course, someone may come to realize that one of her prior beliefs/attitudes is rationally disqualified.”²⁴ This is certainly true, but epistemic rationality in the context of *discovery* is a preeminently prospective notion, in that a person might be equally rational at a time *t* in employing any member of a set of methods or heuristics, only a proper-subset of which end up actually yielding true and/or rational beliefs (full stop) at *t+1*.

To be sure, it might well turn out in the context of *justification* that “once one has taken the rationally optional step of considering the implications of determinism, it may not be rationally open for [one] to discount [one’s] conclusions.”²⁵ This too is no doubt true. In Scenario *Five*, for example, you become a genuine determinist incompatibilist, which does commit you to the belief that the truth of determinism is indeed incompatible with the rationality of resuming your reactive attitudes toward other people, which in turn commits you to the belief that all your reactive attitudes are irrational. But my argument is not designed to rule this out as a possibility, nor need it do so. The real threat to my argument would come, more specifically, from an *incompatibilist* resolution of the *original* dispute between the optimists and the pessimists over the question of whether free will, and the reactive attitudes which presuppose it, also presuppose the truth of indeterminism or agent-causation. But in the current dialectical context that is not in the cards. The most I am trying to establish here is that there is a good explanation for how the shift from the reactive to the objective stance can cognitively dispel resentment without thereby revealing it to have been irrational.

²³ Of course, it would over-intellectualize everything to suggest that these reactive emotions play a *solely* cognitive role. You *are* damned angry! You *do* resent X intensely! *Only* to have warm memories of genuine friendship overcome you! *Only* to have them swept away in turn by that same resurging anger and resentment. And so on. In fact, from a philosophical point of view, one of the most interesting things about the narrative is precisely how your reactive attitudes both have an emotional life of their own and at the same time play a distinctively cognitive role in your “inquiry.” (Though at such an emotionally fraught time of your life, that is the last word you would use for it.)

²⁴ This objection was raised by an anonymous referee for *Philosophy and Phenomenological Research*.

²⁵ As was this one.

Of course, under the very particular circumstances of Scenario Five, the shift in question does commit *you* to the belief that your reactive attitudes *there and then* are irrational. For, a genuine incompatibilist determinist is bound by consistency to purge himself of such attitudes. That's definitive of the position. But that in itself does not reveal that reactive attitudes themselves, yours or anyone else's, are *always* irrational. Thus there is no reason to suppose that this shift generally, say as it plays out in Scenarios One through Four, involves a consideration of "the implications of the thesis of determinism" which convinces you, must less actually reveals, that these attitudes are irrational.

I therefore conclude (with considerable help from Rorty and deSousa) that we have what we were looking for: a specifically cognitive or intellectual component of the reactive emotions, the deployment of which in the conduct of inquiry (whether as end in itself or in the service of practice) is rationally optional. Thus, we can place at Strawson's disposal the sort of explanation he needs for how the objective stance can cognitively dispel the reactive stance without in so far revealing it to be irrational. Thus, he does indeed "have something more to say" to the doubting pessimist. To be sure, it is not quite enough to convince everyone that we humans *must* retain the reactive emotions in our lives without pain of specifically theoretical irrationality, but it should be enough to convince many that we *may* do so.

Section 6: Three Nagging Worries

I would love to leave matters right there, but for a few nagging worries about how this story might be received in some quarters. In ascending order of vexatiousness, there are 1) doubts about the very idea that emotions are partly *constituted* by patterns of attention; 2) doubts about the intelligibility of the distinction between an emotion *e* of type *E* which is *irrational* by virtue of some *defect* in its cognitive component, and an emotion *e** which is simply *not an instance* of *E* at all because of some *difference* in its cognitive component; and 3) doubts about the story's seemingly *deflationary* stress on the epistemically *instrumental* role of reactive emotions in human life.

6.1: Constitution or Causation?

You start to suspect *X* of betraying your trust. A feeling of resentment wells up in you. You suddenly (or gradually) see her in a new light; you notice inflections you missed before; your attention is directed to facts you never would have noticed, and so on. I can easily imagine that someone hearing this tale might wonder whether these shifts in patterns of salience in your field of attention are part of what *constitute* the emotion you feel as resentment or are, rather, *causal antecedents and/or consequences* of your

emotional attitude toward X. The second way of regarding them does seem natural.

But then so was the parallel way of regarding the explicitly propositional belief-components of emotions before cognitivists came along to stress their constitutive role. Othello is happily in love with Desdemona. Upon Iago's prompting, he comes to believe that she has been unfaithful with Michael Cassio. A wave of jealousy wells up in him. Is the emotion (partly) constituted as jealousy by Othello's explicit belief in Desdemona's infidelity or is the jealousy merely a casual consequence of his change in belief? Before the "cognitivist revolution" in the philosophy of the emotions, we would unthinkingly have opted for the latter interpretation, but now it seems crudely regressive. But if Rorty and de Sousa are correct in arguing that we must also reckon quasi-propositional elements among the cognitive constituents of the emotions, then a parallel interpretation of their role as merely causal would be similarly regressive. If we can accept the idea that an emotion *e* is of type *E* partly by virtue of a person's having certain explicit beliefs, then we should have little more difficulty in accepting that it is of type *E* also partly by virtue of the person's being in certain quasi- or sub-propositional cognitive states.

6.2: Irrationality or Type-Distinctness?

The second nagging worry is not just about quasi- or sub-propositional cognitivism about emotions but about the whole cognitivist program, which is, after all, so much the keystone of the dispute between Strawson and the pessimists.

Suppose that my surname were Zimmerman, and that one day long ago I learned that Bob Dylan's real name is Robert Allen Zimmerman. Just suppose that my mischievous cousin Morris then told me that the Detroit, Michigan Zimmermans (suppose that's our home town) are closely related to the Hibbing, Minnesota Zimmermans (that is Bob Dylan's). "Bob Dylan is our cousin," he exclaims. Of course, I would never be so gullible as to believe him. But just suppose I were and I did. Suddenly, I feel a surge of pride about the Zimmerman family's amazing contribution to American music. "Wow! Bob Dylan is really Robert Allen Zimmerman!" I exclaim. (Morris also tells me that Ethel Merman's real surname was Zimmerman—this impresses me less.) Suppose that the mischievous Morris then bursts my balloon by admitting that it is all a hoax. "Schmuck. There are lots of Zimmermans. We aren't related to Bob Dylan, at all." I believe him this time too. However, perversely, I continue to feel pride. "Wow! Bob Dylan is really Robert Allen Zimmerman!" I continue to exclaim. (I become quite boring on the subject.)

But on the cognitivist account, certain belief-states are constituents of emotions. Therefore, this scenario verges on the unintelligible. If one of the constituents of my pride in the fact that Bob Dylan is a great singer/songwriter is the belief that I myself stand in a familial relationship to him, then the death of the belief entails the death of the pride. Whatever that warm feeling might be that I continue to have after my cousin Morris's antic revelation, it cannot be pride. It is not even pride if I continue to announce to all who will listen how *proud* I am of Bob Dylan ("whose *real* name is Zimmerman!").

But, then, what sense can the cognitivist make of the phenomenon of an irrational emotion that is irrational because based upon a false belief? Othello is jealous of Desdemona's sexual relationship with Michael Cassio. But since she has not really been unfaithful to Othello with his lieutenant and the evidence is not exactly conclusive despite Iago's worst efforts, Othello's jealousy is irrational. But it is jealousy nonetheless. On a cognitivist account of the emotions, wherein lies the difference between my *ersatz* pride in the accomplishments of Bob Dylan, and Othello's *genuine* but irrational jealousy of Desdemona?

The cognitivist does have some room for manoeuvre here. For one thing, I have explicitly disavowed the belief that I and Robert Allen are members of the same Zimmerman clan. (Moreover, I even acknowledge that the bare fact that he and I have the same last name is not enough of a relationship to sustain real pride.) Othello, on the other hand, continues to believe that Desdemona has sexually betrayed him. The belief-component which (on the cognitivist story) partly constituted my pride is gone; therefore so is my pride, properly so-called. On the other hand, the belief-component which partly constitutes Othello's jealousy endures (however irrationally); therefore so does his jealousy (however irrationally).

This explanation may seem glib, for we do after all talk about emotions in a way that seems to conflate the cases. Imagine a different and much more boring play (say after a Bowdler got his hands on it) in which well-meaning friends, observing Othello's rising jealousy and rage, take him in hand and calm him down by managing to refute piece-by-piece all of Iago's "evidence" of the infidelity. ("The handkerchief? We can explain that!") They thereby achieve their purpose of wringing out of the tremblingly furious husband a (perhaps) grudging acknowledgement: "Alright. I see now that Desdemona could not possibly have had sex with Michael Cassio." Nonetheless, Othello might well go on to insist: "But I am still overwhelmed by this awful and oppressive feeling of jealousy! I still want to kill both of them!" And it might well be true: he does still want to kill both of them. (Therefore, it is a jolly good thing for both faithful wife and devoted lieutenant, if not for the tragedy, that these same well-meaning friends have spirited them well out of harm's way before disabusing Othello of his false suspicions.)

What does the cognitivist make of this? One course is for him simply to dig in his heels and insist that whatever the disagreeable (and potentially deadly) emotion is which Othello feels after his explicit disavowal of the constitutive belief, it is not jealousy. Another, slightly less stubborn, course for the cognitivist is to complicate the account by temporally indexing the attribution of emotion in a way that accommodates the vastly different speeds at which the neuronal belief-processing system and the endocrinal "visceral surge" system operate. This yields a slightly less counterintuitive interpretation of what Othello says after he is disabused of Iago's false testimony. Now, the cognitivist can comfortably acknowledge that at time $t+1$ Othello does still feel the lingering hormonal aftermath of the genuine (and partly belief-constituted) jealousy he felt at time t . This is more complicated, but it is accurate enough, and less evasive than the heel-digging response.

6.3: *Genuinely Reactive or Merely Epistemically Useful?*

The third nagging worry will not be restricted to those with questions about how the cognitivist theory of emotions plays out in the details, but will weigh upon all those who take seriously what Strawson says about the vital animating role reactive emotions play in human life as we know it. Recall Bennett's negative characterization of the reactive emotions as "pro or con attitudes which could *not* explain x 's engaging in teleological inquiry into how y works." But, one might protest, doesn't the evolutionary story about the kind of help that the emotions give creatures like us in making our way sensibly through the world reduce the reactive emotions precisely to a merely *instrumental* role in the conduct of inquiry? Perhaps Strawson can have his convincing explanation of how the objective stance psychologically dispels the reactive stance without thereby rationally disqualifying it. But, does it not come at the rather high price of obliterating the very phenomenon up for explanation, by rendering the reactive stance so very... objective?

This sort of deflationary concern plagues many evolutionary stories about the emergence of some humanly significant trait, activity or institution. There is a time-honored recipe for replying to it, which stresses the importance of the distinction between "phenotypic" and "genotypic" levels of explanation. Followed here, the recipe goes like this. The mistake of traditional Schlickian compatibilists was to suppose that *individual* human beings (and groups of human beings) take up reactive attitudes and engage in retributive practices in order to achieve exclusively utilitarian goals. But that is manifestly false. As both Strawson and Bennett insist, these attitudes and practices have a life of their own, a fact that is perfectly intelligible at the *phenotypic* level of description and explanation. But the evolutionary perspective speaks only of the natural selection of individuals qua members of species and of the "reasons" this process merely simulates. Nowhere need it

even hint that phenotypes, individual human beings, like you in the narrative of sad perfidy, ever take up the reactive stance in order to achieve an end like making their way through the human environment more efficiently. An explicitly consequentialist “motive” for our having reactive emotions emerges only at the *genotypic* level. Therefore, despite appearances, the evolutionary perspective does not make cold-blooded consequentialist calculators of us all. On the contrary, it leaves intact all the “constitutive” richness of the reactive stance. Thus the recipe. Some will find it unconvincing, but, then, they probably have doubts about any explanation which appeals, however modestly, to natural selection.²⁶

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[Footnotes]

² **Strawson's Way of Naturalizing Responsibility**

Paul Russell

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