

A "Divine Ambiguity": Wittgenstein, Paolozzi, and Their Fascination with Machines

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Abstract

This paper examines the fascination – indeed, at times, an obsession – with machines in both Ludwig Wittgenstein and the artist Eduardo Paolozzi. By placing Paolozzi's approach alongside Wittgenstein's, it shows how each illuminates the other, with machines serving as a lens through which to understand their 'collaborative' relationship. It considers aspects of both their biographies, as well as Wittgenstein's texts and Paolozzi's works – particularly the series *As Is When* (1964-1965), inspired by Wittgenstein. The underlying claim is that, while Paolozzi was influenced by Wittgenstein, his artistic practice can, in turn, deepen our understanding of Wittgenstein's philosophy. This is particularly evident in the "divine ambiguity" Paolozzi identifies in his collages, which resonates closely with Wittgenstein's attempt to move beyond the traditional ontological divides that have shaped – and continue to shape – philosophical thought.

It is well known that Wittgenstein has exerted, and continues to exert, a notable influence across the arts, spanning visual art, literature, and music. Among the many examples, Eduardo Paolozzi stands out as particularly significant. I take this to be a compelling illustration of such influence: not incidental, but sustained; concerned with both Wittgenstein's life and writings; and, above all, emblematic of a mode of engagement that goes far beyond mere inspiration – so much so that Paolozzi himself once described his encounter with Wittgenstein as "really a kind of collaboration" (Spencer 2000: 150). Of the various aspects open to exploration (see Mantoan/Perissinotto 2019 for an overview), I focus here on one in particular: what might be described as a curiosity about, a fascination – even an obsession – with machines. The aim is not to emphasise a simple convergence of interests between Wittgenstein and Paolozzi, but rather to place their respective approaches to machines side by side so that, in Wittgenstein's own words, each may be "seen in the right light [...] by contrast with and against the background of" (PI 2009: 4) the other.

This paper is structured in three main sections: I begin with Wittgenstein, examining the role that references to machines in general, and to various types of machines in particular, play in his philosophy; I then turn to Paolozzi,

focusing especially on those works that bear an explicit connection to Wittgenstein; and I conclude with a broader reflection on the meaning and legitimacy of comparing Wittgenstein and Paolozzi.

1. Wittgenstein's fascination with machines is well documented. From a young age, he displayed a remarkable interest in their functioning: "At the age of ten his technical interests were so far advanced that he made a model with wood and wire of the house sewing-machine, a model that actually sewed a few stitches. He retained throughout life an interest in the logic of machines and in his last years used to go to the Science Museum in South Kensington to look at the steam engines" (McGuinness 1988: 45). This early and lifelong fascination is also reflected in various other aspects of Wittgenstein's life: from his decision to study mechanical engineering, first in Berlin and then in Manchester, to his strong interest – especially during his years in Manchester (1908-1911) – in aeroplanes and aeronautical science; from the skill he demonstrated in successfully repairing mechanisms that had gone wrong, to his possession of several *theatra machinarum*, that is, "illustrated books consisting of drawings, etchings, or engravings of machines [...] with short or extensive descriptions" (Kovač 2021: 2104). In short, there can be no doubt that Wittgenstein was fascinated by machines. Yet it should be remembered – although this falls outside the scope of the present paper – that this fascination coexisted with a pronounced mistrust of what he called "the scientific & technological age" (CV 1998: 64) and of the 'constructive' spirit characteristic of "[o]ur civilisation" (CV 1998: 9).

Beyond these – albeit significant – biographical details, what matters most are the ways in which Wittgenstein's fascination with machines permeates his (philosophical) language. For example, he draws on mechanical imagery when observing that certain sentences (such as Heidegger's *Das Nicht nichtet*), even when attached "to the mechanism (*Maschine*) of our language", are "idle wheel[s]" (Wittgenstein/Waismann 2003: 73) that fail to engage, or mesh, with the other wheels. He returns to the same imagery at the beginning of the *Philosophical Investigations* to illustrate that the ostensive teaching of a word, without "a particular kind of instruction", produces no understanding: "I set the brake up by connecting up rod and lever." – Yes, given the whole of the rest of the mechanism (*Mechanismus*). Only in conjunction with that is it a brake-lever, and separated from its support it is not even a lever; it may be anything,

or nothing" (PI 2009: §6). This mechanical imagery – and his youthful passion for aeroplanes – is also evident in his reference to the philosophical need to take account of "friction and air resistance" (PI 2009: §130; see also §107). One could easily cite numerous other passages in Wittgenstein's texts in which he employs machines and mechanisms as illustrations or objects of comparison. A further example will suffice. In discussing a sentence such as "Scot is not a Scot", Wittgenstein suggests comparing it to a part of a machine: "[O]ne might say: the language is the machine, the sentence is the machine part. It would then go something like this: This crank has two holes of the same size. With one it is attached to the shaft, while the crank pin sticks into the other" (RPP 1980a: §40).

It is clear that Wittgenstein regarded these mechanical analogies and similes as useful for his philosophical work of clarification. Yet it is equally clear that he was aware that these very analogies and similes could give rise to "false appearance[s]" (PI 2009: §112) and various "superstition[s]" (PI 2009: §110). Consider his discussion of our attitude towards contradiction: he observes that, in order to explain why a contradiction does not work, we are inclined to speak of "the *mechanism* of contradiction" (LFM 1976: 190) and to "compare a contradiction to something which jams" (LFM 1976: 187) – in the sense that the seizure of a component is something that jams an engine. This picture of a mechanism, however, is "extremely misleading", and "[i]t is in such pictures that most of the problems of philosophy arise" (LFM 1976: 190). Certainly, contradiction can jam, but not in the sense that there is something behind it performing the jamming; rather, it jams, for example, because we do not yet know what to do with it, or because we do not want it to work (see LFM 1976: 187). Concerning "It is raining and it is not raining", we can say: "Nothing can be done with this", but we may also find a use for it. For example, we could use it to indicate that it is about to stop raining or that it is drizzling. In any case, as Wittgenstein notes, this jamming, if it occurs, "is not, as it were, somewhere else and observed by us in some other sphere" (LFM 1976: 191).

According to Wittgenstein, what is misleading is the tendency to conflate two very different uses of a machine. We can use a machine "as a symbol of its mode of operation" (PI 2009: §193); that is, as a model that displays and unfolds all its possible movements. In this sense, the machine is not distinct from its movements – it *is* its movements. But we can also refer to actual

machines, whose parts can bend, break off, melt, or otherwise fail. In this case, the possible movements of the machine are not, so to speak, contained within the machine itself. When "we talk of logical [or linguistic] machinery" (LFM 1976: 196), however, we tend to merge these two uses, thereby generating confusion between them. The machinery is at once an actual machine and a symbol. Its parts must be rigid in order to function, but this rigidity cannot be the kind derived from "comparing things like butter and elastic with things like iron and steel"; rather, it is a form of "super-rigidity", arising from the "interference" (LFM 1976: 199) between the actual machine and the machine as symbol. In other words, we want a machine as real as those found in a workshop, but which, unlike them, neither bends, breaks off, melts, nor otherwise fails.

The problem of the machine almost inevitably evokes the problem of the human and the relationship between humans and machines. Indeed, questions such as "Is it possible for a machine to think?" (BBB 1969: 47), "Could a machine think?" or "Could it be in pain?" (PI 2009: § 359), and "Could a machine perceive, wish?" (see BBB 1969: 47) recur throughout Wittgenstein's texts. Here, I will limit myself to outlining three aspects. The first is that Wittgenstein emphasises the conceptual character of these questions. Accordingly, "But surely a machine cannot think!" is not "an empirical statement" (PI 2009: §360) asserting that, for all we know, there are no thinking machines. Rather, it is equivalent to saying: "'Machines think' has no sense", which is how we exclude "Machines think" "from the sphere of language" (PI 2009: §499). The second aspect is that saying that a machine cannot think is simply another way of saying that it is "only of a human being and what is like one" that we say "that it thinks" (PI 2009: §360). We do not say this of machines nor, for example, of chairs (see PI 2009: §361). Yet we sometimes say it of "dolls; and perhaps even of ghosts" (PI 2009: §360). This reference to dolls and ghosts serves to highlight that, if we do not say that machines think, it is not because we know that the "material" (BBB 1969: 48) from which they are made could never produce thoughts, sensations, perceptions, or wishes, nor because we know that machines lack a brain and that, without a brain, there are no thoughts, etc. Against this way of putting things, Wittgenstein observes, in one of the most provocative passages of *Zettel*, that "[n]o supposition seems to [him] more natural than that there is no

process in the brain correlated [...] with thinking" (Z 1967: §608). The third aspect is that the word 'to think' should be regarded as "an instrument" (PI 2009: §360) with which we draw boundaries for various purposes, make distinctions, suggest analogies, and so on, rather than as the name of some process that, for all we know, occurs in human beings or certain animals, but not in chairs or machines.

2. Even a quick glance at Paolozzi's works is enough to see that machines, or parts of machines, frequently appear in his sculptures, as well as in his drawings, collages, and screenprints. Indeed, from childhood Paolozzi showed a strong interest in – or, in his case as well, a fascination and even an obsession with – machines, cars, and aeroplanes, and it was with considerable surprise that, at the age of twenty, he discovered that the same things were also of interest to French avant-garde artists, who, as he observed, were "able to embrace all those different sorts of things at once, at the same time, each with each" (Collins 1996: 14). According to Paolozzi, this amounts to "a special sort of cognitive experience where a person can look at, and associate, disparate things at the same time" (Collins 1996: 14). It is an experience – note, a cognitive one – which, as has been remarked, Paolozzi "has exploited with inimitable mastery" (Collins 1996: 14), and which may recall Wittgenstein's method of working by – as it were – assemblage (see PI 2009: §§109 and 127). It is no coincidence that collage was one of Paolozzi's preferred techniques from the very beginning, nor that among the books he acquired as sources for his collages were engine manuals – something readily apparent, for example, in *Stehendes Pferd* (1946) and *Head* (1952).

Here, I would like to discuss the role that machines play in the collages and screenprints from the first two decades of Paolozzi's production (from the 1940s to the 1960s), the culmination of which can be seen in the series of twelve screenprints *As Is When* (1964-1965), inspired by the life and philosophy of Wittgenstein. In the collages from this period, Paolozzi composes disparate elements; above all, he brings together things that may be considered ontologically distinct, such as the organic (the biological, the natural, the living) and the inorganic (the mechanical, the artificial, the inert). Remarkably, these collages foreground what Paolozzi calls "divine ambiguity": "Divine ambiguity is possible with collage: flesh marred by object or object masquerading as flesh" (Spencer 2000: 251). This is markedly exemplified in

the collage *Automobile Head* (1954), in which images of motor parts are arranged within the contour of a human head and shoulders, thereby producing a striking fusion of biological and mechanical elements. One might even argue that collage, with its divine ambiguity, stands in opposition to any form of 'reductionism'. Collage connects, marshals, and sets into relation materials of diverse provenance which, within the collage, exist *on the same level*. Hence, one might say that Paolozzi's artistic practice parallels what Wittgenstein says of his own philosophical activity, namely that its task can never be "to reduce anything to anything" (BBB 1969: 18), but rather to "suggest possibilities of which you had not previously thought" (Malcolm 1984: 43). It is telling that this latter quotation forms part of a longer extract from a lecture by Wittgenstein, reproduced by Malcolm in his memoir and incorporated by Paolozzi into *Parrot* (1964). The screenprint, produced in the same year as an aluminium sculpture, "symbolically and manically lampoons" the academic art in which Paolozzi was trained: such art is like a parrot – "part bird, part machine" (Spencer 2000: 4) – that nevertheless repeats, "parrot-wise" (PI 2009: 185), "Here I am, a parrot!".

The *As Is When* series, to which *Parrot* (screenprint VII) belongs, offers a rich illustration of Paolozzi's engagement with machines. This engagement is not limited to the mere inclusion of machinery, with explicit references to episodes from Wittgenstein's life – as in screenprints VI and XII, each of which features an aeroplane, or in IV, which incorporates a film projector and a tank – but also extends to the embodiment of the previously mentioned divine ambiguity and of the desire to "fabricate figures outside the limits of preconception" (Spencer 2000: 251). Notably, in this connection, Paolozzi invokes Arcimboldo and Rodin (see Spencer 2000: 251). In screenprint II, a complex convergence of geometric shapes on the left gives rise to what has been described as "a hint of a robot-like figure" – a motif especially favoured by Paolozzi – "losing control of a camera and its cascading filmstrips" (Collins 2014: 184). Significantly, the screenprint is entitled *Tortured Life*, alluding to Wittgenstein's own, yet it depicts nothing biologically organic. Here too, the distinction between biological, living forms and inert, mechanical ones is transcended – not visually, but through the title (in a manner similar to screenprint I, later realised as a sculpture, *Artificial Sun*, or the 1963 sculpture with little or no human likeness, *Wittgenstein at Cassino*). Screenprint VI is

particularly symptomatic. At its centre, two mannequin-like human silhouettes – variations on images by Fritz Kahn – face one another, their inner structures exposed. The interior of the figure on the left partly resembles a classical anatomical plate, reflecting Paolozzi's interest in such illustrations, most fully expressed in his later series based on anatomical plates but explicitly framing the human body as a machine, *Secrets of Life – The Human Machine and How it Works* (1970); yet it ultimately resolves into electrical panels and a tyre-equipped machine. Within the figure on the right, the respiratory system is replaced by a mechanical chain, while the brain is reconfigured as a set of compartments containing pictures. The most prominent of these are two stylised men, reminiscent of a sketch in the *Notebooks 1914–1916* (see NB 1979: 7). This screenprint is best understood in relation to the event that inspired it: Wittgenstein's visit to Ithaca, New York. At the time, Wittgenstein described the experience by contrasting nature and people with engineering and machines: "Nature here doesn't look as natural as in Wales. The only thing I really enjoy here is the engineering. I like to see American machines. The people I've met were often very nice but mostly, though not always, very foreign to me" (letter of 31 August 1949 to Rhees, IEA 2011). The screenprint may also call to mind that dense section of the *Philosophical Investigations* in which Wittgenstein, after asking himself whether a machine could think or be in pain, turns to the human body and writes: "Well, is the human body to be called such a machine? It surely comes as close as possible to being such a machine" (PI 2009: §359). The last screenprint I discuss here is III, a machine-shaped composition that, together with its title, *Experience*, ironically comments on the four challenging quotations by Wittgenstein included as text: "Is belief a kind of experience?", "Is a thought a kind of experience?", "All experience is world and does not need the subject", and "The act of will is not an experience" (NB 1979: 89). Representing a network of tubes, wheels, gears, valves, pistons, and other mechanical components, the screenprint illustrates – in accordance with Wittgenstein's rejection of any ontological divide between the inner and the outer – that beliefs, thoughts, and the like do not reside in an inaccessible interior, but are "embedded [...] in all of the situations and reactions which constitute human life" (RPP 1980b: §16).

3. In conclusion, I would like to offer a broader reflection on the meaning and legitimacy of a comparison – only sketched here – between Wittgenstein and

Paolozzi. Clearly, Paolozzi was not a philosopher, at least not in the professional sense of the term, nor did he engage with Wittgenstein in the spirit of a scholar. Nor did he seek, in *As Is When* or in other works, to illustrate Wittgenstein's philosophy. Rather, as has aptly been observed, "*As Is When* contains no truths a philosopher would recognize; only truths which an artist has experienced" (Spencer 2000: 3). This, however, does not mean that the relationship between Paolozzi and Wittgenstein is merely extrinsic, as if Wittgenstein were for Paolozzi just one of many stimuli or pretexts, with little or nothing to do with his work as such. Nor does it mean that there is nothing to be learned from Paolozzi about Wittgenstein. One might even suggest that it is of considerable philosophical interest to examine what it was in Wittgenstein that struck Paolozzi, and how this influenced his art. Here, I have sought to highlight two points. First, what struck Paolozzi was Wittgenstein's view of philosophy as an activity, rather than "a body of doctrine" (TLP 1974: 4.112), which aims to go "outside the limits of preconceptions" (Spencer 2000: 251), and which – unlike the parrot in the screenprint of the same name – does not assume that there is "one possibility, or only two at most" (Malcolm 1984: 43). Second, Paolozzi appears to have recognised in Wittgenstein a shared interest in that divine ambiguity, which led both of them to question and distrust those ontological divides – for example, that between the organic and the inorganic – that hold our thinking captive, as if under a bewitching spell (see PI 2009: §§115 and 109).

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