Through *A Scanner Darkly*

Neuropsychology and Psychosis in Philip K. Dick's novel *A Scanner Darkly*

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Partly motivated by his increasing brushes with psychosis, by the early 1970s, Philip K. Dick was struggling with increasing doubts over the nature of reality and personal identity. Perhaps unsurprisingly, characters with unstable worlds and existential doubts are a familiar focus of his work. Dick was interested in more than just description however, and often used his novels to explore personal theories of existence. During his research, he discovered the work of Roger Sperry, who had rocked the foundations of neuroscience by discovering that when separated, the hemispheres of the brain seemed, at least to some degree, independently conscious. Worried about his own perception of reality, Dick considered that this could explain his increasing feelings of alienation and self-detachment. These reflections resulted in *A Scanner Darkly*, a partly autobiographical near-future novel that remains an incisive commentary on society, psychosis and the brain.

Ostensibly, the novel is about an undercover cop, attempting to track the mysterious source of the dangerously addictive 'Substance D'. During the day, Dick's protagonist lives as Bob Arctor, a user and drop-out who spends his time chasing the next fix and discussing drug-addled schemes with his similarly addicted housemates. When not undercover, Arctor becomes agent S.A. Fred, reporting his findings and reviewing recordings from surveillance scanners placed to gather evidence on friends and associates.

Unusually for works of science-fiction, much of the book's setting was lifted directly from the author's own life. In a letter to a friend, he admitted descending "into the gutter of near-illegal life: narcotics and guns and knives and oh so many crimes… not so much that I did them but that I surrounded myself with those who did" (Sutin, 1991, p202). Dick was a sharp observer though, and his characters depict the rough language and petty politics of his dubious peers with considerable insight. Not surprisingly, the individuals and episodes on which the book centres are vividly portrayed.

This detailed observation can be seen right from the opening of the book, where Charles Freck and Jerry Fabin believe themselves to be infested with 'aphids' which they are attempting to capture in a glass jar for medical analysis. To the envy of most academic textbooks, these pages contain a detailed account of delusional parasitosis, a form of psychosis often brought on by stimulant drug abuse. In this condition (also known as Ekbom's syndrome) sufferers believe themselves to be infested with parasites and are often detected by the so-called 'matchbox sign', where sufferers present doctors with supposedly captured 'parasites' in a matchbox or similar container (Enoch and Ball, 1999).

Apart from these carefully observed vignettes of drug use and its consequences however, *A Scanner Darkly* is notable as a study on the separation and fracturing of self-consciousness. Dick explores this by setting up a society so awash with drugs, that the mysterious cartels have infiltrated all levels of government. As a protective measure, agents must keep their identity secret from both sides. When with their colleagues, they must wear 'scramble suits' that project a constantly changing external appearance generated from a database of stored images. As a further measure, agents must report on their own undercover selves, so, by omission, their reports do not inadvertently give away their identity.

By the nature of his job, the novel's protagonist is in the unenviable position of never feeling entirely grounded in a single identity, a feeling exacerbated by the fact he is frequently required to view himself in the third person when watching surveillance tapes. By this literary device, Dick manages to capture the feeling of existential detachment that appears in many of the descriptive accounts of psychosis, reflecting the original sense of Eugene Bleuer's

'schizophrenia' (meaning literally, 'split mind'). Recent studies on the phenomenology of psychosis show similar striking parallels. Stanghellini's (2004) recent book captures both the psychotic state and the protagonist's dilemma with equal clarity, when he describes the breakdown of self-consciousness as including:

> "disorders of the demarcation between me and not-me ('It is not me who is seeing that object over there – I am that object'), anomalous experiences of unity in the present moment ('I feel like I am two persons at the same time') and of one's continuing identity across time ('Time and especially my own actions are fragmented'), and finally the loss of myness of one's own experiences ('It is not me who is doing this actions or having this perception')" (Stanghellini, 2004, p150).

With this in mind, perhaps science-fiction can be thought of as a natural home for a literary treatment of psychosis, as high technology is often invoked in complex delusional systems as a way of explaining strange and otherwise inexplicable experiences. In fact, Stanghellini seems to pay the genre an unintended complement by co-opting the language of science-fiction when naming one of his chapters 'Cyborgs and Scanners'.

For its insight into altered states, Philip K. Dick's writing is especially noteworthy however; he was highly knowledgeable about mental illness, not only from his own experience – he regularly saw a psychiatrist for most of his life – but also through his acquaintance with key texts in psychology and psychiatry (Carrère, 2004). Consequently, it would be easy to read *A Scanner Darkly* as a rehash of radical theories of mental illness, particularly those of R.D. Laing and Aaron Esterson (Laing and Esterson, 1964), who viewed madness as an attempt to reconcile roles that have become irreconcilable in modern life. However, Dick was not content with simply repeating the fashionable anti-establishment views of the time and attempted an explanation based on an understanding of neuropsychology.

In the novel, Fred's mind and brain are regularly tested by police department psychologists, owing to the stress of both maintaining a dual identity, and taking drugs as part of his undercover life. Dick avoids the off-the-shelf cliché's of ink-blots and electric shocks, as the author describes realistic test scenarios and recognisable neuropsychological tests. Worryingly for Fred, the results of divided visual field and embedded figures tests suggest that his cortical hemispheres are becoming functionally separate, as they gradually lose the ability to communicate and fail to integrate information.

Here, the author melds science-fiction with science-fact, with an inspired reading of Sperry's work on split-brain patients. Dick was fascinated by Sperry's discovery that patients with surgically disconnected cerebral hemispheres (a treatment for otherwise untreatable epilepsy) seemed to show a dual or partitioned consciousness. Where previously it was thought that the right side of the brain was largely 'silent' and relied on the dominant left, new research suggested that each hemisphere "appeared to be using its own percepts, mental images, associations and ideas" (Sperry, 1993). In Dick's novel, 'Substance D' induces a similar split-brain disconnection (directly referencing Sperry in some passages), providing an explanation for the protagonist's increasingly fractionated and incoherent self-consciousness.

Far from being a fantastical notion of a far-flung plot, the idea that psychosis might result from a disengagement of the hemispheres was subsequently discussed in the scientific literature and is still influential today. Dimond (1979) for example, compared patients diagnosed with schizophrenia and split-brain patients, arguing that in both conditions "there is

a fundamental failure of in the transfer of information between the two hemispheres", suggesting "split-brain symptoms are present in schizophrenia". Although the resemblances between psychosis and the effects of split-brain operations are no longer regarded so highly, clear evidence for differences in the structure and function of the hemispheres in psychosis remains (Gur and Chin, 1999; Pantelis et al., 2003). Perhaps ironically, ideas that many people might have dismissed as imaginative plot, turned out to be reasonable and well informed scientific speculation.

A Scanner Darkly is now being made into a Hollywood film, and although there are high hopes for the adaptation, one of the most touching aspects of the book is likely to be missing from the big screen version. Dick added an 'Author's note' to the end of the book, dedicating the novel to friends who had been lost to drug abuse, many listed as deceased or disabled by physical or mental illness. Although he comments that there is no easy moral and avoids the obvious platitudes, he poignantly lists himself among the casualties.

Despite his problems – or perhaps, because of them – there are few novelists who better capture the uncanny unreality and disturbed self concept so characteristic of psychosis. Although not all of his novels are great literature, Philip K. Dick's work is typically overflowing with ideas, reflecting his attempt to integrate a profoundly altered experience of reality with a vast knowledge of the arts and sciences.

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