

READING

Time

『タイム』を読む

Edited with Notes

by

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は し が き

本書は、米国のニュース週刊誌『タイム』に掲載された記事8編を収めています。安楽死、遺伝子、性犯罪、ごみ、医療事故、地球温暖化、銃暴力など、いずれも近年内外で注目を集めている問題を扱っています。英文は明晰であり、時事英語の範とすべきものです。学生の皆さんには、必ずしも平易な英文ではないかもしれませんが、しかし私たちと係わりの深い現代の問題ですので、興味をもって読んでいただけるのではないかと思います。

このところ英語を「話す」ことの重要性が叫ばれています。確かに英語は話せるにこしたことはありません。しかし現代の情報化社会においては、英語を「読む」こと、さらに「書く」ことは、「話す」ことに劣らず大切です。読解力がなければ英字新聞も読めませんし、インターネットを通じて提供される情報の多くが無用になってしまいます。書けなければ英文Eメールの送信は不可能ですし、交流は日本語圏に限定されてしまいます。ですから英語の「読み書き」能力を身につけなければならないのですが、英文を読まずして書くことは困難です。まずは英文を読んで語彙を増やし、しかるべき英語表現法を学習し、そして語るべき知識を蓄積しなければなりません。本書を編んだ理由もそこにあります。

英語を「読む」だけでは話せるようにならない、という意見があります。確かにその通りです。「話す」ためには特別な訓練が必要です。しかし、たとえば時事英文を全く読まずに政治・経済・社会について英語で語ることは不可能でしょうし、科学文献に目を通さずに科学について論議することもできないでしょう。この点で、「話す」ための学習は、「書く」ための訓練と重なります。やはり英文を「読む」ことによって情報を収集し、語句を記憶し、英語の感覚を身につける必要があるのです。そうしてはじめて、英語を「話す」ことも可能になるのです。

学習者の皆さんは、まず英文をきちんと読んでください。日本語に置きかえることなく内容を理解することができればいちばんよいのですが、学習の助けになるのであれば訳読をしてもよいでしょう。瑣末な点にこだわる必要はありませんが、要点はきちんと把握してください。各記事の末尾に内容の理解度を確認するための設問があります。英語での質問ですが、日本語で解答してもかまいません。

本書が第一に目指しているのは、英文読解力の向上です。しかし、英語学習のためだけに読書をするのはもったいないでしょう。英語を読みつつ、現代社会において有用な情報を得ることができれば、一石二鳥です。本書にはそういう情報が含ま

れていると思います。ただ、皆さんは現代社会に生きる限り、情報をたえず更新していかなければならないでしょう。50-51 ページに関連記事のリストを掲載していますので、英語力のブラッシュ・アップと情報の更新に利用してください。

注は、本文の下方に記しました。語義はできるだけ英語で説明していますが、英語で分かりにくいものについては、日本語で説明したり、あるいは日本語訳をつけています。巻末にグロッサリー(用語解)を載せています。記事の中で使われている重要語の語義を示していますが、本文中の語義が特殊な場合は、一般的な意味を付しています。グロッサリーは本文を読む際に利用できますが、これを使って語彙を増強してください。

本書の注を作成するにあたって、主に次の辞書を参照しました。

The Random House Unabridged Dictionary

The New Oxford Dictionary of English

The Concise Oxford Dictionary of Current English

『リーダーズ英和辞典』(研究社)

『リーダーズ・プラス』(研究社)

『ジーニアス英和辞典』(大修館書店)

『英和中辞典』(小学館)

『新クラウン英語熟語辞典』(三省堂)

最後になりましたが、同僚の John-Russell Anscomb-Iino 助教授と Phillip Backley 助教授の両氏には、英語に関してご教示をいただきました。また英宝社の宇治正夫さんには、編集の過程で編注者を大いに助けていただきました。ここに記して、感謝の意を表します。

2001 年盛夏

編注者

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Reading *Time*

“I Want to Draw the Line Myself”

Euthanasia and assisted suicide are still against the law in the Netherlands, but more people there are choosing to end their own life

[March 17, 1997, pp. 32–33]



By JAY BRANEGAN AMSTERDAM

FRANS SWARTTOUW, former chairman of the Fokker aircraft company and one of the Netherlands' most colorful businessmen, bid an unusual farewell to his countrymen a few weeks ago. Stricken with throat cancer, the executive, 64, who once characterized an entrepreneur as “a guy who works hard, drinks himself into the ground and chases women,” said he had stopped his painful therapy and opted out of a life-saving operation that would have left him an invalid. “I want to be able to draw the line myself,” he said on TV. Three days later, he was put to death by a doctor. “His last evening at home was so cozy,” his wife said. “Frans gave himself another quarter of an hour:

Notes

見出 **euthanasia** [jū:θəni:zə]: the act of putting to death painlessly or allowing to die, as by withholding extreme medical measures, a person or animal suffering from an incurable, esp. a painful disease or condition. (Also called “mercy killing.”) オランダでは2001年に合法化された。関連記事 (pp. 9–11) 参照。

2 **colorful**: lively and exciting.

3 **countrymen** < countryman: a native or inhabitant of one's own country.

4 **entrepreneur** [ˌɛ:ntrəprəˈnɔ:]: a person who organizes and manages any enterprise, esp. a business, usually with considerable initiative and risk.

6 **opt out**: to decide to leave or withdraw: *to opt out of the urban rat race.*

7 **invalid** [ɪnˈvəlɪd]: a person who is weak or disabled through illness or injury.

‘One last gin and tonic and a cigarette, then we’ll get down to work.’”

The touch of bravura was uniquely Swarttouw, but the candor about voluntary death was typically Dutch. While euthanasia and physician-assisted suicide remain taboo subjects in much of Europe and are contentious topics in the U.S., they have been openly debated and researched for more than 20 years in Holland, which has a record of pragmatism in dealing with thorny social issues like drugs and abortion. Euthanasia is still, under Dutch law, a crime punishable by up to 12 years in prison. But in fact, the Netherlands has tolerated the practice for more than a decade, and the number of cases has risen dramatically over the past five years. Have the Dutch found a sensible and humane way of dealing with the unbearable pain and suffering that often comes at the end of life? Or is this a policy run amuck?

The government has established official guidelines, and physicians who follow them are not prosecuted. “The euthanasia debate is far from over, but there is an acceptance of the phenomenon,” says Gerrit van der Wal, professor of social medicine at Amsterdam’s Free University. “There’s less discussion of the pros and cons, and more about how to control it.”

Van der Wal was co-director of a major independent study published late last year on assisted suicide (in which the doctor gives a patient the means to end life) and euthanasia (in which the doctor terminates life at the patient’s request). It concluded that there were about 3,600 cases in 1995 in Holland (pop. 15.5 million), a jump from the 2,700 cases estimated in 1990. Another 900 deaths fell into the troublesome category of “termination of life without the request of the patient.”

Euthanasia is far more prevalent than assisted suicide (the Dutch make little moral or legal distinction between the two). Most patients were ill from cancer, and the large majority had less than a month to live. While more patients

Notes

- 2 **bravura** [brəvˈjʊərə]: a display of daring; brilliant performance. ここでは何を指すか.
- candor**: the state or quality of being frank, open, and sincere in speech or expression.
- 4 **contentious** [kəntɛnʃəs]: likely to cause dispute.
- 6 **pragmatism**: a belief or theory that the truth or value of a conception or assertion depends upon its practical bearing upon human interests.
- thorny**: full of trouble or difficulty; causing argument.
- 12 **run amuck**: to lose self-control.
- 17 **the pros and cons**: the favorable and the unfavorable factors or reasons.
- 22 **pop.:** population.

sought euthanasia or help with suicide in 1995 than before, doctors remained hesitant, turning down two-thirds of the requests.

The euthanasia movement was launched by a celebrated 1973 case of a doctor who helped her mother die and was then acquitted of criminal charges. That year the Dutch Voluntary Euthanasia Society, NVVE, was founded, and today its 88,000 members carry “euthanasia passports” and lobby for more liberalization. The Dutch Royal Society of Medicine endorsed guidelines in 1984, and today’s de facto decriminalization represents a compromise between euthanasia foes and advocates of full legalization. Periodic controversies roil the debate. In 1994, for instance, the Dutch TV station IKON’s filming of the death by euthanasia of a man with Lou Gehrig’s disease in a documentary, *Death on Request*, brought a denunciation from the Vatican.

Both supporters and critics of assisted suicide and euthanasia point to Holland to bolster their arguments. “It’s terrible medicine,” says psychiatrist Herbert Hendin, executive director of the American Foundation for Suicide Prevention in New York City, whose recent book, *Seduced by Death*, brands Dutch policy a failure. The Dutch establishment, however, was reassured by the latest study. To address the biggest problem it found—more than half the doctors didn’t report euthanasia cases to the public prosecutor as required—the government proposes that instead, doctors would report to a panel of legal, medical and ethical experts to make sure these guidelines were followed: the patient must be suffering unbearably from an incurable disease; he or she must

Notes

- 3 **launch**: to start or promote.
- 4 **acquitted** < acquit: to relieve from a charge of fault or crime; declare not guilty.
- 6 **lobby**: to try to influence the action of (public officials esp. legislators).
- 7 **liberalization** 「自由化」具体的に何を指すか。
endorse: to approve; support. / 8 **de facto**: actually existing.
- 8 **decriminalization** < decriminalize: to eliminate criminal penalties for or remove legal restrictions against. ここでは何を指すか。
compromise [kɑmpromaɪz]: an agreement reached by adjustment of conflicting or opposing claims, principles, etc. by reciprocal modification of demands.
- 9 **foe**: a person who is opposed in feeling, principle, etc., to something.
roil: to agitate; stir up.
- 11 **Lou Gehrig’s disease** 【病理】「筋萎縮性側索硬化症」随意筋の萎縮が起き、ついには完全麻痺に至る。
- 12 **denunciation** [dɪnʌnsi'eɪʃən]: censure or condemnation.
the Vatican: the authority and government of the pope. / 14 **bolster**: to support or uphold.
- 19 **public prosecutor**: an officer charged with the conduct of criminal prosecution in the interest of the public.

make repeated requests for euthanasia; the doctor should know the patient well enough to ensure the request is voluntary, and the doctor must consult with another physician.

The Dutch claim their system has built-in safeguards. For one, most people still rely on a family doctor, which reduces the risk of routinized euthanasia by an impersonal system. For another, Holland's welfare state is alive and well. Nursing care for the chronically ill is good, and everyone's medical expenses are covered, so finances are not a factor.

Inevitably, of course, there are abuses, and flagrant ones are prosecuted. Sippe Schat, a doctor from northern Friesland, goes on trial later this month for the alleged murder of a 72-year-old cancer patient who had seemed in good spirits just before she died in a nursing home. According to prosecutors, Schat simply gave her a lethal shot of insulin without consulting anyone and left her to die alone, allegedly telling a nurse as he left, "If she hasn't died by 7 a.m. tomorrow, give me a call."

What about the 900 people euthanized without asking for it? Admits Van der Wal, "We don't like these cases, but we don't deny them either." The study found that about half the patients had earlier discussed euthanasia. Many were in great pain in the last days of life and were given morphine, which eased their suffering but also hastened death. The government has proposed tighter controls of these nonrequest cases, but practitioners say Holland's candor has merely thrown light on a common, if little discussed, medical practice. "Doctors all over the world shorten the lives of patients under the cover of pain reduction, and only we are stupid enough to talk about it," says Bert Keizer, a nursing home physician in Amsterdam, whose memoir about his life among the dying, *Dancing with Mister D*, was a best seller.

Keizer says he grants only one of the five or so "serious" euthanasia requests he gets a year. "The process is so stressful that most physicians do whatever they can to avoid getting involved in euthanasia cases," he says. "It's still as emotional and difficult as ever, but the current climate makes it

Notes

4 **built-in:** forming an integral part of a system.

safeguard: something that serves as a protection or defense or that ensures safety.

9 **flagrant:** openly and obviously wicked.

19 **morphine** [mɔːrfɪn] 【薬学】「モルヒネ」アヘンから抽出される麻酔性・習慣性の結晶性アルカロイドで、主に鎮痛・鎮静作用をもつ。／23 **under the cover of:** with the pretense of.

30 **climate:** the prevailing attitudes, standards, or environmental conditions of a group, period, or place.

easier to discuss with the patient.”

That’s just the problem, insists Amsterdam psychiatrist Frank Koerselman, one of the few in Holland to buck the consensus. “Patients are scared by pain and the loss of their dignity, so they immediately start talking about active euthanasia,” he said. “They are badly informed about alternatives.” In particular, says oncologist Zbigniew Zylicz, who runs a hospice for dying cancer victims outside Arnhem, “the knowledge and practice are very low for palliative care,” the art of easing pain in the final stage of a terminal illness. Zylicz estimates that a quarter of the 400 or so dying patients he has treated asked first for euthanasia. After counseling and skilled use of painkillers, all but two agreed to die naturally. “We could cut the number of euthanasia cases to 50,” he says. Acknowledging such arguments, the government recently called for more emphasis on palliative care.

For many terminally ill patients and their families, it’s having the option that counts. When Annemie Douwes Dekker’s husband Hink was first told he had multiple sclerosis in 1978, his family doctor agreed to discuss the possibilities of euthanasia if and when the time came. “That was a great help to us,” Annemie recalled. Five years later Hink, then 50, had been in a nursing home for a year and was deteriorating rapidly, losing his ability to communicate and control bodily functions. Yet, says his widow, now 62 and living in Haarlem, “he had a strong heart; he could have gone on living for years.”

When Hink first asked to be put to death, the doctors refused, but after a few more months and more requests, Douwes Dekker remembers, “They said, ‘Your husband is ready for it.’” That weekend he came home from the nursing home to be with the family, and the doctor administered the poison. “He just

Notes

- 3 **buck**: to resist or oppose obstinately; object strongly to.
- 5 **alternative** [ɔ:ltn̩:rn̩ətɪv]: a choice limited to one of two or more possibilities, as of things, propositions, or courses of action, the selection of which precludes any other possibility.
- 6 **oncologist** 「腫瘍専門医 [研究者]」 oncology: the branch of medical science dealing with tumors, including the origin, development, diagnosis, and treatment of malignant neoplasms.
- 7 **Arnhem** [ɑ:rn̩hem] 「アルンヘム, アルネム」オランダ東部ライン川に臨む都市。
- 7- **palliative care** [pæli̩i̩tɪv kɛə] 「苦痛緩和医療」
- 16 **multiple sclerosis** [mʌltɪpl skliə'rɔ:sis] 【病理】「多発性硬化症」脳と脊髄の随所の硬化で起こる原因不明の疾患。
- 19 **deteriorating** < deteriorate: to become worse or inferior in character, quality, value, etc.
- 20 **Haarlem** [hɑ:rləm] 「ハールレム」オランダ, アムステルダム西方の都市。
- 25 **administer**: to make application of; give.

faded away,” she says. “I’m convinced we did the right thing. He died a good death.”

That’s what euthanasia means in Greek, good death. For the Netherlands, it’s also good policy. Other countries will have to decide for themselves, but surely the Dutch style of open debate about a painful and difficult topic is the best way to do so.

Questions

- (1) Why was Frans Swarttouw’s farewell to his friends unusual?
- (2) How has euthanasia been treated in the Netherlands?
- (3) What is the difference between assisted suicide and euthanasia?
- (4) How did the euthanasia movement start in the Netherlands?
- (5) What are the guidelines the government proposes regarding euthanasia?
- (6) Why is the Dutch system of euthanasia safe?
- (7) Why do most doctors want to avoid getting involved in euthanasia cases?
- (8) According to Zbigniew Zylicz, what is the problem of the euthanasia cases?

A Lawful Way to Die

Facing widespread popular support for euthanasia, the Netherlands' parliament votes to make it legal

[December 11, 2000, p. 37]

By JAMES GRAFF



NO REGRETS: Friedhoff's brother died with a physician's help

SOME 25 TIMES IN HIS LONG CAREER as a physician, Dr. Henk Maarten Laane of Amsterdam has exercised his talents not to prolong life, but to hasten death. He prefers to call it “mercy dying,” not mercy killing, and he doesn’t like it. But he was relieved last week when the lower house of the Dutch parliament voted overwhelmingly to legalize the practice of euthanasia. “Worldwide there are always doctors helping their patients to die,” says Laane, 55. “The importance now is to show the world it can be done in a legal way, in a good way, open and controlled.”

The new law, which still has to be approved by the upper house next year, sets forth rules that will make a long-tolerated Dutch practice legal. It allows a doctor to help end the life of a patient suffering unbearable pain from an incurable condition. The patient would have to request assisted suicide rather

Notes

4 the lower house 「(二院制の)下院」 / 5 legalize: to make legal; authorize.

9 the upper house 「(二院制の)上院」 / 10 set forth: to give an account of; state.

than simply concurring with a physician's suggestion, and a second examining physician would have to agree. A patient as young as 16 could request assisted suicide, and one 12 to 16 could do so with parental consent. While the law sets up a rigorous system of reporting assisted suicides, only cases of
5 questionable procedures would be considered for legal action.

Laane has faced the bleak choice of euthanasia far more than most physicians; many of his patients are old or have AIDS. "When I help a patient to die, I know for myself that I do a good job," he says. "On the other hand, it's still unnatural to kill. The days when I do this are the most difficult. But the next
10 day when I go back to the family, they are so relieved."

Polls show that 92% of Dutch support euthanasia, but opponents are vociferous. Dr. Pieter Hildering, chairman of the anti-euthanasia Dutch Physicians' League, says terms like "unbearable suffering" make the law highly subjective. "In the medical world, there's a large difference of opinion on
15 what 'unbearable' is," he says. "Our great concern is that which doctor you ask will be the factor deciding whether you live or die."

Laane counters that despite government tolerance, euthanasia in the Netherlands has not increased over the past 10 years; in fact, he says, the rate among AIDS patients has dropped dramatically as medical treatment has im-
20 proved. He also rejects complaints about subjectivity. "The only one who can say what's unbearable is the patient, I can't."

Falco Friedhoff agrees. The filmmaker was present for the scheduled death of his brother Sander, who was losing a five-year battle with AIDS. As they gathered at his apartment, family members donned T shirts that Sander had
25 made for the occasion. As his consciousness faded, the family left the room. Then Falco returned with Laane to give Sander an injection. Recalls Falco: "There was sadness but also relief that the suffering was gone."

The process left Falco with a positive feeling about Sander's death. Another

Notes

- 1 **concur:** to agree.
- physician:** a person engaged in general medical practice.
- 4 **rigorous:** rigidly severe.
- 6 **bleak:** depressing.
- 12 **vociferous** [ˈvɒsɪfərəs]: crying out noisily; insistently expressing one's views.
- 14 **subjective:** influenced by personal feelings or opinions.
- 17 **counter:** to oppose.
- 24 **don:** to put on or dress in.

brother, Gysbert, died of AIDS three years later—in a hospital with only his mother present. “I’m unhappy because he was so alone in his struggle,” says Falco, who is convinced, like most Dutch, that people should be able to cue their own inevitable exit—and that doctors can help them do it.

Notes

3 **cue:** to provide with a cue or indication; inform.

Questions

- (1) What does the new euthanasia law allow doctors to do?
- (2) Why does Dr. Pieter Hildering claim terms like “unbearable suffering” make the euthanasia law subjective?
- (3) Why does Dr. Henk Maarten Laane reject complaints about the subjectivity of the law?
- (4) Why was Falco Friedhoff unhappy about the death of his brother Gysbert?

THE PERSONALITY

GENES

[April 27, 1998, pp. 46–47]

Does DNA shape behavior? A leading researcher's behavior is a case in point

By J. MADELEINE NASH

MOLECULAR BIOLOGIST DEAN HAMER has blue eyes, light brown hair and the goofy sense of humor of a stand-up comic. He smokes cigarettes, spends long hours in a cluttered laboratory at the U.S. National Institutes of Health, and in his free time clambers up cliffs and points his skis
5 down steep, avalanche-prone slopes. He also happens to be openly, matter-of-factly gay.

What is it that makes Hamer who he is? What, for that matter, accounts for the quirks and foibles, talents and traits that make up anyone's personality? Hamer is not content merely to ask such questions; he is trying to answer
10 them as well. A pioneer in the field of molecular psychology, Hamer is exploring the role genes play in governing the very core of our individuality. To a remarkable extent, his work on what might be called the gay, thrill-seeking and quit-smoking genes reflects his own genetic predispositions.

That work, which has appeared mostly in scientific journals, has been gath-

Notes

- 1 **molecular biologist** 「分子生物学者」 molecular biologyとは、DNA や RNA などの高分子物質の研究を通して、分子レベルでの生物学的現象を研究する研究領域のこと。
- 2 **goofy**: (*slang*) ridiculous; silly.
stand-up: (of a comedian) delivering a comic monologue while alone on the stage.
- 3 **cluttered** < clutter: to fill or litter with things in a disorderly manner.
- 5 **avalanche-prone** [ævələntʃ prú:n]: likely to cause an avalanche. avalanche: a large mass of snow, ice, etc., detached from a mountain slope and sliding or falling suddenly downward.
- 8 **quirk**: a habit or an action particular to a person.
foible: a slight peculiarity or defect of character, often one of which a person is wrongly proud.
- 13 **predisposition**: a person's natural qualities of mind and character.



GENE HUNTER: Surprisingly, Hamer hasn't tested his own DNA—and he probably won't

ered into an accessible and quite readable form in Hamer's provocative new book, *Living with Our Genes* (Doubleday). "You have about as much choice in some aspects of your personality," Hamer and co-author Peter Copeland write in the introductory chapter, "as you do in the shape of your nose or the size of your feet."

5

Until recently, research into behavioral genetics was dominated by psychiatrists and psychologists, who based their most compelling conclusions about the importance of genes on studies of identical twins. For example, psycholo-

Notes

- 1 **provocative** [prəvəkətɪv]: likely to cause argument or interest.
- 7 **compelling**: very exciting.

gist Michael Bailey of Northwestern University famously demonstrated that if one identical twin is gay, there is about a 50% likelihood that the other will be too. Seven years ago, Hamer picked up where the twin studies left off, homing in on specific strips of DNA that appear to influence everything from mood to sexual orientation.

Hamer switched to behavioral genetics from basic research; after receiving his doctorate from Harvard, he spent more than a decade studying the biochemistry of metallothionein, a protein that cells use to metabolize heavy metals like copper and zinc. As he was about to turn 40, however, Hamer suddenly realized he had learned as much about metallothionein as he cared to. “Frankly, I was bored,” he remembers, “and ready for something new.”

Instrumental in Hamer’s decision to switch fields was Charles Darwin’s *The Descent of Man, and Selection in Relation to Sex*. “I was fascinated to learn that Darwin seemed so convinced that behavior was partially inherited,” he remembers, “even though when he was writing, genes had not been discovered, let alone DNA.” Homosexual behavior, in particular, seemed ripe for exploration because few scientists had dared tackle such an emotionally and politically charged subject. “I’m gay,” Hamer says with a shrug, “but that was not a major motivation. It was more of a question of intellectual curiosity—and the fact that no one else was doing this sort of research.”

The results of Hamer’s first foray into behavioral genetics, published by the journal *Science* in 1993, ignited a furor that has yet to die down. According to Hamer and his colleagues, male homosexuality appeared to be linked to a stretch of DNA at the very tip of the X chromosome, the chromosome men inherit from their mothers. Three years later, in 1996, Hamer and his collaborators at NIH seconded an Israeli group’s finding that linked a gene on chromosome 11 to the personality trait psychologists call novelty seeking. That same

Notes

3 **pick up:** to resume or continue after being left off. / 3 **leave off:** to cease; stop.

4 **home:** to proceed toward a specific target or location (often fol. by *in on*).

8 **metallothionein** [mətəˈlɒθiəniːn] 【生化】「金属結合性蛋白質」肝臓内に銅を貯蔵する働きがある。

9 **zinc** 【化学】「亜鉛」化学記号 Zn.

12 **instrumental:** serving or acting as an instrument or means; useful; helpful.

Charles Darwin (1809–82) 英国の博物学者で進化論の提唱者、他に *On the Origins of Species by Means of Natural Selection* 『種の起源』(1859).

18 **with a shrug:** raising and contracting the shoulders.

21 **foray:** an initial venture. / 26 **second:** to assist or support.

year Hamer's lab helped pinpoint another gene, this time on chromosome 17, that appears to play a role in regulating anxiety.

Unlike the genes that are responsible for physical traits, Hamer emphasizes, these genes do not cause people to become homosexuals, thrill-seeking rock climbers or anxiety-ridden worrywarts. The biology of personality is much more complicated than that. Rather, what genes appear to do, says Hamer, is subtly bias the psyche so that different individuals react to similar experiences in surprisingly different ways.

Intriguing as these findings are, other experts caution that none has been unequivocally replicated by other research teams. Why? One possibility is that, despite all of Hamer's work, the links between these genes and these particular personality traits do not, in fact, exist. There is, however, another, more tantalizing possibility. Consider the genes that give tomatoes their flavor, suggests Hamer's colleague Dr. Dennis Murphy of the National Institute of Mental Health. Even a simple trait like acidity is controlled not by a single gene but by as many as 30 that operate in concert. In the same way, he speculates, many genes are involved in setting up temperamental traits and psychological vulnerabilities; each gene contributes just a little bit to the overall effect.

Hunting down the genes that influence personality remains a dauntingly difficult business. Although DNA is constructed out of a mere four chemicals—adenine, guanine, cytosine, thymine—it can take as many as a million combinations to spell out a single human gene. Most of these genes vary from

Notes

- 1 **pinpoint**: to locate or describe exactly or precisely.
- 5 **worrywart**: a person who tends to worry habitually and often needlessly.
- 7 **bias**: to cause partiality or favoritism in (a person); influence unfairly.
- 10 **unequivocally** [ʌnikwɪvəkəli] < unequivocal: unambiguous.
- 13 **tantalizing** < tantalize: to torment with, or as if with, the sight of something desired but out of reach; tease by arousing expectations that are repeatedly disappointed.
- 18 **vulnerability** < vulnerable: capable of or susceptible to being wounded or hurt.
- 20 **dauntingly** < daunt: to discourage; dishearten.
- 22 **adenine** [ædɒnɪn] 【生化】「アデニン」6-アミノプリン基，核酸を構成する塩基の一つ。肝臓，膵臓または茶から抽出。主に薬用。記号 A。
guanine [ɡwɑːnɪn] 【生化】「グアニン」核酸 (DNA, RNA) を構成しているプリン塩基の一つ。記号 G。
cytosine [saɪtəːsɪn] 【生化】「シトシン」ピリミジン系白色結晶，核酸 (DNA, RNA) の重要成分。遺伝情報を担う塩基の一つ。記号 C。
thymine [θaɪmɪn] 【生化】「チミン」白色，非水溶性の結晶，ピリミジン塩基の一種。DNA の主要成分で，アデニンと塩基対をつくる。主に医学，生化学研究に用いる。記号 T。

individual to individual by only one chemical letter in a thousand, and it is precisely these minute differences that Hamer and his colleagues are trying to identify. Of particular interest are variations that may affect the operation of such brain chemicals as dopamine and serotonin, which are well-known modulators of mood. The so-called novelty-seeking gene, for example, is thought to affect how efficiently nerve cells absorb dopamine. The so-called anxiety gene is postulated to affect serotonin's action.

How can this be? After all, as Hamer and Copeland observe in their book, "... genes are not switches that say 'shy' or 'outgoing' or 'happy' or 'sad.' Genes are simply chemicals that direct the combination of more chemicals." What genes do is order up the production of proteins in organs like the kidney, the skin and also the brain. Thus, Hamer speculates, one version of the novelty-seeking gene may make a protein that is less efficient at absorbing dopamine. Since dopamine is the chemical that creates sensations of pleasure in response to intense experiences, people who inherit this gene might seek to stimulate its production by seeking out thrills.

Still, as critics emphasize and Hamer himself acknowledges, genes alone do not control the chemistry of the brain. Ultimately, it is the environment that determines how these genes will express themselves. In another setting, for example, it is easy to imagine that Hamer might have become a high school dropout rather than a scientist. For while he grew up in an affluent household in Montclair, New Jersey, he was hardly a model child. "Today," he chuckles, "I probably would have been diagnosed with attention-deficit disorder and put on Ritalin." In his senior year in high school, though, Hamer discovered organic chemistry and went from being an unruly adolescent to a first-rate student. What people are born with, Hamer says, are temperamental traits.

Notes

4 **dopamine** [dóʊpəmi:n] 【生化】「ドーパミン」中枢神経系，網膜，交感神経節の重要なカテコラミン神経伝達物質。脳内で作用して動作や情動を調整する。

serotonin [sɛrətóʊni:n] 【生化】「セロトニン」ほ乳類の脳，腸，血小板に生じ，血管などの平滑筋を収縮させる神経伝達物質。

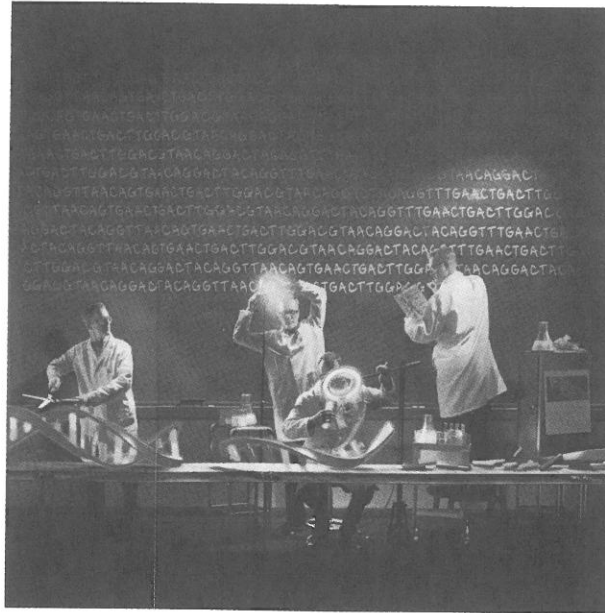
18 **chemistry**: chemical properties, reactions, phenomena, etc.

23 **attention-deficit disorder** 「(児童の)注意力欠如障害」略 ADD.

24 **Ritalin** [rítəlin] 【薬学・商標】「リタリン」塩酸塩の性状で用いられるメチルフェニデードの商品名。

25 **organic chemistry**: the branch of chemistry, originally limited to substances found only in living organisms, dealing with the compounds of carbon.

26 **temperamental** < temperament: the combination of mental, physical, and emotional traits of a person.



What they can acquire through experience is the ability to control these traits by exercising that intangible part of personality called character.

Over the coming decade, Hamer predicts, scientists will identify thousands of genes that directly and indirectly influence behavior. A peek inside the locked freezer in the hallway outside his own lab reveals a rapidly expanding 5 stash of plastic tubes that contain DNA samples from more than 1,760 volunteers. Among them: gay men and their heterosexual brothers, a random assortment of novelty seekers and novelty avoiders, shy children and now a growing collection of cigarette smokers.

Indeed, while Hamer has maintained a professional distance from his 10 studies, it is impossible to believe he is not also driven by a desire for self-discovery. Soon, in fact, his lab will publish a paper about a gene that makes it harder or easier for people to stop smoking. Judging by the pack of cigarettes poking out of his shirt pocket, Hamer would seem to have drawn the wrong end of that genetic stick. He has tried to stop smoking and failed, he 15 confesses, dozens of times. “If I quit,” he says, “it will be an exercise of character.” And not, it goes without saying, of his genes.

Notes

6 **stash:** a place where something is stored secretly.

7—**assortment:** a collection of various kinds of things; a mixed collection.

Questions

- (1) What is Dean Hamer's research focusing on?
- (2) Why did Hamer become interested in behavioral genetics?
- (3) According to Hamer and his colleagues, what appeared to be related to male homosexuality?
- (4) What do the personality genes do to the psyche?
- (5) Why has none of Hamer's findings been replicated by other research teams?
- (6) Why is it difficult to identify the genes that affect personality?
- (7) According to Hamer, what ability can people get through experience?

AFRICA

An Epidemic of Rapes

Outrage fuels a
protest movement
in South Africa

BY PETER HAWTHORNE
JOHANNESBURG

[November 1, 1999, p. 37]



WHEN CHARLENE SMITH found the intruder in her house in Johannesburg, South Africa, she started screaming. But he had a knife, and very soon her hands were tied behind her back with rounds of thick masking tape.

Notes

見出 **epidemic** [ɛpɪdɛmɪk]: a rapid spread or increase in the occurrence of something: *an epidemic of riots.*

1 **Johannesburg** [dʒouhænisbɜːrg] 「ヨハネスブルグ」南ア共和国第一の都市，人口 1,916,000 人 (1991 年)。

3 **round**: any round shape, as a circle, ring or sphere.

masking tape: an easily removed adhesive tape used temporarily for defining margins, protecting surfaces, etc., as when painting, and sometimes also for binding, sealing, or mending. 「(ペンキ塗りの際にペンキがはみ出るのを防ぐ) マスキングテープ」

Then he raped her. But her ordeal was not over after he left. In a country with one of the highest rates of HIV infection in the world, bureaucratic and hospital red tape kept her from getting preventive drugs for 5½ hours. If she had not complained loudly and bitterly, she might never have got the medication. The experience left her stunned and confused: “My left hand is caked in blood. I am wearing a gown and have masking tape in my hair, around my wrists, neck, ankles and knees . . . I realize I’m standing with my arms at my sides facing the wall, saying quietly over and over, ‘I’m alive. I’m alive.’” In the account of her ordeal published in April, she noted that during the hours in which she battled for AIDS medication, an additional 7,200 women and children were raped in South Africa.

Smith, a free-lance journalist and author, is the most eloquent voice in a country in the throes of an epidemic. South Africa recorded 1,263 rapes in 1979. Today the official annual figure is nearly 50,000, but rape-crisis researchers say only 1 in 35 is reported.

That means there are more than 1.6 million rapes a year—the highest incidence in the world, according to Interpol. (In 1998 the official South African rate was 104.1 rapes per 100,000 people; in the U.S. the rate was 34.4 per 100,000.) Worse, the cultural and legal attitudes toward rape are practically medieval. In Johannesburg, where the HIV-infection rate is reckoned to be 40% among men in the “rapist” age bracket (20 to 29), many believe raping a virgin will cure HIV. Earlier this month a prominent judge sentenced a 54-year-old man who had raped his 14-year-old daughter to just seven years in prison. Because the crime took place within the family, Judge John Foxcroft explained, little harm was done to the wider community. Furthermore, he said, by the time her father is released in seven years, the girl will have moved out.

Notes

- 2 **HIV**: human immunodeficiency virus.
- 3 **red tape**: excessive formality and routine required before official action can be taken.
- 5 **stun**: to shock; overwhelm: *The world was stunned by the attempted assassination.*
caked in blood 「血がべったりついている」
- 12 **free-lance**: also, freelancer. a person who works as a writer, designer, performer, or the like, selling work or services by the hour, day, job, etc., rather than working on a regular salary basis for one employer.
- 13 **throes** [θróuz] 「苦悶, 苦しみ」
- 17 **Interpol** 「国際 [世界] 警察, インターポール」正式名は International Criminal Police Organization 「国際刑事警察機構」略 ICPO. 1923 年ヨーロッパ諸国がウィーンで設立, 後に世界各国が参加. 本部パリ.
- 21 **bracket**: a class; grouping; classification. / 22 **prominent**: leading, important, or well-known.

The decision incensed antirape activists and further energized a movement already fueled by outrage. “Nowhere since the final days of apartheid has there been greater activism in a national social issue,” says Smith, 42, who was an antiapartheid journalist of some repute. “Rape victims are speaking out because we are people, not statistics. We have nothing to be ashamed of. [South Africa is] a so-called moral society that does nothing, that should be filled with shame.” Indeed, in a country in which race remains hugely sensitive, the debate centers, surprisingly, not on race but on gender equality. An antirape TV ad by actress Charlize Theron, for example, was temporarily pulled because it offended men (*see box*).

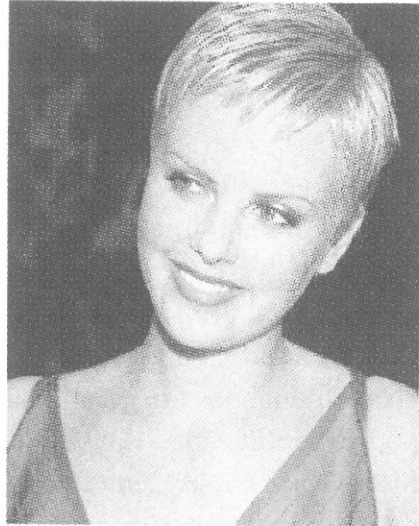
One of Smith’s chief complaints about her case was the insensitivity of doctors and clinics. Now some hospitals and medical institutes are opening rape clinics and training staff in rape-crisis management, as well as drawing up protocols for the forensic examination and care of rape victims. Post-rape antiretroviral drugs are, however, still not available in government hospitals. (So far, Smith is HIV-negative, but she will continue tests for at least a year.) “Now old taboos are going, and people are coming forward with family support to report rape,” says Dr. Adrienne Wulfsohn, director of the Albertina Sisulu Rape Crisis Center near Johannesburg. But, she adds, “we need to fundamentally change the justice system.”

That may be happening. Since 1998, the Criminal Law Amendment Act began providing for more severe punishments for rape, including life sen-

Notes

- 1 **energize** [énərdʒàiz]: to give energy to.
- 2 **apartheid** 「(南ア共和国で黒人に対する) 人種隔離政策, アパルトヘイト」 1948–91 年.
- 3 **activism**: the use of vigorous campaigning to bring about political or social change.
- 4 **some**: unspecified but considerable in number, amount, degree, etc.
- 4- **speak out**: to express one’s opinion openly and unreservedly: *He was not afraid to speak out when it was something he believed in strongly.*
- 7- **sensitive**: requiring tact or caution; delicate; touchy: *a sensitive topic.*
- 8 **gender**: the state of being male or female (chiefly in cultural or social contexts).
- 9 **pull**: to cancel or withdraw.
- 14 **protocol** 「(公式の)手順, 手続き」
forensic [fərénsik]: pertaining to, connected with, or used in courts of law or public discussion and debate.
- 15 **antiretroviral** <retrovirus [rétrouvaïərəs] 「レトロウイルス」 遺伝情報の符号化に DNA (デオキシリボ核酸) に代わって RNA (リボ核酸) を用いるウイルス.
- 21 **criminal law** 「刑法」
amendment act 「修正 [付加] 制定法」

tences for gang rapists. Furthermore, FBI officials from the U.S. are training investigators and prosecutors who will be working in 20 courts devoted to trying sex crimes. These are scheduled to open in April 2000. Meanwhile, Smith refuses to give in to depression. The rapist, she says, “cannot imprison
5 my mind. I have the power.” She maintains that “God sent me this challenge. I have to turn this evil into good, and that is why I am speaking out.”



CONTROVERSY

Charlize's Angle

Charlize Theron (*The Astronaut's Wife, Celebrity*) is South Africa's most famous export to Hollywood. But her anti-rape ad was temporarily pulled after men complained that it insulted the gender. Here's what she said: "People often ask me what the men are like in South Africa. Well, con-

sider that more women are raped in South Africa than any other country in the world. That 1 out of 3 women will be raped in their lifetime . . . And that the rest of the men in South Africa seem to think rape isn't their problem. It's not that easy to say what men in South Africa are like because there seem to be so few out there."