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A manual for girlhood – the embodied mechanical intertext in Exploded View

Abstract:
This paper interrogates my 2019 novel *Exploded View*, which uses a Holden workshop manual as its central scientific intertext and narrates a closely observed road trip from the west to the east coast of Australia. I reflect on the traumatic girlhood of the novel's narrator and examine how she subverts the phallogocentric text of an automotive repair manual to question her silent place within the machinery of family and society. I look at how a motif like a car engine can function metaphorically and allegorically within a novel and unpick my use of the vocabulary of the workshop manual, its processes and its visual structures (the exploded view) and reflect on how they are used to represent the violent constraint of life for an Australian girl. I conclude with a reflection on my obsession with scientific intertexts and their subversion through situated, embodied or somatic knowledge. This is something I trace back to my status as a migrant searching to ground myself in this country and perhaps even before that as I attempted to situate the alphabet in its landscape.

Biographical note:
Carrie Tiffany was born in West Yorkshire and grew up in Western Australia. A former park ranger, she has twenty years' experience as a researcher, writer, editor and teacher of creative writing. Her publication record includes three Miles Franklin Award shortlisted novels: *Everyman's Rules for Scientific Living*; *Mateship with Birds*; and *Exploded View*.

Keywords:

Australian fiction, girlhood, intertext, trauma, embodied knowledge

Perth 1971

My first memory of Australia was a car. The real estate agent who picked us up from Perth airport drove a white Valiant station wagon with fins. The car gleamed in the overbright sun. It looked American – a TV car from *The Streets of San Francisco*. I climbed in the back with my brother and we drove off into the suburbs, the Australian road pale and quiet beneath the tyres. I remember how polite we were to each other inside the car, in front of the real estate agent. The large, modern car and the fresh, smooth roads seemed to represent a second chance my family needed. I thought it was possible, back then, that we might do better in this new country.

I've always wanted to be able to fix things and I've always wanted to drive. Watching men work on cars and motorbikes was part of my girlhood. Sometimes you got to touch a spanner or pick up a rag. Mainly you went back and forth to the fridge for beer. The sound of an engine failing to catch, weakening and weakening with each turn of the key, made me anxious. Cars broke down more often then, and a broken-down car could make a man angry. There was pride and rapture too. Men liked other men to hear their engines revving – all that chug and roar, all those tyre marks scorching the roads.

By the age of twelve I was sneaking behind the wheel of the family car at night to practice depressing the clutch, pumping the accelerator and releasing the handbrake. I liked the way my hands looked as they gripped the steering wheel. I knew all of the controls. I wasn't worried about growing breasts; I was worried I might never be tall enough to reach the pedals.

When I was fourteen my family planned a road trip. We would get into our car in Perth, drive across the Nullarbor to Port Augusta, up to Broken Hill, and then parallel to the coast but inland, to complete the long haul to Cairns. I had a notebook to record the sights of the outback. I was expecting camels, merino sheep and men in moleskin trousers carrying stock whips. What I saw was death. I started to write a list of the roadkill – emu, snake, lizard, cat, kangaroo, kangaroo, lizard, crow, emu, kangaroo, kangaroo – but soon gave up. Days went by in silence. Just the sound of the road beneath the tyres and, inside the car, my brother and me unsticking our thighs from the vinyl seat. There was a sense that we were moving through the landscape, but that we weren't really 'in it'. The windscreen and the car windows functioned like television screens. What we saw through them was as static as a film set. The road hazed and shimmered ahead of us; the enormous bowl of blue sky hung oppressively overhead. It took us seven days to get to Cairns. We slept in the car each night. Three humid days in Cairns, and then we drove home again.

An appetite for gruelling long-distance driving seemed to be a mark of a true Australian. My Australian stepfather did most of the driving on our trip. There were 'issues' with my mother's use of the gearbox, the way she braked rather than accelerated into corners and her timid overtaking. I am ashamed to admit that I judged her harshly from the backseat. Even at fourteen, I thought I could do better.

By my early twenties I was clocking up long hours behind the wheel while working as a park ranger in the Northern Territory. I drove Toyota troop carriers and tray backs. It wasn't unusual to drive for four hours to a meeting in Alice Springs and four hours home again on the same day. I drove on good dirt roads, bad dirt roads, overgrown tracks, through ancient riverbeds and across sand dunes. I did a basic diesel mechanics course. I wasn't as strong or as confident as the male rangers, but I found I could often fix a problem by listening to the sound of the engine and then putting my hands on the different parts to feel my way around. I learned to weld and to service and operate a generator. I learned how to dig a bogged vehicle out of sand and how to change the large, heavy tyres that were always puncturing due to the rough terrain. When the nut on a tyre bolt was too tight, I stood on the wheel brace and bounced up and down, using the whole weight of my body to loosen it.

There were long patrols to do maintenance works at the many isolated parks and reserves in our district. The driving was rough and tiring and exhilarating. Water from a canvas bag that has been hanging from a bull bar and wind cooled in the desert is sweet like no other. The unmade roads and tracks had their particular characters and moods. We wrote reports on the condition of the roads and spoke of them with awe and respect. Sometimes, out on patrol, I came across a group of tourists with a broken-down car. They were always relieved to see my vehicle, then surprised as I got out to unload the toolbox. Some preferred to stay stranded than be rescued by a girl.

In 2015, I found myself trying to write about the family road trip from Perth to Cairns in my third novel. I wanted to recapture that sense of being harnessed to the road. I hadn't done any long-haul driving for a while, so I decided to retrace part of the route. For the first time in my life I didn't own a car and had to hire one. Power steering was a welcome development, along with airbags and aircon and Ella Fitzgerald via Bluetooth. The road was busy with road trains and caravans and fleet vehicles. But there was still that silvery shimmer – the horizon blurring and sharpening in front of me.

I thought the road trip would help me to close the gap between the child I was and the writer I had become. I was looking for detail, for incident, but hours went by when I felt as empty as the landscapes I was driving through. The monotony was occasionally broken by a flock of raggy emus grazing in the roadside scrub. We seemed to be involved in a similar enterprise – except that I was hunting and pecking for memory and then struggling with the impossibility of using language to express it.

By day three of my six days on the road I was on the Hay Plains, one of the flattest landscapes on earth. A white Hilux had been following me for a couple of hours, not tailgating, keeping a respectful distance. We were both doing 120 kilometres an hour on a good clean road, but speed-numbed, there was the impression we were barely moving – that we were frozen – pinned to the plain. Finally, I made it to Balranald and pulled in at a servo on the edge of town. The Hilux that had been following me pulled into the next bowser. The decal on the driver's door was from an engineering company – perhaps it was the company that made the road? Two men in work boots and high-vis got out. One reached for the pump, the other walked over to me,

smiled, and said that I owed him ten bucks. He told me that he'd had a bet with his mate while they were driving along behind me. They couldn't see the top of my head over the headrest. The mate thought it was because I was a woman, and he was prepared to put a tenner on it. But the driver, this man in the bright yellow vest holding his beard as he spoke to me, said no. "A woman doesn't drive like that," he'd told his mate. "Whoever is in that car up ahead drives like a man." He smiled at me as he told me this because he thought he was giving me a compliment. You can never get away from the road [1].

What is a road? Roads stretch ahead like sentences traversing the page. How to render the hard, dark strip in language, to knit that language together in a stream of 'road-ness' for the eye to move across? The opening lines of *Exploded View*:

> Downhill and without resistance a car can lose adhesion and break free from the road. Roads have been prepared ahead of time to link known attractions, to improve desired routes.
>
> But what if the car made the road? What if the tar spewed out warm and black in front of it?
>
> Leave the house, start the engine, move off the gravel onto the fresh, hard crust. This road is fine. Be like this road, a dark rope reaching out to take you somewhere new. (p. 11)

The road away and the road home. My experience of migration had placed me in a concealed position. When we landed on the tarmac at Perth airport in 1971 I remember looking back at the long runway stretching behind the plane. I wondered if the runway was the road home, and hoped that if I followed it, I would be returned to my grandmother's house in West Yorkshire. It seemed logical in my child's understanding that despite the oceans and great distances we had travelled it would be a road that linked the past with the future.

Delia Falconer (2008) has described the road in Australian literature as something haunted and hyper alert. "Things shimmer, sensations are heightened; relationships become slightly unreal, even characters' relationships with themselves" (p. xiii). This is demonstrated well in Romy Ash's (2012) debut novel *Floundering*, which places two vulnerable young boys on the road with their unstable mother as they drive across the Nullarbor during the scorching heat of summer; and in Julienne van Loon's (2005) *Road Story*, where a rural highway truck stop serves as a collection point for stories of loneliness and transience. In Catherine Jinks's (2004) dark, gothic fantasy novel *The Road*, characters repeatedly drive the same stretch of the Silver City Highway – an avenue of historical trauma from colonisation that refuses to flatten.

When my family tumbled out of the real estate agent's Valiant to our new 'home' in the Perth suburbs, with its abundance of space, with its nature strip, we did not consider that the place we had arrived at already belonged to someone else. A few years later, on our road trip to Cairns, we gave no thought to the physical and cartographical marks made by the roads we travelled on, how they cut the land beneath them and erased the tracks of the past. Our very

sense of the outback we were driving through as unformed – a place waiting to be found – was a similar denial that it was, and still is, a physical, cultural and spiritual landscape in the lives of Indigenous Australians.

As JMArthur (2003) points out in *The Default Country*, the term outback reveals an attitude of difficulty, remoteness and isolation towards inland Australia. The "outback" is positioned behind the "in front" – the cities and settled regions. "The elsewhereness of the 'outback' is sometimes understood as so far away it becomes unlocatable on a map. It is nowhere" (p. 33). It is also no one's. Australia's early white explorers attempted to claim ownership of the outback by crossing it and recording its features on maps, but they certainly didn't intend to settle there. These historic expeditions have been replaced by contemporary feats of mechanical and physical endurance – outback car rallies, mountain bike races, and marathons, that similarly use the landscape as a physical space to be traversed heroically and quickly. Great distances must be traversed to reach the outback and this takes time. Time for thinking and for questioning. The further we get away from the coast, the place where the lie of terra nullius was made, the harder the lie is to sustain.

My family referred to our road trip as the time we went "on the road". We were superior to the land, moving over its surface in one direction, at speed. Our aim was arrival at another city along the populous coast in as quick a time as possible. The outback roads were rougher and rawer-edged than those in the city, but they still contained and constrained us. They were guardrails keeping us safely elevated from the true surface of the land, but also preventing us from bodily connection with it – preventing us from reading it. Here was the same on/in spatial gap that had concerned me in *Everyman's Rules for Scientific Living* (2005). My challenge with the new novel I was formulating was to return to this conundrum, but in a way that cut ties to place. My characters would move across the landscape and visit the outback from the long rail of the road, and they would do it in the most emblematic of Australian vehicles – a Holden motor car.

I remembered a car manual that had belonged to my Australian stepfather – *Scientific Publications Workshop Manual Series No 72 Torana HB-Sedan, S Sedan and SL Sedan* (1969). The manual was one of several manuals that my stepfather used in his workshop. It has been in my possession for more than forty years.

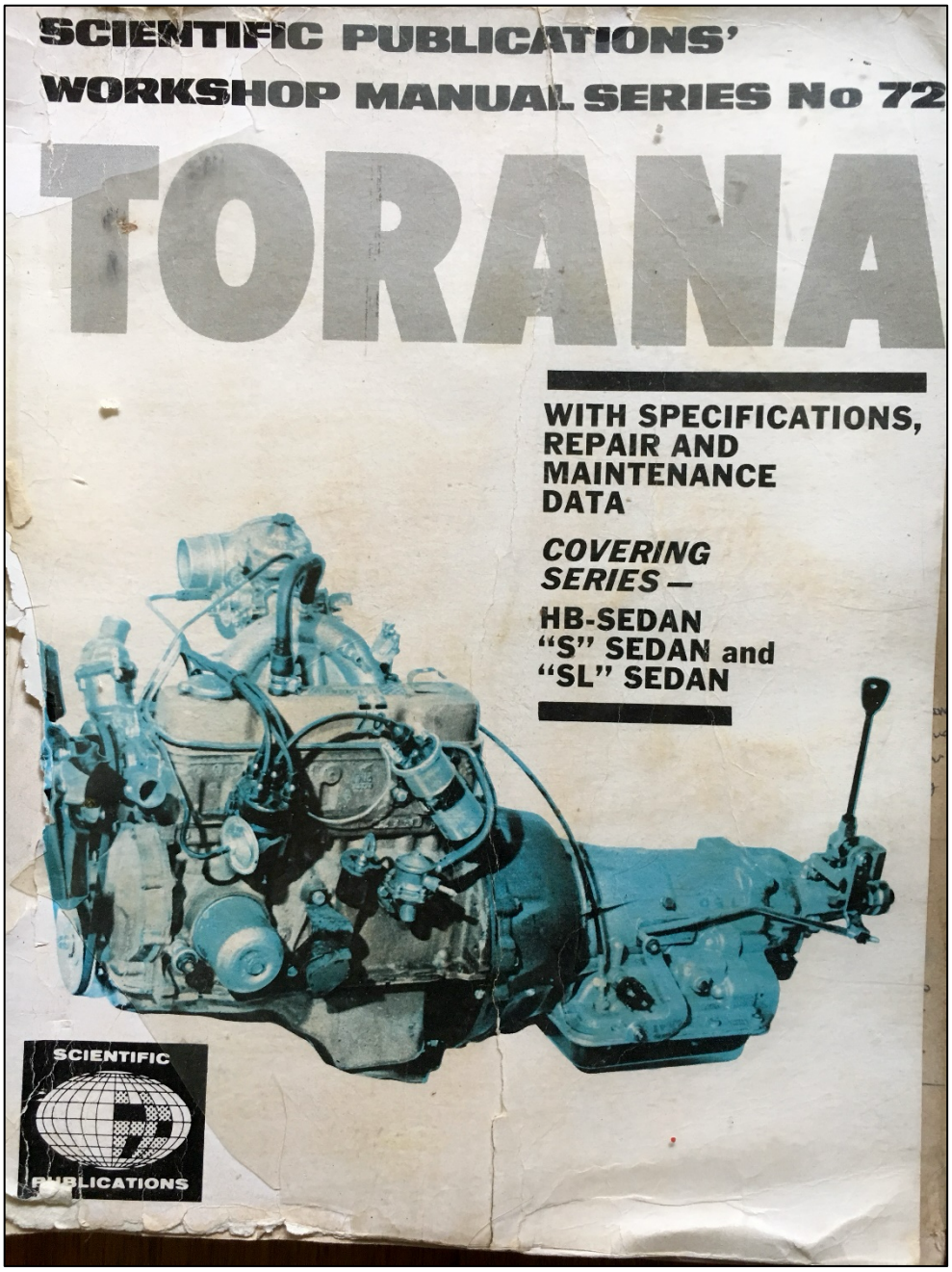

Figure 1.1. Front cover of the automotive workshop repair manual used in Exploded View. (Scientific Publications, 1969)

Rescued from a shelf in the garage, the manual fell apart in my hands. I taped it back together and read it from cover to cover. It contains three main elements: step-by-step written instructions for the disassembly, repair and reassembly of the major components of the featured car; black-and-white photographs of the mounting locations of engine components being modelled by a pair of male hands; and exploded views of engine components, where each part is separated out from the other.

To situate my characters in a car, on a road, was within the conventional bounds of realist fiction. To use the found language of the manual within the novel was also customary to my

fictional technique. But I started to consider if the manual might serve not just a metafictional role but also metaphorical one. Could I create and 'operate' my characters – a small family in 1970s Australia – using the same mechanisms and processes as an engine itself? Could I use the automotive workshop repair manual as the structuring metaphor for a novel?

A workshop repair manual as structural metaphor

My interest in the expressive potential of scientific and technical forms of discourse has informed all my fiction. *Everyman's Rules for Scientific Living* (2005) contains photographs, lists, letters, harvest results, recipes, recruiting posters, experiments and experimental test results, statistics, advertisements, a lecture and a footnote. *Mateship with Birds* (2011) is threaded with a long series of bird observations written in a milk ledger, lists, homework (in the form of a child's nature diary), letters (that function as a self-analysis), and a record of childhood illnesses and accidents. These non-fictional discursive interventions are threaded through fictional narratives. They provide variations in voice, tone, texture and pace, and add critical information that creates the world of the story. The kookaburra observations written by Harry in *Mateship with Birds* have an allegorical function – they address the issue of animal family relations being directed by instinct – but most of the interventions in the novels are supplementary rather than governing.

I was excited by the challenge of refining and concentrating this technique – of using one governing text as a literal, figurative and analytical device. The machinery of the family would be revealed with each member functioning as a component part. The characters would be named only as components – mother, brother, father man. The components would either interlock and function together as a single entity – producing energy, drive, freedom – or break down, resulting in failure and damage. For the unnamed girl narrator of *Exploded View*, the manual is a physical object (she reads it at night and hides it underneath her bed) and a schema for understanding the world around her.

If a text is a woven fabric (from the Latin *texere* – to weave), then the writer as its assembler faces multiple opportunities to re-position and interlock threads. Roland Barthes (1982) draws attention to the ways in which a text is not only constructed but also reconstructed from available materials. For Barthes:

> the text is a tissue of quotations drawn from innumerable centres of culture … [T]he writer can only imitate a gesture that is always anterior, never original. His only power is to mix writings, to counter the ones with the others, in such a way as never to rest on any one of them. (p. 147)

As a cultural text, an automotive repair manual is uniquely ordered, logical, rational and complete. However, its authority is not something that can be 'rested' upon in my novel, because of the ways in which it is threaded through with other narrative strands and possibilities for meaning. Julia Kristeva (1980) speaks of the transforming nature of intertextuality as a condition of literature generally: "A text is a permutation of texts, an intertextuality in the space of a given text, in which several utterances taken from other texts, intersect and neutralize one

another" (p. 36). This is true for *Exploded View*, but only if I can replace Kristeva's "neutralize" with "activate". The manual's literal use – its language, its processes of assembly and disassembly, its visual style (the exploded view), and its function (technical mastery of a machine that represents freedom and independence) – are generative within the novel. The manual is also a generative force for the novel's narrator, a teenage girl who is estranged and silenced in the social world of a damaged family. The manual is part of the 'furnishings' of her world. It provides a system of knowledge and a place of order and safety in which she can seek solace.

However, the structuring role of the manual does not go unchallenged, given the ways in which this key intertext is gendered as distinctly masculine. To begin with, the novel threads a teenage girl's voice through the traditionally masculine narrative of the mechanic's manual. It also domesticates the masculine control and domination associated with machines by transforming the machine into a family. Further to this, when the novel draws attention to the manual's representation of the machine as a series of sensual components, which can be experienced for their inherent beauty, its function as a symbol of masculine force and power is subverted. The Norwegian anthropologist of technology, Merete Lie (1996), warns that, "Holding that technology in general is a symbol of masculinity, does not mean that all men behave in a similar way and are equally attached to technology" (p. 57). Similarly, rather than foreclosing on the machine as a symbol of masculinity, *Exploded View*'s use of the manual draws attention to the fact that it is just a symbol, which is open to revision and reinterpretation:

> The manual shows that sometimes a delicate touch is needed to manipulate small parts. There's no physical reason why hands that work an engine can't do soft tasks – plaiting a girl's hair, icing a sponge cake, patting a baby's back to make it burp. Engine hands must be strong, but they don't have to be cruel. (p. 164)

The novel is transformed by the manual, but the manual is also transformed by the subversive nature of its new context. Barthes (1982) warns us to beware of the Author-God:

> We know that a text is not a line of words releasing a single "theological" meaning (the "message" of the Author-God) but a multi-dimensional space in which a variety of writings, none of them original, blend and clash. (p. 147)

The found mechanical language of the manual represented in *Exploded View* provides access to Barthes' intertextual multiplicity of meaning, but the conceptual possibilities afforded by its material or aesthetic form provided even greater interest to me as a writer. As well as splicing and weaving the language of the manual into the novel, I wanted to engage with its spatial, temporal and embodied features, and to use them to disrupt my novel-in-the-making.

The archaeological metaphor implicit in Laurent Jenny's (1982) "Status of Intertextual Discourse" is apt. Jenny points out that each intertextual reference offers opportunity to unearth an alternative understanding of the text:

> Either one continues reading, taking it only as a segment like any other, or else one turns to the source text, carrying out a sort of intellectual anamnesis where the intertextual reference appears like a paradigmatic element that has been displaced, deriving from a forgotten structure. (p. 44)

Jenny's words also resonate with psychoanalysis, and it is indeed the "forgotten structure" of trauma that I hoped to investigate by engaging with the formal properties of the automotive manual.

Exploded View's "source text", the automotive manual, guides readers through the processes for disassembling, repairing and reassembling an engine. Each of these processes function within the novel to harness the narrative to time. Time and space connect as the girl narrator moves forward through a set of instructions to complete a repair or maintenance task, and then reverses as she explodes the purpose of the manual by using its instructions against itself to sabotage the machine. The manual is re-rendered as a text of violence and destruction. These processes of repair and sabotage form a gestalt within the novel, a physical rhythm that operates above and beyond the pace and rhythm of the sentences. The manual is both a container of time and a release from it. The girl's reading of the manual in bed at night, and her flight to the memory of its pages on the road trip and when in distress, positions it as a kind of stopped clock of trauma. Rob Baum's (2013) work on the chronography of trauma, indicating that mapping is a more accurate way than a linear chronology of depicting how trauma is experienced "as an ongoing recurrence, the present perfect" (p. 34), is apposite here. Eugene Arva's (2011) concept of shock chronotypes – unstable, violent time-spaces constructed by the traumatic imagination as a way of struggling to present the unrepresentable – can also be applied to the girl's use of the manual. However, Arva's overall proposition that magical realism is the literary method best suited to depict and work through traumatic memory cannot.

The traumatised girl narrator of *Exploded View* is out of time. She enters the manual in a fugue state. Enacting its processes becomes a ritual of disassociation which provides relief from the intolerable feeling that her grief and suffering is interminable. Trauma, of course, is not symbolic. Trauma is real. But to depict trauma the novelist must find a schema that gives its affect shape.

Exploded views as schemas for trauma

An exploded view is a type of drawing that shows the intended assembly of mechanical or other parts. Exploded views show all parts of the assembly and how they fit together in space. In mechanical systems, the components closest to the centre are usually depicted first, with the other components separated out from it as if they have been acted upon by an explosive force – but always in a regular and controlled fashion. An exploded view can create an image in which the elements seem to be flying through the air. Their visual patterns can resemble cubist paintings. The faceted view of the different components implies multiplicity and simultaneity. Sometimes dotted lines track the relationship between the components and provide an instructional or narrative thread.

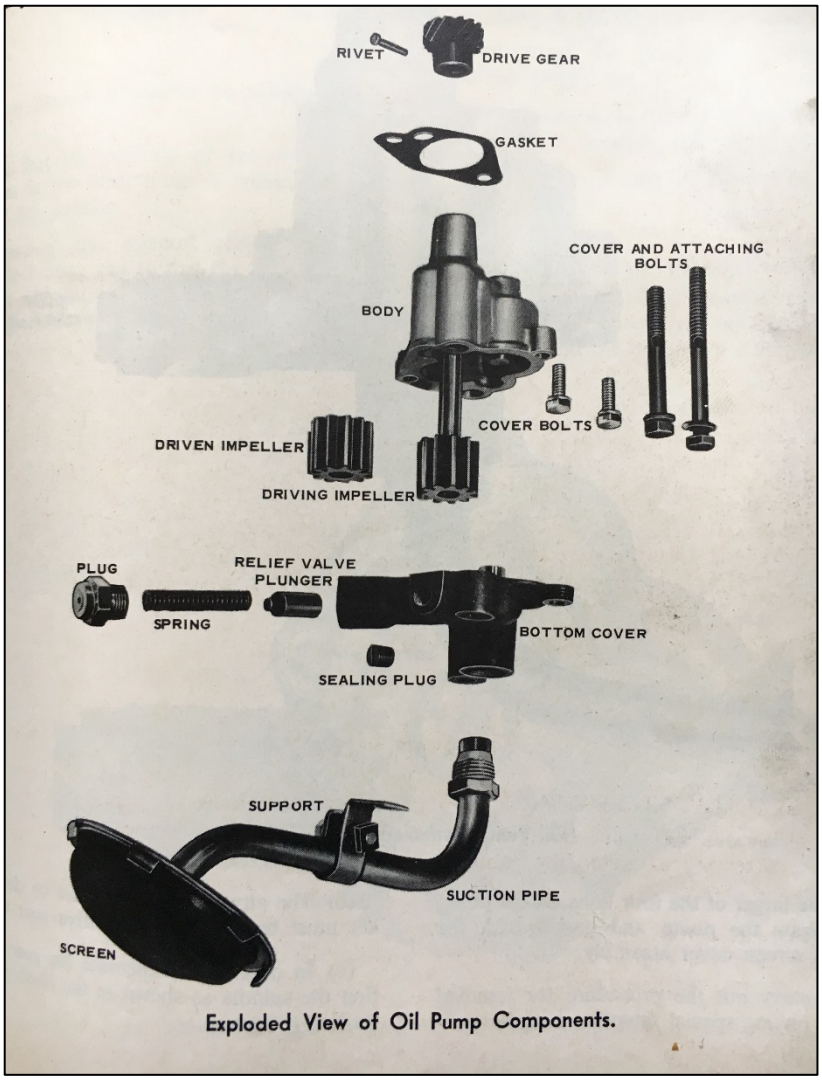

Figure 1.2. An exploded view from the automotive workshop repair manual. (Scientific Publications, 1969)

Like cubist paintings, exploded views deal in shallow space, where their fractured components exist in dynamic arrangement to each other. They are essentially still lifes, but they represent a complete departure from how modelled forms are usually depicted in illusionistic space. A second type of instructional illustration features in the manual – a close-up of a specific part of the engine being assembled or disassembled by a pair of disembodied male hands. These 'hand-freezes' are intended to assist the amateur mechanic when he is required to manipulate several parts or tools at the same time, as they demonstrate how particular parts should be held and gripped. The grease-stained skin of the model's hands in the photographs and the fleshy irregularities of the fingers are striking in comparison with the hard, regular engine componentry.

Figure 1.3. Technical photograph from the automotive workshop repair manual. (Scientific Publications, 1969)

The disassociated exploded views and disembodied hand-freezes provide rich material for depicting trauma. Trauma is often described temporally as being 'out of time', and spatially as a 'gap'. Cathy Caruth (1995) has written about the imprecise chronological nature of trauma and the difficulty of explicating traumatic material. Caruth believes traumatic experience is marked by:

> the inability to fully witness the event as it occurs, or the ability to witness the *event* fully only at the cost of witnessing oneself. Central to the very immediacy of this event, that is, is a gap that carries the force of the event and does so precisely at the expense of simple knowledge and memory. The force of this experience would appear to arise precisely, in other words, in the collapse of its understanding. (p. 7)

A personal exploded view

The exploded views and hand-freezes function as the girl narrator's metaphysics. They are the literal and metaphorical gaps where she does much of her thinking. At times, she views them for their visual strangeness and beauty – as works of abstract art that make space for meaning without defining or insisting on it. At other times, she uses them as they were intended: as instructional aides, but applied to herself. In this view, the girl is a prescribed part acting and being acted upon. She recognises the constraining patriarchal nature of the structure, and because of its restrictions (the inability to see her as a subject, as something other than a part), the inevitability of her abuse and trauma is explicated. This is demonstrated when the girl

imagines herself literally as a ‘view’. Her view is of a crime scene: an absent body symbolised by a chalk outline. The girl in this view is flattened and two-dimensional, similar to the parts in the manual. She is acknowledging her actual body and any representation of her body as problematic. In this gendered view, the female line (her subjectivity) is blurred and the threat of violence hovers:

> A girl that is young has just the one edge, just the one long outside line between herself and the world … You can’t draw a chalk line around a body when it’s wearing a skirt. Some of the lines won’t be true. It is always possible to draw a line around a man. There’s the edge of him; there’s him on one side of the chalk, the world on the other, but not for a woman, or a girl like me. (2019, p. 84)

There is a choice to be made in perceiving an exploded view: to read the volumes and planes of the components; or to read the spaces between them, the pale territory that snakes between the components and bleeds to the edge of the page. The novel’s girl narrator gives primacy to the negative spaces of the exploded views in the manual. She invents names for the parts in between – the air parts. The air parts are irregularly shaped, private, known only to the girl. By lifting the veil of components from the exploded views and exploring the dead spaces in the manual, she is rebutting the masculine text, taking over its authorship, and considering what might be left behind in a world without a rigid patriarchy. The dead spaces provide a safe place for the girl’s mind and, importantly, for her body. What I intuited here is considered by Joerg Bose (2005) in his writing about art and trauma to be a creative product, which functions:

> intrapsychically as a kind of messenger between dissociated self-states and consciousness, and it may also serve as a witnessing presence in a self-supporting and self-constituting way … The act itself of finding and of making expressive forms at the time of traumatic experience is a remarkable assertion of the human capability to synthesize and to counteract fragmenting dissociative processes. (p. 51)

The girl narrator finds an expressive form in the workshop manual, but it is her thinking that re-forms it as a creative product – a space for deconstruction as well as reconstruction, a physical schema for the dynamic between sabotage and repair.

The experimental Irish-born British artist Francis Bacon consistently denied his expressive forms were connected with his childhood trauma, but when grappling with how to convey the inner event in the layered space of the canvas, he asked: “How can I draw one more veil away from life and present what is called the living sensation more nearly on the nervous system and more violently?” (cited in Walsh, 2009, p. 236). This resonates with my intention for my novel, although I believe I was working in direct reverse to Bacon. Using the exploded views as expressive forms has enabled me to go beyond the limitations of language. The visual schematics of the exploded views, their concentration on relationships, layers, spaces, lines and shadows, have taken me to a place where I have attempted to express the inexpressible – the pain at the heart of the inner event.

The embodied researcher

I have been discussing the manual and the exploded views in the realm of thinking – the innerness of the girl narrator's experience – and have implied that this thinking happens in a disembodied state. I want to go on to suggest they have also been important to my understanding of her as an embodied researcher. It is the girl's body that has placed her in peril; I want to suggest it is through her body that she acquires knowledge and, finally, constructs the possibility of a future.

Edmund Husserl's (1940) investigations into the phenomenological origin of the spatiality of embodied experience provide good scaffolding for elucidating the girl's journey. Husserl wrote: "It is with respect to my body that I experience the spatiality and temporality of the world" (p. 307).

The girl narrator interacts with the manual and its contents in her search for solutions to major questions: what is a girl? How might a girl navigate the world around her? How might she be safe? Early in the novel, she disputes the idea that the manual could be a place of bodily experience and describes it as a place to put her mind:

> When you put your mind in the engine some of what your body is saying – about being too hot, wanting a drink, needing to cry – can be turned down for a while. The manual can be relied upon. It is the same each time you open it. The same parts, the same hands. One exploded view sits next to another. No breath. No noise. No lies. (p. 147)

It seems she is denying the unreliable and unruly body – using the rational and reliable mind to control and quiet the flesh – but as the novel progresses her relationship with the manual changes. We see her approach the technical language of her text and the machines they refer to with sight, touch, smell and taste. She incorporates knowledge of the manual and the machines into her body and uses her body to put this knowledge into action.

Ulf Mellström's (2002) ethnographic work on car and motor mechanics in Penang, Malaysia, identifies the links between patriarchal machines and masculine embodiment:

> Bodily action and bodily learning are generally extremely important in the professions of mechanics and engineers – professions in which the body physically enacts change on artefacts. The enculturation of the body, in both occupations, is to be seen as a never-ending process of continuous incorporation of bodily and cognitive knowledge. (p. 464)

The girl experiences this same process of incorporating bodily and cognitive knowledge, but her gender and the trauma caused by the patriarchal machine of the society in which she lives fuels her to use that knowledge for subversion. Her body is armed for repair – and for sabotage. The girl removes car parts and buries them in the soil (where human bodies are buried); she puts sharp domestic objects (her mother's sewing needles) in the place of industrial liquids (the petrol tank of a car); she bites through engine hoses with her teeth, undoes screws and nuts, loosens electrical wiring, and makes misconnections between parts. One of her final acts of sabotage sees her taking the nuts from the rocker cover of the next-door neighbour's car for a

walk to the tip. She feels their shape with her fingers as they travel in her pocket and then, in a moment of embodied but existential confusion, throws them into the bush:

> Sometimes there is a rustle in the holly banksia. A goanna maybe? Nothing with fur could live here.
>
> Hexagonal. The nuts are warm in my hand. I'm going home now. One at a time I flick the nuts into the bush.
>
> Why am I myself? Should I be sorry about that? (p. 160)

The machine that needs the road is now incomplete; the bush that is not the road now harbours the nuts. The girl's living body is affected and marked by the act it has performed and from which it learns about its own thoughts. It is through the embodied subversion of the manual and the machine – the acting outside of it – that she learns about herself.

Merleau-Ponty (1969) explains how processes of perception structure the body, allowing it to sense itself as enveloped by, but separate from, the world:

> There is an experience of the visible things as pre-existing my vision, but it is not fusion, coincidence: because my eyes that see, my hands that touch, can also be seen and touched, because, therefore, in this sense, they see and touch the visible, the tangible, from the inside, that our flesh pervades and even envelops all things visible and tangible of which it is nevertheless surrounded. (p. 162)

What the girl narrator knows and how she knows it involves her sensuous living body, which is a necessary condition for memory, perception and knowledge. The body is essential to representing and communicating conceptual knowledge, and the body marks the line between the experienced (conceptual world) and the innerness of feeling. By the end of the novel, the girl is ready to dispense with the manual, to reject its worldview and form her own embodied view, which privileges sound, sensation and feeling:

> Do I take the manual? Can I just take the hands? There could be different views. *Exploded View of Stroking of the Skin. Exploded View of Tickling. Exploded View of a Pair of Feet That Want to Dance*. The dancing feet don't care about how they look in the picture. The music throb, throb, throbs in their ankles just for fun. (p. 187)

Ultimately, the girl's research into the nature of engines reveals that to be human is to be not-engine. An engine transfers information between components but each component is never more than itself. To be human is to be connected and therefore vulnerable, to be affected by the inner and outer worlds, to feel and act from emotion, and to live with uncertainty. To be human *and* female is to live with uncertainty and the inevitability of trauma.

The language of the mundane

There is more for me to say here about the girl researcher's relationship with the manual in *Exploded View*. The photographs in the manual are important schemas for her thinking, but the

technical language of the manual and the girl's practical, physical experience of tools and engines are also fundamental to her worldview.

The girl researcher is not in a living natural landscape and she is rarely in contact with other people. Tools and engines are from the realm of the mundane, not the poetic. Her freedom to disrupt the engine and its text is inherent in her embodied, gendered reading of it – a liberated reading, because the manual was not intended for her. Her reading of the manual is both uniquely literal and metaphorical. She is outside of its masculine associations and the expectation that she is required to understand and have mastery over it. Knowledge and experience move between the girl and the field that her body encounters as it engages with the material and social world of the manual and the workshop. This is because, as Pierre Bourdieu (2000) writes, "the living body is open to the world and available to be affected because of its senses" (p. 119). The field of the girl's experience comes to be inscribed upon her body, and she inscribes her bodily experience on the world. This is demonstrated when she 'swaddles' the hammer a neighbour uses to dispatch his surplus greyhounds. She brings her livingness, her embodied feeling, to what a tool is and how it can be used:

> The dog man's hands cannot end the dogs. His hammer can. Perhaps it is a clean feeling to break a skull and feel the glue behind it? The flies are always quieter after you've done the thing you had to do … The rag remembered it was cloth, remembered how to rip. No dog woke. There were enough strips of rag to wrap the hammer three times. The dog man's hammer came out looking like a baby. He'd find it in the morning. There it would be, on the bench, ready for its cradling. (pp. 104–105)

In swaddling the hammer – incarnating an object – the girl researcher is implicating another in her project. She is opening her experience of the world to the dog-murderer, inviting him to see the crime that is left on the hammer through its use, and suggesting how its fate and the fate of the dogs could be changed. She does this not by meeting violence with violence – she could have stolen or damaged the hammer – but by sensitivity to the form and matter of the hammer and of the rag. She approaches the matter of the object with the "desiring attitude" Jean-Paul Sartre described in *Being and Nothingness* (1969):

> Objects then become the transcendent ensemble that reveals my incarnation to me. A contact is a caress; that is, my perception not the utilization of the object and the surpassing of the present in view of an end; but to perceive an object, in a desiring attitude, is to caress myself with it. Thus I am sensitive, not so much to the form of the object and its instrumentality, as to its matter (gritty, smooth, tepid, greasy, rough, etc.) and I discover in my desiring perception something like a flesh of objects … consciousness sinks into a body that sinks into the world. (p. 432)

There is an interlacement in which the girl researcher's living body and the (masculine, mechanical) world come to be intertwined, mutually structuring one another. Feminist scholar Wendy Faulkner (2001) has expressed the repetitive and physicalised nature of this process: "gender relations are both embodied in and constructed or reinforced by artifacts to yield a very material form of the mutual shaping of gender and technology" (p. 6). In and through her body the girl experiences the bodies of objects, which in turn reveals her body to herself – my bodily

existence through my flesh. This dance with object and not-object, with bodily existence and the flesh, is a threshold experience in the life of the narrator as she is coming into adulthood and the possibility of her autonomy. Will she be a part or will she be her own engine?

To comprehend the manual, the girl researcher is required to learn a new language. That there are 'other' languages in the world demonstrates that an individual's capacity to know the world is always partial. Learning a language is about more than purely linguistic processes. Everyday experiences are required. The language must be put into practice. The new knowledge that the girl researcher acquires leads her into both licit and illicit territory (sabotage). The new language is the language of her patriarchal oppressor. Her motivation for learning it is to understand how the language might structure male thought and behaviour and to arm herself with the ability to resist and subvert.

At a metonymic level, an engine is structured like a language, with its different components acting upon each other to produce an effect. When the girl studies the language of the manual, it is not the same as experiencing the parts in situ – in the 'flesh' of the engine. Understanding this new language is an entry into culture. Her knowledge of the language of engines and the practices for their use and repair admit her to a collective of knowing – a stable physical world where geometrical objects have been designed and manufactured to have one specific function. The girl's new language speaks through her. Her mouth makes new sounds as she recites the new vocabulary – the names of component parts. This is akin to travelling in an area where she has not been before. New regions become visible. The girl's idea of the world and her way of being in it and moving through it is expanded – the new language is incorporated in her embodied sensemaking. I was delighted to see this understood by critic James Ley (2019), who draws attention to the language of the novel and the echoes that language makes. "The figurative yet scrupulously unemotive language [in *Exploded View*] is remarkably efficient; there is hardly a detail that does not reverberate beyond itself" (p. 25).

In *The Pleasure of the Text* (1975), Barthes points to a text that can threaten a reader's relationship with language. Barthes describes the text of pleasure, which:

> comes from culture and does not break with it, is linked to a *comfortable* practice of reading, and the text of bliss that discomforts (perhaps to the point of a certain boredom), unsettles the reader's historical, cultural, psychological assumptions, the consistency of his tastes, values, memories, brings to a crisis his relation with language. (p. 14)

In the final pages of *Exploded View*, the girl narrator drives a stolen car into an arrester bed of gravel. The pieces of gravel flow into the spaces of the engine of the car, enter the cab and press against her body. Here is obliteration. Here is bliss. A traumatic explosion of the exploded view.

The Australian language

I acknowledge here that my interrogation of the intertextual techniques in *Exploded View* and my explanation of their intention and meaning are necessarily retrospective. At the time of writing I was operating much like a weaver – selecting and arranging threads with only surface attention to the pattern I was producing. The question of why I am attracted to this mode of literary production is deeper and requires some untangling. It occurs to me that my migrant experience – the sense that my literary voice is not from this place and lacks authority to represent this place – could be part of the story. By borrowing and interlacing existing Australian texts, particularly texts that are technical or instructional, I am hitching my voice to that of local authority.

My interest in manuals and explanations dates back to the time my family migrated from the UK. In the Australian schoolyard and on the Australian nature strip I had a sense that I had arrived at a place with the wrong language. I was perplexed by the 'lie' of the gum tree in my *Colouring Book for New Australians* – it wasn't pink like the gums in my mouth as I had expected. I watched the Australian children's television program *Skippy* with close attention. In the opening credits a boy whistles on a gum leaf and his kangaroo, Skippy, hops out of the bush to meet him. I wondered if gum leaf music was the true Australian language, but as I was born elsewhere it was too late for me to learn it. When I reflect on this now, it is with an aching awareness and regret that the Australia of the 1970s in which my family arrived was still denying that Aboriginal languages were the rightful speech of the country. Even now, the multitude of languages (more than 300) that evolved with the country are little known in white Australia and a number of them are at risk of being lost.

Conclusion

In representing the thoughts of the silenced, traumatised girl in *Exploded View*, I can see that I am constructing a private language. By incorporating the found language of the manual into this private language, I provide a hub of meaning around which the girl researcher orbits. The manual enables me to map words to ideas and to investigate and subvert concepts and representations. The manual is a way of accessing the private space of the mind where thinking happens. Merleau-Ponty (1996) continues:

> We are not, then, reducing the significance of the word, or even of the percept, to a collection of bodily sensations but we are saying that the body, in so far as it has behavioural patterns, is that strange object which uses its own parts as a general system of symbols for the world, and through which we can consequently be at home in that world, understand it and find significance in it. (p. 236)

The novel does not intend to do away with language, but asks the reader to pay close attention to it. It opens a space for an intensely personal, gendered and embodied experience. It suggests assumptions about literal and communal meaning can be dangerous. Like a family, the parts of the cars act upon each other and are acted upon. If you remove a part (in the case of the girl's sabotage) you are testing the ability of the structure to hold – you are testing the structure itself.

It occurs to me that an exploded view is a kind of alphabet, and that my attraction to it might be due to the flatness of its representational perspective. Nothing is hidden in an exploded view; all of the parts are on show. The girl narrator's engagement with it – her desire to reverse it and to break it, along with the literal destruction of the machines it represents – comes back to trauma. How can a series of letters from which words are constructed, sentences formed and meaning is expressed, ever be enough – ever really explain the terror and despair that is so often directed at the subject of a girl?

Notes

[1] This story is referenced in an essay published in *Guardian Australia*, 30 March 2019. https://www.theguardian.com/books/2019/mar/30/on-those-long-gruelling-roads-i-hunted-for-the-memory-of-the-child-i-used-to-be

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