

JOEY THE MECHANICAL BOY

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Joey the Mechanical Boy: His Story

Introducing Bruno Bettelheim's account of Joey the Mechanical Boy.



Figure 18. 'Joey, when we began our work with him, was a mechanical boy.'
(Bettelheim 1959)

The account of Joey the Mechanical Boy and his supposed cure under the care of Dr Bruno Bettelheim, appeared in *Scientific American* in 1959. Given Bettelheim's subsequent reputation for embellishment and invention (see particularly Pollak 1997 and Raines 2002), the authenticity of the story of Joey the Mechanical Boy must be considered to be in some doubt, and it is perhaps best read, at least in part, as mythology. Although considered

inadequate today as an account of psychological therapy, Bruno Bettelheim's account published in a late 1950s edition of *Scientific American* of a supposedly schizophrenic¹ child nevertheless continues to provide an illuminating insight into 'emotional development in a mechanised society' (Bettelheim 1959, p.117). To take Bettelheim's account at face value: when Joey was first admitted to the Sonia Shankman Orthogenic School at the University of Chicago, he displayed signs of serious trauma. Joey was a frail 9-year-old child who believed himself to be a machine.

According to Bettelheim, so complete was Joey in his machine behaviour that he was able to convince others who encountered him that he might be some remarkable, although obviously mechanical, android. For Joey the 'delusion' was complete. He would move from room to room stringing 'an imaginary wire from his "energy source", an imaginary electrical outlet, to the table. There he "insulated" himself with paper napkins and finally plugged himself in. Only then could Joey eat, for he firmly believed that the "current" ran his ingestive apparatus' (Bettelheim 1959, p.117). To their bemusement, the staff and the other children found themselves stepping over these 'imaginary' wires and being careful to avoid the other 'apparatus' with which he surrounded himself. Mostly Joey would hum along unnoticed like a domestic appliance, but on occasion he would suddenly 'shift noisily through a sequence of higher and higher gears until he exploded screaming "Crash, crash!"' (Bettelheim 1959, p.117). Joey would hurl his apparatus around the room; he was particularly fond of stealing light bulbs and, if any broke, would 'retire to mute, motionless non-existence' (Bettelheim 1959, p.117). In contemporary engineering terms, Joey seemed to imagine himself to be a form of hybrid, a combination of electrical motors and internal combustion; while his wires connected him to his current, he breathed through a carburettor and exhaled through exhaust pipes.

In Bettelheim's account, Joey, being 9 at the time, displays a remarkable cognisance with mechanical complexities for such a young and disturbed child. We might wonder whether he was as much a product of the interpretation of the nurses who cared for him as a product of his own mind, although Joey certainly became something of an expert at taking apart and reconstructing machines at a very early age. Bettelheim speculates that this early fascination coupled with the inadequacies of remote and unloving parenting led him to develop 'preventions' protecting himself from the world, feeding through pipes. His pathological behaviour seemed the 'external expression of an overwhelming effort to remain almost nonexistent as a

¹ Although described by Bettelheim as schizophrenic in 1959, Joey might be considered autistic by contemporary therapists, a fact noted by Bettelheim in a subsequent retelling of his story (see Bettelheim 1976).

person' (Bettelheim 1959, p.119). Conversely, Joey gave biological names to his apparatus: his tubes 'bled' when cut, his machinery sometimes 'got sick'. On one occasion Joey bumped into a piece of the hospital apparatus; in rage he began to kick it, until restrained by a nurse, who explained that the hospital apparatus itself, being hard, would hurt his foot. Joey's response was to cry indignantly: 'That proves it. Machines are better than the body. They don't break; they're much harder and stronger' (Bettelheim 1959, p.120). When Joey demonstrated any human physical or intellectual frailty, he would demand that a limb or his brain should be hit to make it work, or torn off and replaced. Once, later in his treatment, when he was rebuffed by another child to whom he had formed something of an attachment, he cried, 'He broke my feelings' (Bettelheim 1959, p.120), as if his emotions had some kind of mechanical construction.

Joey's supposed restoration to 'humanity', Bettelheim informs us, was a gradual process. Joey progressed over the course of five years from a disturbed and isolated frail child to become human enough to escape Bettelheim's treatment. At the age of 12 Joey wrote a slogan on the hospital memorial day float: 'Feelings are more important than anything under the sun.' This was evidence enough for Bettelheim that his cure was effected. 'Feelings, Joey learned, are what make for humanity; their absence, for a mechanical existence. With this knowledge Joey entered the human condition' (Bettelheim 1959, p.127). Between the screaming machine and the emotional and cultured citizen, a story is told of a child emerging slowly from trauma under the patient and gentle care. Whether his story truly reflects some of the later more brutal accounts of life in the Orthogenic School or not, Joey's life appears to be an extraordinary and remarkable story. Bettelheim suggests that it is a story of its times. 'It is unlikely that Joey's calamity could befall a child in any time and culture but our own . . . our society of mechanised plenty' (Bettelheim 1959, p.126). Joey 'chose the machine and froze himself in its image' (Bettelheim 1959, p.117). It was constructed from the world as it was to hand, a mid-twentieth-century world, presumably close to a second great mechanised war, a time of the rapid proliferation of domestic appliances and motor transport, the apotheosis of a process begun a century before in the steam age and the nascence of a new era of electronic apparatus. Joey's condition, and his construction, mirrors his time, his hybrid nature of electricity and combustion reflecting the transformations that were taking place in the world about him, his behaviour both violent and mechanical and passively electric.

Joey the Mechanical Boy: The Orthodox Analysis

Joey's cure (his humanisation) is imagined to reside in a process of therapy, which enables the emergence of a social model of his humanity from the cold and unfeeling realm of his heterogeneous, technologised self through a process of social and cultural alienation.

Bettelheim imagines that Joey's cure resides in a process of the *humanisation* of the technologised self. Bettelheim suggests that his process of humanisation is undertaken by teaching Joey to repress the dread of his machine self and to come to terms with himself as an emotional and cultural human. In his lost humanity Joey is the ultimate, pathological cyborg. Only by refinding his humanity can he be expected to live at peace with himself. The story, as it is presented, suggests that Joey imagined himself as a technology in need of humanisation. In Bettelheim's analysis Joey presents a complex retraction from the world. The child is trapped in trauma, but is then gently freed from an all-consuming delusion. This delusion, Bettelheim reasons, is sustained by the world in which the child finds himself, conditioned internally in reaction to infantile events but determined by the times in which Joey lives. The child is brought both into the world and into himself. Joey's humanity is thus revealed as some form of soulful warmth buried beneath the cold hostility of his autistic defence: 'the body can operate without a human spirit, that body can exist without a soul' (Bettelheim 1959, p.117). In that moment when he recognises the necessity of feelings, and through a number of sensitive drawings that Joey makes of the world, the human is revealed. Joey is no longer a machine. He is evidentially a human being, because he has culture and emotion, and these define the terms of Bettelheim's imaginary conception of how we should measure our humanity. The centre of this therapy resides in the transformation from machine boy into a human being who *controls* machines.

For Bettelheim control represents an important aspect of the overcoming of trauma; he makes several references to it in his account of Joey's restoration. Toilet training, of course, and the control of his bowels are a focus for Bettelheim's scrutiny. Although it was not 'anal' in the Freudian sense, it is supposed that rigid toilet training had in some way mechanised Joey's behaviour. Joey overcomes fears that his 'whole body be sucked' out during defecation into a superior machine toilet. This, and his contradictory fear that the removal of his particular digestive 'prevention' tubes might lead to his body filling with faeces, 'leaving him no room to live' (Bettelheim 1959, p.122), seem to indicate an awareness of his organic nature even at the apotheosis of his mechanised trauma. Bettelheim is now considered to be wrong, even fraudulent, in his hypothesis that autism emerges in consequence of parental behaviour. Nonetheless, a lack of emotional attachment, as well as

a mechanistic treatment by unloving parents (were these shown to be true), might be reasonable grounds to develop a defensive view of oneself isolated within a machine. Bettelheim charts the slow and painful retrieval from this isolation by tracking the expansion and dissolution of Joey's illustrated conceptions of his place in the world. Joey's first drawing describes the 'papoose', an 'artificial, mechanical womb . . . into which he locked himself' (Bettelheim 1959, p.127). Joey represented the papoose in drawings as an isolated box, strung on taught wires, suspended in an infinite void. Gradually over time and in the process of therapy, the papoose became more intimate and eventually more akin to a skin, closely contouring the organs of the body. In simultaneity with this intimate wrapping of the organs, the body itself became progressively less isolated, grew hands and acquired sensory organs. With the development of the means to engage with the 'outside' world, it became necessary for Joey to construct a new conception of his psychology. Joey began to draw the 'Carr'.

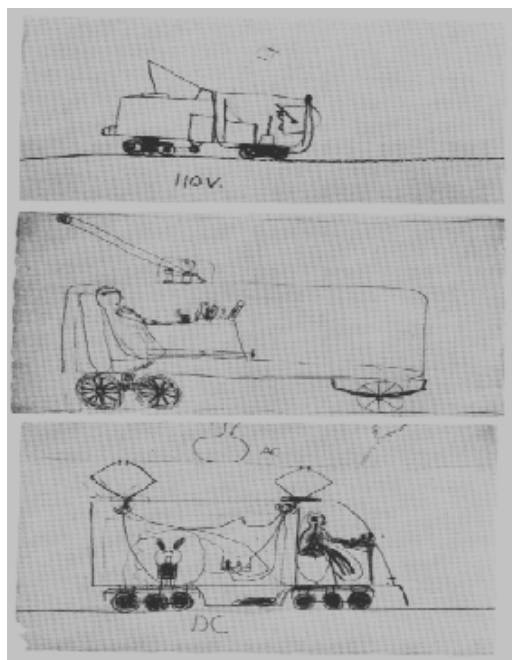


Figure 19. Three drawings of the 'Carr' family.

The 'Carr' is a drawing of a machine in which Joey is able to undertake a psychological journey into the world. The 'Carr' may refer to Joey's childish misspelling of the 'Car' or the 'Autocar'. However, Bettelheim might be playing a rather subtle joke upon us, while simultaneously revealing

something of the fictional or allegorical nature of the story of Joey that he tells. The term ‘Carr’ may hint at Joey’s true name, or may be Bettelheim’s subtle allusion to the Ancient Egyptian concept of the ‘Kah’ or ‘Ka’, somewhat uncertainly translated as the ‘soul’ or ‘vital energy’ or as the essential quality that defines our sense of self in the world. Joey’s Carr is mechanically imagined, and Joey is a mechanical boy. The Ka is a means for the deity to travel into humanity, and the Carr is Joey’s mechanical means to travel into the world of humanity (see Kemet 2006). Bettelheim claims the Carr was designed by Joey to move and thus to provide a means of ‘exploring the possibility of leaving the school . . .’ (Bettelheim 1959, p.127). As the ‘papoose’ entered the ‘Carr’, it was at first a passenger, and then eventually took control of the vehicle. In taking control, Bettelheim argues, Joey became human. The logic of this argument is that machines are not human; they are controlled and extrinsic to conditions of humanity. By taking control of this extrinsic condition, Joey convinced Bettelheim of his cure, and, in making his final step into the human condition as a cultured American, with his contribution to the carnival float, he was allowed to leave the hospital.

For Bettelheim this is a story of therapy and the emergence of humanity from the soulless mechanism of the human body. That Bettelheim’s *Scientific American* account was presented in an exhibition at Vancouver Art Gallery, entitled ‘The Uncanny; Experiments in Cyborg Culture’ (see Grenville 2001),² is an indication that his story has taken on a late-twentieth-century resonance. For some, Joey’s condition is evidence of the uncanny nature of the cyborg condition, a symptomatic response to an age in which humans have become machine. For Bruce Grenville, who collated the exhibition and edited the catalogue, the story represents his own feelings of dread, the same terror he felt when a mechanical lung sucked the air from his chest. If Bettelheim proposes a cure, a realisation by the child that he is not a machine, then Grenville argues that a repression of Joey’s awareness of the machine nature of his body has occurred.

My proposition is simple. The cyborg is an uncanny image that reflects our shared fascination and dread of the machine and its presence in modern culture. This proposition is rooted in Sigmund Freud’s dictum that the uncanny ‘is in reality nothing new or alien, but something familiar and old-established in the mind and which has become alienated from it only through the process of repression. (Grenville 2001, p.10)

² Bettelheim’s *Scientific American* account is presented alongside Marcel Duchamp, Lee Bull, Donna Harraway, William Gibson and others, who reoccur as focuses of attention in cyborg literature.

Only by repressing the dread of the machine can Joey escape into something of a semblance of life in the mechanical age. Joey's trauma merely reveals the terror of life in his time. He must simply learn to forget, or at least to ignore, the oppressive nature of the technological and mechanised world in which he can live. Bettelheim uses the word 'uncanny' to describe his patient,³ although he gives the term little weight. 'Uncanny' appears almost colloquially, perhaps as a figure of speech, perhaps unconsciously connecting Joey with a Freudian revelation. 'Perhaps [Joey was] so uncanny because [he] remind[s] us that the human body can operate without a human spirit, that body can exist without soul' (Bettelheim 1959, p.117). The body, in this logic, must be understood to be a machine for living in, and we are today now more familiar with the concept of a body, brain dead but breathing with the aid of apparatus. But nevertheless we are reminded at every turn that the body is never just a machine. The body is warm, vital and generational; the machine, at least in Bettelheim's analysis, is cold, geological and transfixed in time. If the body is a machine, it occupies an extraordinarily intimate relationship with our sense of ourselves. Joey, however, is imagined as an artefact. He can be humanised only by denying the machine nature of his body and by learning to externalise his humanity as an emotionalised culture. On closer inspection, the drawings presented as evidence of the process of his therapy suggest that Joey comes to a broad understanding of the nature of the human condition, performs a necessary artifice to convince Bettelheim of his cure by completing the required normative expectation of himself as an American citizen, escapes the orthogenic hospital, journeys out into the world and melts into legend.

Joey the Mechanical Boy: An Unorthodox Analysis

The story of Joey the Mechanical Boy's therapy as a design analysis, revealing how Joey realised his own therapy, through a process that enables his selfhood as an emergent condition that accepted continuum rather than the resolution of heterogeneous entities.

Bettelheim's treatment, enabling Joey to come to terms with the need to have emotions, seems to be both subtle and expert, and, in combination with the care and patience of the nursing staff, seems to have been effective. In Bettelheim's account, the hospital helped Joey to understand that emotions, connected to a social and cultural model of the world, are the essential terms of being human. This is not in question here. However, if the three drawings

³ Bettelheim, of course, was almost certain to have been familiar with Freud's exploration of the uncanny (see Freud, 1917).

of the Carr family are subjected to a revised analysis, a rather different picture emerges. Joey's own voice has no part to play in the very few accounts that refer to his story, nor in the narrative laid out by Bettelheim's narrative of trauma and cure, illustrated with Joey's own drawings. Drawings are Joey's only voice from those times; they provide his side of the story and can be interpreted to reveal much that appears to be unnoticed in other accounts. The illustrations of the therapeutic journey through the Carr family, when viewed by a designer, and in the context of an investigation of the nature of the process of 'humanising technology', can be read in a manner rather different from that which Bettelheim describes from his perspective of the therapy. To remind ourselves of Bettelheim's analysis of the Carr family, it is presented as evidence of 'GROWING AUTONOMY' (Bettelheim 1959 p.124). The top illustration is supposed to show a Carr with no human in it. In the second illustration the figure rides within the Carr as a passenger, and in the bottom drawing the figure has taken control of the vehicle. These drawings, Bettelheim suggests, illustrate how Joey is at first a remote and isolated machine. Joey's humanity then emerges, first as an accomplice of the machine, and finally as the master.

But it is plausible, when one examines his drawings more closely, to take a view that Joey did not imagine himself to be a mechanical boy at all and was not cured. Rather than seeing the drawings as showing Joey learning to repress the machine nature of his body, it is quite possible to take a view that Joey realised his *own* therapy by discovering the full complexity of his humanity. In a design analysis, the 'papoose' and the 'Carr' family are evidence, not of the human gaining control of the machine, but of an emerging realisation of the hybrid nature of the human condition. Bettelheim could understand the machine only as something other than, and in opposition to, humanity. Joey's therapy, and by analogy the process of humanising technology, are then imagined as a transition between states (machine to boy) in which the technological machine of the body is repressed in favour of an externalised humanity that interacts with the body, rather as one might interact with an artefact. But this is not the evidence of the drawings.

In the Carr Family, the uppermost drawing certainly appears to be an empty and unoccupied machine. We can perhaps accept Bettelheim's analysis of the figure as a passenger in the second drawing, although, of course, many vehicles – railway engines, for example – are often driven from this position. The Carr certainly appears to have something of a resonance of the train in its wheel configurations and its pantograph. However, the third (bottom) drawing in the sequence is perhaps the most telling. Here the internal mechanism of the Carr and the internal mechanism of the figure are drawn with the same care and attention to detail. We can see the digestive system, the spinal cord and the brain as well as something that appears to be an

electronic valve mechanism and the wheel bearings. Most tellingly, the Carr and the figure appear to be symbiotic. The brain and digestive system are not merely connected to the components of the Carr; they appear as part of a larger machine, part biological and part mechanical, connected together with energy as an essential motivation. The Carr, for example, functions because it draws power through the pantograph, but also by collecting excreta in a tank and drawing energy from it. The eyes and ears of the figure are directly 'tapped' into the system, in which electricity and energy flow about, powering the Carr.

The Carr then, as it appears in this drawing, is not *something* that is merely *controlled* by the human, but a complete and coextensive activity system, synthesising energy, cognition and mechanics into one entity. The third Carr family drawing appears to represent the Carr as an autopoietic system, a topological domain that is enclosed and self-directed, although active in the world. Isolated analysis of the non-human system (vehicle) and the human (the figure – can we be sure this is Joey?) is no longer meaningful. Rather than simply a vehicle in which to travel, the Carr is a complete system that realises Joey's humanity. Being human is an activity realised through a singular coextensive being that extends into every facet of the soma and into every facet of the technological world. There is no beginning and no end of Joey. He is a being embodied in a biological and technological machine. Is it possible that Joey's trauma is not that he thinks he is a machine, but is symptomatic of what happens when one so young comes to the realisation of the hybrid nature of the human condition? If the drawings of the Carr family are looked at from a design perspective, they appear to track a process of self-realisation that Bettelheim does not describe at all. From a close study of these drawings it becomes possible to suggest that Joey, rather than *emerging* from trauma, merely came to a more sophisticated understanding of his condition as he matured intellectually. This sophisticated understanding enabled Joey to function in the world as an apparently normal human being. When he was admitted to the hospital, Joey imagined that he himself was realised through machine processes that were childish and crude. The only model of the machine available to his intellect was the artefact, remote and resolved. Joey attempted to replicate himself as an artefact, remote and operated by radio control. He was a single entity isolated from other machines.

As Joey began to attach himself to an infrastructure of technology, he moved from isolated radio control to more direct connections with crude models of technological systems. Joey now understood himself to be part of a distributed system of machines. Joey's early attempts to realise himself as part of a distributed system were crude and metaphorical. He used string instead of wires and other ephemera he could pilfer to stand in for machine

components. Over time, Joey came to a more sophisticated understanding of machines as being comprised of many smaller components and networks of other components. In the process of his developing experience and knowledge of technology Joey came to realise that technologies are complex, and his knowledge extended to increasingly finite understandings of that complexity. The detail of the machine became increasingly intense and subtle as well as more literal, practical, less metaphorical and more realistic in engineering terms, and this is reflected in the drawings. When admitted to the hospital, Joey drew himself as a simple creature, outlined with shimmering lines, a simple box body and limbs that were hardly there. Over time Joey came to an increasingly complex understanding of the machine nature of his body. The detail of that machine becomes increasingly finite in each drawing, as Joey realised himself through more subtle and sophisticated machine processes. Joey came to represent his own body as a complex system of intestines, spinal chord, brain, skeleton and so on. This representation mirrors the developing sophistication in his understanding of machine as an increasingly finite series of interacting components. The symmetry in this developing sophistication and the granularity of attention paid to the component of the machine (body or technology) are evident. Joey the Mechanical Boy enacted and realised his therapy by accelerating the complexity of the understanding he held of his condition. In the developing Carr drawings we can track a gradual intellectual shift from a mechanical model of the self, towards more distributed and interactive understanding.

Joey's drawings suggest that throughout his therapy he continued to understand himself as a machine but realised that he must understand himself as a distributed system that did not rely upon metaphorical props to support his schema. Joey came to understand that his body and the technology distributed around him were functioning together to make him conscious. As he matured, the Carr drawings demonstrate how Joey developed an increasingly finite understanding of technology and of the machine nature of his body. Joey's drawings suggest that he realised he could not simply copy the machines he saw about him in isolation, any more than he could isolate and copy any of the components of his body. Rather than isolating the components of his soma, Joey realised they must be considered as a complete system. As the therapy enabled the development of a more sophisticated understanding of the human, Joey maintained coherence in his self-perception by accelerating the sophistication and complexity of his understanding of the machine. Joey realised that he *was* and *was not* a machine; the machine *was* and *was not* Joey; humans are machines and machines then are human.⁴ This was the only plausible means for Joey to

⁴ In this account Joey would find the idea that one could humanise technology to be an oxymoron.

realise himself as being in the world in terms that could incorporate his being as a condition emerging from the systems that give rise to and support his being. Some of these systems, Joey understood, were built of organic tissue, others of metal and plastic; together these systems act as an extended soma. Joey's therapy came from this realisation. His drawings suggest that he did not suppress his machinic qualities but accelerated the complexity and subtlety of his understanding of the machine nature of the organic and inorganic soma, such that he was able to 'enter the human condition' (Bettelheim 1959, p.27) by understanding his humanity as residing in a rather special realisation of being. Coming to this rather sophisticated conclusion, we can perhaps speculate that, realising the futility of attempting to explain his realisation to Bettelheim, Joey painted a picture of a tree⁵ and slipped into mythology.

The narrative of Joey the Mechanical Boy ends at the moment when Bettelheim considered him to be cured. There is no account of Joey's life after this period. He remains entirely anonymous, which suggests it is possible that the story is a fictitious colluding of several separate accounts. Even if this were the case, the termination of the story at this moment suggests that Bettelheim accepted a generalised view of the normal relation between humans and technology. Joey's therapy appears to be complete when his relational positioning of his self and technology are placed in a relationship that is thought normal in everyday experience. Joey's drawings, however, suggest a rather different account of his therapy. We might ask whether Joey accepted the normalised view of human–technological relationships or whether he merely masked his true understanding in order to effect his liberation from Bettelheim's care. It is likely that we will never know the truth in this respect.

Bettelheim suggested that Joey the Mechanical Boy chose to be mechanical because the mechanical world about him had come to dominate his imagination. The more subtle reading is that Joey comes to an increasingly mature metaphysical understanding of the nature of the human condition as an emergent consequence of the soma. Joey understands his soma to be continuous in the organic and inorganic. Joey is not a machine, but he recognises that 'machines can be considered as organs of the human species' (Canguilhem 1992, p.55). His body then extends far beyond the biological artefact. This is a view that has much resonance in twentieth-century technology philosophy. Joey's drawings imply that he effected his own therapy by maintaining coherence between developing granularity in his knowledge of his own soma, with his growing understanding of the complexity of machines. We can find this coherence in the representation of

⁵ A tree painting was one of Bettelheim's key indicators of Joey's humanity.

his own soma concurrently with the inorganic soma of the Carr. As Joey becomes more sophisticated in his understanding of the inorganic components of the Carr, he develops his understanding of the organic components. Joey realises himself by finding a form of coherence in his understandings of himself as a machine. It could be argued then that, notwithstanding Bettelheim's direction and the expertise of the staff in the Orthagenic hospital, Joey realised his own therapy. This self-directed therapy could be understood to have occurred as Joey came to realise that his self-perception was insufficiently complex and could not be limited to a narrow conception of himself as a machine. Joey de-objectified himself, stripped his understandings of the world as a series of discretely ordered taxonomy, and came to realise himself as neither purely Boy nor Machine. By understanding his selfhood to be enacted through a distributed and extended soma, Joey could come to terms with his place in the human condition and could escape Bettelheim's regime. If Joey's trauma is understood as an analogy of the state in which industrial design finds itself, struggling to resolve a perceived difference between the fluid interpretation of the human and the objectified view of technology, then it is possible that Joey's therapy can provide an analogous model for industrial design too. The orthodox story of therapy that Bettelheim describes tells of Joey's gradual coming-to-terms with understandings of himself as culturally constructed. This model would seem to bear some similarity with contemporary industrial designers' attempts to reimagine the process of humanising technology in a cultural and social construct. The alternative model of Joey's therapy presented here invites a view of the process of humanisation as a coming-to-terms with continuum. Joey comes to understand that he is continuous with the machine, not because he is a bounded and fully resolved machine, but because he manages to understand his continuity at both the macro and micro scales. In one sweeping and material imagination Joey can sense his soma to be internalised organically and externalised mechanically as a continuum.

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