

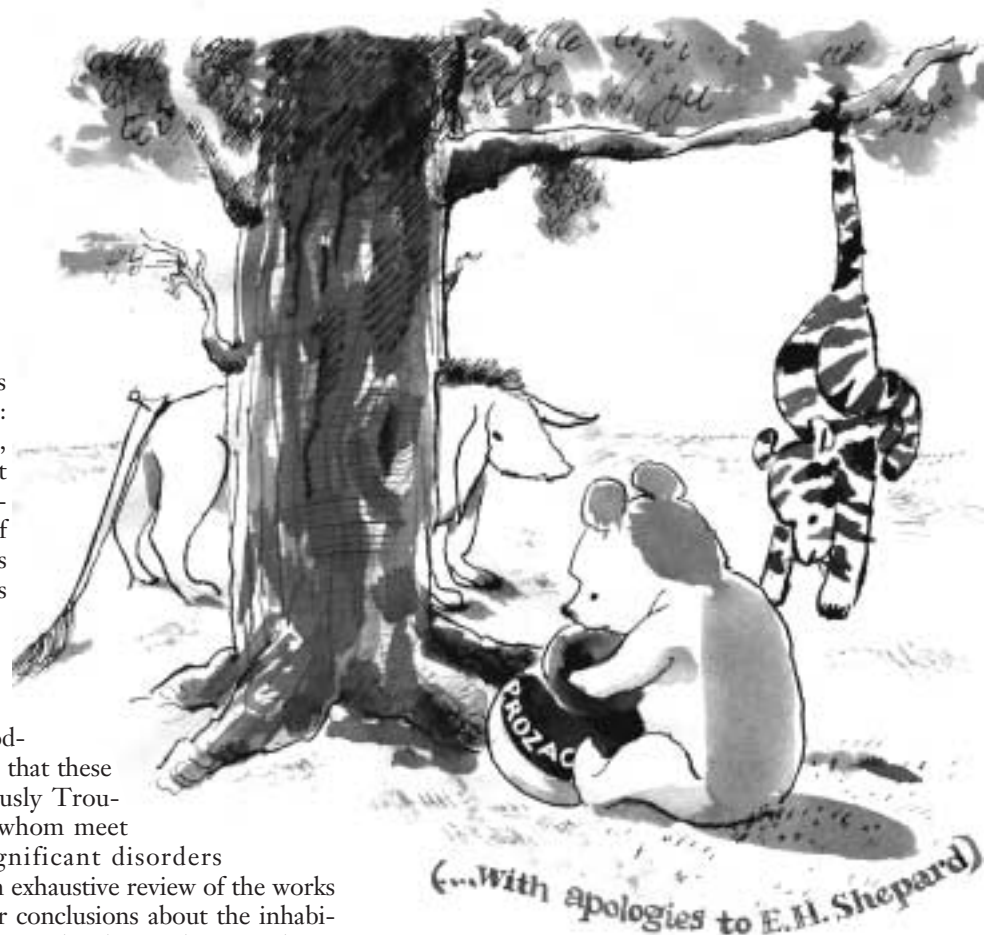
## Pathology in the Hundred Acre Wood: a neurodevelopmental perspective on A.A. Milne

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SOMEWHERE AT THE TOP OF THE HUNDRED ACRE WOOD a little boy and his bear play. On the surface it is an innocent world, but on closer examination by our group of experts we find a forest where neurodevelopmental and psychosocial problems go unrecognized and untreated.

On the surface it is an innocent world: Christopher Robin, living in a beautiful forest surrounded by his loyal animal friends. Generations of readers of A.A. Milne's Winnie-the-Pooh stories have enjoyed these seemingly benign tales.<sup>1,2</sup> However, perspectives change with time, and it is clear to our group of modern neurodevelopmentalists that these are in fact stories of Seriously Troubled Individuals, many of whom meet DSM-IV<sup>3</sup> criteria for significant disorders (Table 1). We have done an exhaustive review of the works of A.A. Milne and offer our conclusions about the inhabitants of the Hundred Acre Wood in hopes that our observations will help the medical community understand that there is a Dark Underside to this world.

We begin with Pooh. This unfortunate bear embodies the concept of comorbidity. Most striking is his Attention Deficit Hyperactivity Disorder (ADHD), inattentive subtype. As clinicians, we had some debate about whether Pooh might also demonstrate significant impulsivity, as witnessed, for example, by his poorly thought out attempt to get honey by disguising himself as a rain cloud. We concluded, however, that this reflected more on his comorbid cognitive impairment, further aggravated by an obsessive fixation on honey. The latter, of course, has also con-



tributed to his significant obesity. Pooh's perseverance on food and his repetitive counting behaviours raise the diagnostic possibility of Obsessive Compulsive Disorder (OCD). Given his coexisting ADHD and OCD, we question whether Pooh may over time present with Tourette's syndrome. Pooh is also clearly described as having Very Little Brain. We could not confidently diagnose microcephaly, however, as we do not know whether standards exist for the head circumference of the brown bear. The cause of Pooh's poor brain growth may be found in the stories themselves. Early on we see Pooh being dragged

downstairs bump, bump, bump, on the back of his head. Could his later cognitive struggles be the result of a type of Shaken Bear Syndrome?

Pooh needs intervention. We feel drugs are in order. We cannot but wonder how much richer Pooh's life might be were he to have a trial of low-dose stimulant medication. With the right supports, including methylphenidate, Pooh might be fitter and more functional and perhaps produce (and remember) more poems.

I take a  
PILL-tiddley pom  
It keeps me  
STILL-tiddley pom,  
It keeps me  
STILL-tiddley pom  
Not  
fiddling.

And what of little Piglet? Poor, anxious, blushing, flustered little Piglet. He clearly suffers from a Generalized Anxiety Disorder. Had he been appropriately assessed and his condition diagnosed when he was young, he might have been placed on an antipanic agent, such as paroxetine, and been saved from the emotional trauma he experienced while attempting to trap heffalumps.

Pooh and Piglet are at risk for additional self-esteem injury because of the chronic dysthymia of their neighbour,

Eeyore. What a sad life that donkey lives. We do not have sufficient history to diagnose this as an inherited, endogenous depression or to know whether some early trauma contributed to his chronic negativism, low energy and anhe(haw)donia. Eeyore would benefit greatly from an antidepressant, perhaps combined with individual therapy. Maybe with a little fluoxetine, Eeyore might see the humour in the whole tail-losing episode. Even if a patch of St. John's wort grew near his thistles, the forest could ring with a braying laugh.

Our neurodevelopmental group agrees about poor Owl: obviously bright, but dyslexic. His poignant attempts to cover up for his phonological deficits are similar to what we see day in and day out in others so afflicted. If only his condition had been identified early and he received more intensive support!

We especially worry about baby Roo. It is not his impulsivity or hyperactivity that concerns us, as we feel that those are probably age appropriate. We worry about the environment in which he is developing. Roo is growing up in a single-parent household, which puts him at high risk for Poorer Outcome. We predict we will someday see a delinquent, jaded, adolescent Roo hanging out late at night at the top of the forest, the ground littered with broken bottles of extract of malt and the butts of smoked thistles. We think that this will be Roo's reality, in part because of a second issue. Roo's closest friend is Tigger, who is *not* a good Role Model. Peer influences strongly affect outcome.

**Table 1: DSM-IV multiaxial diagnosis of conditions demonstrated by the inhabitants of the Hundred Acre Wood**

Inhabitant	Axis I Clinical disorders	Axis II Personality disorders/ mental retardation	Axis III General medical conditions	Axis IV Psychosocial/ environmental problems
Winnie-the-Pooh	ADHD, inattentive subtype; OCD (provisional diagnosis)	Borderline intellectual functioning (Very Little Brain)	Poor diet, obesity, binge eating	-
Piglet	Generalized anxiety disorder	-	Failure to thrive	-
Eeyore	Dysthymic disorder	-	Traumatic amputation of tail	Housing problems
Rabbit	-	Narcissistic personality disorder	-	-
Owl	Reading disorder	-	-	Housing problems
Tigger	ADHD, hyperactivity- impulsivity subtype	-	-	-
Kanga	-	-	-	Single parent, unemployed, overprotective of child
Roo	-	-	-	Single parenthood, undesirable peer group, victim of unusual feeding practices (extract of malt)
Christopher Robin	Gender identity disorder of childhood (provisional diagnosis)	-	-	Lack of parental supervision, possible educational problems

Note: ADHD = attention deficit hyperactivity disorder, OCD = obsessive compulsive disorder.  
\*The Axis V (global assessment of functioning) scale was deferred.

We acknowledge that Tigger is gregarious and affectionate, but he has a recurrent pattern of risk-taking behaviours. Look, for example, at his impulsive sampling of unknown substances when he first comes to the Hundred Acre Wood. With the mildest of provocation he tries honey, haycorns and even thistles. Tigger has no knowledge of the potential outcome of his experimentation. Later we find him climbing tall trees and acting in a way that can only be described as socially intrusive. He leads Roo into danger. Our clinical group has had its own debate about what the best medication might be for Tigger. Some of us have argued that his behaviours, occurring in a context of obvious hyperactivity and impulsivity, would suggest the need for a stimulant medication. Others have wondered whether clonidine might be helpful, or perhaps a combination of the two. Unfortunately we could not answer the question as scientifically as we would have liked because we could find only human studies in the literature.

Even if we were able to help Tigger, we would still have the problem of Roo's growing up with a single parent. Kanga is noted to be somewhat overprotective. Could her possessiveness of Roo relate to a previous run-in with social services? And where will Kanga be in the future? It is highly likely that she will end up older, blowsier, struggling to look after several joeys conceived in casual relationships with different fathers, stuck at a dead end with inadequate financial resources. But perhaps we are being too gloomy. Kanga may prove to be one of those exceptional single mothers who show a natural resilience — an ability, if we may say so, to bounce back. Maybe Kanga will pass her high school equivalency test, earn a university degree and maybe even get an MBA. Perhaps some day Kanga will buy the Hundred Acre Wood and develop it into a gated community of \$500 000 homes. But that is not likely to happen, particularly in a social context that does not appear to value education and provides no strong female leadership.

What leadership there is in the Hundred Acre Wood is simply that offered by one small boy, Christopher Robin. Our group believes that Christopher Robin has not exhibited any diagnosable condition as yet, but we are concerned

about several issues. There is the obvious problem of a complete absence of parental supervision, not to mention the fact that this child is spending his time talking to animals. We also noted in the stories early signs of difficulty with academics and felt that E.H. Shepard's illustrations suggest possible future gender identity issues for this child. The more psychoanalytical member in our group indicated that there could be some Freudian meaning to his peculiar naming of his bear as Winnie-the-Pooh.

Finally, we turn to Rabbit. We note his tendency to be extraordinarily self-important and his odd belief system that he has a great many relations (many of other species!) and friends. He seems to have an overriding need to organize others, often against their will, into new groupings, with himself always at the top of the reporting structure. We believe that he has missed his calling, as he clearly belongs in senior-level hospital administration.

Somewhere at the top of the forest a little boy and his bear play. Sadly, the forest is not, in fact, a place of enchantment, but rather one of disenchantment, where neurodevelopmental and psychosocial problems go unrecognized and untreated. It is unfortunate that an Expedition was never Organized to a Child Development Clinic.

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*Contributors:* Sarah Shea was the principal author and contributed to the concept and writing of the article and the analysis of the literature. Kevin Gordon, Ann Hawkins, Janet Kawchuk and Donna Smith contributed to the concept, the literature analysis and revision of the initial draft.

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