Commentary

Biochemical Aggression—The Legal Dimensions

Several lines of research—most notably investigations of premenstrual syndrome (PMS) (SN: 12/11/82, p. 380), and hair analysis of violent men and boys (SN: 8/20/83, p. 122)—suggest there may be biochemical underpinnings to rage that render certain victims unable to control their actions. Of these, the correlation between violence and trace-metal abundances in hair currently appears to be the candidate most likely to prod the nation's criminal-justice system into re-evaluating what it does with certain violent offenders—assuming, that is, other scientists confirm Walsh's work.

That's no small qualification. But then the implications of Walsh's endeavors are not small either. Unlike PMS, the conditions he believes he has earmarked appear to have objective, quantitative biological markers that flag their presence. And it is this strength that makes it so interesting to speculate on the impacts of having Walsh's hypothesis confirmed.

According to University of Baltimore criminologist Diana Fishbein, Walsh's data correlating trace elements in hair and violent-personality types "could undermine the entire function of the criminal-justice system" by posing the question: What is guilt?

Consider the following: Smith, who killed a co-worker over a small dispute—in front of 10 witnesses—is found to have hair with trace-element abundances matching the pattern associated with "antisocial personalities" in Walsh's studies (SN: 8/20/83, p. 122). Suppose also that research has demonstrated that persons with Smith's symptoms will shed their antisocial traits as long as they follow a therapeutic regimen correcting for a combination of permanent, inborn metabolic disorders. Is Smith guilty of a crime?

Today, depending on where the incident occurred, the violent offender may not be found guilty. Under the law there are two requirements for guilt, Fishbein explains: the commission of the act, and an intent to commit the act. Since witnesses would establish that Smith had killed his colleague, only intent would be at issue. And in jurisdictions that subscribe to the American Law Institute (ALI) Model Penal Code's definition of "defense by reason of insanity," Smith's lawyers would have good reason to use this defense. (Roughly 30 states and all federal courts have adopted an insanity defense patterned after the ALI model.)

Bruce Ennis, formerly the chief defense attorney for the American Civil Liberties Union and now a partner in a Washington, D.C., law firm, has become active in the national debate over reform of the insanity defense. Explains Ennis, under the ALI's test for insanity, "Even if you committed the act, you will not be held criminally responsible if you lack substantial capacity to appreciate or know the wrongfulness of your behavior. *But even if you did appreciate that your behavior was wrong,* you will still not be criminally responsible if you lack substantial ability to control your behavior to conform your conduct to the law." And in Smith's case, Ennis told SCIENCE NEWS, it could be argued that the defendant's biochemically mediated behavior rendered him unable to control his rage.

If Smith were found not guilty, but insane, the courts would send him into the custody of health-care providers for therapy. However, if Smith were found guilty, any medical circumstances — mental or other — that influenced his criminal acts would only be looked upon as "mitigating evidence." Such evidence tends to reduce criminal culpability — and usually one's sentence as well.

The result, Fishbein notes, is that someone whose behavior is impaired by physiological conditions will likely spend less time behind bars than a healthy offender, even though the handicapped individual may represent at least as grave a threat to society. (Fishbein became so sickened by the situation — "it was totally against my principles," she says — that she stopped consulting with defense attorneys on the biological bases of maladaptive behavior several years ago and turned instead to research.)

Moreover, though Walsh's research on violence suggests the prospect of finding at long last a way to truly rehabilitate many individuals now considered incorrigible, there is no reason to expect that all courts would embrace it. "It's kind of stupid," Ennis says, "but the laws do not permit treatment of people found guilty, but who are also mentally ill, as easily as they permit treatment of people found not guilty because they're insane." Fishbein puts it another way: Judges usually don't have a legal precedent for remanding criminals with physiologically mitigating disorders into therapy, she says, "even though they may see the rationale behind it and the need for it."

John Monahan of the University of Virginia Law School in Charlottesville argues whether Smith would even be eligible for the insanity plea: "Whether [Smith's attorneys] would succeed would depend on whether the courts were willing to call his condition mental disease," he says. Should the courts not buy the argument that lack of control constitutes a form of insanity, Monahan says that states could develop a biological corollary to the insanity defense. He notes, however, that such forms of defense would not let one free, as self-defense does. "It's simply a defense which would funnel you into another system of control," he says. And what many people don't realize, he adds, is this medical alternative to jail "is generally more indeterminate in its sentence than the criminal-justice system, but oftentimes one as confining to the individuals."

More interesting than the insanity-defense issue, Ennis believes, is whether a move might not be started to screen everyone for these trace-element patterns at a young age, and make treatment compulsory for those exhibiting them. Here, he says, the civil-liberties issue springs up, because "the next step, of course, if the treatment proves ineffective or questionable, is just to lock 'em up."

Beyond the potential for this preventive detention is the stigma that could be attached to someone labeled from infancy as being prone to dangerous violence. "If some of these [handicapped] people can and do in fact control their behavior," Ennis says, "then you've ruined their lives by labeling them this way. It could interfere with their whole life — relationships with peers, teachers, employers, the works."

On the other hand, there is also the potential utility of trace-metal hair analysis in predicting a parole candidate's potential for violence. So far, attempts to predict an individual's potential for violence or dangerous behavior—on the basis of clinical behavior, psychology or psychiatry "have been wrong at least two times out of three," Ennis says. "So if there were some better way to predict it, based on chemistry, that would be a really new, important and astonishing development."

Finally, what if a person with diagnosed metabolically mediated rage committed a crime while allegedly undergoing therapy? Would there be any sure-fire test to detect whether the individual had skipped the medicine and reverted back to his or her former antisocial ways? Or might the medicine have failed?

It's with thorny issues such as these that the criminal-justice system will have to grapple if Walsh's hypotheses are confirmed. —*Janet Raloff*