

POINTS OF VIEW

BY THE BY

Professor Elliotson is Pleased to Exhibit

One August evening in 1838, a doctor arrived at the home, in Bedford Square, London, of Thomas Wakley, surgeon and editor of the Lancet. He carefully unwrapped a piece of metal which, he claimed, had truly astounding and extraordinary properties, the like of which he had never seen before. The doctor was John Elliotson, professor of medicine and senior physician at University College. What he held in his hand was a piece of nickel weighing three quarters of an ounce. Also present were two girls, sisters, Elizabeth and Jane O'Kay. These girls were of considerable interest to Elliotson because they had been excellent subjects in a series of experiments he had conducted on animal magnetism, or mesmerism. That's hypnosis to you and me. He could 'fix' them with very little effort. (He was also using mesmerism to cure epilepsy in patients under his care - his lectures on this topic were very well received by medical students, initially at least). But his experimentation had now gone one step further. He could magnetize objects, such as a gold coin, which when touched by the girls sent them into a trance. What especially excited him about the piece of nickel was the severity of the girls' responses: countenance flushed, eyes "convulsed into a startling squint", spine arched "as complete (as) a bow", limbs rigid.

The format for the evening's critical tests was simple. Elizabeth sat in a chair facing Wakley. A piece of lead which could not be magnetized was to be the placebo. Wakley was to touch the girl's hand with either piece of metal. So that Elizabeth could not see which was which, a pasteboard was held in front of her face. Elliotson held the metal in his palm for some time, to magnetize it, then handed it to Wakley. The experiments began. Looking on were a few gentlemen who were either "believers" (i.e. supported Elliotson's claims) or non-believers (i.e. were sceptics like Wakley). Trial followed trial late into the night. But there was confusion. Certainly, Elizabeth did occasionally have paroxysms, one lasting half an hour, but it had occurred in reaction to the placebo. Wakley declared that no further tests were needed but Elliotson prevailed on him to continue.

Accordingly, they met again early next morning and in a marathon session lasting 13 hours Wakley conducted well over two dozen experiments with the nickel, glasses of water, and gold coins. In the water experiment, six wine glasses were filled and placed in a row. With the subjects out of the room, the mesmerizers would magnetize one or more of the glasses, or none at all. The process over, the subject was summoned back into the room and asked to drink from each glass, the prediction being that she would show some response to the activated glass, such as, for example, her hand becoming 'spasmodically fixed'. The observers watched carefully and took notes. Over one block of seven trials the

subject showed no reaction at all, even though, on two trials, all six glasses had been mesmerized.

What was missing from that Bedford Square house over the two day period was, of course, a core multidisciplinary team. A brougham should have been sent to collect, say, a clinical psychologist, a psychiatrist and a social worker. Following the usual discussion as to who was to lead the team, they would have turned their attention to the experiments and would have discovered much that was unethical, unprofessional and unscientific, despite Wakley's insistence on controlling for "impositions". For a start, there was cheating. On the first evening, Wakley decided not to use the nickel at all. Instead, he secretly substituted a farthing for it. The nickel was pocketed by a collaborator who stood looking out of the window, presumably trying to appear both nonchalant and scientific. When Elizabeth went into a half-hour paroxysm, Wakley waited till she had fully recovered before telling Elliotson he hadn't used the activated metal at all. In the meanwhile, of course, the jubilant Elliotson had gone on about his utter astonishment at the force of the metal, "the effects presented a beautiful series of phenomena . . ." The man at the window said nothing.

Not that the mesmerizers were above a little bit of fiddling themselves. In the middle of a trial, "Mr. Herring (a believer), who was standing near, said, with much sincerity of feeling, in a whisper, but loud enough to be heard at a short distance, 'take care; don't apply the nickel too strongly'. Scarcely had these words escaped from his lips, when the face of the girl became violently red . . ." Yes, you've guessed the rest. There were other problems. In an effort to increase the magnetic power of a glass of water, two mesmerizers plunged three fingers of each hand into the water and kept them there for a considerable time. Then they asked the subject to drink it. At another point, Wakley sent someone out to buy bullets. That was a bit sinister, wasn't it?

More than once, Wakley and Elliotson got really tetchy with each other. For example, Elliotson complained that Wakley was conducting the trials too quickly, so that when Elizabeth threw a wobbler in response to the touch of the placebo she was in fact showing a delayed reaction to the activated metal. Wakley countered by saying that if metal had a delayed effect of uncertain duration, it shouldn't be used at all. When Wakley admitted that he had not used the metal at all in a run of trials, Elliotson got quite excited, "he saw the metal used; Mr. Wakley must have touched her with that metal without knowing it himself; that he was certain of the fact, and that he was positive that the effect would be produced in no other way". At that point Wakley summoned the strong, silent man at the window.

By 10.30 that night Wakley had had more than enough; animal magnetism constituted one of the "completest delusions that the human mind ever entertained".

If Elliotson was discomfited by the events at Bedford Square, he soon got over them and pursued his work on mesmerism, much to the chagrin of some colleagues. Wakley wrote a series of lengthy and virulent pieces about him in the *Lancet*. Others joined the

attack and Elliotson resigned his two posts. He had had a brilliant career in orthodox medicine but in the space of months had careered off the track into a nether world of quackery and evil. At least, that's how Wakley and others saw it.

There were plenty of other experimenters in the fascinating world of mesmerism. There was the mysterious Baron Dupotet of Sennevoye who graced many a drawing room and hospital ward. There was a young man, Callyste, who claimed he could read when his eyes were heavily bandaged. Under hilarious experimental conditions he failed to do so, "flew at last into a passion and left . . ." The irony of all this, of course, is that hypnotherapy thrives today. And, would you believe it, they've found a girl in Uruguay or some other country in South America who can read messages scientifically sealed in such a way that she shouldn't be able to . . .

Annihilation by Sorcery?

In 1988, Arendt, MacLean and Baumeister published a critical appraisal of sensory integration therapy (SIT). They examined the literature, weighed up the evidence, and concluded that SIT wasn't quite as good as some people thought. The editor of the journal had invited interested parties to comment on the appraisal, and six papers appeared, all together, following the critique itself. The first, and shortest, was mildly admonitory. In the second, criticism was somewhat sharper. The third, by Clark and Primeau (1988) is quite ferocious. Had I been Arendt or either of the et.al., I'd have ended up cowering and whimpering under a desk. I read the commentary again, more carefully. This time it wasn't ferocious. It was really quite funny. Now, let me make one thing clear. I'm not getting involved in the dispute between advocates of SIT and it's critics. I don't know enough about it. What fascinates me are some of the things Clark and Primeau say, and their style.

Their paper opens with this rather odd paragraph:

Arendt, MacLean and Baumeister's (1988) review, saturated with deviations from scientific objectivity, cannot be called "scholarly". Science becomes ideology when objective analysis is replaced by distortions (making statements that can positively be shown to be in error) and selectivity (making statements that are true but do not reflect a balanced account of the facts)...The many transgressions from valid critique ultimately transmogrify this paper from science into ideology, conveniently promoting what we shall argue seem to be the vested interests and belief systems of the authors. To put flesh to our claims, we prepared Table 1, which documents no less than seven mistakes, eight distortions, seven selective statements,

and nine examples of poor scholarship in Arendt et.al., The final effect is a web of deception giving the illusion of scientific merit through the use of "obfuscated jargon . . . (and) thick terminology"

The choice of words is intriguing. Why "saturated", soaked with? Distortions, selectivity, transgressions, deviations, transmogrification - there's more than a whiff of evil in there and I'd expect the result, achieved possibly by the use of melted wax and hat pin, to be a frog with questionable habits rather than an ideology. Then there's the sinister web of deception; if you bend over and listen very carefully you'll hear the sound of smoked jargon and guttural language. Presumably, the frog is talking to itself.

Later, there are these thunderous questions and comments:

In the final analysis we ask; "What was the primary goal of these researchers in preparing their manuscript?" We submit that it was to greatly imperil, if not fully annihilate sensory integration theory and practice. Could it be that once the theory has been destroyed, its "seminal ideas in an area that has been overlooked" . . . in research, will be resurrected and appropriated by professional predators for their own clinical use? Other scientific discoveries have also been resisted, including such well-known examples as those of Copernicus, Mendel and Darwin.

Once again, the choice of words is unfortunate. It seems that at some point Arendt et al., took off in a bomber, bays full of missiles en route for SIT. My understanding is that if you annihilate something, you wipe it out. There's nothing left. If you fully annihilate it, you don't do any more than annihilate it. How can you appropriate something that isn't there? By resurrecting it, of course. So we're back to necromancy, or something like it.

Oh dear. What can one say about the Scorned Scientist Syndrome? Not much, except that it's supposed to be quite prevalent amongst inventors. Elliotson certainly had it. By some quirk of the regulations of the College of Physicians, he was able to give the Harveian Oration despite having resigned his posts. Wakley was there and summed it up thus; "The great point was as follows: Harvey was persecuted, Elliotson is persecuted; Harvey was right and great, ergo Elliotson is right and great. There really is a class of . . . people to be found who look with such a morbid and magnifying eye upon the resistance generally offered to the introduction of new truths, that they come to consider opposition to any novel doctrine as the most certain sign that can be found of its truth".

Glen Doman, of the Institutes for the Advancement of Human Potential, in Philadelphia, dramatically describes how the establishment got at him, and at his colleagues. (Remember? Doman et al., treated brain-injured children on the basis of the principles of neurological organisation). Well, they - Doman et al., - (stood like granite) and weathered the storm". Well done. Good luck to the SIT advocates, but mind how you write.

Because 'By the by' is not meant to be taken too seriously, I am not providing an extensive list of references. If you want to read about the Wakley-vs-Elliottson tiff, have a glance at the Lancet, 1840 onwards.

D. N. MacKay

Muckamore Abbey Hospital, Antrim, Northern Ireland BT41 4S

References

- Arendt , R.E; MacClean, W. E. Jr. and Baumeister, A.A.** (1988). Critique of sensory integration therapy and its application in mental retardation. *American Journal on Mental Retardation*, 92, 401-411.
- Clark, F. and Primeau, L.A.** (1988). Obfuscation of sensory integration; A matter of professional predation. *American Journal on Mental Retardation*, 92, 415-420.