

convicted felons and suggests that the transition may be assuaged by introducing written consent procedures rather than the verbal consent obtained in the UK.

Paul Ferrara, director of Forensic Science for the Commonwealth of Virginia, commended both the arrest policy and the speed of profiling in the UK compared with the US: "This means that the criminal has time to commit more crimes in the US."

In addition to the problematic ethical issues involved in arrestee profiling, the US is debating the length of time for which tissue samples and profiles can be stored. Storage duration, in addition to data privacy and protection is a major hurdle that both France and Germany have had to face in deciding whether to establish national criminal databanks (*Nature* 392; 480 & 749, 1998). Criminal data in the UK is stored in perpetuity.

LeRoy Walters of the Kennedy Institute of Ethics, says that US has a lot to learn from British examples of dealing with advances in biomedical research and complains that US science in general lacks suitable oversight mechanisms. In particular, Walters—who chaired the Recombinant DNA Advisory Committee that was forced to cede its regulatory power for gene therapy protocols to the Food and Drug Administration in 1996—praised the system for gene therapy review in the UK. Its strength, said Walters, comes from a policy of openness, "reporting is mandatory in the UK and voluntary in the US."

Walters extends this observation to several other fields of research. "Most people interested in bioethics in the US think, for example, that human embryo research and IVF are disaster areas at present," he told *Nature Medicine*. "We have a ban on federal funding for such research, but no block on private funding and no oversight body. So it's really schizophrenic: everyone knows there's private activity going on but we don't know what it is."

Walters envies the accomplishments of the British Human Fertilization Embryo Authority which regulates fertility procedures and produces annual reports on all UK clinics. But he says that recent efforts in the US could bring large advances: "This year's first ever Centers for Disease Control and Prevention report that provides information on US fertility clinics is just what is needed—the start of proper accountability."

KAREN BIRMINGHAM, NEW YORK

The science of art and vice versa

In an effort to 'stimulate and capture the public's imagination,' the world's largest medical research charity, the Wellcome Trust, is spending £80,000 (\$125,000) on an initiative that brings artists and scientists together. Now in its second year, the program funds projects based on the biomedical sciences that can be expressed through the visual arts.

Exhibitions Unit Manager Ken Arnold insists that, far from being a philosophical exercise, the circular influence of art on science can have medical, as well as hedonistic, value. Last year's SCI-ART program led to a change in practice for surgeons at London's University Medical and Dental School, whereby artists draw pictures of desired facial outcome for patients with cleft palates from which the surgeons work. Arnold claims that the program is responding to, rather than creating, the need for scientists and artists to work together.

One of the six projects sponsored this year involves the scientific study of the eye and brain activity of a portrait artist. With funding of £17,300, film director and former engineer John Tchalenko will track the estimated 65,000 glances that artist Humphrey Ocean uses to paint Tchalenko's face. Under the guidance of physiologist John Stein, at the University of Oxford, a system of pupil tracking—similar to that being used experimentally to assess mammography evaluation—will monitor Ocean's eye movements as a means of determining the 'motivation' of the artist.

Then, using a functional MRI unit modified to hold an easel and canvas at Stanford University, psychologist Robert Solso will measure brain area activation as the artist paints.

Portrait, rather than landscape or abstract artists are being examined as part of a larger Stanford study to record the brain's right hemisphere involvement in facial recognition. The MRIs of six artists will be compared with those of six non-artists as each individual paints geometric shapes and a portrait. Solso explains

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Double Portrait of John Tchalenko and Belinda Parsons (oil on canvas, 42 × 48 in., 1991).

that by subtracting the shape activity from the portrait activity, facial recognition data can be separated from background noise; that is, cortical stimulation can be subtracted from visual cortex stimulation. In addition, says Solso, "Humphrey Ocean is a very famous portrait artist and we want to see how this specific individual paints with the idea of creating an historic record—much as we'd like to have studied Leonardo da Vinci had the equipment been around at that time."

Solso anticipates that more advanced forms of visual information processing will take place in the artist because s/he will look beyond the physical representation. "It will confirm the hypothesis that artists don't see the world differently, they think the world differently," says Solso.

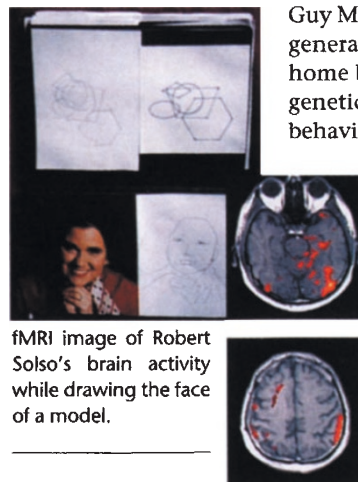
Although this study has undoubted scientific relevance, the merit of other SCI-ART projects is less definable. £13,500 is awarded to film maker David Leister and University College London scientist Guy Moss to shoot movies of three generations of a family having home barbecues in order to assess genetically inherited features and behavior.

In a separate venture, the Trust is spending £300,000 to enable the performing arts, film and multi-media industry to 'take discussion about science out of the laboratory and into people's everyday lives.'

The *Science on Stage and Screen* awards may be worth up to £40,000 on

an individual basis and the Trust, which has a particular interest in genetics, neuroscience and mental health, says that pieces focused on biomedical issues or science relating to the human body, "will be particularly welcomed." Winners will be announced in September.

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fMRI image of Robert Solso's brain activity while drawing the face of a model.