

From psychobabble to neuro-nonsense: cognitivism, neuroscience and children's literature

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From Psychobabble to Neuro-Nonsense: Cognitivism, Neuroscience and Children's Literature.

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As famously argued by Jacqueline Rose in *The Case of Peter Pan or: The Impossibility of Children's Fiction*, children's literature and its criticism are necessarily produced by one self-defined identity - adults - on behalf of a defined "other" - the child. Rose reads the investment in childhood in these areas (and beyond) as the desire for a "real" which defeats language and the unconscious in accessing self-identical objects, including the child defined as such:

Children's fiction rests on the idea that there is a child who is simply there to be addressed and that speaking to it might be simple. [...] *Peter Pan* stands in our culture as a monument to the impossibility of its own claims – that it represents the child, speaks to and for children, addresses them as a group which is knowable and exists for the book, much as the book (so the claim runs) exists for them. [...] Children's literature is impossible, not in the sense that it cannot be written (that would be nonsense), but that it hangs on an impossibility of which it rarely ventures to speak.

This is the impossible relation between adult and child.¹

This article will demonstrate, then, the further implications of reading the child as textuality rather than constituting it as a "merely" textual reflection or representation of a prior and primary sociological or anthropological entity assumed to constitute a consistent and eternal "real."² "Textuality" is the term I take from the French philosopher Jacques Derrida by which he means how *all* meaning is constructed within language. What is crucial here, however, is that "textuality" does *not* mean that meanings are constructed in "language" as opposed to a "real" outside of or in excess to that "language." This is a wide-spread misreading of Derrida's writings. Instead, "textuality" encompasses also claims *in* language to that which is outside of language – according to language.³ In other words: there is no "outside" of

language in Derrida's view, no matter how "common-sensical" ideas of material objects or identities as unquestioned, consistent and self-evident "realities" may seem. American gender theorist Judith Butler, for instance, famously wrote about such "common-sensical" ideas in relation to gender that:

Theorizing from the ruins of the Logos invites the following question: "What about the materiality of the body?" Actually, in the recent past, the question was repeatedly formulated to me this way: "What about the materiality of the body, Judy?" I took it that the addition of "Judy" was an effort to dislodge me from the more formal "Judith" and to recall me to a bodily life that could not be theorized away.[...] restored to that bodily being which is, after all, considered to be most real, most pressing, most undeniable.[...] And if I persisted in this notion that bodies were in some way constructed, perhaps I really thought that words alone had the power to craft bodies from their own linguistic substance? Couldn't someone simply take me aside?⁴

Instead, both Derrida and Butler argue it is *in language* that claims are made about what constitutes the self-evidently "real," in this view, including about material objects and bodily identities, sensations, pain and suffering. In these terms, my reading therefore engages with how the child is an instance of the capitalist insistence on the object *as* object (as a self-evident reality which may not be questioned, as Butler's quote reflects) even while the child also is made to police a capitalist market-place which is defined by the child's placement as outside that market (as in the routine protests that the child may never be "commodified," but is always more or better than a market-commodity). As American critical gender theorist Donna Haraway put it in her classic *Primate Visions*, reading for me in tandem, as Butler and Rose do too, the child, science, gender and economics:

The natural body is a gold standard for power-differentiated social intercourse, for the unequal exchanges of "conversation." Gold is pre-eminently the medium of universal

translation, the sign of the promise of a world of frictionless exchange, of final commodification of the body of the world in a hyper-real market ordered by a transparent language, a final common measure.⁵

Both in discussing the child as a produced object (and any object as produced) and in reading the child *as* text, the same drive is here for me at work, in, as philosopher Slavoj Žižek puts it, questioning “the properly fetishistic fascination of the ‘content’ supposedly hidden behind the form; the ‘secret’ to be unveiled through analysis is not the content hidden by the form (the form of commodities, the form of dreams) but, on the contrary, *the ‘secret’ of this form itself.*”⁶ My interest then is not to ask, what is a child (including the child as reader), but *why and how* the persistence of the question “what is the child”? Why is it that so many people assume that there can be a finding of a final “truth” or “reality” about the child? Also as an integral part of children’s literature studies? As part of this question, finally, I argue here too how and why children’s literature, in its wish to arrive at that “true” or “real” child, must by definition continue either (advertently or inadvertently) to ignore or misread Rose’s arguments, just as neuroscientific accounts of cognition, whether or not in relation to literature specifically, must ignore or suppress the arguments of theorists of science (especially, although not only, feminist theorists of science, whose work often engages with similar issues as that of Jacques Derrida) such as Donna Haraway.⁷ For Rose made these arguments now almost thirty years ago but, as the editors of the 2010 special issue of the *Children’s Literature Association Quarterly* to mark the twenty-fifth anniversary of the publication of *The Case of Peter Pan* note, in children’s literature studies still “references to Rose’s work are, more often than not, *en passant*, and once made, the critic then proceeds as though it were ‘business as usual.’”⁸ The special issue contributions themselves however, to my reading, also “then [proceed] as though it were ‘business as usual,’” even where overtly claiming to be in agreement with Rose.

Central here is that many of such children's literature critics assert that they also see the child as a "construction," but in almost all cases this turns out to mean no more than that they claim to know the difference between that "constructed" child and a "real" child which they after all retrieve from beneath or behind that "construction." In other words, "construction" then is not Rose (and Derrida and Butler's) textuality, but merely a secondary and removable "layer" on top or in front of "real" children. Gabrielle Owen, for instance, writing on "Queer Theory Wrestles the 'Real' Child," understands Rose to be implying

a child who is moving, who escapes, and I want to suggest that this movement, this disappearing, is what happens when the child is depicted not as empty, but as a powerful, unpredictable, desiring agent. [...] This disappearing refers literally to the ways we fail to see what is powerful, sexual, or adult about the children around us [...] The idea of the child as memory and fantasy comes from psychoanalysis, [...] I believe Rose offers not only a theory of what happens in and around the idea of children's fiction, but a theory of how the stories we tell ourselves about what happens—or even, what *can* happen—so often operate independently of the lived reality right in front of us. [...] And thinking of *child* in the usual ways—where it functions as an empty category ready to be filled with our desires, projections, and disavowals—makes it impossible to really see either the child or ourselves.⁹

I read here a different reading from my own not only of Rose's arguments about the child and of psychoanalysis, but also of what is at stake in the whole debate. Owen invokes Rose to *correct* misunderstandings about the child: it is "not ... empty" but "a powerful, unpredictable, desiring agent" that can be seen as "fail[ed]" to be seen; this is the "lived reality right in front of us" which is recognisable as separate from "stories we tell ourselves," which make "it impossible to really see either the child or ourselves." In other words, "the child" and "ourselves" are already here known to be *there* to be "really" seen, if only the

stories did not get in the way; the “lived reality,” moreover, is also separate from the “us” it is “right in front of” as the “ourselves” are separate from the “we” who tell them the stories.

There are three core issues at stake here for me: firstly, that Rose’s arguments about the child are neither about a child as “actual” or “real” but also not about a child as “fictional” or “ideal” and, therefore, not about the possibility of “correcting” the child to get from a (supposedly wrong) fictional child to a (supposedly correct) real child. Secondly, it is precisely the assumption of necessary, knowable, separations between “stories” and “lived reality,” “the child” and “ourselves,” and the “us” and “stories” and “lived reality” which constitute the “real” that Rose is putting in to question. Finally, and as a necessary corollary to the first two issues, I argue here that the investments in the “real” which Rose reads through children’s fiction are not about “just” children’s fiction or childhood, but extend to any claims about the “real.”

In much of the world, the so-called “neuro-turn” has in recent decades become a predominant narrative accounting for human emotions, cognition and behaviours; one of the prevalent ways now about making claims about the “real” child.¹⁰ The beginning of such a “neuro” interest can – and has – been located at many different points, ranging from nineteenth-century ideas of heredity and phrenology, to Charles Darwin’s writings in and of themselves, to developments in evolutionary psychology of which British geneticists Hilary Rose and Stephen Rose wrote in 2001 that they had “grown dramatically” “[o]ver the last ten years,”¹¹ to American cultural and literary critic Jonathan Kramnick’s observation that the “[a]cademic year 2008–2009 was something of a watershed moment for literary Darwinism,¹² marked by the twin publication of Denis Dutton, *The Art Instinct: Beauty, Pleasure, and Human Evolution* (New York, 2009) [...] and Brian Boyd, *On the Origin of Stories: Evolution, Cognition, and Fiction* (Cambridge, Mass., 2009).¹³ Similarly, in a lead comment

article in the English newspaper *The Observer* in 2013, a pre-eminent scientist and philosopher of science, Raymond Tallis, wrote that

The grip of neuroscience on the academic and popular imagination is extraordinary. In recent decades, brain scientists have burst out of the laboratory into the public forum. They are everywhere, analysing and explaining every aspect of our humanity, mobilising their expertise to instruct economists, criminologists, educationalists, theologians, literary critics, social scientists and even politicians.

Tallis adds, “[i]t does, however, make you wonder why the pronouncements of neuroscientists command such a quantity of air-time and even credence.”¹⁴ Tallis goes on in his article to explain how deeply scientifically dubious the many and wide-ranging claims of neuroscience and brain-imaging are, but he continues to struggle to understand the popularity and persistence of those claims. Similarly, an eminent American scientist, Ruth Leys, is also puzzled at the ongoing popularity of neuroscientific “mirror neuron” theories and their resistance to both scientific and theoretical critiques, but does not make this question the focus of her work, concluding only that “[s]imply put, the network of presuppositions and methods associated with the Basic Emotions View is too attractive and the laboratory methods too convenient to be given up.”¹⁵

I will in this chapter be exploring ways of accounting specifically for the power – or, as Leys puts it, the apparent “attractive[ness]” – of so many of the neuro-turn narratives through drawing parallels between this widespread interest in cognitivist and neuroscientific approaches in evolutionary psychology and certain investments in childhood. My interest, then, unlike that of critics such as Tallis and Leys, lies primarily not just in analysing the problematic nature of the science that this kind of work claims, but in analysing what is at stake in such approaches. Specifically, I too am puzzled by the popularity of these kinds of claims when both the scientific and the philosophical frameworks they rest on are, at best,

questionable and also not in any sense new or original, neither philosophically nor scientifically speaking. I argue here, following theorist Neil Cocks's formulation, that neuroscientific accounts of cognition recover and maintain thought as scan, brain and figure: an object of scrutiny and exchange.¹⁶ Therefore, these cognitivist and neuroscientific studies are about, as theorist Jacqueline Rose puts it in relation to childhood and children's literature specifically, "a conception of both the child and the world as knowable in a direct and unmediated way, a conception which places the innocence of the child and a primary state of language and/ or culture in a close and mutually dependent relationship."¹⁷ Critical psychologist Jan De Vos, like Rose and Cocks, also analyses how the claims of neuroscience are not somehow about a science that is not yet fully developed (but could be) or about scientific "errors" or "misunderstandings" (that could be corrected), but rely *inherently* on particular "conceptions of both the child and the world:"

What are we exactly, when we are said to be our brain? If, as argued, the metamorphosis of the brain entails the transfiguration of the analogue, psychological subject, into a digital, neuronal subject, then the popular image of the brain-in-a-vat might be expedient as a preliminary means through which to grasp what this transformation actually entails. This well-known thought-experiment features a stand-alone brain severed from a body, artificially kept alive and connected to a computer which induces a virtual reality to the brain [...] as is always the case with thought-experiments, the most interesting aspect here is the non-thought (or should we say the unthought), that is, the unspoken assumptions that can be said to structure the construction. For instance, would the principle issue with this set-up not concern the choice of scenarios or scripts that were used by the computer in order to simulate the so-called real world? Would the traditional, pre-neurological human sciences, and particularly the psy-sciences, not play a major part in constructing more or less

plausible experience situated in time and space? In other words, I claim, the ways in which this staged brain-person relates to its virtual self, virtual others and the virtual world would ultimately be given form by algorithms based on pre-existing theories of (social) psychology. [...] on [another] thought-experiment of the uploadable brain [...] in the very act of digital translation, I claim, is where the old psychological models would have to be put into action yet again. For in devising the very algorithms through which one would be uploaded, would there not also be the choice of which psychology (Freudian, Pavlovian, etc.) you would prefer to be uploaded?¹⁸

De Vos argues here, then, that neuroscientific claims that “we are our brain” do not leave behind prior, supposedly unscientific, psychological theories and models in achieving some supposedly purely “empirical” “science,” but necessarily depend on them and build them into themselves, reifying them to the status of essential and universal scientific truth. To be clear, neither De Vos nor I are advocating that the “old” psychology is somehow after all more “scientific” than the claimed neuroscience and that it should be returned to for that reason; instead, we are interested in charting how and why there has been a shift from one discourse (what De Vos calls “psychologisation”) to another (“neurologisation”).

To explore further, what is at stake in the child, I want to turn now to some further specific issues in readings of the child: readings which declare an overt interest in considering childhood and history, but which, at the same time, just as with children’s literature criticism and with neuroscientific claims about science and literature, can be seen always already to claim to know the child and history as a *content* which defeats a history as/ of difference. To draw out some of the implications of this, I will read closely literary critic Sandra Dinter’s article “The Mad Child in the Attic: John Harding’s *Florence & Giles* as a Neo-Victorian Reworking of *The Turn of the Screw*.”¹⁹ I turn to this specific article for two reasons: first, because it happens to involve a reading of American novelist Henry James’s famous novella

The Turn of the Screw which, as I will discuss later, was also read, famously, but completely differently, by another critic, Shoshana Felman. Second, the issues Felman raises are, as I will also go on to explain, in fact the same issues as those raised by Jacqueline Rose about childhood and children's literature. Examining the differences between Dinter and Felman's readings of James's *The Turn of the Screw* demonstrates the consequences of their different ideas about how to think about childhood – including ideas such as childhood “cognition,” “agency” and “voice”²⁰ – and how this affects wider ideas about reading and writing too.

Dinter's article appeared in a special issue of the *Journal of Neo-Victorian Studies* on childhood, which, as Dinter explains, was motivated by the perception that “[a]lthough childhood has received more critical and theoretical attention in academia in recent years, concepts of age and development still remain significantly underrepresented in the context of neo-Victorian fiction.” According to the special issue, it is desirable that this “underrepresentation” is addressed because

[Marie-Luise] Kohlke describes the apparent underrepresentation of childhood in neo-Victorian fiction primarily as a result of a predominantly external mode of representation of children as literary characters that “never quite manages to capture the distinct individualised voices of children *as children* and agents in their own right” [...]. In other words, neo-Victorian fiction is still largely defined by a “scarcity of first-person narrations by children themselves.”²¹

As with children's literature criticism, the children and their “distinct individualised voices,” and as “agents in their own right” can be seen to be lacking according to this view and only their representation “by [...] themselves” would make up this lack. The child as first-person narration apparently constitutes an “internal” “mode of representation of children as literary characters,” where the “voice” - which must therefore be “internal” - requires no interpretation, but constitutes a pure communication of the self: here we have a

“representation” which is not a representation *for* or *to* anyone. As theorist Sue Walsh argues in her analysis of the child and the animal:

it is not the case that the construction of the “real object” (the child/animal) somehow immune to the “corruption” of language is something that is exclusive to children’s literature criticism and animal advocacy. It is something that occurs routinely in critical and philosophical positions that speak of “representation,” and of “ideology” and in doing so root themselves in the presumed knowable “real.”²²

Following this inescapable logic of representation,²³ Dinter turns to John Harding’s novel *Florence & Giles* as an “exception to the rule” that “[a]lmost all literary reworkings that approach the perspectives of Miles and Flora do so in the form of third-person narratives that employ the child characters as focalisers but never provide them with their own voices as narrators.”²⁴ This move is to avoid the “marginalisation” of the children that is for Dinter the case in James’s *Turn of the Screw* because of the “highly subjective account of the governess”²⁵ and instead, “Harding’s novel is the first reworking of *The Turn of the Screw* that employs the child as an unmediated first-person narrator.” The flight from the “highly subjective” here arrives at the “unmediated:” “Harding allows his child protagonist to exert agency and cross boundaries more forcefully through her voice, her skilful appropriation of space, and her violent actions.”²⁶ The tensions in this position reveal themselves immediately, for that which is “unmediated” has nevertheless to be “allowed” by Harding to “his child protagonist,” just as Kohlke’s children’s voices are “individualised” (by or for whom? And how “individual” is that which is still always known to be “child”?). Permission, ownership and protagonism here must then be excluded from being mediations, just as Dinter can claim at one and the same time that “Florence’s account is not complemented and relativised by a frame narrative and a male narrator as is the case in *The Turn of the Screw*; rather, she speaks for herself throughout the novel”²⁷ and that “Harding provides his child protagonist with a

creative and idiosyncratic style.”²⁸ According to these claims, there is simultaneously no “frame narrative” or “male narrator” but only a “speak[ing] for herself” *and* a “Harding” who “provides” her with a “style” which is therefore his and *not* hers: there is no frame and a frame at the same time.

And indeed, throughout Dinter’s article, “representation” - as Walsh’s analysis explains - necessarily preserves the child as a real that is always beyond or outside of perspective (narration), or, to put it differently, implies that perspective is only ever partial; that there is always something that somehow remains outside of it which is not itself subject to perspective. For Dinter, therefore,

The filtering and silencing of the child characters through the lens of the governess’s perspective and the extradiegetic narrator in the (ultimately incomplete) frame narrative is a necessary formal device for the purposes of the novella insofar as it establishes unresolvable ambiguity. The governess is convinced that Miles and Flora “*know – it’s too monstrous: they know, they know*” (James 2008: 156, original emphasis), but repeatedly fails to make out what exactly it is that they know because the children often refuse to speak.²⁹

“Child characters” are assumed as prior to, and exceeding, perspective in being able to be “filtered” and “silenced” by it, just as they are excessive in being simultaneously prior and post-narration in being able to “refuse to speak.” This leads to Dinter’s view that “Thus, James’s novella captures and acknowledges the unrepresentability of the child’s mind.”³⁰ Sue Walsh writes of such claims to “unrepresentability” (also related to Gabrielle Owen’s “child or ourselves” obscured by story), whether for the child or animal, that

though [Marian] Scholtmeijer [an animal studies critic] in this instance claims the animal as having a radical destabilizing effect upon human certainty, this becomes for her a property of the animal itself. In other words, the “reality” of the animal is known

as “the unknowable,” rather than its unknowability being understood as an effect of its positioning within language and culture.³¹

It is therefore entirely consistent for Dinter to understand Rose’s arguments about the child in the same way as all children’s literature does:³² “In this sense, James’s text is closer to our own day than to its contemporary Victorian texts about childhood; it forestalls Jacqueline Rose’s influential poststructuralist notion that representations of children in fiction, be they targeted at children or adults, always constitute an ‘adult desire for the child.’”³³ In other words, for Dinter, it is “representations of children in fiction” which constitute an “adult desire for the child,” where the “children or adults” who are “targeted” by such representations are always understood to be outside of them, and therefore themselves after all apart from and outside of that “adult desire.”

What is also entirely consistent within Dinter’s position is that, despite her assertion that it is “James’s brilliant ambiguity, [...] that has made *The Turn of the Screw* one of the most exciting and passionately debated literary texts in the Anglo-American tradition,”³⁴ the critic who perhaps most notably engaged with that debate, Shoshana Felman in her article “Turning the Screw of Interpretation,”³⁵ is absent from Dinter’s article. Whether this absence is advertent or inadvertent, I can read it as consistent with the misreading of Rose, not just here but elsewhere too, and with the absence of Donna Haraway from cognitivism and neuroscience in evolutionary psychology and literary studies. For Felman, Rose, Butler and Haraway’s arguments are closely connected in their adherence to reading perspective as *inescapable* (as also with Derrida). Indeed, this very argument is what is precisely at stake in “Turning the Screw of Interpretation.” For Dinter, and the critics she does cite, it is the unknowability of the child that produces James’s ambiguity and although that ambiguity is claimed to be “unresolvable,”³⁶ what is lacking as resolution can after all be known as much as the child’s unknowability can be known: “After the final encounter with Quint, the

governess describes how she holds Miles whose “little heart, dispossessed, had stopped” (James 2008: 236), implying that she does not feel responsible for his death, although she could of course also be Miles’s murderess;”³⁷ similarly, “the tower functions as a classic phallic symbol that represents Quint’s power over the inhabitants of Bly, particularly females and the child with whom he probably had a paedophilic relationship.”³⁸ Ambiguity here is, then, a lack of absolute certainty about a knowable truth, which can be tolerated through filling that lack with the known possibilities or probabilities, including removing the ambiguity altogether by ultimately settling on one of the known possibilities: “[a]s a successor of James’s governess, Florence’s violence resolves the ambiguity of the final scene in *The Turn of the Screw* and implies that the governess is also a murderess.”³⁹

For Felman, crucially, this is precisely not the status of ambiguity. Instead, ambiguity is that which remains irresolvable, because there is no view available from which any possibility can be seen as, after all, “correct”; in this sense, this is what “perspective” is:

“The difficulty itself is the refuge from the vulgarity,” writes James to H. G. Wells [...] What is vulgar, then, is the “*imputed vice*,” the “offered example,” that is, the explicit, the specific, the unequivocal and immediately referential “illustration.” *The vulgar is the literal* [...] because it *stops* the movement constitutive of meaning, because it blocks and interrupts the endless process of metaphorical substitution.⁴⁰

What is centrally at stake here for both Rose and Felman⁴¹ is a certain reading of Sigmund Freud’s psychoanalysis; a reading elaborated by Felman throughout “Turning the Screw of Interpretation” and which Rose offers in *The Case of Peter Pan* in the first chapter, which starts by asserting that “We have been reading the wrong Freud to children.”⁴² This psychoanalysis is the psychoanalysis which resists the “vulgar” and the “literal” of which Felman writes through her reading of James:

The specific complication which, in Freud's view, is inherent in human sexuality as such. The question here is less that of the meaning of sexuality than that of a complex *relationship between sexuality and meaning*; a relationship which is not a simple *deviation* from literal meaning, but rather, a *problematization of literality as such*.⁴³

And Rose similarly explains that

[c]hildhood is not an object, any more than the unconscious, although this is often how they are both understood. The idea that childhood is something separate which can be scrutinised and assessed is the other side of the illusion which makes of childhood something that has simply ceased to be.⁴⁴

I will now consider how the neuroscience of evolutionary psychology too relies on the child and the object as "something that can be scrutinised and assessed," analysing how, as Jan De Vos argues, the assumptions of the "old" psychology turn out after all to provide the basis for, and are embedded within, neuroscience. In her new, 1992 introduction to the reprint of *The Case of Peter Pan*, "The Return of Peter Pan," Rose argues that "Peter Pan, it seems, always provokes a crisis of precedence because of the tension between his eternal repetition and his status as a 'once and for all.'"⁴⁵ This repetition which both must and yet cannot be read as such finds yet another return in Jonathan Gottschall's 2012 book, *The Storytelling Animal: How Stories Make Us Human*, where he claims that

Science *can* help explain why stories [...] have such power over us. *The Storytelling Animal* is about the way explorers from the sciences and humanities are using new tools, new ways of thinking, to open up the vast terra incognita of Neverland. [...] It's about deep patterns in the happy mayhem of children's make-believe and what they reveal about story's pre-historic origins.[...] It's about how a set of brain circuits – usually brilliant, sometimes buffoonish – force narrative structure on the chaos of our lives.[...] *Why* are humans addicted to Neverland?⁴⁶

Peter Pan's "Neverland" is both instantly recognised here as the "vast terra incognita" and the child too is the repetition which is instantly known as such. Neverland's *appropriateness* as "terra incognita" lies in its already being vulnerable to "open[ing] up" by the "new tools" and "new ways of thinking" of the "explorers from the sciences and humanities," just as the "happy mayhem of children's make-believe" *constitutes* the "deep patterns" which provide the revelation of "story's pre-historic origins." Moreover, it is the literary text *Peter Pan* which for Gottschall provides the origin – Neverland - upon which the new tools and thought will come to act to "open [it] up;" Neverland is always already known to be there as the secret to be "opened," just as children's literature and the child are always already there as the secret to be opened, the mystery to be resolved. And although the brain circuits have to "force" "narrative structure on the chaos of our lives," nevertheless "humans" are "addicted to" Neverland: chaos resists narrative structure but the human, which does not have Neverland, constantly knows and craves it as a supplement to itself; humans, then, know the story of story before they have story, as they have also made that story they know they do not have but are, after all, addicted to.

A "confusion of tongues"⁴⁷ here is absolute: children's literature is here what "humans" are "addicted to," because it is about "deep patterns in the happy mayhem of children's make-believe," which in turn "reveal" something "about story's pre-historic origins." The child, in other words, is here, as it always must be, the origin for both its own origin and that of the entirety of the "human," but designated as such by another, beside or outside any of this; neither child nor human, past nor present, real nor make-believe, science nor literature, neither brain circuit nor chaotic life nor narrative structure, but able to anticipate and recognise them all. As with Gabrielle Owen's child, story, and lived reality in children's literature studies, Gottschall's brain can simultaneously know about the "chaos of our lives" which is outside itself, whilst at the same time having "circuits" which impose a narrative

structure upon that chaos: a binocular vision maintained by the brain both of itself and that which lies outside itself absolutely. In other words, which brain can know that the brain knows what it is claimed forcibly to prevent itself from being able to know?

We can read an analysis of these issues also in Jenny Bourne Taylor's discussion of the late-nineteenth-century child:

imperialist ideology was becoming increasingly insecure, preoccupied with the worrying connections between the colony and "home," and at a time when a wide set of contemporary concerns about the nature of civilizations and empires and the subjects that they produce were embodied particularly acutely in the imaginary figure of the child. [...] just as aspects of nineteenth-century racial discourse drew on the ontogenic analogy to see colonized races as caught in a prolonged childhood, so childhood was seen as primitive and atavistic, the prime example that individual growth recapitulated that of the race or species. [...] this evolutionary model of development in which ontogeny recapitulates phylogeny – the development of the individual is a performance in miniature of the evolution of the "race" or species as a whole – takes complex forms at the end of the nineteenth century [...] ⁴⁸

In light of the current popularity of evolutionary psychology I conclude that the anxieties Bourne Taylor diagnoses are not only those of the "late nineteenth century." More than this, it is the insistence of Gottschall and his ilk of there being *no history* to their history that I am most interested in; that the child and the science may not be a repetition in any sense at all, but are strenuously and repeatedly asserted as a "new" which is self-announcing and self-announced, speaks here to me of the anxieties that Bourne Taylor describes precisely in and as the insistence that no anxiety is being spoken. This radically "new," which can know itself here as such without a comparator of the "old," relies on "story's pre-historic origins:" story's origins in such a view can come *before* "history,"

just as the child is then origin that comes before history. It is not coincidental that Rose writes that:

The success of *Peter Pan* is then measured in terms of its novelty, daring and risk [...] This way of describing *Peter Pan* makes for a good story but it deprives it of a history, and to be without history, like being born out of thin air, is a conception which we have seen constantly returning in relation to *Peter Pan*.⁴⁹

Owen and Gottschall's assumed separations between story, history, the child and lived experience or the chaos of our lives also underpin the "mirror neuron" research which in turn is made to underpin many claims in evolutionary psychology (and the literary criticism which engages with it) about the overcoming of a fundamentally assumed separation between a "self" and an "other," whether these are assigned as "human" and "animal," "adult" and "child," "non-autistic" and "autistic"⁵⁰ or "reader" and "story." We can read this already in one of the earliest articles on mirror neurons, Vittorio Gallese, Luciano Fadiga, Leonardo Fogassi and Giacomo Rizzolatti's "Action Recognition in the Premotor Cortex:"

We describe here the properties of a newly discovered set of F5 neurons ("mirror neurons," n = 92) all of which became active both when the monkey performed a given action and when it observed a similar action performed by the experimenter. Mirror neurons, in order to be visually triggered, required an interaction between the agent of the action and the object of it. The sight of the agent alone or of the object alone (three-dimensional objects, food) were ineffective. Hand and the mouth were by far the most effective agents. The actions most represented among those activating mirror neurons were grasping, manipulating and placing.⁵¹

"Mirror neurons" are "visually triggered," but under a range of restrictions: firstly, the "given action" of both the monkey and the agent is seen to be "performed" by each *as such*, so that both monkey and experimenter, and the observer of both, already have isolated and matched

a set of intentional repetitions as what is deemed to be significant; secondly, it is claimed that “the sight of the agent alone or of the object alone were ineffective.” Nevertheless, it is already known to both the experimenters and, according to them, also to the monkey, that what is there to be “observed” is an “agent” or an “object,” even when “alone.” In other words, although an “object” here is alternately defined as “three-dimensional objects, food,” an “agent” must here then, according to the neuroscientists, be identified by the monkey as being neither “three dimensional” nor “food.” It is this distinction between agent-ness and object-ness which allows for the central cause of neural action to be isolated as the *seeing* of “an interaction between the agent of the action and the object of it:” it is, therefore, “interaction” which must be *visible as such*, and where further there must be an assumed, neurologically significant, difference between “action” and “vision;” where seeing or observation do not count as actions. As theorist Yu-Kuan Chen points out:

This is then exactly where the blurring point of seeing is situated, and it is somehow situated there *unavoidably*, just as the question of how the object is indicated to be seen is never and cannot be settled. Indeed, it cannot even be set free from the question of how it is indicated to be seen, and thus free from it constantly being interpreted to be seen. This is in terms of there being *something about* the object that can be said to reference *its relation, its attachment* to the object that is indicated to be seen thus sustaining the being of the object through the seeing of it. At the same time, however, this is already a version of seeing or interpretation the object being seen, it is already *an addition* or even *a substitution* of the object being indicated to be seen.⁵²

Following Chen’s analysis of the object, then, both the philosophical and psychological categories of causality and intentionality can be seen as *a priori* invoked by Gallese *et al* to support their interpretation of mirror-neuron activity.⁵³

There are subsequently several slippages in these matters too, for “[h]and and the mouth were by far the most effective agents,” although it had previously been stated that “the sight of an agent alone [... was] ineffective” with respect to “effectivity” (that is, presumably, making the neurons active), the agent apparently *can* after all be seen “alone,” separated out from within the interaction with its object. It can further be noted that “hand and the mouth” here too are excluded from being defined as “three-dimensional objects, food.” Finally, there is a jump to the claim that “[t]he actions most represented among those activating mirror neurons were grasping, manipulating and placing,” where “actions” are already not just actions, but in shifting to being “represented” incorporate causality and intentionality. The claims made here, then, rest on assuming that the neurons innately know the difference between *different intentions* and, moreover, that intentionality and interaction can be *seen as such* in order to “visually trigger;” and, further, “visually trigger” *itself* is anyway already a reading of intention and cause. Several scientific critiques of mirror neuron research make different but complementary points to my analysis here: John Cartwright, for instance, in considering claims about mirror neurons and the origins of languages warns that

the strong interpretation of mirror neurons supplying instant meaning to the observer faces one enormous problem. If it is suggested that mirror neurons only fire when the movement of an arm is directed towards some meaningful action (the grasping of an object) and replicate this meaning instantly inside the head of an observer, and not when confronted by movement alone, such as a hand moving towards a non-existent object, how does the mirror system “know” that the former is meaningful? In essence, if meaning is supposedly presented instantly in the brain, how can the system decide to be selective before the action is complete?⁵⁴

What is going on, then, with claims about the child and evolutionary psychology which repeat themselves and yet also repeatedly, now, claim their newness, their status as spontaneous and unique discovery? What is going on with their insistence on the object; the child as object and the story as object? The first thing to note, perhaps, is that this very question can itself be seen as a repetition, as we have already been able to see in Rose's preface to the new edition of *The Case of Peter Pan*. I want to foreground here how evolutionary psychology and children's literature are by no means lone voices, but part of a current broader, pervasive, anti-theoretical tendency in wider literary and scientific studies as Carlo Salzani, amongst others, has argued, in his review of leading "literary Darwinist" Joseph Carroll's book *Reading Human Nature*: "This *dialogue de sourds* extends far beyond the borders of literary Darwinism and characterizes the old opposition between natural sciences and humanities, which had an explosion - mainly in American academia - with the 'Science Wars' of the 1990s [...], but still rages in the contemporary debate about the 'crisis of the humanities.'"⁵⁵

We can also see this view quite a while before Salzani's comments in one of the classic texts to critique evolutionary psychology, Hilary and Stephen Rose's *Alas Poor Darwin: Arguments Against Evolutionary Psychology*, where they argue that the importance of their volume lies in "challenging what we feel has become one of the most pervasive of present-day intellectual myths [...] evolutionary psychology [...] a particularly Anglo-American phenomenon."⁵⁶ *Alas Poor Darwin* was first published in 2000 and yet here we are quite a few years later, with a burgeoning academic and popular industry in evolutionary psychology (including neuroimaging), which, as Rose and Rose already wrote "claims to explain all aspects of human behaviour, and thence culture and society, on the basis of universal features of human nature that found their final evolutionary form during the infancy of our species some 100-600,000 years ago."⁵⁷ I am not referring to Rose and Rose to invoke their scientific

authority with respect to the correctness (or otherwise) of my own critique of evolutionary psychology, but because they and I share a concern about the *violence* of the claims made by evolutionary psychologists, as there is also a violence in the claims made about the child as object. I read this violence not just in the insistence on the object, but also in the ignoring or repressing of the histories of fields of study, and of history as difference *tout court*, as I have discussed above and which Rose and Rose also claim in stating that they each: “separately felt that [evolutionary psychology] was making insupportable assertions which touched our own distinctive fields [sociology and biology].”⁵⁸ Dorothy Nelkin argues, in relation to this violence in evolutionary psychology that

as missionaries bringing truth to the unenlightened, they claim their theories are guides to moral action and policy agendas. They are, I argue, part of the current cultural move to blur the boundaries between science and religion.⁵⁹

I am not sure if Nelkin is right in terms of the specifics of her diagnosis, but I share her perception of the evangelical nature of the insistence of evolutionary psychology and neuroscience. The rage against “theory” of the literary Darwinists – but, significantly, not just the literary Darwinists - is precisely fired by the fact that they *all* understand theory somehow to “evaporate” a natural, material, world; as Joseph Carroll argues, “poststructuralism yields causal primacy to language,” which for Carroll, as Carlo Salzani points out, means “it is incompatible with a ‘perspective in which “life,” self-replicating DNA, precedes thought, to say nothing of language.”⁶⁰ Jonathan Kramnick quotes Brian Boyd as similarly asserting that “humans are not just cultural or textual phenomena but something more complex.”⁶¹

We can see all the issues discussed above recur repeatedly in claims in children’s literature criticism about neuroscience and evolutionary psychology. There has been an enthusiastic up-take of these ideas in recent years in this specific field, most often indirectly and diffusely through the wide-spread, general and usually unquestioning uptake of the

terminology of “empathy,” “theory of mind,” and “attention,” but increasingly also in direct and focussed ways, for instance in Hugo Crago’s *Entranced by Story: Brain, Tale and Teller, from Infancy to Old Age*,⁶² Maria Nikolajeva’s *Reading for Learning: Cognitive Approaches to Children’s Literature*,⁶³ Evelyn Arizpe and Vivienne Smith’s edited volume *Children as Readers in Children’s Literature: The Power of Texts and the Importance of Reading*,⁶⁴ and Kristine Moruzi, Michelle J. Smith and Elizabeth Bullen’s edited volume *Affect, Emotion, and Children’s Literature: Representation and Socialisation in Texts for Children and Young Adults*.⁶⁵ We find in all of these works – necessarily so, as I am arguing throughout this chapter – the same claims to the simultaneous replacement of psychological tropes of development⁶⁶ by neuroscientific tropes of development while those psychological tropes nevertheless willy-nilly form both the base for, and are fully absorbed into and structure the neuroscientific tropes in turn, as analysed by Jan De Vos more widely.

Key to this is the increasing replacement or supplementation of “identification” as the claimed core dynamic of reading with “empathy” (although “empathy” has also had a longer-standing, pre-“neuro-turn” presence to some extent). “Identification” itself has always been the bedrock of children’s literature studies because it allows the connection between the book and the child to be established by the critics: the child outside the book is supposed to recognise itself in the child within the book. This in turn is itself a symptom of the fact, as discussed above in relation to the work of Gabrielle Owens, that children’s literature critics simultaneously rely on a division between “reality” and the book (books supposedly offer specific benefits because they are not “real” according to the critics) and on an implicit view that books are good if they are “real” and “true” and if they are responded to as if to “reality.”⁶⁷ We can see this model reflected, for instance, in Elizabeth Bullen, Kristine Moruzi and Michelle J. Smith’s introduction to *Affect, Emotion, and Children’s Literature*:

Texts also position readers to vicariously experience characters' feelings, to know what it feels like to be someone else, including those unlike themselves. As such, affect, emotion, and empathy are categories of analysis that have the potential to advance critical theories of children's literature. [...] Sometimes referred to as mindreading, theory of mind accommodates affect, emotion and cognition. Recent research has identified two kinds of "mentalising", the mental process at work in theory of mind: the affective and the cognitive [...] affective empathy tends to be automatic and reflexive. Because mentalising emotion involves parallel memories [...] and *identification* with another's feelings, it is more likely to be elicited for similar individuals and groups. Without cognitive empathy, affective empathy may be overwhelming or contagious. [...] However, without affective empathy, one may have cognitive insight into another's state of mind of situation, but lack compassion.⁶⁸

"Theory of mind" is what underpins – here as elsewhere – the "empathy" which constitutes the ability "to know what it feels like to be someone else." The perspective, however, which can identify and "match" the feelings as the "same" is never questioned in this kind of research, whether in relation to "theory of mind" itself or the "mirror neurons" which derive from and rely on "theory of mind." As scientists Pierre Jacob and Marc Jeannerod, for instance, assert even as they critique aspects of mirror neuron theory,

[o]ne way to question the motor theory of social cognition would be to challenge it to account for the human capacity to read one's own mind or to ascribe false beliefs to others – something that healthy human adults do all the time without effort.⁶⁹

"Healthy humans" are assumed here as "mind readers" of both themselves and others without question. The neglect of consideration of the perspective which must be invoked in order to assert the successful achievement of empathy also leads to the innate paradox that the claiming of empathy in and of itself excludes the possibility of *mis*-reading the

mind of the self or other: empathy is either innately self-congratulatory – see how well I can mind-read! – or has to be endorsed from a position outside of itself, which can judge the success of the mind-reading taking place, leading necessarily to an infinite regression of mind-readers of mind-readers. In any case, none of Bullen, Moruzi and Smith’s claims – as with Jacob and Jeannerod – can evade relying on “psychological” assumptions to underpin both their models of reading and of (child) reader-response, no matter how much they aspire to “advance critical theories of children’s literature” through the turn to “affect, emotion, and empathy.”⁷⁰

Lydia Kokkola elaborates further some of these aspects in relation specifically to supposed brain-functioning in her discussion of “Empathy and Fiction: Caring About Fictional Characters” in Moruzi, Bullen and Smith’s volume:

In real life, engaging with a psychopath places one at risk; in fiction, the risks are minimised [...] in normally developing individuals, recognition of another’s emotions – especially pain or fear - triggers the capacity to empathise so clearly it can be picked up in a brain scan [...] Simply put, our brains are designed to promote the capacity for empathy, but the balance between the hemispheres (more specifically, the role of the right lateral cerebral cortex in inhibiting those parts of the left hemisphere that are designed to put forward one’s own point of view) controls the extremes making both a lack of empathy and hyper-empathy rare.⁷¹

Again, we can see here repeated Gabrielle Owen’s kind of assumptions about “natural” separations between “real life” and “fiction,” and how those separations operate, as well as the idea that “empathy” can be judged by a “third” perspective from a “brain scan:” in other words, the brain scan can only be judged to “pick up” “the capacity to empathise” if that capacity has *already* been judged as successfully in place; it would otherwise be impossible to recognise what the brain scan was “pick[ing] up.”

Further, “our brains” do not in this view themselves have the “capacity for empathy” since they are only designed “to promote” it apparently elsewhere. This “elsewhereness” of the location of the “capacity of empathy” is also necessary to the idea that the controlling of the “extremes” is the result of the “right lateral cerebral cortex [...] inhibiting those parts of the left hemisphere that are designed to put forward one’s own point of view:” those “parts of the left hemisphere” are, then, not “one’s own point of view” as they only “put [it] forward.” Moreover, the “extremes” of empathy as either “lack” or excess (“hyper”) therefore here seem to consist of either too much or too little “putt[ing] forward [of] one’s own point of view.” Somehow, the right hemisphere then must have to know *in advance* what the “extremes” of empathy are in order to know when to “inhibit” the “putt[ing] forward [of] one’s own point of view.” Finally, this also assumes that the brain’s hemispheres necessarily contain *another’s* “point of view” of “one’s own point of view” in order to judge “one’s own point of view” as requiring inhibition.

Although I have been able here to consider in detail only some specific examples of children’s literature criticism engaged with empathy, cognitivism and neuroscience, I have argued in this chapter that in fact these problems and issues are unavoidably repeated throughout this kind of work, and that it cannot be otherwise: that these kinds of assumptions necessarily underpin and structure the neuroscience and evolutionary psychology that purport to leave them behind in achieving, finally, through science, that much-desired universal and unchanging, final knowledge of the child and its reading.

¹ Jacqueline Rose, *The Case of Peter Pan of the Impossibility of Children's Fiction* (Philadelphia, PA: Pennsylvania University Press, 1992 [1984]), 1.

² For a discussion of the problems of assuming an opposition or hierarchy between “sociology” and the “literary” see: Stephen Thomson, “The Instance of the Veil: Bordieu’s Flaubert and the Textuality of Social Science,” *Comparative Literature*, 55: 4 (Autumn, 2003), 275-292.

³ See for my extensive discussions on this kind of misunderstanding of Derrida’s textuality especially: Karín Lesnik-Oberstein, *Children’s Literature: Criticism and the Fictional Child* (Oxford: Clarendon Press of Oxford University Press, 1994), although all my work engages with the problems of such misunderstandings in thinking about childhood, gender and disability, as referenced in note 7 below.

⁴ Judith Butler, *Bodies That Matter: On the Limits of “Sex”* (New York and London: Routledge, 1993), ix-x.

⁵ Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (New York and London: Routledge, 1989), 355.

⁶ Slavoj Žižek, *The Sublime Object of Ideology* (London: Verso, 2008 [1989]), 3.

⁷ See for my previous arguments about the misreading or ignoring of Rose: Karín Lesnik-Oberstein, “The Psychopathology of Everyday Children’s Literature Criticism,” *Cultural Critique*, 45, Autumn 2000, 222-42; Karín Lesnik-Oberstein, “Childhood, Queer Theory, and Feminism,” *Feminist Theory*, 11:3, December 2010, 309-21; Karín Lesnik-Oberstein, “Introduction: Voice, Agency and the Child” in Karín Lesnik-Oberstein (ed.), *Children in Culture, Revisited: Further Approaches to Childhood* (Houndmills: Palgrave, 2011), 1-18; and for my further arguments around the ignoring of Haraway as well as wider critiques of evolutionary psychology and neuroscience: Karín Lesnik-Oberstein, “Motherhood, Evolutionary Psychology and Mirror Neurons or: ‘Grammar is Politics by Other Means,’”

Feminist Theory, 16:2, May 2015, 171-187; Karín Lesnik-Oberstein, “The Object of Neuroscience and Literary Studies,” *Textual Practice*, 31:7, 2017, 1315-1331, available at the following permanent link: <http://dx.doi.org/10.1080/0950236X.2016.1237989>; Neil Cocks and Karín Lesnik-Oberstein, “Back to Where We Came From: Evolutionary Psychology and Children’s Literature and Media,” in Elisabeth Wesseling (ed.), *Reinventing Childhood Nostalgia: Books, Toys and Contemporary Media Culture* (London: Routledge, 2017), 318-37.

⁸ David Rudd and Anthony Pavlik, “The (Im)Possibility of Children’s Fiction: Rose Twenty-Five Years On,” *Children’s Literature Association Quarterly*, 35:3, Fall 2010, 223-229, 225.

⁹ Gabrielle Owen, “Queer Theory Wrestles the ‘Real’ Child: Impossibility, Identity, and Language in Jacqueline Rose’s *The Case of Peter Pan*,” *Children’s Literature Association Quarterly*, 35:3, Fall 2010, 255-73, 256-7.

¹⁰ See for a thorough and wide-ranging analysis of the “neuro-turn” development and consequences: Jan De Vos, *The Metamorphoses of the Brain: Neurologisation and its Discontents* (Houndmills: Palgrave, 2016).

¹¹ Hilary Rose and Stephen Rose, “Introduction” in Hilary Rose and Stephen Rose (eds), *Alas Poor Darwin: Arguments Against Evolutionary Psychology* (London: Vintage, 2001), 1-14, 1.

¹² There have been heated debates about literary criticism that draws on evolutionary psychology (sometimes called “literary Darwinism”); see, for instance, Thomas Karshan, “Evolutionary Criticism,” *Essays in Criticism*, LIX:4 (October 2009), 287-301; Jonathan Kramnick, “Against Literary Darwinism,” *Critical Inquiry*, Winter 2011, 315-47; Lesnik-Oberstein, “Motherhood, Evolutionary Psychology and Mirror Neurons;” Lesnik-Oberstein, “The Object of Neuroscience and Literary Studies.”

¹³ Kramnick, “Against Literary Darwinism,” 315.

¹⁴ Raymond Tallis, “Think Brain Scans Can Reveal Our Innermost Thoughts? Think Again.” *The Observer*, “Comment Section,” 2013, 31. See for some further critiques of evolutionary psychology and neuroscience from different albeit related perspectives, for instance: Sally Satel and Scott O. Lilienfeld, *Brainwashed: The Seductive Appeal of Mindless Neuroscience* (New York: Basic Civitas Books, 2013); Suparna Choudhury and Jan Slaby (eds.), *Critical Neuroscience: A Handbook of the Social and Cultural Contexts of Neuroscience* (Oxford: Wiley-Blackwell, 2012); Raymond Tallis, *Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity* (Durham: Acumen Publishing Ltd, 2011); Cordelia Fine, *Delusions of Gender: The Real Science Behind Sex Differences* (London: Icon Books, 2010); Deena S. Wiesberg, Frank C. Keil, Joshua Goodstein, Elizabeth Rawson and Jeremy R. Gray, “The Seductive Allure of Neuroscience Explanations,” *Journal of Cognitive Neuroscience*, 20:3 (March 2008), 470–7; Maryanne Wolf, *Proust and the Squid: The Story and Science of the Reading Brain* (New York: Icon Books, 2007); Michael Posner (ed.), *Cognitive Neuroscience of Attention* (New York: The Guilford Press, 2004); Jenny Corrigan and Heward Wilkinson, *Revolutionary Connections: Psychotherapy and Neuroscience* (London: Karnac Books, 2003); Margaret Bullowa (ed.), *Before Speech: The Beginning of Interpersonal Communication* (Cambridge: Cambridge University Press, 1979). For another important tradition of critique see the edited collection by Hilary Rose and Steven Rose, *Alas Poor Darwin: Arguments against Evolutionary Psychology* (London: Vintage, 2001). Finally, for some scientific critiques, see: Katherine Button, John P.A. Ioannidis, Claire Mokrysz, Brian A. Nosek, Jonathan Flint, Emma S.J. Robinson and Marcus R. Munafò, “Power Failure: Why Small Sample Size Undermines the Reliability of Neuroscience,” *Nature Reviews Neuroscience*, 14 (May 2013), 365–76; Robyn Bluhm, “Self-fulfilling Prophecies: The Influence of Gender Stereotypes on Functional Neuroimaging Research on Emotion,” *Hypatia*, 28:4 (2013), 870–86.

¹⁵ Ruth Leys, “‘Both of Us Disgusted in My Insula’: Mirror Neuron Theory and Emotional Empathy,” Nonsite.org, issue 5, March 18th 2012, 1-25, accessed on: 11/04/2013 20:51, at: <http://nonsite.org/article/“both-of-us-disgusted-in-my-insula”-mirror-neuron-theory-and-emotional-empathy>.

¹⁶ Cocks, unpublished manuscript, February 2012 (quoted by kind permission); Cocks’s formulation here echoes Rose’s critique of the child and the unconscious as not “something separate which can be scrutinised and assessed” (*The Case of Peter Pan*, 13). For Cocks’s wider critique of cognitivism, neuroscience and evolutionary psychology see: Neil Cocks, *Student-Centred: Education, Freedom and the Idea of Audience* (Ashby-de-la-Zouch, 2009).

¹⁷ Rose, *The Case of Peter Pan*, 9.

¹⁸ De Vos, *The Metamorphoses of the Brain*, 6-8.

¹⁹ Sandra Dinter, “The Mad Child in the Attic: John Harding’s *Florence & Giles* as a Neo-Victorian Reworking of *The Turn of the Screw*,” *Journal of Neo-Victorian Studies*, 5:1 (2012) 60-88. I would here like to thank Sandra Dinter for generously discussing her work with me.

²⁰ See for critiques of otherwise mostly taken-for-granted claims to (children’s) “voice” and “agency:” Lesnik-Oberstein, “Introduction: Voice, Agency and the Child.”

²¹ Dinter, “The Mad Child in the Attic,” 63-4, referencing Marie-Luise Kohlke, “Neo-Victorian Childhoods: Re-Imagining the Worst of Times,” in Marie-Luise Kohlke and Christian Gutleben (eds.), *Neo-Victorian Families: Gender, Sexual and Cultural Politics* (Amsterdam & New York: Rodopi, 2011), 119-147, 144 (original emphasis) and 128.

²² Sue Walsh, “Child/Animal: It’s the ‘Real’ Thing,” *The Yearbook of English Studies*, Special Issue on “Children in Literature,” 32, *Children in Literature* (Leeds: MHRA, 2002), 151-162, 162.

²³ See for reviews of how different disciplines engage with the child: “Childhood and Textuality: Culture, History, Literature” in Karín Lesnik-Oberstein, *Children in Culture:*

Approaches to Childhood (Houndmills: Palgrave Macmillan, 1998), 1-28 and Lesnik-Oberstein, "Introduction: Voice, Agency and the Child."

²⁴ Dinter, "The Mad Child in the Attic," 64.

²⁵ Dinter, "The Mad Child in the Attic," 62.

²⁶ Dinter, "The Mad Child in the Attic," 64.

²⁷ Dinter, "The Mad Child in the Attic," 71.

²⁸ Dinter, "The Mad Child in the Attic," 70; my italics.

²⁹ Dinter, "The Mad Child in the Attic," 67.

³⁰ Dinter, "The Mad Child in the Attic," 67.

³¹ Walsh, "Child/Animal: It's the 'Real' Thing," 158, referring to: Marian Scholtmeijer, *Animal Victims in Modern Fiction: From Sanctity to Sacrifice* (Toronto: University of Toronto Press, 1993).

³² In claiming that this applies to "all children's literature" I mean that if this framework is not upheld, then whatever would be going on would necessarily be understood not to be "children's literature" but something else.

³³ Dinter, "The Mad Child in the Attic," 68, referencing Rose, *The Case of Peter Pan*, 3.

³⁴ Dinter, "The Mad Child in the Attic," 84.

³⁵ Shoshana Felman, "Turning the Screw of Interpretation" in Shoshana Felman (ed.), *Literature and Psychoanalysis. The Question of Reading: Otherwise* (Baltimore: The John Hopkins University Press, 1982 [1977]), 94-208.

³⁶ Dinter, "The Mad Child in the Attic," 64.

³⁷ Dinter, "The Mad Child in the Attic," 66.

³⁸ Dinter, "The Mad Child in the Attic," 77.

³⁹ Dinter, "The Mad Child in the Attic," 82.

⁴⁰ Felman, "Turning the Screw of Interpretation," 106-7 (italics in original).

⁴¹ Haraway's position is different in this respect at least, for while I read Haraway as agreeing with Rose and Felman on the status of perspective and language, psychoanalysis is for Haraway not the explicit grounding that it is for Rose and Felman.

⁴² Rose, *The Case of Peter Pan*, 12.

⁴³ Felman, "Turning the Screw of Interpretation," 110 (italics in original).

⁴⁴ Rose, *The Case of Peter Pan*, 12-3.

⁴⁵ Jacqueline Rose, "The Return of Peter Pan," in Jacqueline Rose, *The Case of Peter Pan of the Impossibility of Children's Fiction* (Philadelphia, PA: Pennsylvania University Press, 1992 [1984]), ix-xviii, x.

⁴⁶ Jonathan Gottschall, *The Storytelling Animal: How Stories Make Us Human* (New York, NY: Houghton Mifflin Harcourt Publishing Company, 2012), xvii.

⁴⁷ I am quoting here the title of the article by the Hungarian psychoanalyst Sándor Ferenczi, "Confusion of Tongues between Adults and Child" (in Michael Balint (ed.), *Final Contributions to the Problems and Methods of Psychoanalysis*, trans. E. Mosbacher, London: Hogarth Press, 1955 [1933], 156-68) which is also referred to by Jacqueline Rose in the subtitle of her third chapter of *The Case of Peter Pan* (see pages 66 and 148, note 3).

⁴⁸ Jenny Bourne Taylor, "Between Atavism and Altruism; the Child on the Threshold in Victorian Psychology and Edwardian Children's Fiction," in Karín Lesnik-Oberstein (ed.), *Children in Culture: Approaches to Childhood* (Houndmills: Palgrave Macmillan, 1998), 89-121, 91.

⁴⁹ Rose, *The Case of Peter Pan*, 90-1.

⁵⁰ See for a thorough critique of evolutionary psychology's theories about autism: Helen Ainslie, "Perspectives and Community: Constructions of Autism and Childhood," in Karín Lesnik-Oberstein (ed.), *Children in Culture Revisited. Further Approaches to Childhood* (Houndmills: Palgrave, 2011), 90-107.

⁵¹ Vittorio Gallese, Luciano Fadiga, Leonardo Fogassi and Giacomo Rizzolatti, “Action Recognition in the Premotor Cortex,” *Brain*, 119 (1996), 593-609.

⁵² Yu-Kuan Chen, “Objects of Vision: Text, Colour, Gesture,” Unpublished PhD thesis, University of Reading, 2012, 270. Not coincidentally, Chen herself is inspired in turn by Jacqueline Rose’s *Sexuality in the Field of Vision* (London: Verso, 2005 [1986]). My thanks to Yu-Kuan Chen for helping me to develop my reading of the mirror-neuron claims.

⁵³ For a thorough discussion of the centrality of intentionality to ideas of “affect” as well as a thorough wider critique of affect, see Ruth Leys, “The Turn to Affect: A Critique,” *Critical Inquiry*, 37 (Spring 2011), 434-72.

⁵⁴ John Cartwright, *Evolution and Human Behaviour. Darwinian Perspectives on Human Nature* (Houndmills: Palgrave Macmillan, 2008 (second edition)), 142.

⁵⁵ Carlo Salzani, “Review of Joseph Carroll, *Reading Human Nature: Literary Darwinism in Theory and Practice* (New York, 2011),” *Bryn Mawr Review of Comparative Literature*, 9:2 (Fall 2011), accessed on 30th December 2012 at:

<http://www.brynmawr.edu/bmrcl/BMRCLFall2011/Reading%20Human%20Nature,%20Literature%20after%20Darwin.htm>

⁵⁶ Rose and Rose, “Introduction,” 1.

⁵⁷ Rose and Rose, “Introduction,” 1.

⁵⁸ Rose and Rose, “Introduction,” 8.

⁵⁹ Dorothy Nelkin, “Less Selfish than Sacred? Genes and the Religious Impulse in Evolutionary Psychology,” in Hilary Rose and Steven Rose (eds), *Alas Poor Darwin*, 14-28.

⁶⁰ Salzani, “Review of Joseph Carroll, *Reading Human Nature*,” quoting from Carroll, *Reading Human Nature*, 78.

⁶¹ Jonathan Kramnick, “Literary Studies and Science: A Reply to My Critics,” *Critical Inquiry*, 38:2 (Winter 2012): 431-460, 432.

⁶² Hugo Crago, *Entranced by Story: Brain, Tale and Teller, from Infancy to Old Age* (London: Routledge, 2014).

⁶³ Maria Nikolajeva, *Reading for Learning: Cognitive Approaches to Children's Literature*, Series "Children's Literature, Culture, and Cognition," edited by Nina Christensen, Elina Druker and Bettina Kümmerling-Meibauer, vol. 3 (Amsterdam: John Benjamins, 2014).

⁶⁴ Evelyn Arizpe and Vivienne Smith (eds), *Children as Readers in Children's Literature: The Power of Texts and the Importance of Reading* (London: Routledge, 2015).

⁶⁵ Kristine Moruzi, Michelle J. Smith and Elizabeth Bullen (eds), *Affect, Emotion, and Children's Literature: Representation and Socialisation in Texts for Children and Young Adults* (London: Routledge, 2017).

⁶⁶ For a classic analysis of how developmental psychology itself can be read not to be organic and universal, but instead historical, cultural and social, see: Erica Burman, *Deconstructing Developmental Psychology* (second edition) (London, Routledge, 2008 [1994]).

⁶⁷ For some of the very few critiques of "identification" in children's literature studies besides Rose's seminal *The Case of Peter Pan* see: Martin Barker, *Comics: Ideology, Power and the Critics* (Manchester: Manchester University Press, 1989) and Karín Lesnik-Oberstein, *Children's Literature: Criticism and the Fictional Child*.

⁶⁸ Elizabeth Bullen, Kristine Moruzi and Michelle J. Smith, "Children's Literature and the Affective Turn: Affect, Emotion, Empathy" in Kristine Moruzi, Michelle J. Smith and Elizabeth Bullen (eds), *Affect, Emotion, and Children's Literature: Representation and Socialisation in Texts for Children and Young Adults* (London: Routledge, 2017), 1-17, 1, 8 (my emphasis).

⁶⁹ Pierre Jacob and Marc Jeannerod, "The Motor Theory of Social Cognition: A Critique," *TRENDS in Cognitive Sciences*, 9:1 (2005), 21-5, 21. See for further, extensive analyses of the problems with "mirror neuron" research: Lesnik-Oberstein, "Motherhood, Evolutionary

Psychology and Mirror Neurons” and Lesnik-Oberstein, “The Object of Neuroscience and Literary Studies.”

⁷⁰ See for a key critique of “affect:” Daniela Caselli, “Kindergarten theory: Childhood, Affect, Critical Thought,” *Feminist Theory*, 11:3, December 2010, 241-54.

⁷¹ Lydia Kokkola, “Simplified Minds: Empathy and Mind-Modelling in Christopher Paolini’s *Inheritance Cycle*” in Kristine Moruzi, Michelle J. Smith and Elizabeth Bullen (eds), *Affect, Emotion, and Children’s Literature: Representation and Socialisation in Texts for Children and Young Adults* (London: Routledge, 2017), 96-113, 98.