

THE IDEALIST PRACTICE OF REFLECTION: TYPOLOGIES, TECHNIQUES, AND IDEOLOGIES FOR DESIGN RESEARCH

INTRODUCTION

The following will attempt clarify and complexify the notion of reflective practice. Ironically, invocations of reflective practice are often themselves not at all reflective of the consequences associated with where this practice comes from. (Ecclestone 1996) Ignorance of the genealogy of reflective practice risks the practice of reflective practice being insufficiently reflective. Awareness of that genealogy opens reflective practice to more effective techniques that are otherwise missed, whilst also limiting claims about the effectivity of reflective practice more generally.

To put this another way, Donald Schon's notion of reflective practice is appealing because of its pragmatism. Developed from American pragmatist philosophies, John Dewey in particular, with the specific aim of capturing the pragmatism of design as a creative problem-solving expertise, reflective practice, as reflection-in-action, happens in and as the everyday of designing. For this reason, there is a danger of assuming that by merely being a designer one is always already a reflective practitioner, without having to act any differently. This is not just a misreading of Schon, but also a misreading of pragmatism, which I hope to show always has a romantic heart, by which I mean an element of affectively formative willing – i.e., romanticism in the philosophic sense.¹ Reflective practices are how designers design, but they must also be designed, and, according to the philosophies grounding the notion of reflection, designed in ways that are more ambitious than the everyday pragmatics of designing.

SCHON'S POPULARITY IN RELATION TO THE INSTITUTIONALISATION OF DESIGN TODAY

A history of the institution of design might be:

- Industrialisation, seeking more efficient mass production, divides the labour of craft, separating the planning of what is to be made from the process of its physical making (Jones 1979)
- There is then the attempt to institutionalise the resulting profession of design and ensure its replicability by extracting teachable principles and methods from the embodied and communal practice (Alexander 1968)
- However, the demand for predictability in outcomes leads to further attempts not only to abstract the design process, but now to alter it, rationalising it into a universalisable method (Simon 1976)

¹ I am following the (anti)definition of Clemens (2003).

- At this points, the arational aspects of this expertise assert themselves against the 'design methods' movement and attempts are made to recover the artful aspects of designing and foster these through recrafted educational environments and processes (Jones 1986)
- In this context, design believes that it has the unique identity to begin to become a discipline with its own higher degrees and research methods rather than just one amongst other professions (Ohio PhD Design, Common Ground, Research by Design)

As design tries to assume its own position within the postmodern multiversity — that is, a university that is no longer turned (*versus*) toward the one thing (*unus*), be that god, reason, national culture, technology, or excellence (Readings 1996) — one of the most frequently invoked authorities is Donald Schön. Why is this?

On the one hand, it is because Schön is one of first non-designers — a philosopher by training with experience in management consultancy in the area of technology innovation who spent most of his academic life in a planning department (Waks 2001:37-8)— to access and promote what is designerly about design. Schön, employing what would now be called a sort of grounded theory or participatory ethnographic research process, developed through his work with Chris Agyris (see Agyris, 1980), learned about designing when he was “asked to join a study of architectural education.” (Schon 1987: xi) It was on this “intellectual journey” that he “did not anticipate” (xi) that Schön discovered the idea that designing was a process of ‘problem-setting’ in ‘conversation with a situation’ best characterised as a type of ‘reflection-in-action.’ (31, 42) Schön’s description is therefore particularly insightful for designers because it was learned from and through designing.

Schon’s tale of how he researched design is perhaps ‘prediction after the fact.’ Schön’s lifelong polemic, sustained after his studies of design, but also pre-dating them, was resisting ‘technical rationality’ because of the way it constrained the effectivity of professional expertise at a time when adeptness at negotiating change was urgently required — see for example, *Beyond the Stable State* (1973). Schön was looking for strong examples of non-scientistic ways of responding to what he perceived as increasing turmoil. Design fitted this brief, because it contained “the seeds of an earlier view of professional knowledge” (1987: 43), that is, more tacit, artful, case-by-case ways of proceeding. If Schon is guilty of a sort of ‘leading questioning’ designers tend not to see this as invalidating Schön’s account, but enhancing its accuracy. Precisely because Schön was at pains to prevent the imposition of positivism onto design, he was more able to hear what lay at the heart of designing. Because the notion of reflective practice was designed for and from design, Schön is celebrated for articulating the very act of designing. Where so many accounts of design as a method describe only what has recently be called pre- and post-design,² leaving as a black box a stage called something like ‘creative problem-solving’, ‘divergent thinking’, ‘synthesis’, ‘incubation’, Schön’s account delivers to designer’s ‘the surprise of self-recognition’ (Nelson & Stolterman, 2003³) with regard to

² These terms and these accounts of design methods missing designing proper, I take from recent discussions on the PhD-Design e-discussion list throughout April.

³ Nelson & Stolterman do not refer to Schon. Their phrase ‘surprise of self-recognition’ is their useful characterisation of the ‘being-in-service’ relation essential to designing.

what lies at the heart of the act of designing, the generation of ideas that respond to situations in desired ways.

DESIGN AS EXEMPLAR

On the other hand however, there is much more to Schön's project that makes it appealing to design at this moment in its institutional history (perhaps more so than when Schön first wrote about design). In many ways, Schön seems to be too good to be true, accomplishing with the one concept, *reflective practice*, not just an accurate description of designing, but one that:

1. finds in the very practice of design a distinctive research method and an educational strategy. Because design as a reflective practice involves explicating as knowledge what otherwise remains at the level of *knowing* (Schon, 1983: 59), because that knowing-in-action involves reframing situations as novel extensions of a repertoire of solvable problems (309, 315), and because what results is sharable amongst a community of practice (Schon, 1987: 32-6), "when someone reflects-in-action, [s/]he becomes a researcher." (1983: 68) And because that research is into and for the betterment of one's practice, s/he also becomes a (self)teacher. (1983: 299) Schön's account of design therefore "can bridge the worlds of university and practice," (1987: 305) by finding research practices and learning tactics at the core of designing itself, avoiding the need for designers to borrow methodologies and pedagogies from other academic fields. The notion of reflective practice therefore makes designing itself a method of research and education. In other words, Schön's account can be read as demonstrating that the profession of design is already a discipline. By doing what they do naturally, designers are already researching and teaching. All previous attempts to abstract or rationalise design are utterly refused by the fact there is, in Schön's notion of reflective practice, no distance between the pragmatics of designing and the academics of researching and teaching.
2. not only articulates what is unique to design, but characterises design as the model for all professions and, because also for all research and education, all disciplines. All "professional practitioners are also makers." of "artefacts", if these are understood generally, as products, but also "arguments, agreements... plans, policies... and systems;" but more importantly of "problems and ... situations." (1987: 42) "As makers of artefacts, all practitioners are design professionals" (1987: 43) and so designerly "artistry [is] prototypical of reflection-in-action in other professions... designing, broadly conceived, is the process fundamental to the exercise of artistry in all professions." (41) The notion of reflective practice therefore elevates design to a paradigm. Schön not only preserves what is particular to the practice of design and so grants it its own rightful place in the university, but simultaneously makes design a new *unus* toward which all should *versus*.

No wonder then that Schön is lauded by designers.

THE SWAMP OF REFLEXIVE REFLECTIONS

Two things should haunt designers too easily enamoured with Schön. The first is that to a certain extent, because of 1) above, designers appear to almost automatically gain access into our institutions of higher learning and research. If designers need do nothing to enter the university, if designers need only do what they ordinarily do, then perhaps the university offers nothing more for designers, in which case why enrol? The second is that, because of 2) above, designers are not alone in their affection for or identification with Schön. They are in fact the last in a line of rivals — ahead of them are planners, educators, social workers, nurses, and managers (each of which has moved beyond enamourment through critique to modification). So if design is only one of many professional disciplines with reflective practice at their centre, does not reflective practice risk being everything and nothing?

Another version of these side-effects from the Schönian panacea is that reflective practice becomes uncannily self-reflexive:

- *reflective practice < > designing*
design is not just a model reflective practice, but reflective practice is itself a kind of designing, a process of reframing, problem-finding and –setting, and making (effective reflections); it is something that needs be done not just like a designer ("thinking like a ..." [1987: 39]) but explicitly designed; it involves designing reflections into practices, or what Schon calls making "seeing as" into "on the spot experiments" (1983: 141)
- *designing < > learning*
reflective practice is not just how you design, but how you learn to design — which is why Schon's examples of designing can be the designing that takes place in educational settings or 'virtual worlds' (1987: 75) — and how you professionally develop your designing after learning how to design (1983: 324); because designing is a reflective practice, you learn to design by designing and by designing you learn to design better — "students must learn [reflective imitation] in the very same process by which they try to learn the process of designing — learning to engage in reflective imitation as they learn designing through reflective imitation" (1985, 75); or to put it another way, since education is itself one of those professions that should be modelling itself on designerly reflective practice, how you learn is itself a process of designing — a form of making (onself) through problem-based reframing (1987: 290)
- *learning < > reflective practice*
reflective practice is inherent to the process of designing as a type of tacit know-how; however, to mobilise this know-how for learning — and in particular to retrieve it from technical routines or defensive rationalisations, designers must make reflective practice an explicit technique through reflective practice — "[since] the description of one's own knowing-in-actin is itself a skill... designers can learn to make better descriptions [i.e., reflections] of designing... by continued reflection on their own skilful performances [of reflection-in-action]" (1987: 160) — and then make a habit through reflective practice (1983: 281-2)

Schön does not avoid or deny these risks of messy, indeterminate, dilemmas: quite the opposite. In many ways, *Educating the Reflective Practitioner* is a confrontation with the

unresolved reflexivity of *The Reflective Practitioner*. The brief that Schon gives himself – "What kind of professional education is appropriate to an epistemology of practice based on reflection-in-action?" (1987: xii) – could be recast as: "How to enter this hermeneutic circle?" Schon's willingness to work through these confusions is why, I would like to suggest, they are defining moments for understanding the practice of reflective practice. This is to be expected given that these are the moments when Schön, 'surprised' (1987: 28) by his own process 'talking back' to him, is forced to pause, reflect and reframe 'reflective practice.'

THE AUTHENTIC CRITICAL PRAXIS OF REFLECTION

Schön's way of pulling himself out of these regressive swamps is a ladder. Schön spaces out the reflexivity of reflection with the old philosophical trick of saying that there is reflection, and then there is 'Reflection':

- 4 Reflection on reflection on description of designing
- 3 Reflection on description of designing
- 2 Description of designing
- 1 Designing (1987: 115)

The bottom rung is unreflective reflection-in-action. The second rung is a think-aloud. The third is questioning the meaning or appropriateness of those articulations. And the final level is to have formulated responses to those questions.

It is worth noting that all levels involve deliberate effort and to this extent are to be differentiated from conventional practice. It is not as though things are easier at the bottom of the ladder. Developing descriptions of designing is a particular skill that John Mason has usefully characterised as *The Discipline of Noticing* (2002), something that is only possible at Level 2 if one is in the difficult-to-maintain habit of marking moments in Level 1 for later remarking.

Obversely, and following Alan Bleakley's insights (1999), the uppermost Level 4 is not an ascension into the heavenly *theoria* of the *vita contemplativa*, but precisely a return to the *phronesis* of the *vita activa*. Only this last is truly 'Reflective', not in having plumbed the depths of an interiority, but in having extracted (2) from a reflex (1) reflections (3) that can be bent back (*re-flectere*: Bleakly, 1999: 320 citing Hillman) into those no longer reflex actions (4).

Importantly, particularly for designers who tend to focus only on Schön's two 'reflective practitioner' books, ignoring his earlier work with Chris Argyris, the top rung is also not mere identificatory self-recognition, but recognition of one's own self-misrecognition that leads to an identity change. Schön notes at the end of *Educating the Reflective Practitioner* that vicious circling in reflective practice is a symptom of Model I defensive, self-justifying behaviour, as opposed to the virtuous spiralling of Model II's open, double-loop learning (1987: 301-2). This means that lower order unreflective reflecting is narcissistic, in the double sense of only ever telling you what you know already ("equilibrium state of death" [1987: 308]) whilst also being wholly illusionary ("a precious island cut off" [1987:312]). Higher order deflative reflecting puts you outside of yourself, able to observe your theories-in-use (as opposed to the self-fulfilling prophecies you espouse), and thereby become different (1987: 290).

At this point, it becomes apparent that Schön's ladder could, and perhaps should,⁴ be extended (he himself adds a further rung later: reflection on the interpersonal aspects of coach-student relations [1987: 139]) through alienation from false consciousness to existential phenomenology in which case, Schön's ladder might be the following:⁵

<i>Name</i>	<i>Who and When</i>	<i>How</i>	<i>Nature</i>	<i>Exponents</i>
Reflection-in-Action	What professionals do when faced with ill-structured problems	Reframing, drawing on precedent	Near tacit, part of the designing	Schön, Polanyi
Noticing	Mechanisms that professionals use to remind them to remember moments in the flow of practice	heuristics, checklists, exercises, self-questions,	Interruptions	Mason
Reflective Development	Novices becoming proficient	Noticing patterns, taking risks	Inherent capacity for skill acquisition	Dreyfus, Eraut
Reflective Learning	How everybody turns experiences into actionable beliefs	Concept building, pattern recognition	Requires effort but part of learning (to learn)	Dewey, Kolb
Reflection-on-Action	How professionals develop	Debriefing, Knowledge management	Making the tacit explicit	Schön
Reflection-through-Action / Action Research	Making professional development or knowledge from experience methodical	Inductive theory building, Deductive hypothesis extrapolating, Abductive testing	Explicit research method	
Expert Reflection	Developing expert styles	Noticing anomalies, setting new challenges	Habits, Styles	Dreyfus, Czichsentmihalyi

⁴ Schon is often criticised for ignoring questions of power. Adaptations of Schon to the domain of adult learning most often negotiate this issue (eg Boud, Keogh & Walker, 1988).

⁵ The following also aims to take into account Mezirow's 'ladder' for critical reflexivity: reflectivity – awareness of something; affective reflectivity – awareness of feelings about something; discriminant reflectivity – awareness of beliefs of efficacy behind something; judgemental reflectivity – awareness of value judgements involved in something; conceptual reflectivity – critiquing one's awarenesses; psychic reflectivity – critiquing one's judgements; theoretical reflectivity – locating one's critiques in wider cultural contexts (Mezirow 1981)

Double-Loop Learning	Professionals restructuring interpersonal work relations	Double columning, Sharing, Unbinding	Explicit techniques	Agyris, Freud
Reflexive Sociology	Individuals becoming aware of the power relations structuring their actions	Reading theory, interpreting symptoms	Praxis	Marx, Giroux, Bourdieu
Reflective Thinking	Philosophers revealing epistemologies and ontologies	Phenomenological hermeneutics	Abstract but not necessarily formal process	Descartes, Kant, Husserl
Speculative Thinking	Philosophers developing ontologies	Poetry	Strategy	Hegel, Schlegel, Schiller, Nietzsche

This more politicised account of reflective practice however raises questions that cannot be pursued here, about the extent to which reflective practice is form of Foucauldian self-disciplining (Usher & Edwards: 1994), one that concurs with, on the one hand, the use of reflection for therapeutic self-fashioning (eg the vogue popularising the Ancients for *Philosophy as a Way of Life*)⁶ and on the other an unquestioned drive for more efficient performativity (eg Lyotard 1983: 62).

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REFLECTION AND THE TIME OF THE OTHER

Schon's ladder is however only a map of what the different types of reflection must be for them not to collapse into the mess that blurs design, reflective practice and learning. How to climb the ladder is yet to be explained.

I have digressed into the politicisation of Schon's ladder, because what is crucial to motivating and sustaining the ascent is – sociality. That sharing initiates reflections and that reflections must be shared to become 'Reflections' is strangely easy to miss, firstly because reflection strikes us (before reflection about this) as the internal processes of isolated individuals, but secondly, because Schon almost takes this aspect of reflection for granted. The inherent sociality of reflection ("reciprocal reflection-in-action" [1987: xii]) is why Schön never questions that all his case studies are critical dialogues about shared practices rather than, for example, professionals' private process diaries or think aloud protocols. For Schon, what moves students up the ladder is having to externalise reflective practices: "Free of the need to make our ideas explicit to someone else, we are less likely to make them explicit to our selves." (1987: 300) Reflection requires a mirror; thus it is only through the process of exposing oneself to an other that reflection actually happens. In this context, it must be remembered that Schon's primary pragmatic brief for

⁶ This is unfair to Pierre Hadot, whose work is too scholarly to be classed with the confessional day-time television of Rawston Saul et al.

his research is the reform of institutions from organizations that socialize professionals out of reflection – "self-reinforcing system of knowing in practice... that makes itself immune to reflection" (1983: 282) - into ones that encourage reflection by "mak[ing] a place for attention to conflicting values and purposes." (1983: 338)

Another aspect to the process of climbing the ladder is that it is a process, something that takes time. Again, this is something that risks being taken for granted. To put it the other way around, if reflex becomes reflection becomes 'Reflection' over time, almost in the mould of organic growth, then one cannot leap straight to 'Reflection'. There are no techniques for performing Level 3 or 4 without having moved through Level 2. The process must proceed sequentially, or in Schon's terms, rigorously, that is, opening itself to all resistances, lest it stall in 'self-fulfilling prophecy.' (1987: 74)

Therefore one ascends the ladder over time through interactions with critical others. Significantly, this is a highly developmental and progressivist account of reflective practice, with a teleology toward emancipation and freedom, which can itself be criticised, returning us to Foucault (Bleakley, 1999)

THE LEARNERS' PARADOX

Something is still missing though. The process might take time, others may direct or assist, and the result might be higher order, more critically praxical reflections that better enable change, but something else is required to bring these elements into coherent relations. If there is not something else, then reflective practice recedes back into exactly the type of technique that Schon's whole project aims to supplant. Something is needed that will explain how years of practicing a technique can eventually become improvisatory virtuosity.

Or to put it more pragmatically: someone might be forcing or helping you to do reflective practice, perhaps by giving you a timeframe for your movements, but there is still the task of moving. The set of outcomes toward which you should be moving (the ladder) will not move you because what is codified there are abstractions of tacit knowings that you are yet to experience in ways that move them into reflectivity.⁷

This is of course, Meno's paradox:

““But how will look for something when you don't in the least know what it is? ... To put it another way, even if you come right up against it, how will you know that what you have found is the thing you didn't know?" [Plato, 1956: 128] Like Meno, the design student knows she needs to look for something but does not know what that something is. She seeks to learn it, moreover, in the sense of coming to know it *in action*. Yet at the beginning, she can neither do it nor recognize it when she sees it. Hence she is caught in self-contradiction.” (Schon 1987: 83)

"It is true that students do often come to recognize and appreciate the qualities of competent designing, which they then try to produce... [However,] In our effort to account for this

⁷ This is Lucy Suchman's critique of plans and their inability to facilitate situated actions. (Suchman 1992)

way of learning, we cannot avoid the problem of explaining how, in the first place, they come to recognize good designing when they see it." (Schon 1987: 88)

Since, designing is in essence a learning by reflective practice, substituting 'reflection', 'reflecting' and 'reflective practitioner' for design, designing and designer or learning and knowing in these quotations is not merely analogical. Schon is here admitting that he must still find a way of explaining the effectivity of reflection.

A negotiation of Meno's paradox forms the centre of *Educating the Reflective Practitioner* – i.e., the whole of Part 2 with its chapters on the "Paradoxes and Predicaments of Learning to Design." (Chapter 4) Schön, following his own model of reflective practice, reframes his reflexive dilemma by 'seeing [it] as' a previous situation drawn from the problem repertoire (of philosophy). So what is the outcome?

Plato's solution was the notion of *anamnesis*, later to become the doctrine of Ideal forms: everyone is always already within the Truth and so has the Truth within. Schon follows his Platonic model but, as a pragmatist, in a non-metaphysical way, by suggesting that the movement of reflection involves imitation. As Schon makes clear however, imitation is no simple answer. "The obviousness of imitation dissolves, however, when we examine it more closely." (1987 108) On reflection, "imitation presents itself as a process of selective construction," (108) that is, a "reconstruction" of what one selects to perceive in who or what is to be imitated. Schon likes this account because it means that "imitative reconstruction of an observed action is a kind of problem-solving", by which he means a series of experiments aiming at "successive differentiations." (109) However, the relativism of this constructivist version of imitation continues haunt his instrumental reading, merely pushing the mis-en-abyme further back (from imitation to perception):

"The features of the performance to be reproduced are not *given* with the demonstration. The baby [or designer or professional or learner in general] selects and integrates in its own performance what it takes to be essential in the things it sees the mother do. Or perhaps we ought to say, there is already in its perception of its mother's [or teacher's or coach's] action a construction of the essential and inessential things, which it then translates into its performance." (108)

If the selection of what to imitate lies with the imitator, this means that when "I put myself into a new situation of action and from its vantage point get a new view of and feeling for the performance I am trying to imitate," (111) there is no way of assuring that what is 'new' correlates in any way with 'its vantage point.' When I hear the situation talk-back, are these not voices in my head, me talking to myself without my remembering that it is me talking?

This continued lack of ground for accounting for reflective learning is why the next chapter concerns "How the Teaching and Learning Process can go Wrong." (Chapter 6) Essentially there are two dangers: imitating the wrong thing, which means doing one's own thing ("Stance" binds or refusing to imitate [118]), or imitating the right thing, which means not making what one is doing one's own ("overlearning" or "closed-system vocabulary" [155]). From coach's point of view, both goings wrong are prevented by issuing a oxymoronic command: imitate me while not imitating me.

However, this is not, I believe, yet another moment in which Schon finds himself mired again in the reflective swamp. How this command does make sense and is not merely

paradoxical, points to what might break the dilemma by spacing the reflexivity of reflectivity with something like a foundation.

THE MIMETOLOGY OF REFLECTION

To understand this possibility, it is necessary to acknowledge that these problems with mimesis have a long pedigree. As Heidegger notes, when discussing Plato in relation to Nietzsche's aesthetics, mimesis originally meant production rather than reproduction. It was a particular moment in history of metaphysics when philosophers attempted to impose a logic on this over-productive dehiscence and constrain it to controllable forms of cloning. As Derrida and others have noted, this mimetology was not only not successful, but in fact hypocritically underwrote the history of that 'civilization.'⁸ In other words, the power of logic always depends upon having learned logic, and that learning is not logical, but mimetic in the old allogical sense.

To put this in context, Plato was an educator in Ancient Greek tradition of *paideia*. If the stated content of the dialogue with Meno does not resolve the paradox, the process of being in dialogue with Plato resolves the paradox in practice. For, this type of education is not merely informative but formative. It is a very precisely, a type of designing that combines rational functionality (being a citizen) with style (being an ethical character). It is a wholistic form of learning and a formative learning of the whole.

In a move that itself is exemplary of this mimetological fashion, German romanticism⁹ attempts not to imitate the Ancient Greeks, but (re)produce for itself the model that the modern Germans assumed the Ancient Greeks to be following, with its notion of *Bildung* or cultural formation.¹⁰ In turn, *Bildung* is precisely the process of reflectively journeying through unique cases, building a tacit sense of what unites all these at an inexplicable level of the ideal. (Gadamer 1989 [1960]: 10-17)

The similarity – or I would argue, the sameness – with Schon should be apparent. Every time Schon finds himself declaring that design, or any professional expertise since what is at stake is reflective practice, is something learnable but not teachable (see 1987: 152-167), Schon is saying that reflective practice is a type of *Bildung*. This is not to be unexpected given that Schon's stated project – retrieving artistry from technical rationality via reflection in the context of the modern university – is a concise definition of the ambitions of the Jena romantics in reaction to Kant, from Schlegel and Schiller to Kleist and Humboldt.

⁸ Whilst the term mimetology was coined by Jacques Derrida in *Dissemination*, I am following Philippe Lacoue-Labarthe's use of the term in *Typography: Mimesis, Philosophy, Politics*.

⁹ Romanticism means replicating the Roman classics. However, the difference between English and German romanticism is often captured in the fact that the latter viewed the Roman classics as poor imitations of the inimitable Greeks, and perceived itself to be the heir chosen to recover the truth of the Greeks concealed by Rome's superficial copies.

¹⁰ This is Lacoue-Labarthe's claim in relation to Nietzsche's revival of the Jena romantics (1990).

Consequently, all that Schon describes and promotes, despite its pragmatism, is a furthering of this romanticism. In this case, what motivates reflection, what makes reflection into 'Reflection', is being romantic. This means willing, willingly forming and formatively willing, in affective ways, what one is (becoming). Reflection is not the discovery of a model within or the imitation of a model without, but, becoming-a-model by forcefully intending to be exemplary.

The closest Schon comes to declaring this romanticism is when he turns to the Romantic poet Coleridge for the key to controlling the productive mimesis of reflective learning, namely "willing suspension of disbelief." (1987: 94) Schon at first gives the pragmatically rational reading of this double negative: it does not mean "to will 'belief'" but merely to suspend disbelief until one "has access to the information on which to base a good decision." (94) However, Schon immediately acknowledges the more romantic reading: "in order to get that information, [one] must commit to the enterprise that yields the experience." (94) It is crucial to see through Coleridge's classically Romantic gesture with Schon. The double negative allows an irrational sensibility to hide within a type of sensible reasonableness. But in the end what matters for the process to work is not the waiting but the willing. And Schon concurs repeatedly: the suspension of disbelief is not an autonomous objectivity, but a deliberate surrendering (95); it is not passively receiving instruction but a "willingness to try to enter into [the coach's] way of seeing things and [an] active search for [the coach's] meanings... [a] self-education;" (125); "You must be willing, therefore, to have these experiences and the relation is not a neutral contract but an emotionally indebted investment (167) even to the point of frustrating Schon's supposedly non-technically rational idea of 'reflective practice':

"Students hold unrealistically high expectations for their performance. Once they become aware of their errors, they believe they should be able to produce complete and perfect interventions [into problem situations]. They see error as failure, and when they repeat their errors, they experience a blow to self-esteem. They do not as yet have the idea of a learning process in which imperfect actions are continually modified through reflection-in-action." (291)¹¹

It is at this point that the turning-point question arises, the one that makes inflects reflection into 'Reflection': "Do [the students] really want to learn this, if *this* is what it entails?" (291) Only by affirming this question, with willed actions can one own one's reflections and become what they model. (1985: 75)

DESIGNING REFLECTIONS

Pragmatically, this means that the reflections of reflective practice must be designed to be educational research.¹² They need to be intentionally formed into situation changing actions. They need to be formed, figured into relational diagrams, and/or schematised into moving narratives. They are motivated by being emotional, effective by being affective.

¹¹ I cannot go into this, but the fact that imperfection can be a model of perfection is a classically romantic gesture – think of the ruin – and the archetypal form of romantic philosophy – the fragment. See Lacoue-Labarthe & Nancy (1988 [1978]).

¹² This conclusion is similar to that of Doloughan (2002) plus philosophical theorisation.

This conclusion is not another cycling round the identity of design, reflection, research and learning, because design here is not to be understood pragmatically, as problem-solving, but romantically, as forming. If there is a problem to be solved by reflection, it will only be solved if the problem is so strongly felt as a problem that it empowers the reflection.

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The Idealist Practice of Reflection: Typologies, Techniques and Ideologies for Design Researchers.

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Design theory over the last few decades has been an attempt to find the middle ground between 'that about which one can say nothing' (craft or creativity) and 'that which is reduced to nothing by saying too much' (a scientific or systematic method). Donald Schön's now near canonical account of 'reflective practice' not only pointed to a level of articulation that found something to say about designing without concealing or constraining it; but, perhaps more significantly, what Schön had to say about designing – that there is a reflection reflex at the heart of its practice – established a bridge between the situated flow of designing and accounts of design judgements.

The polemical context in which Schön was writing is often forgotten: as the last of the modern vocations (eg management, health care beyond medicine, planning and design, teacher training) were incorporated into the project of the university, Schön and his collaborators were attempting to resist the technocratic rationalism that was invalidly shoring up and dangerously misdirecting professional expertise. In this context, the beauty of Schön's account is that it puts a research method (dialectical hermeneutics) at the heart of the design process. With only a shift in emphasis (from outcome to process), designing is researching, with a clear role in the postmodern university.

However, how minor is this move necessary for the practice of design to become the research of design? How short is this bridge between a practical reflex and the discipline of reflection?

This paper explores the notion of reflection in order to reveal how complex the transition from process to analysis is. Through a close reading of Schön's texts – and not only his texts on Reflective Practitioners, but also his crucial collaborations with Chris Argyris on professional effectiveness through double-loop learning – it critically reviews Schön's use of the term 'reflection', locating it within the concept's wider intellectual history.

Two contrasting responses to the way ideas about 'reflective practice' are taken for granted are then set out.

Firstly, since reflection in any deliberate and sustained manner is not natural or habitual, the paper summarises the diverse range of techniques that Schön insists are required for designing's reflectiveness to attain the epistemological requirements of developing new knowledge.

Secondly, as assumed ideas invariably conceal ideologies, the social and metaphysical 'power plays' at work in promotions of 'reflective practice' are interrogated. The paper concludes that a romantic idealism – where certain techniques allows wholes to exceed the sum of their parts – continues to mythicise design, research and design research. For this, the paper draws on some poststructural theory.

This paper is then a report of theoretical research into the concept of reflective practice that aims to critique and redirect design research making use of reflective practice processes and literature.

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