Revista Alicantina de Estudios Ingleses 9 (1996): 221-233

New Physics, Old Metaphysics: Quantum and Quotidian in Ian McEwan's *The Child in Time*

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ABSTRACT

This article investigates McEwan's poignant figurative use of ideas from the New Physics, his testing of their availability to quotidian reality, and determines to what extent and with what results—wonder, illusion, dementia, psychosis—the protagonist's behaviour is affected by a quantum mindset. An attempt is made to identify and define the kind of worldview and time-concept, physical or metaphysical, which is ultimately upheld by the novel's narrative structure and style, and to ascertain how far these are rooted in the Newtonian tradition of empirical realism which the book's theoretical discourse challenges. Time-reversal and parallel worlds theory are considered in the context of the novel's millenial-dystopian political vision.

Over the last twenty-five years a number of British novelists have appropriated for figurative use selected features and concepts from the "New Science" such as quantum mechanics, parallel and alternative worlds theory, notions of subatomic contention and putative reality, and the physics of time. These popular approximations, which few physicists would approve, have resulted in novels which juxtapose determinate and indeterminate spatial worlds (Doris Lessing's *Memoirs of a Survivor*, 1974), or parallel sequences of action centuries apart in time (Peter Ackroyd's *Hawksmoor*, 1985); a conditional, might-have-been history of dead people (Muriel Spark's *The Hothouse by the East River*, 1973); a reverse history of the holocaust, in which time runs backwards (Martin Amis, *Time's Arrow*, 1991); and a string of critical studies devoted to this school

of fiction on both sides of the Atlantic (Robert Nadeau's *Readings from the New Book on Nature*, 1981; N.Katherine Hayles's *Cosmic Web*, 1984; and Susan Strehle's *Fiction in the Quantum Universe*, 1992).

Ian McEwan would appear, on first glance, to be an unlikely candidate for this experimental group of writers. His first two novels, *The Cement Garden* (1978) and *The Comfort of Strangers* (1981), are graphic studies of violence, incest and psychopathic evil, notorious for their lurid and often shocking realism, and though even these works have received sophisticated deconstructive readings detecting speculative readerly and reflexive elements in the fiction (notably, David Sampson's reading of *The Cement Garden*, "McEwan/Barthes"), such interpretations tend to reveal more about theories of reading than about the text at hand and leave few readers convinced that McEwan is any kind of postmodernist. After these first two novels, *The Child in Time* (1987) seems to be a striking new departure. In this novel time is a magical, occult property which allows past and present moments to collide and mirror each other with a mystic *frisson*; gaps in the quotidian reality keep opening up potential alternative and imaginative worlds; and at the heart of the book a spokeswoman for the New Physics embarks upon a meditation on wave and particle functions, matter as energy, and space-time which offers only problematic solutions to the book's many mysteries. The new spirit of intellectual inquiry and experimentation notwithstanding, however, McEwan is not on wholly unfamiliar ground in his third novel. He is concerned, in his highly poetic and poignant use of ideas from the new science, to test them for their practical relevance and availability to phenomenal reality, their fidelity to lived experience; and to assess their contribution to the ordinary run of joys and sorrows in the human struggle against evil at both private and political levels. In the course of this article I shall attempt to determine to what extent and in what ways the protagonist's psychology is influenced and his behaviour affected by the quantum mindset—which affords, by turns, relief and dementia, wonder and psychosis—and to identify the kinds of worldview and concepts of time, physical or metaphysical, which are finally borne out by the novel's narrative structure and style. Exactly how far McEwan has in fact strayed from the realist mode of his early writing and from the empirical philosophical tradition which underlies it will, I hope, become clear in the course of these investigations.

In addition to being a meditation on the bizarre nature of time, *The Child in Time* is also an inquiry into the nature of childhood and parenthood, and a dark millenial projection of Margaret Thatcher's England into the last years of the century. At the heart of the book is the abduction of a child, and the prevailing image of the lost or stolen child is, like time itself in the novel, mobile and malleable. It refers immediately to the three-year-old Kate who now leads only a phantom, invisible existence in the minds of her grieving parents Stephen and Julie, and who embodies the stolen promise of their marriage, insofar as the latter is measured by her life and almost destroyed by her disappearance. Beyond this, the image has a more universal application to the forgotten child who lives on ephemerally in every adult and to whom, says the publisher Charles Darke, Stephen's own children's books are addressed.

At a broader social level, the stolen child serves as an image of unfulfilled political hopes, particularly the thwarted welfare state idealism and egalitarian utopianism of the

1960s, now abruptly shut down by a reactionary government which is committed to the social engineering of a new disciplined, repressed child as set out in its Authorized Handbook. "The nation is to be regenerated by reformed childcare practice," says one of the disillusioned disciples of the Official Commission on Childcare, on which Stephen, as a successful children's writer, also serves (162). In this post-Thatcherite dystopia the school leaving age is lowered and schools are sold off to private investors; public transport is plunged into daily chaos by privatization and deregulation; and licensed child beggars roam the streets. One of these, a new child of the age who abuses Stephen as she makes off with his money and is later found dead of cold and hunger, vaguely resembles his lost daughter, giving brutal, immediate expression to the idea of stolen futures and ruined hope. McEwan's dystopia is a state in reverse: it has returned, irretrievably, to the unfettered laissez-faire capitalism of the previous century. Historical time moves only one way—in this instance, backwards. In the daily commuter chaos the steady forward movement of the pavement crowds conveys to the stationary drivers "a sense of relative motion, of drifting slowly backwards" (7). The nation's historical reversal, like the loss of his daughter and his own upward mobility in the new political order, is itself irreversible, and it is, in fact, to separate himself from this implacable backward motion that Stephen pursues imaginatively the more sensational implications of "relative motion." Stephen seeks refuge from the irreversible, at both personal and public levels, in preternatural time-warping and autoscopic out-of-time experiences and in the magical world of quantum theory, in which a sense of options and alternative possibilities still prevails. *The Child in Time* is a moving record of the doomed attempts of the dreaming artistic imagination, racked by personal loss and grief, to translate the abstruse theoretical concepts of the New Physics across the culture-gap into everyday phenomenal experience: to bring the quantum into quotidian reality. And the New Physics—Charles's wife, the theoretical physicist Thelma, reminds us—is itself a child, the offspring of the scientific revolution of the early 1900s, associated with the century's childhood. She speculates that this new child, as it outgrows the arrogant egotistical detachment of Newtonian physics and begins to participate in the world it describes, is "on the point of growing up and learning to claim less for itself" (43).

Time in McEwan's novel is a relativist riddle and the human child moves mysteriously in it. Stephen learns from his physicist friend that there is no absolute or universal time, no abstract autonomous sequence independent of events. Time is variable, relative to speed, gravitation, amount of activity and the rapidity with which things happen, and is, moreover, a projection from daily living, depending upon and fluctuating with intensity of experience and state of mind. Stephen discovers from his own experience that time can stretch and shrink with motion, and can stall to accommodate more than commonsense perception is ordinarily capable of, packing the occurrences and observations of minutes into seconds. In moments of panic and extremity, such as the abduction and a road accident in which he narrowly escapes death, it slows to a mesmerised standstill. As Joe the driver puts it, after Stephen, in a rather farcical rescue scene, pulls him from the wreck of his juggernaut: "If a lot happens quickly it's going to seem like a long time" (100). Conversely, the duration of his uneventful jail term feels surprisingly short: the more you do and the faster you do it, the longer it appears to take.

Thelma's other contentions about the physics of time, notably its shape and sequence—for example, that "the commonsense, everyday version of it as linear, regular, absolute, marching from left to right, from the past through the present to the future, is either nonsense or a tiny fraction of the truth" (117)—are also borne out by Stephen's personal experiences. His own novels, her husband argues, are really messages to a ten-year old self which has never ceased to exist: they speak, simultaneously, "to the incipient adult within the child, to the forgotten child within the adult" (31). The boy in the man and the man in the boy are mutually mobile in time, constantly projecting futures and revisiting pasts in a two-way flow. Stephen has *déjà-vu* sensations and prenatal memories of seaside bike-rides in his mother's womb and, during a school visit in pursuit of his lost child, his desperate mental state tricks him into the fantasy that he is reinhabiting his own childhood. The most striking example of this reciprocal mobility, however, is a prenatal presentiment on a country road, in which Stephen enters a time before he existed and beholds, through a glass, the mother who has just conceived him. Overwhelmed by panic at his pre-existent nothingness, he discovers that "he had nowhere to go, no moment which could embody him, he was not expected, no destination or time could be named" (60). Forty years on, his mother communicates to him the eerie knowledge that during her pregnancy she had an identical premonition on the selfsame spot, when she looked out through a tavern window at her own unborn child, a visitor from the future. What makes this episode crucial in the context of the novel's New-Scientific intellectual timescape is not merely the ambiguity of perception which registers events, from different viewpoints, as sequential or as simultaneous, but the fact that the matter in contention (to give or not to give birth) is one that has to do, precisely, with *contention* and with candidature for existence; and it is here that New Physicist speculations about the shape of time link up with the "multiple universes" interpretation of quantum theory.

According to this interpretation, writes Paul Davies in his book *Other Worlds* (1980), "there exists not one future but trillions of them, namely, all the subsequent branches from this moment" (189). Thus there is no absolute, universal present moment, only an infinity of nows existing simultaneously to accommodate all possible permutations of events. In the quantum universe there are "countless alternative contenders for reality," all competing for existence, and the atom, in theory, accepts all the random possible trajectories offered to it so that "every conceivable atomic arrangement will come about somewhere" and "all the worlds-that-never-were leave a vestige of their putative reality in our own world" (120, 122, 140). In the multiple-universe theory, Davies argues, "matter remains in a state of suspended animation of unreality until an actual measurement or observation is performed . . . when it 'collapses' suddenly into reality" (13, 124). Or, as Thelma sceptically puts it in the novel, "consciousness neatly picks its way through [an infinite number of possible versions, constantly branching and proliferating] to create the illusion of a stable reality" (117). The agent of this collapse or concentration is, in effect, the observing consciousness which selects the world it inhabits from the alternatives on offer. While Newtonian physics tried to build a model of reality which is independent of the observer, quantum science reinstates the observer at the centre of the stage, involving him—or her—in reality in a fundamental way. In McEwan's novel the quantum physicist is, importantly, not a *he* but a *she*, and the author has inclined, both here and in his other writings, to the somewhat

tendentious view that quantum theory will have the effect of feminizing the New Physics. In his Introduction to his oratorio *Or Shall We Die?* (1983), published in *A Move Abroad* (1989), he constructs a gender model in which the "male" Newtonian empiricist affects the godlike role of impartial, invisible observer, dissociated from and fatalistically absolving himself from responsibility for the world, while the "female" New Physicist believes herself and her consciousness to be, holistically, part of the nature she studies, accepting Niels Bohr's axiom that when we study nature, nature is really studying itself, and that "we do not study the world so much as study our interaction with it" (*Move* 13, 15). In this model the man is the detached generator of life, the woman the intimately involved incubator. Correspondingly, the "masculine" Old Physics is presented as impartial, exclusive, deterministic, presumptuously knowing, and single-minded; while the "feminine" New Physics is participatory, self-inclusive, choice-oriented, humbly agnostic, and multiple in perspective. These gender oppositions are generally borne out at the pedestrian level of experience by the characters' behaviour and observations in the novel.

What Thelma says of Women in the New Science, Stephen extends to women in general. He observes that men after a certain age "froze into place" and settled into their fates, unable to imagine themselves as anything other than what they eventually became, while women, wavering between maternity and professional commitments, have always had to lead several lives at once, shadowed by an inner quantum of rival scenarios, unlived alternatives, roads not taken. For the woman "it was not so easy to . . . believe that you were entirely the thing that you did" (55) and life continues to be "an open-ended adventure" in which the self is constantly remade in a process of "endless mutability" (54, 103). Appropriately, it is after ruminating upon this "female quantum" in the lives of his wife and mother that Stephen is plunged into his country road time-warp in which he himself becomes a mere embryonic contender for reality, a foetal creature of alternative possibilities staring through a tavern window at his own mother, who is faced with the dilemma of giving him birth or aborting him (interestingly, his father later pretends that there was never any choice). Stephen awakens from his pre-life presentiment to find himself, forty years on, in bed in his estranged wife's cottage, and in another pivotal moment of decision that can go either way, where he faces the parallel dilemma of whether or not to project a child into time (with the difference that he is here the chooser, not the chosen). This dilemma is expressed, once again, in the quantum's language of parallel existences: "They confronted two possibilities, equally weighted, balanced on a honed fulcrum. The moment they inclined towards one, the other, while never ceasing to exist, would disappear irrevocably" (63). Every transaction in the quantum universe is optional and infinite in possibilities, yet once these have been collapsed into a finite sequence of happenings, they become irreversibly trapped in actuality and the cohabitation of options abruptly ceases. Thus Stephen runs alternative scenarios through his head, watching one of his "ghostly, fading" selves get up and leave, setting in train "innumerable invisible events" whereby "a different life unfolded in which his own unhappiness could be redoubled or eliminated" (63). But he chooses, finally, to stay and make love to his wife, and thus to attempt a restoration, short-lived though this proves to be: "Time was redeemed, time assumed purpose all over again because it was the medium for the fulfilment of desire" (64). The loss of the child in time is "redeemed" by the sexual act

which, through impregnation, collapses another latent into an actual existence, engendering a replacement child who, at the end of the book, will repair the broken marriage. The new child is itself an unknown potentiality, a creature of multiple possibilities, and its education is, fittingly, a quantum turmoil of experimental theories of childcare, all of which are simultaneously true and untrue, provable and unprovable, contended rather than demonstrated truths (these are presented in a comic *tour-de-force* by Stephen who, having only his own experience of childhood to draw upon, finally adopts an agnostic position).

At the other extreme from the women in the novel—Julie, Thelma, Stephen's mother—is Charles Darke, who fails to live in coexistence with his alternative, quantum selves and to release them into expression. In his childhood reversion Charles liberates his longing for the timelessness and irresponsible freedom of boyhood, but his adult self then punishes the child in him by writing, from his position in the government, a disciplinarian handbook on childcare which brings adult authority destructively into his childhood Eden. In spite of his attempt to go back in time in his reversion, Charles actually represents the dissociative position of traditional Newtonian thought as figuratively conceived by the author. His split consciousness fails to bring the needs of his private consciousness, associatively, into the public, political world—a world which, since it is but the sum and systematization of private wishes, has inevitably been conditioned and determined by such needs. The Prime Minister who falls in love with him experiences the same dilemma, though her position does not allow her to opt out as he does ("Disarm, for the sake of the heart," Stephen ironically advises her). The result, in her case, is extreme loneliness; in his, schizophrenia and suicide.

The imaginative and emotional power of *The Child in Time* is at its strongest, however, in those areas of the novel where quantum theory infiltrates the psychological trauma of the protagonist. Loss, Stephen announces at the outset, is his subject—the loss of a child in his life and of childhood in his writings—and his use of Thelma's "feminine quantum magic" to redeem, diminish or evade this loss produces a poignant complex of hope and illusory consolation in his narrative. When Stephen emerges from the supermarket without his daughter, his mind, numb with panic, mechanically registers the details of the local scene, which are exactly as they were—bikers, a Cola-Cola can, a dog under a tree—and he has a weird sense of time standing still, as if the fatal event was still waiting to happen, still potent with all its possible variations. From that point on his figurative appropriation of quantum ideas is painfully ambivalent. If, as Marc Delrez argues, "one amazing feature of this book is that Stephen never asks himself the metaphysical question, why?" about the abduction (9), it is perhaps because, in accordance with the uncertainty principle's undermining of the idea of a causal universe, he is obsessed instead with the New-Physical question of the *how* and *if*. On the one hand, Stephen taunts and torments himself by mentally re-entering the moment of crisis, running in his head alternative versions in which something other than what happened came to pass; in which he lifts his eyes "against the weight of time" to see the abductor and rescue his child. On the other hand, he uses the multiple and parallel worlds theory of the quantum to give himself illusory comfort and false hope. Following the quantum conception of reality as existing in a state of contention and potentiality, in which every event is attended by phantom alternatives, Stephen imagines that his daughter, though absent from his own world, continues to exist and grow

in another, numinous dimension. He thus perceives himself to be "the father of an invisible child" whose "phantom growth" he nurtures in his grieving mind. He watches out for her in other children, even the child beggars, reading her features into theirs. Using them as correlatives to give substance to Kate's continued existence in his imagination, to keep her alive in his hopes, he observes "the untapped potency of weeks and months, the time that should have been hers. Kate's growing up had become the essence of time itself" (8).

Thus lived actuality is curtailed and replaced in Stephen's imagination by unlived, invisible contenders for experience, a real by a mental child, and it is in this mode of "magical thinking," and in a gesture of desperate faith in his might-have-been daughter's survival, that he buys her birthday toys to match her imagined changing needs. "The number magic of birth dates would be activated," he hopes, "unknowable configurations of time and chance" released, and "events would be set in train which otherwise would not occur" (126). At the height of his dementia he mistakes a much older child on a school playground for Kate and, in a crazy confusion of physics and metaphysics, relativity theory and metempsychosis, he imagines Kate's spirit as "capable of unimaginable speeds, and yet remaining perfectly still as it waited to descend to a playground or street corner to inhabit the body of a young girl, infuse it with its own particular essence to demonstrate to him its enduring existence before moving on" (152). It is only after disrupting school business in pursuit of this fantasy-Kate that Stephen is brought to the reluctant, rational conclusion that "there were many paths Kate might have gone down, countless ways in which she might have changed in two and a half years" (153). His pseudo-scientific attempts to convince himself that it "made sense to deal on the level of the symbolic and the numinous, to conjoin with those unknowable forces which dealt in probability, which both distributed atoms to make solid objects solid, and unfolded all physical events" (127), are really indexes to his grief and obsession. His desperate belief that a mere act of will can force an alternative scenario into existence is, finally, a rather naive and banal translation of the role of consciousness in the New Physics. Time, Stephen reflects at the start of the novel, "monomaniacally forbids second chances" (14). Its arrow does not fly backwards and the attempt to live simultaneously in both the putative and realized worlds leads only to dementia (Stephen) and madness (Charles). There are certain temporal sequences, such as human ageing and the death of stars, which never go into reverse. Time, in its linear quotidian identity, runs exhaustibly on and out; missing children do not come back; and Stephen, frantic to forestall "the vandalising erasures of time" (48), arrives on the doorstep of his ailing, ageing parents clutching his urgent questions about the origins of his own existence before theirs comes to a close.

There are two crucial episodes in the novel which give the reader some guiding sense of the ultimate importance which is to be attached to the quantum ideas and image complexes that punctuate Stephen's narrative. In the first of these Stephen arrives at the Darkes's country house, fresh from his prenatal time-warp and the temporal disorientation of the road accident, to be confronted by the spectacle of Charles's regression to one of his childhood fantasy selves: he dresses, talks and acts like a ten-year old schoolboy playing in a tree house in the garden. In a state of shock and exhaustion, Stephen escapes into the bath but at supper later that evening, when the forty-nine year old "child" has gone to bed, the question of Charles's regression, which Stephen must be burning to ask, and the reader

to have answered, is never raised or even hinted at. Instead, Thelma treats the bemused Stephen to "a whole supermarket of theories" about time that are currently in vogue: time as space and substance, wave and particle theory, backward-flowing time, unified field theory. The time disruptions of the car crash she explains, perfunctorily, by relativity theory, in which the speed of the observer may make events that are in sequence to one person appear simultaneous to another. To Stephen's pre-life presentiment she gives no direct answer. Of Charles nothing at all is said until the next day's parting. Even then, it is tantalisingly brief—"It's all right, you can say it. He's completely mad . . . It's been coming for years" (121)—and the next we hear of Charles is that he is dead. Thelma's reticence about her husband's reawakened adolescence is not satisfactorily explained by her anxiety not to reduce him to a psychiatric case study. The larger implication appears to be that nothing need be said about Charles because the bizarre phenomenon of his regression has somehow already been dealt with, in a roundabout way, by his wife's abstruse speculations on the equally bizarre nature of time. In fact, nothing of the kind has happened. Charles is not an example of the quantum theorist's "backward movement of time" but a case of arrested psychological development, frozen rather than mobile in time, his instability more temperamental than temporal; his fate, appropriately, is to fall asleep while "playing" in the woods and freeze to death. Thelma's odd conversational manoeuvre is really more a diversion from than a transference of the subject, and the resulting impression is, as Delrez has said of McEwan's later *Black Dogs*, one of "a novel of ideas with no ideas in it," only the "husks of ideas . . . preserved in the book's rhetoric," demonstrating the failing currency of all systems of thought in a postmodern age (17). Thelma's rarefied concepts are not argued through to explanatory conclusions or absorbed, in any tangible way, into the book's narrative or style, the implication being that they are not capable of such translations. Her tactical evasions, along with Stephen's magical metamorphosis of quantum theory into the transmigration of souls, only serves to demonstrate the extreme difficulty of giving theoretical physics any concrete human relevance and practical application to everyday phenomenal experience; it emphasizes the unavailability of the quantum to quotidian reality.

A second area of the book in which the New Science is put aside for more conventionally plausible explanations of reality is in the two pivotal conceptions and pregnancies which lie parallel to each other at a distance of forty years. Dubious though his motives are, Stephen's father is, in a sense, right to maintain, fatalistically, that "everything that's happened since then [the decisive day in the tavern] was bound to happen, that there was never any choice" (165). Stephen's mother tells him that what she discovered on the day of her visitation by the future was that her unborn child was not a putative candidate for reality, "not an abstraction, not a bargaining point" out of all human or moral dimension, but "a separate individual, . . . a complete self, begging her for its existence," which the act of conception had already collapsed from contention into creation: "It wasn't a pregnancy they should be discussing; it was a person" (175). Armed with this knowledge, she waves aside her fiancé's doubts about the present being "the best time" for a child, deciding that "this was her responsibility and this was her time," a conclusion identical to that reached by her daughter-in-law forty years on. Julie conceives her new child, significantly, on the day of the time-warp which allows Stephen to visit his

own pregnant mother, and, as in the latter case, initial thoughts of abortion prompted by fears that it is "exactly the wrong time" are finally dispelled. Remembering how long it took to conceive their first, lost child, Julie reflects on the comparative ease of the present conception and, accepting the new child as a "gift," concludes that "there had to be a deeper patterning to time, its wrong and right moments can't be that limited" (213). Of course, the New Physics' uncertainty principle is built into the respective odds for and against conception, but this seems here to be overridden by higher imperatives expressed in terms of a sexual absolutism and biological determinism. "This was exactly what you were meant to do, it wanted you to like it, it likes itself," Stephen reflects as he unknowingly engenders the replacement child, and again, as the child is born: "This is really all we have got, this increase, this matter of life loving itself, everything we have has to come from this" (219). The imperatives of biology and personal self-fulfilment encapsulated here—and repeated in *Black Dogs*, where the lovers take refuge from the trauma of a concentration camp visit in three days of love-making—are essentially timeless and ahistorical in nature. And yet, in diametrical opposition to the spirit of quantum randomization, there now prevails a sense of the inevitability of events, of everything happening at exactly the right and only time, the time when they were meant to and had to happen.

This new fatalism, however, is more than just a matter of biological necessity. It is no accident that, as he approaches the cottage of his parturient wife, Stephen feels himself attended by the ghosts of his bike-pushing parents of forty years ago, for he senses, as he did during the procreation of the new child, that what is happening now is not separate from the events of that earlier day and "the two moments were undeniably bound" (63). Or, as he now specifies: "his experience there had not only been reciprocal with his parents', it had been a continuation, a kind of repetition" (211). Stephen, himself one of the potentialities of that moment, has now come full circle, repeating his parents' choice and producing a new contender for existence: the child in time creates his own child in time. The two moments of crisis mirror each other across the years, extending even to details of style: Stephen's mother feels the life "inside her, unfolding, intricately, living off the pulse of her own blood" (175) and Stephen, faced by his newly pregnant wife, feels that "all the sorrow, all the empty waiting had been enclosed within meaningful time, within the richest unfolding conceivable" (211). The tropology of germination in these passages—enclosure and opening, conception and nourishment—implies that the historical progression from one moment of crisis to its partner in time is as inevitable and irreversible as the growth of the foetus in the womb, while the word "unfolding," used by both mother and son, carries additional connotations of a predetermined plot or controlling fate which is gradually being revealed. These elements, together with Julie's talk of "wrong and right moments," Stephen's absolute of "life loving itself," and their dual speculations about the deeper, meaningful patternings to time, all combine in the novel's moving climax to effect a major shift towards ideas of providential predestination, a planned view of time, and traditional metaphysics of fate that are quite at odds with the quantum. The "plotted" birth of the new child which issues in the book's dénouement closes the ontological gap created by Kate's abduction, shutting down imaginative options, and it transpires, in the novel's narrative closure, that Stephen's out-of-time experiences

have from the beginning been enclosed within an irreversible linearity and his wanderings between competing orders of reality framed by his experience of this one—the "real" world and, ultimately, the only one that exists. It is true of course, as Jack Slay maintains (216), that Stephen and Julie are themselves given the ultimate alternative scenario, the second chance which "time monomaniacally forbids," enabling their marriage to be reborn with the new child. But they achieve this only by moving away from the quantum mindset which keeps them running after Kate in their minds and thinking of her as a stolen life which is going on and growing older in some other, numinous location to which they are denied access. Shortly before the new birth, they face together the finality of loss, the inevitability of inconsolable grief, and cry together, for the first and last time, "for the lost irreplaceable child who would not grow older for them, whose characteristic look and movement could never be dispelled by time" (214-15).

After his earlier visit to Thelma, Stephen speculates that relativity and quantum theories may one day "refer to a higher order of reality, a higher ground, the ground of all that is, an undivided whole" containing "matter, space, time, even consciousness itself," and that there may then be "mathematical and physical descriptions" of the temporal distortions and dislocations which he has experienced in the course of the novel (119). Perhaps, when this higher ground is reached, scientific theory and phenomenal experience may be brought into relationship and "the mystic's experience of timelessness," in Thelma's words, will be at one with the scientist's. Or, as McEwan himself puts it in his essay introduction to his oratorio: "Science has perhaps reached a point where it might no longer be at odds with that deep intuitive sense— which seems to have been always with us—that there is a spiritual dimension to our existence, that there is a level of consciousness within us at which a transcendent unity may be perceived and experienced" (*Move* 14). In the meantime, however, the failure of Thelma's "quantum magic" to make the New Physics relevant to the predicaments of the book's four principal characters and Stephen's inability to bring it into line, in any meaningful way, with his traumatic experiences in time indicate that this "higher ground" is still a long way off.

Stephen's rather bland life-mysticism and biological absolutism may be no great advance in the plausibility ratings upon unified field theory and multiple universes, fermions and eigenfunctions. But these old-fashioned concepts, along with long discredited commonsense perceptions of time, do at least explain and account for reality, at the practical level of everyday living, in an intelligible and graspable manner. Meanwhile, Stephen's figurative appropriations of the New Physics provide only misguided and illusory comforts, serving only to isolate him in his abnormality and prolong his emotional torments, and they have much the same effect upon all who come under their influence. During her unconsolatory disquisitions on the physics of time Thelma falls into fits of autistic self-absorption in which all pretence of communication is abandoned ("scientists should have nothing to do with reality," 120); her husband, whom Stephen momentarily fears she may have followed into madness, regresses from successful businessman and politician to phoney pre-pubescent; and the quantum educational theorist on the Parmenter Committee who believes in "the dancing interpenetration of the physical and the psychic, their ultimate inseparability," turns out to be a crank who wishes to raise the reading age of children to twelve (76). McEwan's haunting novel raises many riddles about time and

the quantum, which are never anything less than sources of miracle and wonder, but it finally retreats into a safer, more conventional worldview and a conservative philosophical position based in the very Newtonian assumptions about the nature of reality which are challenged by the theoretical physicist. These traditional tenets, moreover, are generally assumed, as Robert Nadeau argues, to underpin the realistic novel: "The novelist was confident in his ability to depict the objectively real in fiction because he implicitly assumed, as Newton did, that its essential structures were known to him" (187). For the Newtonian scientist, as Susan Strehle puts it, "the truth about reality exists in an absolute objective space external to consciousness" (16), and McEwan observes in *A Move Abroad* that these ancient certainties still inform our functional mindset for day-to-day living:

> We continue, of course, to live within a Newtonian universe--its physics are perfectly adequate to describe and measure the world we can see; only the very large and the very small are beyond its grasp. More importantly, our habits of mind, our intellectual and moral frameworks, are consonant with the Newtonian worldview. The impartial observer of Newtonian thought is so pervasive a presence in all our thinking that it is difficult to describe this "commonsense" world in anything but its terms. (11)

Fiction, however, is not coterminous with the facts and mental habits of mundane existence, art is not life, and where *The Child in Time* has disappointed its postmodernist critics is in its failure, at the formal level, to challenge these "commonsense" terms and in its author's traditionalist preference for the transparencies and penetrative closures of the text over the Derridaean notion of its duplicitous evasions.

The narrator of Norman Mailer's story "The Man Who Studied Yoga" says that "he does not want to write a realistic novel because reality is no longer realistic" (Mailer 279). McEwan, however, has enclosed this "unrealistic reality"—a reality reimagined at the subatomic level as discontinuous and indistinct, shifting perpetually from one energy state to another—in what is still, essentially, a conventional realistic novel. Stephen's hallucinations about his daughter and his breaches of the temporal continuum notwithstanding, his narrating consciousness is locked into the empiricist's understanding of reality and the novel he narrates is written from within that selfsame empiricist worldview which its theoretical discourse contests, in the style of the entrenched, hard-edged realism privileged by that worldview. Indeed, insofar as the empirical cognitive tradition is its constant touchstone, the dense, close-grained surface realism with which McEwan presents Stephen's imaginative projections—his nostalgic childhood and prenatal fantasies, his parents' prehistories—tends paradoxically to undermine rather than confirm their authenticity. Stephen's vision of his parents pondering whether to give him birth plunges his mind into a sick panic and briefly disorientates the narrative style, which foetalizes him into a fish swimming through air and trees. Yet, although the character is confused about where he is in time, his author isn't, and this surreal delirium is prefaced, and the reader cautioned, by a clinical demarcation of dream, dreamer and waking world in a prose of crystalline impartiality and detachment: "Cars passed close by. If he stepped in their path he could not be touched. The day he now inhabited was not the day he had awoken into . . . He was in another time but he was not overwhelmed. He was a dreamer

who knows his dream for what it is and, though fearful, lets it unfold out of curiosity" (57-58). Stephen is in fact characterized, critically, throughout the novel—during Thelma's lectures, Lord Parmenter's committees, his Arabic and tennis lessons—as a daydreamer who "was always partly somewhere else, never quite paying attention" (105), an adult version of the hero of McEwan's later children's novel of that name, and this impression is consistently maintained whether the reader is kept at a distance from his reveries or, as in the abortive school visit where Stephen wanders into a class and imagines himself to be a schoolboy again, is invited to enter into and share his fantasy. Stephen's delusions are presented, quasi-objectively, as delusions, not as quantum leaps of the visionary imagination or as the choices by which consciousness changes reality in the act of observation, and, though the narrating mind aches for some such paradigm shift, the novel does not actually engage with the questions of how, narratively, consciousness might transcend the empiricist standpoint or how the perceiving subject's problematic position in the new world of the quantum might be represented. Indeed, the very perception that the New Physics leads us invariably into fixated distraction, delirium and madness, and the implicit acceptance that this must necessarily be so, might themselves be read as acknowledgements by the writing consciousness of the inevitable limitations of its empiricist base (Thelma, perhaps, offers an authorial apology from within the text when she hypothesizes that "the very way our brains are wired up limits our understanding of time, just as it holds our perceptions to only three dimensions," 118).

"McEwan's fiddling with the conventions of realism," Delrez concludes, "serves to reinforce, not to undermine, the validity of the novel's realistic frame . . . even his [Stephen's] wildest imaginings somehow attempt to keep true to the given, inalterable, ineluctable reality of the child Kate" (10-11). The novelist's tenacious grasp on this same ineluctable reality is perhaps something of an impedance in a text whose theoretical speculations have such an ambitious range of reference and inquiry, and open up so many alternative options for existence. Following the constant back-tracking of Stephen's thoughts about his lost daughter, the novel develops its own peculiar kind of backward motion, in the course of which the quantum is traded for a fatalistic quotidian, the uncertainty principle for another determinism, New Physics for old metaphysics.

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