

Design, Ethics, and Imagination

(or: Why we don't need to teach ethics to designers, but why we should teach philosophers to design)

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1. Introduction

A few years ago the Technical University of Delft, my previous employer, decided that all courses, from physics to marine architecture, should include teaching on ethics. The philosophy department were charged with producing these courses and in 2001 all but two faculties had courses in ethics as part of their curriculum.

The two faculties that didn't have ethics as part of their curriculum were Architecture and Industrial Design Engineering (where I was then employed). This was strange, I thought, given that there is an argument for thinking that these seemed to be subjects, at a technical university, that had most to do with directly influencing peoples' behaviour; architecture at the spatial and environmental level, industrial design at the product and interaction level. It was these subjects, it seemed to me, that had *most* to do with ethics.

I worked together with Ibo van de Poel of the philosophy department in producing an ethics course for Industrial Design Engineers and Architects. We worked to introduce design ethics as a practical subject, infused in the objects and environments around us. We asked the students to focus on the things around them. The course was divided into a number of areas. First was a short introduction to ethical theory and argumentation, followed by the ethical aspects of the design process, interaction and use, sustainable design, responsibility in organizations, and finally marketing. The course was well-received by the students, who welcomed the possibilities of thinking about wider issues related to design but, in truth, didn't really get the ethics.

Of these subjects I want to focus on the design process in this seminar, and particularly the idea of how the design process might form a prototype for ethical reasoning and decision-making, an idea I developed during teaching the course over a few years. One of the answers to the question above of why the architects and designers weren't being taught ethics was that they might not need to be. The very fact that the process of design *was* about directly influencing peoples behaviour

maybe pointed to the process as intrinsically ethical. What I want to explore is how the role of imagination in the design process, envisioning future possibilities, might be key in showing the ethical nature of designing.

2. Is design ethical?

In September 1996 the 5.2 mile Bedford southern bypass, 8 years in planning, design, and construction, was nearing completion. The total cost for the project was £39 million, a reported £15 million over budget. The Highways Commission, though, were upbeat about the project. The bypass was “designed to relieve congestion, improve road safety, and make journey times more reliable”. The bypass would “reduce personal injuries on Bedford’s roads by 166 and the number of fatalities by 6”. It would also be one of the first “environmentally sensitive” road schemes in the country “to blend the road into the landscape”. Just before opening 56,000 trees and shrubs had been planted with another 54,000 to follow. Overall the bypass would provide “tremendous benefits for people living and working in Bedford”.

Shortly before the official opening, however, a report appeared in *Bedfordshire on Sunday*, the local Sunday newspaper, which voiced concerns about the level of lighting on some sections of the bypass. Lighting was only in place at junctions. Wouldn’t this compromise road safety? the article asked. A local councillor was quoted as saying:

“considering the total cost of the bypass it is a pity lights could not be part of the package, they often make all the difference and do so much to prevent accidents and save lives”

In the article the highways agency explained why certain sections of the bypass would be unlit. The volume of traffic, expected to be around 23,000 vehicles a day, was considered to be low. An expected accident rate had been arrived at including an estimation of the likely number of accidents that would occur during the night. The overall conclusion was the figures quoted above, the bypass was likely to produce a reduction in injuries and fatalities. The overall accident rate of the bypass was considered to be low. The cost of the lighting (including the ‘cost’ of light pollution created and the increased energy use) outweighed the likely cost of the accidents.

Described like this the bypass would appear a morally good thing in a number of ways. Saving life, making existing lives more efficient, and helping the environment. It was opened on Wednesday 25th September by the local MP with, naturally, help from local schoolchildren.

At 10.30 on the evening of Saturday 28th September, during a “torrential downpour”, 5 young men travelling in a Mini Metro crashed on an unlit section of the bypass. One man died at the scene, two were taken in a critical condition to the emergency department at Addenbrookes hospital in Cambridge, one of whom died two days later. The other two men escaped with minor injuries.

Reporting on the deaths the local papers returned to the question of lighting on the bypass, questioning the decision to leave certain sections unlit. After the first death the Highways Agency issued an official statement about safety checks that had been carried out prior to opening:

“Two safety audits were carried out by the Police and the County Council, one in the day and one in the night [with the implication being that lighting was looked at] ... both were passed satisfactorily, the road meets all safety specifications”

Letters to the local newspapers were at first critical of the lack of lighting. One remarked that “opening the new bypass without lights was almost like putting a ship to sea without a sail”. The prescient quote from the councillor was rehearsed, implying a lack of common sense. Other letters remarked on the absence of crash barriers on elevated sections, one of which had formed the scene of the crash. The following week the letters were more circumspect:

“To light all roads would cost millions, all of which would have to come from taxes which I, as a poverty stricken OAP could not afford”

After the second man died it was reported that “the Highways Agency, which made the original decision not to light the road, is to think again over the next couple of days”. Another newspaper encouraged readers to write in to discuss: “The Big Issue: Should the new bypass be fully lit?”

3. The Paradigmatic Design Process

The process that produced the Bedford bypass is a paradigmatic design process. A number of competing factors must be traded-off in producing a ‘better’ solution to an existing problem situation. The media representation of the design process is one of cost-benefit – was it not possible to spend more money in order to save lives? Why do we need to plant trees if people are going to die? – but the designer rarely thinks in this way. Rather, what the designer does is imagine a number of possibilities and tests those possibilities out according both to the explicitly formulated constraints – about safety, traffic flows, cost, etc. – and to the problems implied by these constraints – signage, sight lines, the gradient of a slip road, or where exactly to place a bridge. Donald Schön in *The Reflective Practitioner* refers to these implicit constraints elegantly as “the problem of the problem”. Designers are constantly trying to get at ‘the problem of the problem’ and then find solutions around it. This imagining and testing takes place in a number of ways. It may simply be in thought that the designer finds a suitable solution, but also by using media, paper, computers, and models. And of course by talking to other people: stakeholders, other designers, discipline experts.

Designers work to produce ‘better’ things. If pushed they see themselves as making the world a better place. Here are two quotes from designers in the latest edition of the trade magazine *Design Week*:

“We believe that good design is about making life better.”

“[We] define value [in Design] as something that is socially relevant, culturally appropriate and individually meaningful”

Usually these definitions are not formulated as any ethical imperative, although they could be argued in a consequentialist sense: better things make people happier. The justification for the Bedford bypass is, however, made explicitly on the basis of preventing injury and saving life. It is clear that designing here is an ethical action.

Despite this justification for the bypass it is unlikely that the ethics of the bypass was much talked about during the process of design. With working assumptions, standardised information, and the slow accumulation of discussions and decisions, there would have been no point at which the lighting versus fatalities issue was explicitly addressed. Ethical decision making, in design and elsewhere, is often characterised *post hoc* by points at which ‘big’ decisions have to be made, yet trying

to identify where in the process this happened is often impossible. Even a sophisticated cost-benefit model of design simply doesn't explain the nature of design activity because it misses the key component of *imagination*. Roger Scruton has been one of the few philosophers to look seriously at designing with the insightful observation that in advance of seeing the designed thing, we find it difficult to make judgements of relative value:

“In every serious task there are factors which, while of the greatest importance, cannot be assigned a relative value - not because their value is absolute, but because a man may not be able to judge in advance just when he is prepared to tolerate their remaining unsatisfied.” *The Aesthetics of Architecture*

How can one say, in advance of seeing the bypass, that the value derived from addressing environmental considerations should be reduced in order to increase the value of saving lives? At what point would we tolerate losing life in order to improve the environment?

The deaths on the Bedford bypass although criticised on the cost-benefit model would be better criticised as a failure of (moral) imagination. The events which contrived to produce the accident – a newly opened road, the speed at which the car was travelling, the torrential rain – should have been envisioned, and hence designed-for, by the designers. Or not, as the case may be. Designers imagine all sorts of possibilities and experiences that new forms will produce. They discard many, think some insignificant, and build their solution around those which they consider possible, demonstrably better, and that solve the problem of the problem.

4. Theories of Design and Ethics

The study of both Design and Ethics share a similar structure and this provides, perhaps, some evidence of the ethical nature of designing. The field of normative ethics has a parallel in prescriptive design methods – the path you should follow if you want a good design solution. Descriptive ethics looks at ethical behaviour and similarly descriptive theories of design look at design behaviour, studying design thinking or design discourse for example. Where meta-ethics examines ethical concepts, design theory looks at concepts used when we talk about designing – what

is function? What is a concept? Finally the aim of designing is to act responsibly on the world. Arguably that is also the aim of ethics.

There are other, deeper, links between design and ethics. There is a strand of design theory that traces its routes back to American Pragmatist philosophy, and particularly the work of John Dewey and to a lesser degree Nelson Goodman. Donald Schön, whose thesis was on Dewey, has produced a number of hugely influential books based on the premise of (architectural) designing as a prototypical activity for other forms of ‘reflective’, ‘real-world’ behaviours. Whereas what Schön and others call ‘technical rationality’ focuses overmuch on a division between means and ends – the distinction that Scruton was criticising – the idea that all problems are scientifically resolvable and thence ‘optimisable’, Schön, drawing on Dewey, emphasised the reflective, deliberative, nature of human activity with means and ends indistinct from one another. It is *deliberation* in particular that Dewey emphasises when analysing the nature of our conduct:

“Deliberation is an experiment in finding out what the various lines of possible action are really like. It is an experiment in making various combinations of selected elements of habits and impulses, to see what the resultant action would be like if it were entered upon. But the trial is in imagination, not in overt fact.” John Dewey, *Human Nature and Conduct*

Although analysing general human behaviour, Dewey could almost be describing design as an activity. What is fascinating is that it is this aspect of Dewey’s philosophy that has also formed the basis for some theories of moral imagination. In this strand of design theory, as in theories of moral imagination, there are a number of key theoretical concepts derived from pragmatist philosophy. *Framing* refers to different ways of viewing or describing a situation, *Discovery* is about how creative leaps are made in both science and design with particular reference to the displacement of concepts and the role of metaphor. *World-making*, theorised by Nelson Goodman, has been easily adapted to design theory describing a process by which designers build a repertoire of concepts and tools for thinking and acting within their own discipline.

Metaphor, in particular seems closely related to creativity on the one hand and, as Mark Johnson argues, our fundamental understanding of the world on the other:

“Metaphor enters our moral deliberation in three ways: 1) it gives rise to different ways of conceptualizing situations. 2) it provides different ways of understanding the nature of morality as such (including metaphorical definitions of the central concepts of morality, such as will, reason, purpose, right, good, duty, well-being, etc.) 3) metaphor also constitutes a basis for analogizing and moving beyond the 'clear' or prototypical cases to new cases.” *Moral Imagination: Implications of Cognitive Science for Ethics*

For Dewey the aesthetic (and possibly the ethical) are key components of our experiences and designing, the conscious weighing of alternatives, the balancing of aesthetic and functional value, of reason and emotion, of science and art is an obvious prototype for ways of behaving that involve envisioning possibilities. Designers, in particular architects and industrial designers, are trained over years to ‘envision possibilities’. Johnson concludes his monograph by saying that:

“We must cultivate moral imagination by sharpening our powers of discrimination, exercising our capacity for envisioning new possibilities, and imaginatively tracing out the implications of our metaphors, prototypes, and narratives.” (p.198)

And if ‘envisioning possibilities’ turns out to be critical to what ethical decision making is about, then the academic study of designing has a lot to offer the discipline of (applied?) ethics.

It is ironic that Herbert Simon, perhaps one of the greatest exponents of technical rationality, when reflecting on the value of designing, writes that:

“the act of envisioning possibilities and elaborating them is itself a pleasurable and valuable activity... designing is a kind of mental window shopping. Purchases do not have to be made to get pleasure from it.” *The Sciences of the Artificial*

6. References

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