

On Condis and Coolth

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Abstract

This essay is about the cultural as well as the technical origins of society's large-scale conditioning of air. It argues that by the application of semiotic and anthropological analysis, it is possible to use air-conditioning as a particularly efficient instrument with which to investigate some basic features of modern American culture. The essay argues that air-conditioning is essentially like an act of *potlatch* of which modern American quick food cuisine is another important example. It also suggests that the desire for air-conditioned air is addictive, with important consequences in moral and political philosophy as well as for the strategic minimum energy requirements of the Republic. The essay concludes by suggesting that the same cultural and technological roots in American history which created the addiction to coolth also contain the means to move on to cleverer, more environment-friendly "post-coolth" technologies.

Why do Americans so passionately wish to be cold in summer? What is the meaning of the grim resolve which so many show as they fire up their air conditioners in their cars and homes, to emit a withering, icy blast? Why must the lobbies of hotels and office blocks with pretensions be so much colder than those of hotels and office blocks without? Whence the truculence with which the right to be cold is maintained? All these qualities are immediately striking to the non-air-conditioned stranger; and to one who has lived in tropical Africa, without air-conditioning, something here cries out for explanation.

It is not at all self-evident that air-conditioning makes life in hot places more agreeable. The body is thoughtfully provided with its own rather efficient cooling mechanism. Sweating. Sweating makes you wet, smelly and comfortable. When through exertion you are blinded by sweat, it thereby warns you that it is time to sit down under a shady tree. You drink copiously. The kidneys work energetically also. In sum, you acclimatize to the place. Before long, you simply don't notice the heat, provided that you are sensible in arranging your schedule. In Zambia, I always tried to service my Land Rover shortly after dawn, to read at midday and, like everyone else, to dine *ha lizazi li ca matali*: when the sun eats the leaves. Air-conditioning keeps you dry, free of natural odour (and therefore a fit surface for the application of artificial perfumes) and gives you no

excuse to stop working. It is relentless and severe. Modern American Gothic.

Furthermore, air-conditioning rapidly teaches the body to hate the heat. To begin with, one flinches resignedly as the hot breath of the Outside curls around the cooled body stepping forth into the Devil's embrace. One shivers and sneezes when over-quickly refrigerated upon coming indoors; the standing sweat and damp shirt suddenly seem to burn on the skin. It is not immediately clear why the second sensation should be conventionally regarded as a luxury to be sought and the former a punishment to be avoided. But before long that issue of gross preference is overridden. The undiluted unpleasantness of such transitions to and from hot and wet to cold and dry air conditions one to avoidance. In fact, physical addiction to air-conditioned air is the most pervasive and least noticed epidemic in modern America. Its victims must be named. Unless the name already belongs to a Latin-American guerilla group unknown to me, which it sounds vaguely as if it should, they are "Condis".

One experiences a world divided. Americans are more systematically (but unconsciously) divided on the criterion of temperature than any other. A Condi is cold in summer, hot in winter; others are the reverse. That the two classes coincide roughly with other divisions of wealth, race and power in modern

America is obvious, and may be of significance in answering our questions, although I shall suggest that such a simple correspondence provides an insufficient explanation.

At once, a further clarification is needed to prevent unnecessary misunderstanding. Cooled air is, of course, pumped out all over the warmer parts of the planet nowadays. Where there is less of it, and more poor people, it signals social division. Division is signalled more grossly in the Persian Gulf, more stringently in Senegal, than in the USA; and cooled air is consumed with as much enthusiasm as the other aspects of "Coca-colonization". Why this may be and the meaning of it is not my concern on this occasion. This essay is *not* to be read to suggest that the act of conditioning air is a uniquely American phenomenon. Its purpose is to argue that the *cultural as well as the technical origins* of large-scale conditioning of air are especially American; and therefore that an understanding of the modern American Way which ignores this dimension, as hitherto has generally been done, is deficient. This deficiency matters for strategic as well as for cultural reasons. Americans (and the rest of us) need to know where they "draw the line in the sand" to defend their perception of the irreducible minimum requirement of energy to sustain "normality" in the Republic. At present, air-conditioning composes a significant portion of that felt need.

The activity and product of air-conditioning also needs firmer definition. It is more than seeking shade or profiting from a breeze, or even blowing air around with punkahs and fans. Air-conditioning engineers have got it taped. It is the ability to counter sensible and latent heat gains by means of mechanical circulation, dehumidification and refrigeration of air. If any one of these functions is absent, then it ain't a/c [1]. Furthermore, we can relate the technology to the people because Fanger has pioneered "comfort analysis" [2].

Fanger has found that Americans are much less discomforted by changes in humidity than in activity or in the insulating value of their clothing. At 25.6 °C, he found in equal measure complaint of overheating and overcooling from identically dressed subjects. A Danish control group replicated this result; so he thinks that it may be part of the human condition [3]. Erring on the side of expense and coldness, the American Society of Heating, Refrigeration and Air Conditioning Engineers have set the "Comfort Zone" with the ASHRAE *Comfort Standard 55-74* at 20-60% humidity, 23-25 °C. Within this Zone, people are said to experience, "...that state of mind which expresses comfort with the thermal environment... a subjective sensation of

being neither slightly warm nor slightly cool." [4]. Notice especially the effortless egocentricity which propels the ASHRAE Standard and the religious tone with which it is suffused, worthy of Timothy Leary bombed out of his mind in his warm, dark bathtub.

Achieving suspension in this sensationless, thermal Nirvana doesn't come cheaply. Air-conditioning can cost up to four times as much as heating per degree. So what is being described is in fact the relentless, self-conscious and entropic manufacture of "Coolth". The America of the Interstate Highways in summer is a hot landscape being criss-crossed by little bubbles of defiant coolth. The many glass stumps of the business districts of American cities, unbeloved by Prince Charles, send signals. To the little people in the street, they say, encouragingly, "Trump up!" To the Lighthouse of Alexandria, the Hanging Gardens of Babylon, the Pyramid of Cheops and friends, they say, "Luck out!" They semaphore a standing rebuke to the sun from their winking, mirrored, coloured windows. They say, "Coolth off!"

Almost all the main symbolic dualisms familiar to anthropologists are immediately present. Condis are, by definition, cold and dry. They abhor the heat and the wet. They inhabit civilization: Their natural habitat is the *civis*. The Lowest Common Denominator of civilized identity extended into the countryside is Coolth. They fear and detest the things that live in the Wild Woods. They insulate themselves from the Wild. In summer, they take Coolth with them to do this, to tame it. They seek predictability. They hate the spontaneous. Their lives celebrate the linear and overthrow the cyclical. Day is as Night and Night is as Day to them. Time is digital.

Condis are people with developed senses of individuality. They are cats that walk by themselves, and all places are alike to them. They do not like to be touched. They exemplify Elias Canetti's self-denying crowd, united only in denial of their shared identity [5]. Body odour is to be abhorred. Neutralization of one's own smell is an animal response to the desire for camouflage. Artificial scent is a way to mark one's sense of heightened identity in this curious, disaggregated crowd. Air-conditioning facilitates this altered and focused use of smell. Deodorant advertisements are among the most semiotically loaded to be seen on American television. If you smell of sweat, you are a really, really bad person.

Dealt such a complete hand, I am driven to speculate whether it is 'Full House'. Is asexuality and/or barrenness, which is one of the other dualist antipodes often associated with cold/dry/civilized/scented in medical anthropological study of African

and Asian cosmology, present? [6-8]*. Are Condis asexual, or at least anti-sexual? Certainly the annual production cycle of the European condom industry, the more marked because of the AIDS' stimulated boost to use its products, confirms the return of the libido after the winter, as chemists are stocked up for the spring rush, especially in Scandinavia. So maybe keeping the temperature down keeps other things down as well? Unfortunately, I do not know whether US condom sales also show this pattern. The hypothesis would be that there is deep down an inverse relationship between the pervasiveness of air-conditioning and the seasonal fluctuation of sales. A good research topic for some bright market analyst.

There is a third possibility. Condis may simply need to have their sexual fulfilment from cool, dry, artificially scented and physically disassociated sources. This is certainly the thesis of a celebrated film which created much discussion in chattering circles in America. "*Sex, lies and videotape*" proposes precisely this. A young man's impotence confronted with the abnormal stimulus of a live woman (who is semeiotically as well as biologically warm, etc.), can be overcome by his use of semeiotically cold videotapes of women's sexual confessions, which apparently relate much more directly to his normal psyche. Commentators have tended to see in this a metaphor of, and in some cases a prescription for, "hands off" sex under the threat of AIDS. But may it not simply be Condi acculturation?

One may also observe the presence of the well-established colour associations of the cold and dry. The chassis of domestic air-conditioning equipment is typically silver or grey. Of more significance is the predominance of dark colours, especially blue and black, in the logos of large air-conditioning manufacturers (Carrier, Kenmore, Thermo-King and Delco). I had the impression, travelling around the USA last summer, that none are red, yellow or orange. However, manufacturers of heat pumps, which both cool and heat, go in for much more colourful logos. Rainbows are in favour. I saw one bright red chassis in South Carolina. In short, we seem to have all the indications for seeking a cultural as well as a comfortable answer on the far side of Fanger's formula.

Why do Americans want to be cold? Two sorts of cultural answer propose themselves. One signals

separation, the other association. Part of the separation answer is straightforwardly and rather unpleasantly political. Possession of Coolth, especially in the South for climatic as much as residual political reasons, shows that one is not hot/wet/wild/sexual and poor, i.e., black. (I realize that for semeiotic consistency, black people should really be red, of course; but you can't have everything.) As one shivers in the Bible Belt, one is constantly reminded who one is and who, by the grace of God, one is not. By the same token, the same political explanation may apply in the North. But I suspect that the other separation argument has more weight, simply because of where the immigrants settled.

The huddled masses, yearning to breathe free, 24 million of whom (it says so in the panorama explanation on top of the World Trade Center from where you look down on it) flooded through Ellis Island in New York Harbour, also stank. Then they worked in sweat shops. The very name makes the modern American shudder. On Ellis Island, the great central hall was the second sight of America, after Lady Liberty, for the ancestors of very many Americans.

It is a paradox of American life that living like Kings and Queens of earlier generations, they live under the constant fear of the return of shortage. Alexis De Tocqueville asked himself "Why are the Americans often so restless in the midst of their prosperity?" He answered that,

Americans cleave to the things of this world as if assured that they will never die, and yet are in such a rush to snatch any that come within their reach, as if expecting to stop living before they have relished them. They clutch everything but hold nothing fast... [9]

He was and remains unusual among Europeans in noticing this.

An important reason why modern Europeans, and especially (ironically) European conservatives, persistently fail to understand Americans, is that as visitors in this expansive land, they do not or cannot believe in this paradox of plenty and fear. Their critical faculties are overwhelmed by the chaotic and sometimes grotesque oversupply of the essentials and the luxuries of life. Nowhere is it more telling than in the jovial excess of American popular cuisine.

De Tocqueville's answer illuminates two aspects of one of the most rich, densely packed and significant images in modern American history. This is Norman Rockwell's wartime "Freedom from Want" painting in his famous series of the Four Freedoms. Firstly, De Tocqueville's answer explains the choice of subject matter: consumption of ritual food, an activity which gives strong, immediate and

*Strong case studies which discuss this are found in refs. 6 and 7. How medical cosmology and its study may be articulated with other aspects of culture and their study is discussed in ref. 8.

The stiff-necked, eighteenth-century Englishmen who composed the Declaration of Independence did not list "Life, Liberty and the Pursuit of Happiness" casually in that order. Category I is Life. Category II is Liberty and Category III is the Pursuit of Happiness: Ace, King, Queen. The problem about Coolth is that it makes a phoney claim to be promoted from Category III to Category I. The difficulty about that problem is that addicts furiously resent being told that their agonizingly felt needs are fake.

The right to Coolth is advanced from other premises at another level. I have argued that air-conditioning is, along with American public cuisine, the most pervasive and efficient social metaphor for the separative and associative feeling which are the essential lumber from which is prepared the very framework of contemporary American culture. If this is even only partly right, it complicates the task of ethical judgement. Lurking in the interstices between "Life" and "Liberty" in the Declaration are qualities which really belong to both. In addition to the material essentials of life, mankind has three other intangible or less urgent needs, which nonetheless may fairly claim entry to the category of basic right.

One is sex. Without it, sooner or later, nothing. No-one. Related to but extending beyond sex is the individual's need for society. Loneliness can derange people most terribly. The third is slightly different and is less easily agreed. A sense of intellectual security is a belief that one understands one's world. Without such a sense, people find it hard to function. Few people can tolerate doubt for long. Frequently, the more complex the challenge of reality, the more fundamentalist is the response. In colonial encounters, this might cause the involution of violence, turning the weapon inward when the external threat exceeded any hope of removal. Such were the "Cargo Cults" of Melanesia [13]. In highly articulated industrial societies, intellectual security has to be rooted in great faith. This may be faith in the machine or faith beyond the machine. Computer hackers and hell-fire preachers fulfil the same roles [14].

Yet this sense of security must necessarily involve the liberty to believe things which are patently erroneous in the eyes of someone else. That you do so believe in turn affronts the other's sense of intellectual security. Therefore often, indeed usually, the right to be wrong has been seen as intolerable; so history is full of suffering as inquisitors smashed the bodies of heretics in order that the inquisitors might be at peace and that their truth might make the heretics' minds free of error by being free of body. Existence of a general, basic right to intel-

lectual security is in dispute. We observe that the notion of this right is easily a contradiction in terms.

A liberal polity and intellectual environment is predisposed to allow people this right, so long as it conforms to Mill's precept of not treading on other peoples' toes and basic entitlements. Given all the nerve endings which, we have now seen, may be attached to the right to Coolth, there should be no doubt but that it will be both serious and painful to question it. If it is to be questioned, the reasons for doing so had better be weighty ones. And they must offer substitution in both the technical and cultural domains.

The Condis' Credo involves holding a lot of variables constant. We shall be cool, our plates shall overflow and gas shall be \$1.00 a gallon, Amen. They will be very deeply upset if any of the variables slip badly. After all, they offer up a daily *potlatch* of conspicuous consumption so that the Thunderbird may keep things rolling along as they are. The rest of the world has to pay a pretty heavy price on their behalf, perhaps least contentiously in foregone future options on wasting assets being consumed now (e.g., four million barrels of oil per day to feed the Thunderbird, as against one million for Africa, Asia and Latin America combined) [15].

More and more it appears that the price is most meaningfully displayed as the proportionate American contribution to general pollution, of which perhaps the single best index is of the emission of "greenhouse gases" which contribute to global warming. Global temperature forcing by human agency is happening. Many positive feedbacks may further accelerate it. Some negative feedbacks (notably cloud albedo) may slow it. At the moment we can't be sure. What we do know is that the CO₂ concentration in the atmosphere has risen from 180 ppm 20 000 years ago to 290 ppm in 1860, to 318 ppm in 1980, and is projected to double again by the later part of the next century, on present trends. We also know, with the publication of the fourth report of Working Group One on the Science of the Atmosphere of the UN Intergovernmental Panel on Climate Change that the best science now predicts a mean temperature rise of one degree Celsius above present levels by 2030 and of two degrees by the end of the next century, with associated storms, sea-level rise and other consequences, under a "business-as-usual" scenario [16-18]. Expressed as tons of carbon per person per year released into the atmosphere, the USA today leads the world at over 3.75 tons, a volume only matched by the belching, clapped-out factories of the former Peoples' Paradise of East Germany [19]. Now there are no East Germans (and if West German Capital has its way, also demolished and replaced clapped-out factories)

but daily there are more wetbacks. If we care to continue this global experiment at this rate, we shall soon enough find out the answer. Unfortunately, by that moment it will be, by definition, too late to do anything about it.

What say the Fathers of the Republic? No contest, I fear. All the Condi claims upon natural right are bogus. All are plainly Category III, if indeed they do make the Condis happy – and platoons of wealthy psychoanalysts will throng to Malibu Beach and Pacific Palisades to tell you that fortunately for them, they do not. Invocation of Category II by the "Libertarian Philosophers" of greed and social irresponsibility is just the perversity of an immature show-off in the Sixth Grade who is trying it on. He'll grab and gobble everyone's Hershey bars until he is eventually made to stop, or vomits. Keeping the Condi Credo is increasingly understood to threaten Category I – Life in the Republic. Life on Earth. I think that Thomas Jefferson would feel that especially strongly. If you read his *Notes on Virginia*, you suspect it. When you see the claret lift which he designed and had built into the mantelpiece at Monticello (it warms as it raises as it waits), and the mechanical music stand, and the cunning louvres, and when you scan the bookshelves in his library, you meet an ingenious, practical and humane mind – a distinctively American mind – and you know it. I wouldn't be a Condi if Jefferson were around.

That latter-day Jefferson, John Kenneth Galbraith, distinguishes "institutional truth" from what he calls simply, "simple truth". The one bears no necessary relation to the other, he warned the privileged young lady graduates at Smith College at their 1989 Commencement. "Institutional truth" is, "what serves the needs and purposes of the large and socially pervasive institutions that increasingly dominate modern life." The basic human right to Coolth is an institutional as well as a narcotic truth. Institutional truth "... is what sells products and makes money." Education in the Humanities is supposed to increase one's tolerance for creative doubt as a means in the search for simple truth. But the newly sceptical graduate, Galbraith went on, will soon discover a compelling, countervailing reason to swallow "institutional truth", however unprincipled or silly. It serves the needs and purposes of the dominant institutions in Washington, on Wall Street or wherever, which she may professionally serve. "In any great organization, it is far, far safer to be wrong with the majority than to be right alone" [20].

The young ladies have good reason to ponder Galbraith's words. They link hands directly with De Tocqueville's central anxiety about America.

I believe that it is easier to establish an absolute and despotic government among a people whose social conditions are equal than among any other. I also believe that such a government once established in such a people would not only oppress men but would in the end, strip each man there of several of the chief attributes of humanity. I therefore think that despotism is particularly to be feared in ages of democracy [21].

The Smith graduates need have no fear of finding material equality to menace them in America today, and they may have applauded Mr Reagan's steadfast efforts to further protect them on that front. But the residual popular and political cultures can be astonishingly uniform and requiring of oppressive uniformity. The right to Coolth best expresses just such clinging tyranny. Being so, to break it might be one of the most effective ways to catalyse the next great paradigm shift in American values, a shift whose harbingers are the "soft green", worried, Condi women: suffragettes of our age.

What may we expect when the fracturing comes? Three things. First, much anger. Essays like this one will be condemned as offensive, opinionated, over-academic and, of course (the first and best defence) "anti-American". They will be said to be against good, plain, common sense, because common sense says that there is no "problem" about air-conditioning. It is a benign and unobtrusive part of the fabric of everyday life within the ASHRAE Comfort Zone. But I claim Tom Paine. Second, after hearing much grumbling, with confidence we may predict American creative innovation.

Frederic "The Ice King" Tudor of Boston was America's first King of Coolness. He pioneered the New England ice trade to the South and the Caribbean. In 1805, on the leather cover of his "ice house diary", he printed the following motto:

He who gives back at the first repulse and without striking the second blow despairs of success [,] has never been, is not, and never will be a hero in war, love or business [22].

This, Daniel Boorstin suggests, has proved to be a charter text of American enterprise ever since. Nathaniel Jarvis Wyeth's ingenious parallel ice-cutter of 1825 was but one of many American inventions upon which huge trades could be constructed (120 000 tons of ice a year by 1856 in this case) and then as quickly, melt away. Eli Whitney's Uniformity System of interchangeable parts for the mass production of muskets in 1801, Henry Ford's production line, the titanic military-industrial efforts of the Second World War, Boeing 747s on a line in a building as far as the eye can see, all express what De Tocqueville called the "feverish ardour" with which Americans pursue prosperity; and all display the same encouraging characteristic that once the over-arching objective of production

changed — in Whitney's case, and three times thereafter, under stimulus of war — the response of the American "Know How" System of Production has been agile.

So it has been with houses: the Northern Energy Home with "stress-skin" highly insulative walls; the natural convection of properly designed, passively ventilated houses for the tropics, pioneered in Israel. As for houses, so for cars: the Land Rover has for years had a perfectly excellent double-skinned "tropical roof" which, without air-conditioning, keeps you cool as you drive. I'm sure that it can be refined. Finding the next, "post-Coolth" technologies will not be the most difficult task.

The third consequence of fracturing the right to Coolth will be the need to reconstruct America's contemporary cultural norms. That means the reconstruction of the self-image of every American who is currently a Condi. That is a tremendous task, especially so when we recall the intensity of the Condi identity, which I have attempted to explore by illuminating in it the same interacting dualisms which anthropology has discovered in so many different cultures and times. Here they all are, to take a final bow:

Cool/dry/civilized/scented/barren/
asexual/black/clean/good/death

Hot/wet/wild/sweaty/fertile/
sexual/red/dirty/evil/life

One final pair have silently joined the end of the chorus line on the stage. The applause falters. Seeing them there, as Mrs Nancy Reagan would have said, "Just say No to Drugs. Choose Life!" As Alexis de Tocqueville said of equality in the mid nineteenth century, and I say of the opportunities for an American renaissance now, "...it depends upon themselves, whether it is to lead to servitude or freedom, knowledge or barbarism, prosperity or wretchedness."

References

- 1 W. P. Jones, *Air Conditioning Engineering*, Edward Arnold, London, 1985, 3rd edn., p. 1.

- 2 P. O. Fanger, *Thermal Comfort Analysis and Applications in Environmental Engineering*, McGraw Hill, New York, 1972.
- 3 W. P. Jones, *Air Conditioning Engineering*, Edward Arnold, London, 1985, 3rd edn., pp. 92-94.
- 4 W. P. Jones, *Air Conditioning Engineering*, Edward Arnold, London, 1985, 3rd edn., p. 82.
- 5 E. Canetti, *Crowds and Power*, Penguin, Harmondsworth, 1981, translated from the German by Carol Stewart.
- 6 H. Ngubane, *Body & Mind in Zulu Medicine*, Academic Press, New York, 1977.
- 7 J. Janzen (with the collaboration of W. Arkininstall), *The Quest for Therapy in Lower Zaire*, University of California Press, Berkeley, 1978.
- 8 G. Prins, But what was the disease? The present state of health and healing in African studies, *Past & Present*, 124 (Aug.) (1989) 159-179.
- 9 A. de Tocqueville, *Democracy in America*, Vol. II, Pt. 2, Fontana Library, 1968, Ch. 13, p. 692.
- 10 I. Goldman, *The Mouth of Heaven*, Wiley Interscience, 1975.
- 11 H. S. Walens, *Feasting with Cannibals: An Essay on Kwakiutl Cosmology*, Princeton University Press, Princeton, NJ, 1981.
- 12 S. Walens, *Feasting with Cannibals: An Essay on Kwakiutl Cosmology*, Princeton University Press, Princeton, NJ, 1981, p. 12.
- 13 P. Worsley, *The Trumpet shall Sound: The Cargo Cults of Melanesia*, Paladin, London, 1970.
- 14 A. Giddens, *The Consequences of Modernity*, Polity Press, Cambridge, 1990.
- 15 J. Goldemberg, T. B. Johansson, A. K. N. Reddy and R. H. Williams, *Energy for a Sustainable World*, World Resources Institute, Washington DC, 1987, Table 8, Figures for 1982 oil use by automobiles, p. 61.
- 16 T. E. Graedel and P. J. Crutzen, The changing atmosphere, and S. H. Schneider, The changing climate, *Sci. Am.*, 261 (3) (1989) 58-80.
- 17 IPCC WG1, 4th Report, J. Houghton (ed.), *Scientific Assessment of Climate Change: The Policymakers' Summary of the Report of Working Group I to the Intergovernmental Panel on Climate Change*, WMO/UNEP, July 1990.
- 18 G. Prins, The International Politics of the Environment, *Int. Affairs*, 66 (4) (Oct) (1990) 711-730.
- 19 W. C. Clark, Managing Planet Earth, *Sci. Am.*, 261 (3) (1989) Figure on p. 50.
- 20 J. K. Galbraith, Commencement address at Smith College, Massachusetts, July, 1989, Reproduced in *The Guardian*, July 28, 1989, p. 23, as "In pursuit of the simple truth."
- 21 de Tocqueville, *Democracy in America*, Vol. II, Pt 4, Fontana Library, 1968, Ch. 7, p. 903.
- 22 D. J. Boorstin, *The Americans. 2: The National Experience*, Penguin, Harmondsworth, 1969, p. 25.

Comments on "On Condīs and Coolth"

It's O.K. to want to be cool

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G. Prins emerges from the heart of Africa and into the heartland of America and he is revolted. His essay, "On Condīs and Coolth", speaks his outrage. Having watched, from the relative comfort of his double-roofed Land Rover, tribal cultures reeling under the impacts of Western materialism, he finds himself dining in air-conditioned fast-food restaurants. He thinks he has found the temples of evil.

In spite of the academic trappings, Prins' essay is essentially a homily, reminding us that ethical issues underlie many of today's energy concerns. Prins has a right to be sore. Energy consumption is a manifestation of the great disparities between the industrialized nations and the developing world. In what amounts to a global experiment, the industrialized nations are consuming great quantities of energy as if there were no tomorrow. If this leads to escalating energy prices and/or global climate change, the poor, the developing world, and future generations (i.e., those who did not cause the problem) will suffer most. In academic discourse, this is sometimes called an externality.

But focusing on the desire to be cooler (or drier) misses the mark. It's O.K. to want to be cool. The problems that concern Prins (and me) are consequent on the means, not the end. It is a fact that there are much less energy-intensive ways of getting cool than those that are most commonly employed in America. In a debate that shows few signs of ending soon, some of us argue that we ought to focus first on energy-efficient ways of satisfying apparently harmless wants before we think about proscribing these wants either in the normative or the legal sense.

This view may appear to represent a turn from a 'value-laden' position to a 'value-neutral' one. Not so. As Lutzenhiser points out in a seminal essay,

"... the efficiency movement is really founded on a *valuative* argument: namely, that contemporary energy flows are produced through the use of inefficient technologies and practices — and that the cost of those inefficiencies in both environmental and human terms is unacceptably high [1]."

Perhaps the advocates of efficiency believe that they have found a strategy that avoids the necessity for changes in behavioral norms. Indeed, some do believe this, but again, it is not so. Realizing the vision (e.g., see Goldemberg *et al.* [2]) of the advocates of efficiency will require profound structural changes. In the end, these changes probably cannot come about if society does not begin to internalize the values of the efficiency movement. For society's members this means coming to believe, "I *ought* to be energy-efficient, the consequences of inefficiency are bad, and helping to avoid these consequences is *my* responsibility." It is in this sense, not in Prins', that value questions need to be raised about air-conditioning.

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References

- 1 L. Lutzenhiser, Explaining consumption: the promises and limitations of energy and behavior research, *Proc. ACEEE 1990 Summer Study on Energy Efficiency in Buildings*, Vol. 2, American Council for an Energy-Efficient Economy, Washington, DC, 1990, p. 2.101.
- 2 J. Goldemberg, T. B. Johansson, A. K. Reddy and R. H. Williams, *Energy for a Sustainable World*, Wiley Eastern, New Delhi, 1988. (Available from ACEEE, Washington, DC.)

Structural and market explanations versus cultural analysis

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Ten years ago I struggled to make the arena of environmental analysis intellectually respectable for sociologists and other social scientists. I thought that Prins's contribution to the 'analysis' of air-conditioning diffusion in the USA was a giant step backward, which will only confirm to the technological community what they already knew/suspected, namely, social scientists are full of opinions that are unsubstantiated, and little else.

Gwyn Prins's 'analysis' is an ethnocentric attack on US culture, with a veneer of scientism, largely drawing on insights from that other 'backward' continent, Africa. It is cute at points, and certainly

directs us to an analytic *problem*. How do we explain cross-cultural and cross-national variations in use of air-conditioning (as well as other energy end-uses)? But it is permeated by superheated gases in its own 'analysis' or causal explanation. Americans have used air-conditioning because their culture encourages it, unlike stiff-upper-lip Britons or wise old-timers in tropical Africa, who understand biological adaptation to ambient heat.

In my book, *The Environment: From Surplus to Scarcity* [1], I tried to synthesize competing models of social consumption, from neo-classical to neo-Marxist. I tried to tease elements of social structure and social control, to separate market-makers from market-users. While unsatisfactory, it was a start to bridging the gulf between econometrics and what used to be called institutional economics. Prins leapfrogs all these efforts, and his work is a regression to ethnocentric models of cultural comparisons with little incorporation of structural differences between societies.

One productive mode of inquiry into these cross-national differences would certainly be a comparison of electricity rates and supplies. My suspicion is that the US adopted air-conditioning so heavily because the utilities marketed electric appliance use at the historical period in which both refrigeration and air-conditioning technologies improved. I also suspect that air-conditioning is associated with suburbanization of residences, on the one hand, and the rise of very high curtain-walled office buildings, on the other. Further, these infrastructural changes had in common a rapid post-World War II expansion that was heavily dependent on relatively cheap construction, along with relatively inexpensive land acquisitions. Air-conditioning rather than investment in Prins' sensible suggestions for physical design of structures for cooling was the preferred option for developers, and it appeared cost-effective for buyers and renters. I would hazard a guess that if Great Britain had had a similar conjuncture of low utility rates and high suburbanization (beyond the levels of New Town growth there), we might carp about the British "condis" as coolly as Prins does.

In any event, I for one hold to a philosophy of science that we ought to exhaust structural differences before we propose cultural explanations. That may not be the height of social science "coolth" to Prins, but I believe it makes for less-invalid inferences over the long run. At the very least, it usually offers more possibilities for cross-national discussions among social scientists about research designs to test their hypotheses, and Prins's contributions represent a giant leap backward on this dimension.

Reference

- 1 A. Schnaiberg, *The Environment: From Surplus to Scarcity*, Oxford University Press, New York, 1980.

In defence of space cooling and the science of thermal comfort

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On my first reading of "On Condis and Coolth" I was greatly amused by Dr Prins' witty anti-American diatribe but felt it didn't need a formal rebuttal in a serious forum such as this volume. However, upon reading it a second time I found buried under the harangue some important issues, which, as a researcher in the area of climate-society interactions, I felt compelled to address.

My first bone of contention with Prins is his staggering "climocentrism"*. Coming from the milder climes of England, Dr Prins goes to great lengths to defend the dominant indoor climatic practice of that part of the world, namely space heating, as a "basic human right based on physiological need", while dismissing air cooling as an appalling, self-indulgent waste of energy. There are several obvious flaws in this line of reasoning. For example, from the medical angle hyperthermia is just as serious as hypothermia, so strictly speaking, both cooling and heating can be argued as "Category I Rights" in the ranking of the Declaration of Independence. However it would be more realistic to regard the majority of the indoor temperature range under discussion here as being only moderate thermal environments. Within this range people are quite capable of maintaining body heat-balance by thermophysiological responses such as vasoconstriction, shivering or sweating. In reality though, the *preferred* responses have always been behavioral — clothing adjustments, heating and air-conditioning, for the simple reason that the thermophysiological strains of both hot and cold environments elicit sensations of discomfort which in turn act as potent stimuli for behavioral responses. My point here is that, within the range of moderate thermal environments, we should regard the thermal environment of the human species as being sym-

*"Climocentrism" is to human climatology what ethnocentrism is to anthropology.

metrically arranged on either side of a central point known as thermoneutrality. For every "condi" hooked on "coolth" there is a "heatie" at higher latitudes equally addicted to warmth. Going cold turkey on coolth would be no more ugly than cold turkey on warmth because the drug is fundamentally the same — absence of thermal discomfort.

My second problem with "On condis and coolth" relates to its misrepresentation of the science of thermal comfort as outlined in the work of Fanger [1] and the ASHRAE Standard 55-74 (a revision of this standard was published in 1981) [2]. Under controlled laboratory conditions with sedentary subjects being clothed in a standard uniform with 0.6 clo units of insulation, it has been found that Americans and Danes alike *prefer* 25.6 °C, with an inter-individual variability of 1.2 °C. These findings have been independently replicated in many different cultures and climatic zones around the world (for example, the Japanese studies by Tanabe *et al.*, [3], the experiments conducted by de Dear *et al.* [4] in equatorial Singapore, or even McIntyre's experiments with stoical British subjects [5]). Furthermore, even in field studies the thermoneutralities observed in heated or cooled buildings the world over have at most only a couple of degrees' variance unexplained by Fanger's comfort theory [6–8].

Application of the science of comfort to the built environment has been primarily the responsibility of bodies such as the International Organization for Standardization (ISO) [9] and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). Ergonomic standards such as ISO 7730 and ASHRAE 55-81 are not, as suggested by Dr Prins, "...erring on the side of expense and coldness..." by prescribing temperatures slightly cooler than the 25.6 °C found in the above experiments. They merely take into account the simple fact that metabolic rates and clothing insulation levels in the "real world" where the standards are to be applied differ slightly from those used in the experimental climate chambers.

On the topic of global environmental impacts resulting from the creation of comfortable indoor climates, Dr Prins does have legitimate grounds for concern. However, I have serious doubts about his suggestion that the generation of "coolth" is as significant a contributor of greenhouse gas to our atmosphere as the creation of warmth. Per degree of course air-conditioning is thermodynamically less efficient than heating, but there are many more degrees separating the indoor and outdoor winter climates of the mid- to high-latitudes in comparison to places where air cooling is the main requirement. Furthermore, the current geographic distribution of

economically developed countries ensures that there are many more "heaties" hooked on warmth in the temperate climate zones than "condis" hooked on coolth.

Pointing the finger disapprovingly at air-conditioning seems to be neither fair nor constructive. Ergonomic standards must be better understood by building service engineers and more rigorously enforced by energy auditors. The goal of the HVAC industry lies midway between the anthropologist's symbolic dualisms. A comfortable and healthy indoor climate is neither cold nor hot, and 50% relative humidity is neither dry nor wet. The main message here is that the research and educational programmes of ISO, CIB (International Council for Building Research, Studies and Documentation), ASHRAE and other national professional organizations such as SHASE (Society of Heating, Air-Conditioning and Sanitation Engineers of Japan) need to be encouraged and extended to minimize the incidence of overcooling in summer, semiotically loaded or otherwise, and overheating in winter.

As I see it, Dr Prins is approaching the greenhouse issue from the wrong end. Perhaps a more rational approach is for national governments to set greenhouse gas emission goals. An example is the Toronto target which aims to reduce emissions, measured as CO₂ equivalents, by 20% relative to 1988 levels, by the year 2005. Within these broad strategic parameters, specific energy end-use sectors such as HVAC under the coordination of national bodies such as ASHRAE should work towards their own targets. I suspect that a 20% reduction in greenhouse emissions from the HVAC sector could be achieved with neither "condis" nor "heaties" being forced to go cold turkey.

References

- 1 P. O. Fanger, *Thermal Comfort*, Danish Technical Press, Copenhagen, 1970.
- 2 ASHRAE/ANSI Standard 55-81, *Thermal Environmental Conditions for Human Occupancy*, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, 1981.
- 3 S. Tanabe, K. Kimura and T. Hara, Thermal comfort requirements during the summer season in Japan, *ASHRAE Trans.*, 93(1) (1987) 564–576.
- 4 R. J. de Dear, K. G. Leow and A. Ameen, Thermal comfort in the humid tropics — Parts I & II, *ASHRAE Trans.*, 97(1) (1991).
- 5 D. A. McIntyre, Determination of individual preferred temperatures, *ASHRAE Trans.*, 81(2) (1975) 131–138.
- 6 R. J. de Dear and A. Auliciems, Validation of the predicted mean vote model of thermal comfort in six Australian field studies, *ASHRAE Trans.*, 91(2) (1985) 452–468.

- 7 J. Busch, Thermal responses to the Thai office environment, *ASHRAE Trans.*, 96(1) (1990) 859-872.
- 8 G. E. Schiller, A comparison of measured and predicted comfort in office buildings, *ASHRAE Trans.*, 96(1) (1990) 609-622.
- 9 ISO International Standard 7730, *Moderate thermal environments - Determination of the PMV and PPD indices and specification of the conditions for thermal comfort*, International Standards Organization, Geneva, 1984.

The preference for coolth

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Economists analyze the demand for space cooling as a function of its price, consumer income, and the preference for coolth (that is, the subjective experience of feeling cool during hot weather). Then, they ignore preference with a glib Latin phrase about taste. Engineers theorize that the preference for coolth is built into the organism — that people prefer ambient temperatures within a physiologically determined 'comfort band.' They measure the band by psychophysical techniques and publish engineering guidelines based on Fanger's comfort equation, which takes into account several physical qualities of ambient air and assumptions about clothing and physical activity levels [1]. The economic and engineering perspectives both simplify analysis by making preference exogenous to social action — they free society from responsibility for preferences.

Prins's [2] cultural theory considers the social origins of preference. He theorizes that a "condi" culture of North Americans (and, via cultural imperialism, of others as well) desires separation from and superiority over nature, symbolized by such things as sweat, passion, hunger, and weather. "Condis" prefer coolth because it both symbolizes and embodies victory over nature. Once people come to prefer coolth for cultural reasons, they become addicted to it by a physiological process of acclimatization.

It is hard to accept the cultural theory in extreme form. Inhabitants of Zambia who may function well at, say, 35 °C would probably prefer to work at 25.6 °C. And Prins' picture of "condi" culture is too facile. The "condi" cultures of today must have been "heati" cultures in the earlier age of central heating, with quite a different complex of cultural preference. I doubt that deep cultural symbols shift so easily when corporations start to sell a new technology. Rather, American culture contains con-

tradictory evocative symbols, including both cool-and-detached and warm-and-cozy, and advertisers appeal to each as suits their purposes.

The chief value of the cultural theory of coolth is that it emphasizes the social origins of preferences, thereby raising fruitful questions for policy analysis. The first concerns the malleability of thermal comfort. Can 'average' people be comfortable above 25.6 °C? The evidence shows that comfort bands do vary across cultural groups and that they can be stretched in the short term by deliberate efforts. In winter, households in countries with similar energy prices and average incomes keep quite different indoor temperatures — from about 14 °C in Japan to 17 °C in Norway and 21 °C in Sweden [3]. These differences partly reflect preferences. Also, there is experimental evidence that people can be acclimatized to lower levels of space-conditioning. Winett *et al.* [4] used a combination of information, energy-use feedback, a videotaped demonstration or group discussion, and a suggested schedule of slowly changing thermostat settings to induce householders to cut energy use. In winter, some experimental groups reduced temperatures by 1.6–1.9 °C in waking hours and 2.7° at night compared with controls, with no significant difference in comfort (but some added clothing). In summer, the most successful experimental group increased indoor temperatures about 1.5 °C compared with controls, with minimal change in comfort or clothing levels. Although these changes seem small, the program cut overall household electricity demand by 20% in some experimental groups. Getting major shifts in comfort levels may take a more serious energy crisis and larger price increases than those of the early '80s, when the Winett experiment was done, but it is worth examining how much re-acclimatization is possible under ideal conditions.

The second question concerns the elements of the experience of coolth. Can people feel cool with less than the full package of air-conditioning, which Prins says is defined as "mechanical circulation, dehumidification, and refrigeration"? I have not seen evidence that the troika of breezy, dry, and cool is as tightly harnessed in individual preferences as the cultural theory claims. If, under certain climatic or social circumstances, people can be satisfied with less than all three, the prospects might greatly improve for adoption of energy-saving technical substitutes for air-conditioning, such as fans, natural ventilation, passive buildings design, evaporative cooling, and other new technologies described by Feustel *et al.* [5].

The third question concerns "addiction" to coolth, the phenomenon that makes it more difficult to give

up air-conditioning than it was to adopt it. If coolth is an acquired preference, what are the resistances to reversing it? Prins suggests two. One is that "condis" are culturally conditioned by advertising and other elements of American consumer culture to value symbols of coolness, scentedness, and so forth, and to aspire to bodily states that cannot easily be attained by hot, sweaty people. He might add that such conditioning is reinforced by social norms and expectations. For example, householders may feel ashamed to invite guests into uncool homes. The other proposed resistance is physiological: hot, moist air is more unpleasant for people who have become acclimatized to space cooling.

Other resistances, all of social origin, create serious barriers to reducing demand for space cooling. Cities create new addicts. By an ingenious positive feedback system, air-conditioning heats the outside air, creating demand for air-conditioning among people who did not want it before. Competition enforces addiction. When air-conditioning first appeared in American commercial establishments, proprietors quickly learned that business suffered in summer the more competitors installed cooling; employers may also have learned that workers are happier and more easily retained in air-conditioned establishments. Competition ratcheted up the standard of coolth, and keeps it there. And major long-term social transformations perpetuate addiction. Air-conditioning was responsible in considerable part for the migration of millions to the Sun Belt of the American south and west. These populations now depend on air-conditioning, and express their dependence through their large and growing cadre of elected representatives, who are motivated by constituent pressure to vote against energy taxes, restrictions on consumption of electricity in summer, or any other policy option that would raise the cost or limit the availability of coolth. Because of such resistances, which are deeply rooted in social institutions and the built environment — material culture, if you will — it is difficult not to act like a "condi", regardless of what cultural symbols one responds to.

The cultural theory of coolth opens the door to policy debates about preferences. When we recognized that past human activity, including policies, has shaped the preference for coolth, we can begin to debate how future policies might reshape it. Granted, the prospects for shifting North American preferences toward less space cooling do not look good, but I see little benefit in blaming the culture. It may be more important for practical purposes to understand how the preference for coolth is

embodied in the built environment and in social institutions. These may be easier to change.

References

- 1 F. H. Rohles, Jr., Thermal comfort and strategies for energy conservation, *J. Social Issues*, 37(2) (1981) 132–149.
- 2 G. Prins, On condis and coolth, *Energy Build.*, 18 (1992) 251–258 (this issue).
- 3 L. Schipper, A. Ketoff and A. Kahane, Explaining residential energy use by international bottom-up comparisons, *Annual Rev., Energy*, 10 (1985) 341–405.
- 4 R. A. Winett *et al.*, The effects of videotape modelling and daily feedback on residential electricity conservation, home temperature and humidity, perceived comfort, and clothing worn: winter and summer, *J. Appl. Behav. Anal.*, 15 (1982) 381–402.
- 5 H. Feustal, A. de Almeida and C. Blumstein, Alternatives to compressor cooling in residences, *Energy Build.*, 18 (1992) 269–286 (this issue).

Hot air

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After World War II, air-conditioning became a significant contributor to investors' efforts to raise land values and encourage suburban settlement in hot, arid regions such as the central valley of California from which I write; the coastal region had already established the standard for a desirable summer climate. That standard may be entirely social, as opposed to physiological, but whatever the source of the standard, a variety of methods for dealing with the climate are pre-empted by the air conditioner, as Prins argues. But the devices and methods we use to create our comforts also tell us what it is that constitutes discomfort, and thus they also define the comfort standard itself; here, as elsewhere problems and solutions come together in a single package. This can be tested casually by noting one's level of thermal dis-ease before entering or after leaving an air-conditioned building on a warm day; the greater sense of warmth upon leaving suggests that while under the aegis of the air conditioner we are acquiring a dependence. The dependence is more 'physical' than Prins seems to think, and he emphasizes a different source of dependence, but his basic idea that air-conditioning is an acquired dependence has much merit.

This is not primarily a paper about air-conditioning, however; if it were, a wise man such as Prins would surely have mentioned the probable role of Christianity in the development of air-conditioning, pursuant to the church's general pursuit of cleanliness, purification and a 'life against nature' in many particulars. Had he pursued this tack it might have lent some support to his rather wobbly thesis that the culture of the United States is especially transgressive in its air-conditioning abuse. The paper is really a conservative blurt about technology in general — Prins displaying a good deal of what an animal behaviorist might catalog as "Cambridge Fellow behaviour." Blurts of this kind are often useful because, after the hackles lie down again, they do promote the search for alternatives and point to the arbitrariness and money-making character of much that passes for improvement. But one wishes that the characters that populate Prins' account were not such caricatures, such stick figures (ironically the same kind of persons who appear so abundantly in the writings of engineers and other technologists), because the technology Establishment can cite this kind of talk to show how 'loose' and 'unempirical' is the thinking of those who critique their labors.

A view from the colonies

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Prins's essay on the air-conditioning practices of Americans, a cleverly crafted rhetorical piece, sets up the author's critics in advance. To gainsay the conclusions makes one appear to be suffering from sour grapes, or worse, a deeply held case of jingoism. Furthermore, because the analysis is principally based upon personal experience and interpretation, there is every danger that criticism of it will be interpreted as *ad hominem*. I have no intention of assaulting the author, but have every intention of revealing fundamental weaknesses in the analysis.

Prins dashes from Cambridge to Zambia — where he invites us to visualize the servicing of his own Land Rover — to Princeton, to a string of Shoneys, Howard Johnsons, and Arbys from North Carolina to Illinois, with a side jaunt to the World Trade Center and its vantage view. This journey is not for adventure alone: serious scholarship is also at

stake. At stake is the deep cultural meaning of why we Americans are hooked on air-conditioning.

Until now, I had honestly believed my addiction was due to the comfort of a temperature tuned to my preference. I even thought that, unencumbered by the stifling, humid heat of the summer days of many parts of the United States, sex was more enjoyable under such conditions. But, no. Prins's penetrating analysis unmasks this superficial and misguided understanding. Indeed, the American fascination with air-conditioning is but the surface manifestation of a much deeper core of values, a manifestation, in fact, of our national archetype. Contrary to our naive understanding, the air conditioner is not merely a device to ensure 'comfort control,' but the touchstone of our very 'backward,' 'profligate' culture. Nor is it a reflection of our pervasive pragmatism, found in practical devices produced by an engineering profession long in pragmatic tradition and accomplishment. Rather, it reveals our deepest longing for a 'sensationless,' 'detached,' 'predictable' world, a longing codified in the spiritual meaning of the *potlatch* we call the salad bar. Having broken through the flimsy surface of our understanding, Prins has prepared us for the unveiling of the *pièces de résistance* of his insights: that American craving for crack cocaine, like the craving for cracked ice, stems from a deep-seated desire for coolth; that Americans (compared to Europeans) are asexual because of their air-conditioning fetish; that coolth is another badge of invidious class distinction, and that Americans, in their desire for coolth, gullibly swallow the "institutional truth" of air-conditioner manufacturers (the rhetoric of such truth writ by their Svengali, the engineering profession) at the expense of "simple truth." Tsk, tsk.

Air-conditioning is, indeed, wasteful of energy. Unassailable are the premises that the technology and our needs for it can be made more efficient. On this point, Prins commands our support. What snares us in his thicket of an argument, however, is the hope that at the end we will be at the promised land: that we will have reached an understanding of the cultural factors shaping our comfort consumption. Presumably by understanding the true underlying cause of our ways, we can (notice another deep American value here, the resolute faith in 'fixes') pinpoint it for remedy.

Whether one accepts the cultural profile sketched by Prins rests squarely on method. The method here is dashing; it dashes from one snippet of American culture to another, from one premise to another, from high-rise luxury hotels to ghetto argot, from "all you can eat" feedbags to the tenets of American

democracy. To beg for the logical connections between premises is akin to begging for a road map from one whose mode of travel is astroprojection to unspecified destinations. In the end, we are delivered, not to the promised land, but a farrago of *non sequiturs*. Perhaps Prins is right in pointing to metaphors that connect such things as a street term for cocaine, "freeze", with our firm resolve to air-condition the world. But I doubt it. After all, if it were so, Yankee ingenuity could certainly invent (or import from the Japanese) a nose-sized air conditioner, thereby eliminating with technology a serious social problem.

Despite Prins's attempt to legitimate his impressionistic, undisciplined method with the dualisms of French structural anthropology, "simple truth" wins the day. The simple truth is that we are left not with a deeper understanding of energy consumption practices, nor (heaven forbid) with prescriptions of how to modify those practices. We are left, instead, with burlesque. In the final analysis, Americans are the overly washed and perfumed unwashed colonists.

Condis, coolth and culpability

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On condis and coolth gave me a swift case of *déjà vu*, or to be more precise, *déjà entendu*: I had heard this all before, if not the content, certainly the tone. Then I remembered; it *was* the tone rather than the content — and it reminded me of the year I spent in Cambridge (UK) while a graduate student: 1966–67. To be an American in academic England in 1966–67 was to be the butt of condescension; to be an American female in that still celibate environment was to be the butt of Condescension with a capital C; to be an American lacking in the pretensions of either class or wealth, was to be barely worth speaking to except with Condescension. Americans, apparently, did everything wrong: brewed tea in paper bags; bombed the daylights out of innocent Asians; evinced anger in public; tolerated inarticulate politicians and — worst of all — adored central heating.

Apparently, we're damned if we're hot and damned if we're cold — at least in the eyes of those academic English who haven't emigrated in search of higher

salaries, more secure jobs and better weather. The passage of more than a quarter century — during which time the English have discovered that they too can fight territorial wars, generate punk people and punk music, destroy natural environments in pursuit of economic gain, tolerate inarticulate politicians, happily devour pizza, *and* revel in the pleasures of central heating — has not dimmed or even dampened their enthusiasm for being condescending to Americans.

Unfortunately for my estimation of Prins's argument, I am almost a quarter century older than I was in 1966 — and I've learned many things in those years, among them the technique of seeing through condescension, looking past it, if you will, deconstructing it, to reveal insecurities and ambivalences that are its cause.

What, after all, do we learn from *Condis and coolth*, once we have stripped it of its condescending language (note the frequent use of the diminutive and also of the patronizing "ain't"), removed its pointless symbolizing (Smith graduates are "green", during commencement in May, but "black" when they want to stay cool in July, except when they are "red", because female and fertile, or "white", because Anglo-Saxon and Protestant), taken away its relentless namedropping (from the Kwakiutls, past De Tocqueville, to Norman Rockwell), ended its pretentious — and condescending — capitalizing (Technology Trap, Liberty, Category III, Pursuit of Happiness), avoided its relentless anthropologizing of the absolutely obvious (do we need three paragraphs on the *potlach* to be reminded that a meal can serve many functions aside from satisfying hunger?) and altered its offensive habit of confusing a part (the Condis) for the whole (Americans; is this what passes for rational thought in anthropology these days?)?

Not much, and certainly not much about which anything but anecdotal evidence is offered. We learn that Gwyn Prins once lived in Zambia, where he learned to cope with tropical heat. We learn that he travelled in the US one summer and discovered that lots of Americans use the air-conditioning in their cars while on the road in August. We learn that he thinks the rich have more access to air-conditioning than the poor in America (not true, as it happens). We learn that he ate in some fast-food and roadside restaurants and noticed that they were air-conditioned in the summer — a remarkable insight. He has seen *Sex, Lies and Videotape*, which has somehow given him the impression that some Americans get orgasmic over air-conditioning. He has noticed that air-conditioning manufacturers tend to favor dark colors for their equipment and

their logos; he remembers that he read somewhere that turn-of-the-century immigrants smelled. And he has decided (on the basis of entirely undisclosed evidence) that all Americans believe they have an inalienable right to live in air-conditioned comfort. We also learn, emphatically, that he doesn't like Americans much and would have preferred to be tooling about Zambia in a Land Rover that summer.

I could go on, but my point is, I hope, clear. There isn't even the ghost of an argument here, just a lot of finger pointing, elegantly dressed up finger pointing, but finger pointing nonetheless. There isn't much evidence either, just some loosely associative observations, a melting pot of applesauce and orange juice masquerading as sophisticated scholarship.

And what lies behind all that condescension, beneath all that rampant capitalization, over, under, around and through all that scholarly pretense? Guilt, ambivalence and displacement: that's what. Prins doesn't lead the tropical life in Zambia any more, but the leisured life of a scholar in that ivoriest of all ivory towers, Cambridge, where the high table

at Emmanuel is nightly spread with an abundance that would make the average Zambian (and the average denizen of my local MacDonald's) weep. And the British aren't self-sufficient anymore (indeed they never were, although they liked to pretend otherwise); some of that abundance at high table has been imported, at considerable cost, from underdeveloped nations where it would feed indigenous starving millions. The last time I was in London (summer, 1988) I wasn't aware of too many starving folk (although, dare I say it, there were a goodly number of drunken and otherwise besodden homeless) but I was aware of the exhaust fumes; the Thames is now, just like the Hudson, awash in smog. And all those wonderfully articulate politicians aren't able or willing to do much about it. Infringe individual rights by demanding catalytic converters? Or by fining smokers for polluting the common air in pubs and trains and waiting rooms? Perish the thought! How very un-British! How very American!

Blaming it all on the Condis is a convenient way to avoid pointing the Finger at Yourself. Where, after all, did the Industrial Revolution begin?

Reply to Comments on "On Condis and Coolth"

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Any doubt which I may have felt about the importance of asking the questions raised in my essay is swept away by Professors Cowan, Rosa and Hackett. It is a rare pleasure to see one's suppositions so resoundingly sustained. I am sorry that Professor Cowan had a bad time in Britain, but grateful to her for her pyrotechnic display, as indeed to the other two commentators who expressed themselves in less exuberant fashion, but upon whose eyes a red haze descended as they read the terrible things which they thought that I was saying about them.

Professor Rosa observes rather resentfully that I have "set up" my critics; so he avoids my crafty traps and Houdini-like, clad in the chain mail of "Common Sense," leaps to earth to smite me hip and thigh. But I don't feel injured. What impresses me about many of these comments is how few of them strike at what I actually wrote or argued. An essay which, its critics say, has no shred of an argument, is retrograde and many other things, should be easy to slice to pieces. It shouldn't need such lead-booted Irony (if Professor Cowan can bear the Capital Letter) as Professor Rosa deploys. Does he really believe what he says about sex? How surprising. So what do we actually have? For convenience I shall divide the comments into three categories:

(1) "Blurts"

It is obviously very important to Professors Cowan and Hackett to be able to label me. I emerge as a rabidly anti-American, Luddite, Cambridge Don and the essay as "loose". But darn it, what is this really about, they fume? Professor Hackett correctly realizes that the essay is not primarily about air-conditioning. Professor Cowan knows (she understands those patronizing Limeys) — it's a guilt trip, that's what. Well, in fact Condis and Coolth is about how we deal with the bar chart in Fig. 1. Sorry Professor Cowan, you burn twice as much as me

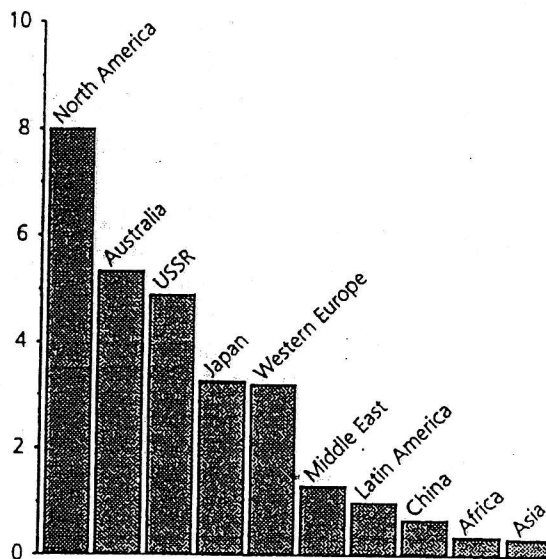


Fig. 1. Per capita primary energy consumption (tons of oil equivalent). N. America (8 t); Australia (5.34 t); USSR (4.88 t); Japan (3.25 t); W. Europe (3.2 t); M. East (1.3 t); Latin America (1 t); China (0.67 t); Africa (0.37 t); Asia (0.32 t).

(and air-conditioning is the fastest growing sector of electricity consumption in the USA).

The essay proposed air-conditioning as a test area of resistance to change in the attitudes and values in modern American "Condi" culture (which, when Professor Cowan re-reads my essay in a cold bath, she will see are carefully distinguished: one is a sub-set of the other). These will have to change to produce the rational sentiments which Dr. Blumstein (and I) want to encourage. "Think globally, act locally" is admirably clear when used as a Friends of the Earth slogan. Dr. Blumstein's problem is that people by and large don't think the thoughts that he and I and Friends of the Earth would like. He has no methodology to discover why. I have. I posit the test and — bingo! The blurts are very instructive, if rather gloomy in what they confirm of my hypothesis. I'm much more convinced now than I was last year that I am onto something important in sketching the parameters of "Condi" culture, the confusion of Category I and Category III rights

under the Declaration of Independence and, *pace* the "blurts", the consequences of addiction on addicts.

(2) Positivist shock syndrome

Dr Blumstein, Professor de Dear and Professor Schnaiberg are worried about my methodology and/or the status of my sort of knowledge against theirs. I wouldn't be at all surprised if air-conditioning was given a boost by low utility prices in the 1950s, and certainly that it was "locked in" by curtain-wall building in the 1960s. It's a typical sequence in the history of technologies — look at the QWERTY keyboard in the history of the typewriter, for example. A structural observation provides a necessary component, I can well agree, but not a sufficient answer to the opening questions of "On Condis and Coolth". That is why we attempt Great Leaps Forward in the way that we do in this essay.

Professor de Dear should not make so elementary a confusion about heat and cold. People die regularly and in large numbers of hypothermia but, if they put their minds and bodies to it, acclimatize to heat. The need for warmth can be Category I (Life); Coolth is never that, except in limited medically indicated circumstances, as I noted in the essay. Funny how several commentators go on and on about my *Zambian Land Rover* for the wrong reasons, yet the man in Singapore (de Dear)* misses the point. It was because I had lived in the tropics (not just wet old Britain) that the questions about America and air-conditioning struck me so forcefully. Professor de Dear evidently takes Professor Fanger and his work more seriously in its own terms than I can possibly persuade myself to do. Its only interest to me is as evidence of Category I/Category III confusion and as evidence of how pseudo-scientific procedures applied to value judgement facilitates that confusion. I don't accord such knowledge particularly high status. It is trapped inside its normative framework where it races around busily, like a squirrel in a squirrel wheel. In contrast, Professors Schnaiberg and de Dear, like Professors Hackett and Rosa, mistrust ideas that lack statistical trusses to prop them up. That is their privilege.

(3) The cultural theory of coolth

Dr Stern is the only commentator of those published here (but not of those who have commented upon the essay in draft), who really understands what I am trying to do and can bear to let me try to do it. Briefly to recapitulate, "On Condis and Coolth" argues that faced with the imminent termination of the energy profligate way of life of the last generation — now for reasons of global warming probably before shortage of supply — it is today in the balance whether the American future can build again upon the dynamism shown in past innovative responses to change, or whether "Condi" culture will deaden awareness of the need to act, engender resistance and anger and cling to the present for too long. Addiction to air-conditioning is proposed in the essay as a hitherto ignored but potent descriptor of this latter, obsolescent culture. I offer a first sketch, using mostly methods of participant observation and finding helpful analogies in well-known anthropological dualisms. I argue from it that one consequence of Condi culture is to misperceive and to misplace ethical priorities. We need to explore, in Dr Stern's phrase, the social origins of preference, so that we may open up these questions.

Dr Stern mentions in particular addiction and the resistances to reversing it among those issues which I flag. He advocates changing the built environment; I happily concur. He, like I, notes altered social values and institutions consequent upon the curtain-wall obsessions which seemed to overtake so much post-war American city building. But I want to go further than he.

I send off this response a week after the Bush Administration, under cover of tank fire in the last stages of Operation Desert Storm, presented its National Energy Strategy, with proposals to open up the last Alaskan wilderness to oil exploration and to "stream-line" nuclear power-plant licensing. This (like the war in the Gulf) composes one type of answer to the problems raised in the bar chart. It is an answer which avoids adopting Dr Blumstein's rational posture and, of course, it avoids facing the questions which in "On Condis and Coolth" I wish to pose. I suspected that I was dealing with fire in the ice. That is why I wrote the essay in the style which I used: one should always gild the philosophic pill. It worked. I am grateful to the commentators and look forward with interest to the future travels of the cultural theory of coolth, setting out to such a rousing send-off.

*de Dear wrote his comment while at the National University of Singapore — ed.