George Eliot, George Henry Lewes, and the Logic of Signs

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At every point in her novel-writing career, Eliot was to ponder the connection between words and experience in the light of what we might call her Logic of Mind. Eliot saw mind as an organic process and this conception of mind provided her with a flexible and scientific model for consciousness and behaviour and served as a basis for the enlightened realism of her novels. The best access we have to Eliot's view of the Victorian science of mind is in the works of combined psychology, physiology and philosophy written by the partner of her literary years, George Henry Lewes. He treated language under the Comtean heading of the 'Logic of Signs'. Long before Lewes made his laborious explanation of the psychological workings of the 'Logic of Signs' in his final work, *Problems of Life and Mind*, Eliot began her essay 'The Natural History of German Life' by writing in this way: 'It is an interesting branch of psychological observation to note the images that are habitually associated with abstract or collective terms—what may be called the picture-writing of the mind, which it carries on concurrently with the more subtle symbolism of language'.[1] Here Eliot approaches a psychologically based philosophy by describing the Logic of Images—'the picture-writing of the mind'—and the Logic of Signs: 'the subtle symbolism of language'. Before she began writing fiction and before Lewes attempted to enunciate the functions of language in the context of cerebral activity, Eliot tried to work out the association between language and cerebral activity in a way that would have meaning for her art.

Eliot and Lewes were both concerned with discovering a progression in mental development which would account for the existence of conscience as something as inevitable and as exclusively human as art or philosophy. Higher reason is a mental 'logic' which Eliot wishes to find not only in statistical thinking but also in aesthetic appreciation and even in feeling. Lewes broke down the organisation of mind into what he called a 'threefold division of logic', beginning with the Logic of Feeling, progressing through the Logic of Images and ending in the Logic of Signs. According to Lewes, the first stage, which entails 'the Animal Logic' based on feeling 'is never critical, always intuitive'. The Logic of Images involves the representation of primitive mental

states which are immediately connected with sensations. This logic must be further refined if it is to be articulated as mental signs, because thought exists in relation to feeling in the same way that algebra exists in relation to arithmetic. The Logic of Signs extends intuitive or empirical knowledge into specialised realms of meaning, such as higher mathematics and language; it is associated with what Lewes calls 'the intellectual life, and is exclusively human'. He explains its function in this way: 'unless a word is formed there is no idea; unless the feeling takes articulate shape it remains a vague feeling and not an idea'. Thought and feeling are made precise by being articulated in signs.[2]

Eliot emphasises the importance of written language and mathematics as providing the mastery of complex ideas that are required for the development of higher feeling, ideas which are tools for building communities. 'Systematic co-operation implies general conceptions', she writes, 'and a provisional subordination of egoism ... which are as foreign to the mind of the peasant as logarithms or the doctrine of chemical proportions'.[3] And elsewhere: 'Amiable impulses without intellect, man may have in common with dogs and horses; but morality, which is specifically human, is dependent on the regulation of feeling by intellect'.[4] The organisation of knowledge and experience into mental signs represents a movement away from undifferentiated particulars to general moral laws and knowledge based on the emotions. This progress from a simple yet unorganised to a complicated yet abstract state of mind involves naming as part of the process by which rudimentary knowledge is transformed into moral understanding. As twentieth century philosophers of science such as Richard Dawkins recognise: 'mathematics ... doesn't only stretch the imagination. It also disciplines and controls it'.[5]

Altruism for Eliot depends upon the command of higher thought, and for her this includes both rational and non-rational types of knowledge. Rationality must be tempered by non-rational forms of inherited thought-patterns which depend on feeling, and language is one such inherited thought-pattern. In a late notebook Eliot writes 'Are general ideas formed by animals? Not in our sense of concepts. Yet in another sense all ideas and images are general, for they are not signs'.[6] It is clear that to be human is to master signs and, equally, that to master signs is to be human.

In Eliot's first novel *Adam Bede* we find the Logic of Signs at the top of the novel's scale of values. The ability to understand signs gives the thinker access to an exclusively human morality which is higher

than those moral ideas shared with other animals. As the narrator in *Adam Bede* says compassionately about three rustics whom the schoolmaster is teaching to read: 'It was almost as if three rough animals were making humble efforts to learn how they might become human' (p.281).[7] The narrator endorses the schoolmaster's encouragement of his rustic learners towards literacy and the fuller humanity which accompanies it. By submitting themselves to the discipline of acquiring the accoutrements of human civilisation, Eliot suggests, individuals can accelerate beyond that development within a natural selection that depends on chance.

The novel makes Adam both its hero and, at times, its spokesman because of his skills in the Logic of Signs, especially mathematics. Sally Shuttleworth has argued that 'Adam's social progress is synonymous with his power of mathematical addition' and that, at the same time, 'mathematical reasoning lends a rigidity to [his] social judgements'.[8] But Adam's grasp of the abstract reasoning required for mathematics is both more homely and more sophisticated than is suggested by Shuttleworth's idea of a straight-forward 'social progress'. His 'acquaintance with mechanics and figures' which are 'the secrets of his handicraft' is 'made easy to him by the inborn inherited faculty' (p.258). This inheritance includes 'the mechanical instinct, the keen sensibility to harmony, the unconscious skill of the modelling hand' (p.84). All higher thought and achievement work towards a cumulative Logic of Signs which is independent of the individual. Lewes acknowledges that 'the Moral Sense and intellectual progress' are ruled by the law of inheritance, and refers his readers to Herbert Spencer's *Principles of Psychology*.[9] The notion that such skills are innate—a function of the development of a kind of General Mind—is also expressed in *Problems*, where Lewes writes 'in the development of Industry and the Mechanical Arts, the mind has acquired not only new powers, but the equivalents of new senses'.[10] An enduring, inherited Logic of Signs provides its possessor with instincts as various as feeling, language, morals and technical skill.

Adam's skills have an everyday practicality. While he has 'not the heart of getting rich' (p.259) and so climbing the ladder of social progress, his sterling mental qualities are exemplified both by his skill in pure mathematics (beyond that knowledge of carpentry 'inherited' from his father and probably his grandfather before him), and his 'will' to master it. Mathematics is privileged as at once the most abstract and the highest form of knowledge: inductive reasoning. Adam's teacher suggests he might have 'gone into the higher branches' of mathematics

'if he hadn't had so much hard work to do' (p.463). Adam, however, is content to play his part in the workaday world.

Although it would be unrealistic to expect that Adam, who lives outside a tiny village, should have learnt either another science that did not relate to his trade or one of the subjects such as Greek and Latin which the pastor and Arthur have studied at university, his skill with figures is a credible representation of his higher intellect and mastery of the abstract reasoning required for moral judgement. Such skill is not enough, however, to ensure a cultivated moral sense; Eliot makes the point that Adam and Dinah also need to develop the cultivated feeling that will issue in proper moral judgements. Intellectual pursuits and morals are both subject to a gradation. At the same time, Eliot warns against confusing rustic stupidity with moral innocence: 'It is quite true', she writes, 'that a thresher is likely to be innocent of any adroit arithmetical cheating, but he is not the less likely to carry home his master's corn in his shoes and pocket'.[11] Adam's 'adroit arithmetical' proficiency does not corrupt him, of course, and Eliot makes mathematical reasoning function as an inherited skill which is both innate and cultivated and is connected with his capacity to make moral judgements.

Dinah is the novel's other guide to higher reasoning and moral judgement. In line with Methodist principles, she takes the words of the Bible as signs to guide her feelings and words. These signs belong to an inherited moral culture and are valued by the agnostic Eliot because the Bible provides a set of moral signs which are beyond temporality and so belong to the Logic of Signs. Feelings and her own Logic of Signs compel Dinah to speak and act within the community. Her sympathetic words allow others to reach their higher selves, which they find within their own feelings and experience. For Eliot, Dinah's language allows connection with inward life, a connection which is realised in the prison scene. This scene—in which Dinah tries to save the soul of her cousin Hetty, the story's fallen woman—enacts a drama made from bare words, plain story telling, exhortation and confession. The two cousins are lost in a darkness which serves as backdrop to their word-drama. Hetty's 'dark mind' is laid bare in the prison; of all the book's chapters, it is the one which contains Hetty's most sustained speech without narrative interpretation. Hetty's is a 'lower nature' to Dinah's higher one and as such is beyond reclaiming (p.206).

In the confession scene the force of the heroine's higher feeling, rather than transforming Hetty, actually serves to lay bare the primitive vixen in Hetty who subsequently makes way for the novel's perfect

love matches between the characters who possess higher feeling. Hetty is in fact superseded as the centre of the novel. According to Eliot's social ethic, better feeling flows like force to interconnect people; this propels Hetty in the confession scene to overcome the egoism of her primitive nature and sweeps away a blockage in her consciousness. At the same time, however, her confession reveals her primitive and untransformable psychology. Hetty shudders after making her confession to Dinah 'as if there were still something behind'. What remains behind is her mind's crazed replaying of her baby's cry and her visualisation of the spot of countryside where she killed it, which is the refrain of her broken confession (p.500).

Freud's concept of the 'repetition-compulsion'—of which Hetty's behaviour here could be seen as a version—identifies such a compulsion as an entirely natural force that is 'probably inherent in the very nature of the instincts—a principle powerful enough to overrule the pleasure-principle, lending to certain aspects of the mind their daemonic character'[12]. In *The Mill on the Floss* Eliot gives her own explanation of how a crisis of this kind affects the primitive imagination: 'When uncultured minds, confined to a narrow range of personal experience, are under the pressure of continued misfortune, their inward life is apt to become a perpetually repeated round of sad and bitter thoughts . . . as if they were machines set to a recurrent series of movements'.[13] Hetty's primitive ego stumbles over a psychological symbol of her crisis and cannot move beyond it. Hetty's self-command and self-in-time are equally arrested by the preverbal protest of her child, which she cannot bear as it is the symbol of her mistake and shame. There is only a thin veneer of social behaviour covering the bestial in Eliot's portraits of primitive women. When the primitive loses her self-command, the animal takes over.

Hetty's primitive ego limits her understanding of other people's minds as systems of thought and feeling different from her own. She sees in others only a reflection of her own shallow fancies. Her ego acts as a mirror, and when connected with Hetty, mirrors illustrate the boundaries of her ego and its vision of reality. Early in the novel she worships her reflection and begins to spin her fantasy of becoming a great lady, a fantasy which is fed when Arthur first courts her. She returns to the mirror to read Arthur's letter breaking off their love affair, when she sees her reflection as being 'almost like a companion that she might complain to—that would pity her' (p.379). In this, her first pain, Hetty's self-objectification begins to harden her spirit from a luxurious carelessness to the potential of abandoning her child.

Although Hetty does not herself see her reflection as anyone other than her own pathetic or admirable self, earlier in the novel Eliot introduces the idea of the mirror's image as reflecting the self as a sign of foregone generations. Hetty's beauty is charged with a 'national language' of inherited 'meaning and pathos' (p.330). 'Family likeness has often a deep sadness in it. Nature, that great tragic dramatist, knits us together by bone and muscle, and divides us by the subtler web of our brains.' This inherited language which is an innate part of the self, becomes visible in the mirror, so that the 'long-lost mother' is seen 'in the glass as our own wrinkles come' (p.84).

Just as Hetty's face mirrors the faces and the feelings of past generations, so that face is symbolic of her brittle, shallow ego, the physical 'sign' of a moral quality. Late in Hetty's wandering the narrator dwells on 'the face which had smiled at itself in the old speckled glass, or smiled at others when they glanced at it admiringly.' The face is Hetty's inescapable existentialist ego: 'even her own beauty was indifferent to her' (p.381). Hetty lives so much in the eyes of others that her beauty becomes depersonalised, referred to as if it were something belonging to a lower animal: 'the face smiled at others when they glanced at *it*'. Later in the same paragraph Eliot describes the transformation Hetty's alienation has brought about in her fine face: 'all love and belief in love departed from it—the sadder for its beauty, like that wondrous Medusa-face, with the passionate, passionless lips' (p.430). The Medusa is an imaginative relic of supernatural power (that is, a scientifically disproven force) which has no place within modern 'progressive' society, but as a creature whose face has potent power, the Medusa has a continuing symbolic force in Hetty's history.

At an earlier point in the narrative, Hetty's suffering is represented through the symbol of Christ's cross, found unexpectedly in the midst of 'joyous nature'. The image of Hetty's pain as it is subsumed by Christ's agony prepares for Adam's internalising of her pain and the subsequent rebirth of *his* emotional life, a rebirth which is described in Christlike terms. Hetty's punishment by forces hidden within nature—a reticent way of naming illegitimate or 'natural' childbirth—is ultimately seen in terms of Adam's Christlike suffering and redemption and the symbol of that suffering which has been formerly associated with Hetty is transformed to him. The symbol of Hetty's own suffering, on the other hand, is the pagan Medusa.

In a way Hetty is herself becoming a work of art, a kind of archetype, a 'sign'; in *Adam Bede* she is killed into art through Eliot making her into the sign for a primitivity that must be transcended.

Eliot inverts the myth of Medusa, in such a way as to imagine Hetty's passions as reflected by her face turning her heart to stone. When Hetty's face no longer attracts wondering admiration but rather seems to the observer incongruous with her lonely air, ringless finger and swollen belly, then her ego, shallow as it always was, cracks and she loses her identity and even her sanity. Dorothy Van Ghent has described Hetty's state as 'the chaos of animal fear, which, in the human being, is insanity'.[14] This is dramatically realised when, in custody for infanticide and confronted with both names written in her pocketbook, Hetty refuses to admit to being either herself or Dinah.

Hetty's narrow and limited nature which refuses to expand and accommodate the needs, desires and viewpoints of others is further exemplified by her problems with language. As I have illustrated, her bovine solipsism cannot comprehend the logic of signs used in verbal expression. Hetty does not attain the logic of signs because that requires a mental progression beyond the mental universe of the isolated primitive ego. So when a cart driver jests to her 'He's pretty nigh six foot, I'll be bound, isna he, now?' Hetty is frightened and asks 'Who?' (p.415). She expects the driver is asking about someone he knows, and does not register that he is bantering about Hetty's possibly having an admirer. Hetty possesses a primitive mind continuous with that which Lewes describes in *Physiology of Common Life*: 'it is probable that the Bee and Crab have no power of forming abstract propositions. It is probable that they are unable to carry on *trains of thought, remote from the sensations which are immediately affecting them*'.[15]

According to Lewes, it is the power of symbolic expression and the capacity to love which separates man from the animals.[16] Significantly, Hetty lacks both these sophistications. The 'blank in Hetty's nature' is her deficiency of feeling; the 'absence of any warm, self-devoting love' (p.203). In the darkened prison cell, her cousin Dinah tries to persuade Hetty to confess to murdering her newborn child, by making her aware of the presence of God. Dinah says rhetorically 'There is some one else in this cell, some one close to you.' Hetty's frightened reply—'Who?' (p.494)—shows she has no understanding of symbolic ideas and language.

Hetty's tendency to interpret words in terms of her own immediate feeling is exemplified at several points in her relation with Arthur, who protests: 'He had said no word with the purpose of deceiving her, her vision was spun by her own childish fancy ... half out of his own actions' (p.358). But Hetty does not respond to words so much as to

appearances, especially those which conform to her dream-visions. Arthur rationalises his actions until they appear to him to be justifiable, another irrational mental process which is opposed to the clear processes of arithmetic. Arthur and Hetty are each in their own dream-world, operating according to their own irrational dream-systems which allow disastrous choices to be cloaked as right ones and refuse the reality of the Logic of Signs.

Adam insists that Arthur write a note to Hetty breaking off their relationship. But the words in Arthur's note arouse in Hetty a blind and passionate repugnance for their writer which is expressed in her physical attitude to the letter itself 'which she snatched and crushed and then opened again, that she might read it once more' to see 'if the letter was really so cruel.' Her response to the letter is at each point a predominantly physical one. Hetty sees Arthur's note as somehow part of himself—'it had a faint scent of roses, which made her feel as if Arthur were close to her. She put it to her lips' (p.337)—and then as a kind of substitute for Arthur. Hetty's pre-verbal understanding leads her to figure the note as a subject active in its cruelty, and she turns her feelings upon the page itself: 'she crushed it up again in anger'. Hetty has taken her reading of their affair as proving her own projected logic of events; when Arthur's letter demonstrates this logic is false she is no closer to understanding the true logic of events and their consequences. She is incapable of attaining the Logic of Signs.

Hetty recoils from the letter yet she still finds comfort in the idea of its writer so that she decides to run away to Arthur and abandon herself to his mercy. Although Arthur suggests repeatedly in his letter that she write to him if she should need his help, when she does require assistance Hetty rejects the idea of writing to Arthur, going instead on her long toilsome journey of hope and despair (p.411). Hetty is propelled by primitive desires and fears which dominate her thoughts and actions, leaving no room for the sophisticated concepts which might lead to more intellectual activities: Hetty's self is defined and expressed only in actions. As Lewes writes in a discussion of Darwin, animals do not use symbols (such as words) because they have no ideas: 'their instincts lead directly to actions, never to ideas. Hence, while they share with man the sexual instinct, they know nothing of love'.[17] Lewes also writes that animals lack folly, and the possession of this attribute sets Hetty apart from animals, although it is in an ignoble way. Hetty's folly is to eschew language and its associated Logic of Signs, which she fears, preferring instead an irrational course of action.

At the beginning of Eliot's novel-writing career Adam Bede explores the dark edges of Hetty's consciousness, dark because she lacks the moral and mental sophistication provided by the Logic of Signs. Hetty's 'Animal Logic' is balanced by the logic of the Everyman Adam, who uses the Logic of Signs in the everyday world, and by the logic of Dinah who understands the mysticism of the symbol and who uses a language of higher feeling which derives from it. Eliot revisits these concepts in her final novel *Daniel Deronda* where her realism engages with the power of signs in characters possessing complex sensibilities, and she explores the significance of the sign in relation to the more sophisticated world of Jewish culture and scholarship.

Notes

1 George Eliot, 'The Natural History of German Life', *Westminster Review*, July 1856, in *Selected Essays, Poems, and Other Writings*, ed. A. S. Byatt and Nicholas Warren, London, 1990, p.107.

2 G. H. Lewes, *Problems of Life and Mind*, in 5 vols., London, 1874–79, V, 228; 224; 238; 347.

3 Eliot, 'The Natural History of German Life', p.124.

4 Eliot, 'Evangelical Teaching: Dr Cumming', *Westminster Review*, October 1855, in Byatt and Warren, *Selected Essays*, p.44. This sentence was omitted from the 1884 edition of Eliot's re-edited essays *Essays and Leaves from a Notebook*. Eliot may have regarded it as superfluous to her argument in that essay and as a metaphor which she had developed more memorably in her novel *Adam Bede*.

5 Richard Dawkins, *The Blind Watchmaker*, New York, 1986, p.74.

6 Huntington MS 12995 leaf 32, emphasis Eliot's. I am grateful to the George Eliot manuscript copyright holder, Jonathan Ouvry, for permission to quote from unpublished manuscript material.

7 Page numbers for Eliot's *Adam Bede* [1859] refer to the Penguin edition, ed. Stephen Gill, Harmondsworth, 1980. In her study of *Adam Bede, George Eliot and Nineteenth Century Science: The Make-Believe of a Beginning*, Cambridge, 1984, pp.29, 36, Sally Shuttleworth identifies in 'The Natural History of German Life' and subsequently in *Adam Bede* Eliot's desire to observe peasantry as 'the People', a quasi-biological classification ('Natural History of German Life', p.110). According to Shuttleworth, Eliot attributes animal status to this 'fixed, ahistorical category', excepting only Adam from the 'rough animals' that have not reached evolutionary fitness for education. However, Shuttleworth fails to remark on Eliot's warnings against bureaucratic conceptions of human nature later in the essay: 'They talked of the "people", and forgot that the peasants were included in the term'. Eliot castigates the 'democratic doctrinaires' who have been too much preoccupied with the general idea

of 'the people' to inquire particularly into the actual life of the people. Terms such as 'the people' 'are ... far from completely representing the complex facts summed up in the collective term' (pp.126, 129, 108) and this is one of language's shortcomings, a limitation that is placed on a thing when it is named. These comments show up Eliot's ambivalent feelings toward categorisation, which are probably more self-aware than Shuttleworth acknowledges.

8 Shuttleworth, pp.37–39. However, of the three rustics in the reading class, only two are learning in order to gain skills that could earn them more money, which does not guarantee social betterment in Eliot's terms. While Shuttleworth agrees substantially with Barbara Hardy—see her *The Novels of George Eliot: A Study in Form*, London, 1959—Hardy's position is closer to my own: 'Adam's faith in arithmetical analogy demonstrates his weakness as well as his strength'; he must revalue simple arithmetic as providing an incomplete answer, and realise that 'there's a deal in a man's inward life as you can't measure by the square' (pp.45–6).

9 G. H. Lewes, *Physiology of Common Life*, 2 vols, London and Edinburgh, 1859–60, II, 410.

10 Lewes, *Problems*, IV, 156.

11 Eliot, 'The Natural History of German Life', p.109.

12 Sigmund Freud, 'The "Uncanny" ' in *On Creativity and the Unconscious: Papers in the Psychology of Art, Literature, Love, Religion*, New York, 1958, p.145.

13 Eliot, *Mill on the Floss* [1860], Harmondsworth, 1988, p.372. Here Eliot's description of the diminishing of human thought from its full capacity likens that behaviour to Descartes' definition of animals as machines without souls.

14 Dorothy Van Ghent, *The English Novel: Form and Function*, New York, 1961, p.179.

15 Lewes, *Physiology*, II, 92 (italics Lewes's).

16 Lewes, *Problems*, IV, 136–38; V, 238.

17 Lewes, *Problems*, IV, 138.