PART V

Fiction and Empathy

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Enacting the Other: Towards an Aesthetics of Feeling in Literary Reading

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1. The problem of empathy

Our evolutionary history shows us to be strongly social beings. We live in the light of our understanding of our fellow human beings, and in part in the light of their understanding of us. Thus, among any survey of the reasons why we value literary works, we might expect to find that empathy has a prominent place, perhaps even the most important. Through empathy we share the feelings and emotions of the characters we read about (whether a narrative or a poem) or watch on stage or screen. Through feelings and emotions we recognize the concerns and motives of others, and thus come to realize something about their values and why they act the way they do. This in turn may enable us to recognize a similar complex of feelings and motives in ourselves, thus illuminating or even helping shape an aspect of our own identity.

Empathy, of course, is central also to daily life. It develops early in the young infant; we know that its absence is an important part of autism; it constitutes what has been termed Theory of Mind, our capacity to understand what other people are feeling and thinking. Empathy is in requisition frequently, whether voluntarily or involuntarily: as I think about how to persuade my son to sit down and begin his homework; as I see my wife off to a dental appointment; as I see on television a victim of war in a refugee camp. So the importance of empathy in our reading of literature is not surprising. What may be surprising is how much critical discussion empathy has caused. It seems that the more closely readers' empathy is looked at the more problematic it becomes.

The problem is often stated in this form: Given that we know the characters about whom we are reading are not real, how is it possible to have real emotions about them? Why should I feel joy or sorrow for the fate of a character who never existed? One answer is proposed by Gregory Currie (1997). If we care about fictional characters, then our empathy towards them should be amenable to the same explanation as the empathy we feel towards real people. Since the actual beliefs and desires of another

person are not possible for me, then I imagine the beliefs and desires of the other; my belief and desire are a simulation having a systematic resemblance to the other in terms of content, and a likeness in internal causal role—although not in their external role, which is unavailable (Currie 1997: 67). As a reader it is as though I am simulating the experiences of a reader who is reading a factual account, and I experience the same emotions except that my state is one of "make-believe," or what Currie calls "off-line" versions of mental states. Thus, reading fiction "works by persuading me to engage in a certain piece of imaginative role-play, not by getting me to have false beliefs" (Currie 1997: 69).

This is to assume a similarity with the other, however, that may not be possible. As Carroll (1997) puts it, there is often an asymmetry between myself and a fictional character: I am situated quite differently from the character and have quite different experiences. We cannot directly identify with characters in fiction or drama, then: we know more than they do, or we have a view of other characters that is unavailable to them. Thus we cannot exactly share in, or simulate, the emotions of a given character (Carroll 1997: 200). Carroll rules out the notion of simulation or make-believe. For him, experiencing emotion in fiction does not necessarily require beliefs; it involves thoughts or a pattern of attention. As Aristotle put it, merely to think about the fate of Oedipus can evoke fear. A thought can be held unasserted, yet raise emotions; and such emotions have the power to effect bodily changes (Carroll 1997: 209). Fiction is full of unasserted propositions (Carroll 1997: 210).

Currie's explanation, that as fictional readers we simulate the reading of a factual account, is however paralleled by a suggestion of Carroll (1990), who proposes the following thought experiment. You hear a story, and only later are told whether the story is fictional or real. According to Carroll, the emotion you feel remains the same (Carroll 1990: 77). This conclusion is supported by the empirical studies of Melanie Green (e.g., Green and Brock 2000). She looked at "transport" while reading, that is, readers' absorption in the texts she asked them to read, which she defined as partly an emotional effect. If the text was an emotionally powerful one, she found that it made no difference to degree of transport whether readers thought the story was a real one, fictional, or based on a dream. She referred to this as the textual hegemony effect. This is one indication (there will be others) that emotion, once instantiated, has its own inherent power regardless of reality.

Walton (1990) takes a similar view to Currie: he proposes that in experiencing feelings while reading fiction, we are engaged in a game of make-believe and that our feelings are "quasi-feelings" (Walton 1990: 214). This is not to underestimate the power of such experiences. As Walton suggests, "having or expressing certain feelings in a dream or fantasy or game of make-believe is the means by which one achieves insight into one's situation, or empathy for others, or a realization of what it is like to undergo certain experiences, and so on" (Walton 1990: 272). And, he adds, from within the experience, the world of the fiction seems real. This explains why we should care about experiencing fictional characters: the function of the experience has some

similarity to that of dreams and daydreams. Fiction provides an opportunity to rehearse feelings in particular situations, to purge undesirable feelings, to work through conflicts (Walton 1990: 272).

This view is vulnerable to the problem that Carroll identified: the asymmetry between reader and character. In addition, it supposes that reading fiction is comparable to daydreaming in that both involve make-believe. The daydream typically involves rehearsing possible situations—although our fantasies may take us outside the realms of reality; and daydreaming enables us to consider alternative choices for action. A fiction, on the other hand, provides no such contact with our own reality, nor does it offer different potential actions. If there is a similarity, it seems to lie in the power of feeling to develop offline the dynamics of a specific feeling, so that we experience it fully in ways that are rarely possible in everyday situations. Beyond this, however, while the feeling may be welcomed or resisted, as the case may be, in a daydream we have the power to be receptive to a feeling and extend it for as long as we wish; in fiction as we read on, a given feeling may be called into question, modified, opposed, or thwarted, regardless of our wishes.

Another important contribution to understanding empathy is made by Oatley (1999). He argues for translating Aristotle's term "mimesis" as simulation rather than imitation, in the sense that a computer can be programmed to run a simulation. The reader inserts the plans and goals of the character into his or her own planning processor, with resulting emotions; hence readers identify or empathize with the character. In this conception Oatley (2002) suggests that reading is an enactment, or performance; and it is one, he says, which "prioritizes personal truth" (Oatley 2002: 50) in contrast to the passive models of reception theory or reader response. Through taking an active part, we are "potentially becoming different from our habitual selves in doing so" (Oatley 2002: 51). We do not copy a character's emotions, we enact them.

Oatley's proposal can be elaborated through a distinction Coleridge makes between copy and imitation. For Coleridge a copy is a mere reproduction and cannot be a work of art. An imitation (Oatley's simulation), on the other hand, calls for the artist to have understood the laws of nature inherent in the subject he is creating. For this purpose, Coleridge (1987: 222) says, the artist must first "eloign" himself from nature in order to discover within himself the corresponding laws, before returning to his subject with appropriate understanding of the dynamics that make it what it is. This is not to suggest that the reader must undertake eloignment, but that what the literary reader experiences, in line with Oatley's simulation view, are the productive powers of feeling, feeling as a process not as an accomplished state—as I will suggest later, feeling evocative of resonance, bodily implications, and incipient action plans. The formal structure of the work motivates the reader's simulative powers: literary texts "have an incompleteness that challenges the reader to engage in creative, and imaginative, construction" (Oatley and Gholomain 1997: 280). The challenge of incompleteness in the formal sense also suggests that a literary reader is not fully immersed at all times in her experience of the work, but will "move in and out along the continuum of

emotional distance, be fully engaged emotionally at one moment, and then in the glow of that emotion, think about the experience in a more distanced way" (Oatley 2002: 64).

The arguments I have been considering here suggest, first, that for empathy to occur, make-believe—or the "suspension of disbelief," in Coleridge's phrase—is unnecessary. To experience an emotion we need only entertain the thought of its initiating object or event, not believe or make-believe in its reality (Carroll 1990: 79). Second, this also suggests that as readers experiencing empathy with characters, where what we know is more or different than what they know, we have the leeway to feel differently. For instance, we can have feelings that resonate directly with how a character is feeling while concurrently experiencing a different feeling due to a situation of which the character is unaware. Third, feeling once initiated has its own lawfulness in how it unfolds, in its implications and consequences (until deflected by a different feeling or impetus equally strong), and in this respect it provides the underlying dynamics in our enactment of a given character's narrative (perhaps for the length of a certain action or episode).

The discussion of empathy has raised questions about what feelings are and how they occur. I pursue these questions in the next section in order to show how far the view of empathy I have put forward is supported by neuropsychological evidence. In particular I focus on bodily feelings and how these are invoked by the response to text.

2. Empathy and the body in discourse

The psychological study of response to text (discourse processing theory) has recently taken a major turn towards understanding of the body. The discourse processing model is now being extended to investigate the role of sensory imagery in addition to the visual (i.e., touch, hearing, etc.), feeling, and other bodily states (kinaesthetic imagery, breathing rate, etc.). As Zwaan and Singer (2003) point out, recent research has challenged the assumption of "the disembodied construction of abstract propositional networks"; alternative approaches have focused on theories of modal representation, claiming that comprehension "involves analog, perceptual representations that reflect how we, as humans, interact with our environments" (Zwaan and Singer 2003: 114). Such theories include Barsalou's (1999) perceptual symbol system, Glenberg's (1997) indexical hypothesis, and the Theory of Event Coding of Hommel and his colleagues (Hommel *et al.* 2001). Zwaan himself has published a contribution towards such a new theory that he calls the "the Immersed Experiencer Framework" (Zwaan 2004). Here, as in the other recent theories I have mentioned, the body is found to contribute significantly towards language understanding.

Zwaan's approach is based primarily on the recent and rather striking finding that the same brain areas that are involved in experiencing a situation are also involved in imagining it or, especially, while reading about it. Thus his theory proposes that "language is a set of cues to the comprehender to construct an experiential (perception

plus action) simulation of the described situation. In this conceptualization, the comprehender is an immersed experiencer of the described situation, and comprehension is the vicarious experience of the described situation" (Zwaan 2004: 36). And, he adds, we comprehend "the described events through the integration and sequencing of traces from actual experience cued by the linguistic input" (Zwaan 2004: 38).

This insight is echoed in a number of other proposals. For example, the narratologist Monika Fludernik refers to a similar concept, what she terms "immundation," in which "man's enmeshment or engagement with his environment operates as a central constitutive feature and as a fundamental cognitive frame" (Fludernik 1996: 7); hence, Fludernik remarks, in order to locate the reading process we must study "the *embodiment* of cognitive categories and . . . the reliance of higher-level symbolic categories on such embodied schemata" (Fludernik 1996: 19). Similarly, the psychologist Glenberg (1997) argues that conceptualization and memory are not instantiated in propositions or symbols, but in embodiment: "the world," he says, "is conceptualized (in part) as patterns of possible bodily interactions," such that "the meaning of an object, event, or sentence is what that person can do with that object, event, or sentence" (Glenberg 1997: 3). In Barsalou's (1999) account the perceptual symbol systems that support our understanding of language are derived from moments of perception in which a range of information is retained, not only perceptual, but proprioceptive, and emotional; thus, part of this information can later be reactivated, simulating what the original experience was like. As Gibbs (2005) puts it, summarizing a range of studies, evidence shows that "representation of a visual object includes not only description of its visual properties, but also encodings of actions relevant to that object" (Gibbs 2005: 60). This provides a much richer context for our response to the empathic quality of literary texts, as I will point out shortly.

What is the empirical evidence that supports these claims? Here are brief accounts of a few of the studies. The studies can be categorized as providing either direct or indirect evidence for the proposed role of bodily feelings in reading. The direct provide insight into a bodily component of language processing. For example, Hauk and Pulvermüller (2004) studied the activity in hearers' brains in response to words describing actions with the face, hand, or leg. Using EEG to measure response in the relevant areas of the brain, they were able to show that location-specific neuronal activity was occurring within 210–230 milliseconds (msec) of word onset. In other words, the motor areas that control actions by the face, arm, or leg are also activated when hearing a relevant word. These neurons, they suggest, "play a crucial role for identifying these words" (Hauk and Pulvermüller 2004: 199). This study shows how a reader has direct and immediate access to the bodily situation of a character—a basis for empathy in an appropriate descriptive context.

Fischer and Zwaan (2008) describe a study by Speer and his colleagues (2005) that involved reading connected narrative. Readers' brain activity was monitored by a scanner while they read a narrative about a day in the life of a boy. They found

that activity in the motor areas involved in imaging and executing hand movements coincided with those points in the story when the boy interacted with an object.

The impact of reading on behavior was shown in a study by Bargh *et al.* (1996). Student participants were asked to make a series of sentences by rearranging sets of words. A number of the provided words related to the elderly (e.g., *old*, *stubborn*, *wise*, *Florida*, but not *slow*), although participants remained unaware of this (participants were told that the study involved language proficiency). A control group received neutral words. After completing the task participants were timed as they left the lab and walked down a stretch of corridor. Questioned afterwards, participants saw no influence from the words. Yet those who received the "elderly" words moved more slowly: they took 8.28 seconds to walk the corridor compared with 7.30 seconds for those receiving the neutral words.

Other studies of response to language provide indirect evidence for a bodily component. Glenberg and his colleagues (2008) demonstrated what they characterize as the action-sentence compatibility effect (ACE). In this view, "sentences are understood by creating a simulation of the actions that underlie them" (Glenberg *et al.* 2008: 907) In one study participants read concrete and abstract sentences implying deictic transfer away or towards the reader. As they heard each sentence, participants judged its "sensibility" (whether it made sense) by pressing a button either further away or nearer than a start button. Reaction time was recorded. Whether a sentence was concrete (e.g., "You give the pizza to Andy") or abstract (e.g., "Liz told you the story"), hand action moving to a button was faster when it matched the direction implied by the sentence.

Another finding to emerge from this research paradigm is that to recall a concept is usually also to recall a richness of situational and sensory information. Vallée-Tourangeau *et al.* (1998) asked participants to generate examples for a familiar category (such as "vehicle") and ad hoc categories (such as "things people keep in their pockets"); participants were then asked to describe what strategy they used. Three main strategies were found: experiential, based on episodic memory; semantic, deriving from logical or propositional analysis; or unmediated, where no prior processing was required. The important finding here is that recall based on experiential knowledge occurred about three times more often than semantic knowledge or unmediated recall. This seems to confirm Damasio's claim that sensorimotor, affective, and other bodily aspects form an integral part of concepts in memory (1999: 147–8).

The direct evidence provided by the studies I have cited supports the claim that understanding of language is typically embodied: for example, sentences that describe action evoke a resonance in the premotor and motor cortex, and a motor potential in the limb or other body part, although action itself is inhibited. As the study with words relating to the elderly showed, behavioral changes can be induced through language although the participant remains unaware. The indirect evidence points to the same phenomenon: for instance, the study showing that hand movement is influenced by reading a sentence denoting action, even when the movement is only metaphorical.

These studies suggest that a range of bodily and affective responses are evoked during the act of reading, that the situation models we create to represent the characters and events we are reading about are richer, more sensuous, and more concrete than the largely abstract, amodal conceptions envisaged by the earlier work in discourse processing.

A preliminary account of empathy, in the context of these and similar findings, would suggest that descriptions of bodily movements are felt immediately in the reader's own body; that abstract events that are modeled on a sensory mode are also represented bodily; that character descriptions are adopted by the reader as though they described the self, with consequent bodily feelings; and that bodily feelings may then resonate with the reader's episodic memories and other meaning structures from the reader's own experience and understanding, perhaps evoking further feelings in turn (although the question remains how much of this felt experience reaches consciousness during normal reading).

An important context for interpreting the findings I have mentioned so far has been provided by the discovery of mirror neurons. First demonstrated by studying single cell neural responses in the monkey, it is now thought that mirror neurons play a major and more extensive role in human neural processes. In the classic observation (Gallese and Goldmann 1998) a mirror neuron fires when a particular action is either executed by a person or when it is observed being executed by another. In the monkey the mirror neuron systems that have been found are particularly dependent on the action having a specific goal, such as grasping an object. In humans this constraint appears to be somewhat relaxed, and mirror neurons are involved in contexts where experiences are not specifically goal-oriented, such as responding to the sight of a tool or reading its name (Grafton *et al.* 1997), or resonating to the emotional expression of another (Singer *et al.* 2004). Mirror neurons also fire during objectless, intransitive movements.

The role of mirror neurons has primarily been held to enable us to simulate the minds of others, whether the other is observed or only imagined, so mirror neurons have figured prominently in discussions of our supposed "Theory of Mind" capacity (Gallese and Goldmann, 1998). As Gallese and his colleagues put it, we have direct experiential knowledge of others that is not conceptual but gained from simulating the minds of others, since the mirror neuron system enables simulation of both action and emotion (Gallese *et al.* 2004). As they emphasize, it is through simulation that mirror neurons provide experiential knowledge of others' emotions, not just a conceptual knowledge of them. Rizzolatti and Craighero (2004: 183), indeed, remark that "messages . . . are understood by an observer without any cognitive mediation." These authors also point out the active role played by the body during reading. Experiments show that hand movements and mouth movements (including pronunciation of syllables) are closely linked in humans, and when listening to prose, subjects activate the lip muscle. In addition, they remark (a reminder of the work of Liberman, e.g., Liberman and Whalen, 2000), "experiments show that an echo-neuron system

exists in humans: when an individual listens to verbal stimuli, there is an activation of the speech-related motor centers" (Rizzolatti and Craighero 2004: 186).

Another interesting implication is that the mirror neuron appears indifferent to whether an action or feeling is located in another or in the self. As Fischer and Zwaan (2008: 830) suggest, mirror neurons provide "direct evidence for common coding at the neurophysiological level"; thus their features include independence of perspective. Experience, in this context, is presented disinterestedly, without being associated either with the self or with the other (cf. Becchio and Bertone 2005). In other words, mirror neurons suggest that an action or feeling, at least during the first few hundred milliseconds, is understood independently of agency. This provides an important new perspective on empathy that may play a role in reader's response to narrative: a reader's sense (albeit fleeting) of a given feeling as prototypical and without agency.

Finally, if cognitive mediation occurs only later, mirror neuron findings suggest that processing during reading is immediate in experiential terms, activating both feeling and motor systems and, probably, other bodily responses such as kinesthetic functioning, muscle tension, heart rate, and breathing. Combined with the implication that the reader's imagination involves perceptions imbued with mnemonic and affective elements, we can suggest that a rich experiential matrix must be implicated in the early phases of literary reading, i.e., in the first 300–500 msec. To what extent these components and their interactions can specify what is distinctively literary about such reading remains to be considered. In the next section I outline a possible answer to this question. I look at how somatic and affective aspects may contribute to the process of literary reading.

3. A bodily based view of empathy

The perspective I have been developing so far, drawing on the theory of the immersed experiencer and the evidence of mirror neurons, suggests that not only concepts and imagery are evoked during literary reading, but that bodily aspects, involving motor and kinesthetic responses and feelings, also play a role. At the same time, such bodily aspects are little reported by readers; they appear to remain largely below the level of consciousness. Probably one reason for their status being more fugitive than concepts and images is the rapidity with which they unfold, especially when readers' experiences of empathy absorb attention, taking over consciousness. In the following examples, however, taken from an empirical study of reading, the complexity of the context and its literary aspects allow us to trace some of the bases for readers' empathic responses.

The evidence is gathered from readers (who were senior undergraduates in literature) asked to think aloud after reading each of four sections into which we had divided Kate Chopin's "The Story of an Hour." In the opening of this story Louise is told that her husband has died in a railway accident. After weeping in her sister's arms she retires alone to her bedroom. The next two paragraphs (part of the second section) are:

There stood, facing the open window, a comfortable, roomy armchair. Into this she sank, pressed down by a physical exhaustion that haunted her body and seemed to reach into her soul.

She could see in the open square before her house the tops of trees that were all aquiver with the new spring life. The delicious breath of rain was in the air. In the street below a peddler was crying his wares. The notes of a distant song which some one was singing reached her faintly, and countless sparrows were twittering in the eaves.

This second section shifts to a different mood from the first. It does so not only in subject matter but in stylistic qualities, as it describes trees, rain, distance voices, and birdsong. Among the 46 readers who read the story in our lab and made comments on this section, a number explicitly noted the contrast between Louise's grief and the account of the spring day that follows. For some the contrast seemed to be a fault: it "takes away from the grief" (A203), said one reader; another remarked that "the story talks about everything else going on as if nothing really bad just happened" (A210). But for several other readers the contrast is intriguing, suggesting some aspects of an aesthetic response to the text. One reader said "I enjoyed the small paradox with the beautiful day outside and the death that she's dealing with" (A225). A second said "It all sounds very refreshing; it doesn't sound at all depressing. So there's an interesting tension created and I'm intrigued by that" (A257). While these two readers explicitly comment on the contrast, standing as if outside the immediate situation, other readers describe it more empathically as though they situate themselves within the room. One reader says the passage depicts "how when you're sad and when you're going through an experience the world around you seems to go on, and seems to be unaware" (A204); another says "I almost feel like you're in the room, in a corner, watching this woman as she's looking outside the window" (A205). For this last reader the passage seems to involve physically relocating herself. Similarly, another reader places herself in the room when she says "I'm kind of lulled into the story, especially in opening the idea of sitting and looking out the window . . . absolutely being suspend[ed] in that moment" (A261).

The attention of readers has been caught by this passage in several different ways. The contrast in it provided by the description of the spring day seems to qualify the state of grief of Louise, and this anticipates the transformation in her that will begin in the next section. Although only one or two of the readers we have studied expect this, their remarks demonstrate an awareness that the situation is unusual and casts the grief in an odd light. Our sense of Louise's grief is modified by the description of the view from the window, a description that seems to call for a recontextualization—although how that is to be resolved only emerges in the story several paragraphs further on. The effect created can be compared to metaphor, where a vehicle term modifies its topic (e.g., in the expression "Jan was caught in the crossfire of her parent's divorce," the situation of Jan is modified through the term "crossfire"). In the story the feelings of spring qualify the grief, representing the potential for growth that Louise will realize shortly in her sense of freedom now that she believes that her marriage is over. In other

words, we see a type of anticipation that plays a permanent role in our conceptions of human possibility. In the metaphor theory of Glucksberg and Keysar (1990) metaphor creates an ad hoc class or type, thus Louise's predicament facing the window can be seen as the token (or example) of its generalizing power (see also Miall 2006: 79), that is, grief's limitation in the face of the generative power of spring.

How far readers notice the metaphoric potential of this passage is apparent in their comments. Among the readers I have cited we can see three different types of response: first, a rejection of the contrast in the passage; second, an appreciation of the contrast that acknowledges the tension inherent in it; and third, the imaginative relocation of the reader in the room to experience the character's position; and it is with this third type that a metaphoric appreciation is particularly evident. In readings of the second type the role of the body would appear limited to representing the contrast and fostering an appreciation of it (readers refer to feelings of paradox and tension). In the third type, on the other hand, the body seems to provide a site for enacting the experience of the character, as suggested by phrases such as "when you're sad," "you're in the room," and "lulled into the story." This third type of reading seems enabled in particular by the feelings of the reader—feelings that the reader projects onto the passage rather than being found in it explicitly (the passage does not mention being sad or lulled).

In these three comments we can detect some of the powers of feeling that give it a primary place in directing the reader's response. For the reader who remarks "how when you're sad . . . the world around you seems to go on, and seems to be unaware" (A204), we see the generalizing power of feeling: she has taken a specific instance from the story and, by empathizing with it ("when you're sad") has made her experience of feeling into a general law. For the reader who said "I almost feel like you're in the room, in a corner, watching this woman as she's looking outside the window" (A205) feeling appears to direct her capacity for imagery—she has also just referred to being "entranced" by what the woman sees, suggesting that such focus is typical of grief. For the reader who remarks "I'm kind of lulled into the story" and that she is "absolutely being suspend[ed]," we see an instance of Frijda's Law of Closure, that is, the feeling takes precedence and is felt as all-inclusive, containing no indication that it is contingent (Frijda 2007: 15). These three responses, as I have indicated, are more radical than the others I have cited, and demonstrate most clearly the empathic response of the "immersed experiencer": not only do they involve empathy, but more specifically they operate like metaphors in promoting an ad hoc class, while the more active role of feeling they demonstrate seems to implicate the body (although in different ways for the different readers). Whether this combination of more active feeling and bodily implication is characteristic of literary readers, or only of some types of reader or some types of text, we have not yet investigated systematically.

4. Quiet sympathies: the fundamental analogy

Going beyond the neuropsychological studies I have cited, or the empirical evidence from our studies of literary reading, a wider context for the empathic capacity can be suggested. It can be understood as a part of the animistic conception of the world we inhabit, in which a primary purpose of literary experience (at least in premodern times) has been to evoke in us a sense of an animist dimension. While we may (now) implicitly reject this feeling for the events and objects around us, consciousness of such a meaning occurs only after it has already been established—thus it is a feeling that is hard to resist. The neuropsychological evidence points to a temporal gap between the immediate onset of feeling and its cognitive consequents that unfold several hundred milliseconds later; thus we can also regard the gap as occurring between the precategorical and cognitive phases of response, to adopt Tsur's term (1992: viii). The mirror neuron system, it will be recalled, invokes our capacities at the precategorical level. This shows that we have, at least in principle, a capacity to enact the entities, objects and events we perceive in ways that activate our motor and other bodily systems (especially if the perception involved is transitive, i.e., involving an action with a detectable goal); consciousness can be regarded as belated.

The mirror system thus not only represents within 200–300 msec the stance, feelings, and (possibly) the intentions of another human being through an immediate resonance within the motor system, kinesthetic and other bodily responses. The same system, although perhaps less powerfully, also enables us to represent the disposition of an animal, an insect, or a tree; and does so, we must recall, ahead of the conscious, cognitive response to an unfolding event. Thus, before we are aware of it, we have enacted, or proved "upon our pulses," as Keats would say (1958: I, 279), the life of the sparrow, and will "take part in its existence and pick about the gravel" (1958: I, 186). Among the English poets Wordsworth has provided several descriptions of this process (among his writings from 1797–9). For instance, in a fragment later revised for *The Excursion*, he wrote:

> Not useless do I deem
> These quiet sympathies with things that hold
> An inarticulate language (Wordsworth 1990: 678)

He primarily has in mind natural objects (he mentions the sky, clouds, and the ocean). Through such sympathy, he adds,

> All things shall live in us, and we shall live
> In all things that surround us. (Wordsworth 1990: 680)

Wordsworth also held that we are born with the capacity to sympathize with external objects: in *The Prelude* he refers to "those first-born affinities that fit / Our new existence to existing things" (Wordsworth 1990: 389). It was on the basis of such affinities that Wordsworth (and Coleridge, who shared a similar response to nature)

developed a pantheistic philosophy that suggested a mental continuity between the human mind and every aspect of nature, however lowly (Piper 1962).

In evolutionary terms we can also see such a capacity as having adaptive value: to endow what may appear living entities with feelings and motives allows us to react promptly in anticipation of what they might do. While this will result in many "false positives," it facilitates survival: better to see too many illusory predators than not see the one that is really there. Although, in considering empathy and related feelings we have been discussing literature, the words on the page arouse feelings, and this appears to invoke the same "just in case" strategy that also constitutes empathy (cf. Miall 2006: 77–8).

In conclusion I have suggested that to understand literary reading and the role of empathy in particular, an enactive account involving the body is required—enactive, given that the human mirror neuron system appears to simulate in our motor systems and feelings the events, objects, actions, and emotions that we encounter while we read. In this bodily sense (resonance in the motor system, the dynamics of feelings, etc.), the mirror neuron system puts the action on stage, as it were, making us bodily participants in what we read; literary reading in particular, as I have suggested, then tends to complicate our response, introducing conflicts, ambiguities, and the like, which serve to modify our understanding (and perhaps by recursive processes modifying our physiological responses as well). The animist claim that I mentioned in relation to Wordsworth's writing is perhaps only a more comprehensive perspective on a participatory response exemplified in much of our literary reading—whenever we become absorbed, experience empathy, or feel the body resonating with affinities to what we read.

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