ANALYSIS

"Entropy" (1960)

Thomas Pynchon

(1937-)

"The old man had listed hundreds of the truths in his book.... It was his notion that the moment one of the people took one of the truths to himself, called it his truth, and tried to live his life by it, he became a grotesque and the truth he embraced became a falsehood."

Sherwood Anderson "The Book of the Grotesque" *Winesburg, Ohio* (1919)

"The story is a fine example of a procedural error beginning writers are always being cautioned against. It is simply wrong to begin with a theme, symbol, or other abstract unifying agent, and then try to force characters and events to conform to it.... I happened to read Norbert Wiener's *The Human Use of Human Beings*...at about the same time as *The Education of Henry Adams*, and the 'theme' of the story is mostly derivative of what these two men had to say.... Given my undergraduate mood, Adams's sense of power out of control, coupled with Wiener's spectacle of universal heat-death and mathematical stillness, seemed just the ticket. But the distance and grandiosity of this led me to shortchange the humans in the story. I think they come off as synthetic, insufficiently alive.... Get too conceptual, too cute and remote, and your characters die on the page.... For instance, I chose 37 degrees Fahrenheit for an equilibrium because 37 degrees Celsius is the temperature of the human body. Cute, huh?

Further, it turns out that not everyone has taken such a dim view of entropy. Again according to the *OED*, Clerk Maxwell and P. G. Tait used it, for a while at least, in a sense opposite to that of Clausius: as a measure of energy available, not unavailable, for work.... Since I wrote this story I have kept trying to understand entropy, but my grasp becomes less sure the more I read.... People think I know more about the subject of entropy than I really do."

Thomas Pynchon Introduction *Slow Learner* (Bantam 1985) xxi-iv

"The separate closed systems which engulf the characters in [*The Crying of Lot 49*] suggest a vision of society which is both isolated and headed for disorder and chaos. Pynchon is deliberately applying this scientific metaphor to conditions in society. The relationship is made explicit in Pynchon's short story 'Entropy.' Callisto, the principle character in this tale...explains how he found 'in entropy or the measure of disorganization for a closed system an adequate metaphor to apply to certain phenomena in his own world'.... 'Entropy' is set in Washington in the '50s and the metaphors in this description come from the '50s—Wall Street, Madison Avenue, *consumerism*. Consumerism is still at the heart of Inverarity's massive enterprises in *The Crying of Lot 49*, yet other systems of isolation have flourished in the '60s in political and undergrounds and freaky California cults. Though the metaphors and closets of isolation have slightly shifted, the point remains the same. Society at the end of *The Crying of Lot 49* is, like the world in 'Entropy,' in a state of heat-death as its members remain immobilized in isolated chaos."

Anne Mangel "Maxwell's Demon, Entropy, Information: *The Crying of Lot 49 TriQuarterly* 20 (Winter 1971) 194-208

[Mangel, "Maxwell's Demon," 1971]: "Mangel's is the seminal essay on Pynchon's treatment of entropy. Like Maxwell's Demon [in *Lot 49*], who sorts molecules and apparently decreases entropy, Oedipa Maas is engaged in sorting—sorting information and trying to find links. Yet as she gathers

information about the Tristero her confusion increases, and she realizes her clues 'will never yield a stelliferous Meaning,' for symbols can point in many directions. That is, much as Maxwell's Demon actually acted not to decrease but to increase net entropy, through the process of perception, as physicists like Leon Brillouin have shown, 'Oedipa's perception of information actually increases the entropy, or disorder, around her,' for she comes to see the Tristero everywhere and has trouble distinguishing fantasy and reality. Yet by continuing to pursue her sorting Oedipa does not end in the closed systems of other characters—Mucho, Dr. Hilarius, Driblette—who reveal the individual as isolated and society as headed for disorder, as Callisto also claims in Pynchon's short story 'Entropy.'

This thermodynamic entropy is related to information entropy: the greater the heat entropy, the more information needed to describe a system. Information theory recognizes how information can be distorted or lost in transmission, and in her pursuit of the Tristero Oedipa repeatedly encounters distortions, as well as symbols that 'continually seduce by suggesting information and meaning, yet...never reveal it.' The symbols become highly probable, or undifferentiated, and redundant. Mangel concludes by noting that Pynchon flaunts the disorganization of language, unlike earlier twentieth-century writers [Modernists] who try to impose order through art."

Beverly Clark and Caryn Fuoroli "A Review of Major Pynchon Criticism" *Critical Essays on Thomas Pynchon* ed. Richard Pearce (G. K. Hall 1981) 235-36

"Thomas Pynchon is an author in search of a metaphor, a fictional scheme to ask and answer the question of what prevails in the physical and in the spiritual universe—order or disorder, distinction or chaos, pattern or the existential blur? Most obviously in his earlier works, Pynchon experiments with metaphors from modern physics in his fictional investigations. The key metaphor of 'Entropy,' an early short story, is explicit: the disintegration of human society and the intellectual world is like the 'heat death' of the physical universe predicted by thermodynamics. Nature, according to the second law of thermodynamics, must reach a state of maximum entropy (disorder) and minimum available energy." [What about the *First* Law of thermodynamics?]

Alan J. Friedman and Manfred Puetz "Science as Metaphor: Thomas Pynchon and *Gravity's Rainbow*" *Contemporary Literature* 15 (1974) 345-59

"The situation in 'Entropy' is simply and deliberately schematic. There is a downstairs and an upstairs apartment. Downstairs, Meatball Mulligan is holding a lease-breaking party, which tends increasingly towards destructive chaos and ensuing torpor. This is a recurrent motif in all Pynchon's work, no doubt exemplifying the entropic process (the party is a relatively closed system of people, no one seems able to leave, and the only terminating point is sleep). The entropic process applies to the decline of information as well: two people discuss communication theory and how noise messes up significant signals. Upstairs, an intellectual called Callisto is trying to warm a freezing bird back to life. In his room he maintains a little hothouse jungle, specifically referred to as a 'Rousseau-like fantasy.' 'Hermetically sealed, it was a tiny enclave of regularity in the city's chaos, alien to the vagaries of the weather, national politics, of any civil disorder.' His room is his fantasy, a dream of order in which he had 'perfected its ecological balance.'

The house, then, is some sort of paradigm for modern consciousness; the lower part immersed in the noise of modern distractions and sensing the failing of significant communication, while the upper part strives to remain at the level of music, yet feels the gathering strain as dream is encroached on by life. Life, in this context, is not only the party downstairs, but the weather. Callisto finds that the temperature has remained at 37 degrees Fahrenheit for a number of days, and he is by nature quick to detect omens of apocalypse. 'Henry Adams, three generations before his own, had stared aghast at Power; Callisto found himself in much the same state over Thermodynamics, the inner life of that power.' What Pynchon puts before us is the effort of the man in his upstairs sanctuary, with life-destroying weather outside, and sense-destroying noise downstairs, to articulate his theory of what is going on... At one point he starts to dictate to his girl, using—like Adams in *Education*—the third person....

This is a man drawing on various ideas or laws which he has learned, to project adequate analogies for the cosmic processes in which man is so helplessly caught up. It is an attempt to make some intellectual music; a music to harmonize the increasing noise. The story has in effect two different endings: downstairs Meatball is feeling the temperature to crawl off to sleep somewhere. But he resolves to do what he can to keep the party from 'deteriorating into total chaos.' He acts; he starts to tidy up, gets people calmed down, gets things mended. Upstairs, however, Callisto is 'helpless in the past,' and the bird he had been trying to save dies in his hands. His girl realizes that his obsession with that constant 37 degrees has brought him to a state of paralyzed terror. Her act is a symbolic one—she smashes the window of their hermetically sealed retreat with her own bare hands. It is tantamount to the breaking of the shell round their whole fantasy life of perfect harmonies and maintained ecological balances.

In that composite image...Pynchon offers us a shorthand picture of the human alternatives of working inside the noisy chaos to mitigate it or standing outside, constructing patterns to account for it. Man is just such a two-storied house of consciousness, and in the configuration of that shattered window and Callisto's paralysis, Pynchon suggests the potential peril of all pattern-making, or plot-detecting."

Tony Tanner "Caries and Cabals" *City of Words: American Fiction 1950-1970* reprinted in *Mindful Pleasures: Essays on Thomas Pynchon* eds. George Levine and David Leverenz (Little, Brown 1976) 50-51

"Henry Adams' frustrated, haunted search for order amid increasing signs of chaos in human and natural history is a kind of thematic model for 'Entropy,' Pynchon's first published story, and for *V*. and *The Crying of Lot 49*... In the novels particularly, the plot revolves around a quest for meaning to various bizarre events, which unlike the meaning Adams searches for, may be sinister.... There is a problem involved in applying a law of physics to biology or history; since although entropy may reign universal among suns and other vast energy systems, it refers to the immediate circumstances of humanity only in limited ways—principally as a psychological hangup (the fear of 'extended' death, or of chaos) or a metaphor of certain forces in history.... One can only wonder if in some odd way Pynchon has not taken the concept of entropy too seriously, allowing an idea from physics, which has validity as a psychological delusion, to dominate his own view of human life. All life—all biological and historical events immediate enough to be of human concern—involves growth and self regulation as well as decay and death, and in not recognizing that fact Pynchon falls prey to a peculiar blindness, a head eccentricity, broad and fascinating and about as metaphorically accurate as Heraclitus' notion that all things are of fire."

Speer Morgan "Gravity's Rainbow: What's The Big Idea?" Modern Fiction Studies 23 (Summer 1977) 199, 216

"Redfield and Hays ['Fugue as a Structure in Pynchon's "Entropy",' *Pacific Coast Philology* 12, 1977] take an unusual approach to Pynchon's work: instead of examining scientific or religious metaphors they explore a musical one... More than a metaphor, the fugue provides a structural underpinning for the story. Not only is it directly invoked, but it is also implicated in the basic structural technique of counterpoint: the Callisto plot vis-a-vie the Meatball plot, one above the other, as in a musical score. The identity and fusion of these two themes 'allows us to conclude both that Meatball's fate will parallel Callisto's in spite of the former's apparent decisiveness and that we are dealing, not with a double fugue (the kind with two subjects simultaneously presented) as appearances might indicate, but with the progressive elaboration of a single subject.' That is, both plots adumbrate entropy. And the intercutting between the two is like the antiphonal exchange of voices in a fugue. From the opening 'un-accompanied announcement of its subject,' the epigraph from Henry Miller, to the concluding dominant to tonic progression, the story is surprisingly fugal."

Clark and Fuoroli "A Review of Major Pynchon Criticism," 241 "The major source of the ambiguity is Pynchon's figurative use of the concept of 'entropy'; for he exploits the diametrically opposite meanings which the term has in thermodynamics and in information theory. Metaphorically, one compensates for the other. In both, entropy is a measurement of disorganization; but disorganization in information theory increases the potential information which a message may convey, while in thermodynamics entropy is a measure of the disorganization of molecules within closed systems and possesses no positive connotation. Pynchon uses the concept of entropy in this latter sense as a figure of speech to describe the running down Oedipa discovers of the American Dream [in *The Crying of Lot 49*]; at the same time he uses the entropy of information theory to suggest that Oedipa's sorting activities may counter the forces of disorganization and death....

Following [Henry] Adams, Pynchon borrows the concept and applies it to political and social situations in his short story 'Entropy.' The story trades on the certainty of decline and its exceptions...which is visible in its binary composition. The activity of 'Entropy' occurs within two distinct apartments, one above the other. In the lower apartment a character named Meatball is holding a lease-breaking party, while above him the character Callisto fears that a cold-snap in Washington will not end. Callisto's apartment is described in words which echo [Norbert] Wiener: 'Hermetically sealed, it was a tiny enclave of regularity in the city's chaos, alien to the vagaries of the weather, of national politics, of any civil disorder.' The metaphoric connection between the heat-death of an isolated system and cultural decline is made by Callisto himself as he dictates his thoughts—Pynchon's parody of Adams' *Education...*

Even though Callisto is aware of the fallacy of his own metaphor, he cannot escape it. Eventually, Aubade breaks a window, destroying the hermetic seal of their apartment; and the two of them wait for the 'moment of equilibrium...when 37 degrees Fahrenheit should prevail both outside and inside, and forever, and the hovering, curious dominant of their separate lives should resolve into a tonic of darkness and the final absence of all motion.' This suicide, however, is more characteristic of Callisto's response to the Second Law than anything immediately apocalyptic about our culture. His neighbor, below, is faced with another social analogue of entropic disorganization, for Meatball's party is quickly disintegrating. But his response is the reverse of Callisto's....

Callisto is abstract, a thinker; he sees into the thermo-dynamic future and despairs. He lives in ideas and absolute values; and when those are not supported by the cultural and physical world around him, he gives up. Meatball, on the other hand, is one of the schlemiels of Pynchon's fiction who represent the obstinacy of plump vitality. Callisto's apocalyptic temperament prefers the 'sense of an ending' to the difficulties of living in the middle. Still, as intelligent readers, we know Callisto is correct, even while smiling at his premature resolution. The interplay between the two characters is exemplary of Pynchon's complexity: he dissociates thought from action, idea from feeling, allocating each to binary or opposing characters and plot lines. He pursues this technique in *V.*, and makes it more convoluted in *The Crying of Lot 49*, which winds around a single character. His purpose is to frustrate the sentimental identification with either character or action; by doing so, he dramatizes within our response to his fiction—in our effort to join idea and feeling—the moral and psychic difficulty of living humanely with what we know to be true. The binary dissociation of 'Entropy' becomes the convoluted alienation of [Oedipa in *Lot 49*]."

Thomas Schaub "A Gentle Chill, An Ambiguity': *The Crying of Lot 49*" *Pynchon: The Voice of Ambiguity* (U Illinois 1980) 21-42

"Entropy,' the measure of disorder, is the title of an early Pynchon story which schematizes a theme developed imaginatively in all of his novels. Indeed, he recognizes that entropy is a measure not only of energy but information. According to Norbert Weiner, whose ideas were still being hotly discussed when Pynchon was in college, information is order; but, like energy, it is subject to disorganization in transit. Moreover, the very gathering of information (which, it was thought, enabled Maxwell's hypothetical Demon to maintain order and counter entropy) takes energy out of the system and contributes to the disorder."

Richard Pearce, ed. Critical Essays on Thomas Pynchon (G. K. Hall 1981) 6 "Of all Thomas Pynchon's short fiction 'Entropy' has attracted the most critical attention. Tony Tanner describes it roundly as 'his first important short story' and other critics have paid tribute to its sophisticated structure...a dramatization of how the concept of entropy can be applied to human behavior.... The story is set in an apartment block in Washington D.C.... In one flat (the lower of the two which provide the setting) a party being given by one Meatball Mulligan is about to get its second wind.... As the drunkenness and noise increases, a fight breaks out and the party seems to be on the verge of chaos. After due consideration Mulligan decides to calm everyone down and restore order. This he does.

The action of 'Entropy' in fact alternates between Mulligan's party and the apartment above his where one Callisto and his companion Aubade are trying to heal a sick bird. The apartment is a kind of hothouse, a perfectly contained ecological system.... Like Henry Adams, Callisto is obsessed with energy running down and –perhaps for posterity, but more likely as a solipsistic exercise—he is dictating his memoirs. The bird dies and, abandoning the ecological balance they have built up for the past seven years, Aubade goes to the window and smashes it. The story ends with the two waiting for the internal and external temperatures to equalize and for night to fall....

Pynchon's story requires little more technical knowledge than that offered in the dictionary definitions [of entropy].... On the one hand the weather metaphor makes the abstract concept of entropy easy to grasp, on the other the prophecies lack authority.... The time of year is a kind of false spring characterized by random weather changes and a general feeling of depression—at least for the members of Mulligan's party. They are, Pynchon states, 'inevitably and incorrigibly Romantic'.... That the narrator is not a Romantic, pushes the reader back from the text far enough to recognize that a method of ordering is being examined. The argument for a connection between soul and weather proceeds by a false logic based on etymology and anyway suggests a passivity on the part of those who believe in this connection.... Pynchon shifts away from musical metaphor to a psychological meaning of 'fugue' as a period of apparently rational behavior followed by amnesia....

Against this notion of apparently random change Pynchon contrasts Callisto's view of the weather. He, too, has noted its changeability but is far more preoccupied with the eventual general run-down of energy, the final heat-death of the universe predicted by some cosmologists... Accordingly Callisto pays no attention to the prosaic details of the rain and snow; he is more disturbed by the fact that the temperature outside has stayed at a constant 37 degrees for three days.... When dictating his memoirs the combination of terms like 'vision' and 'oracle' with scientific information suggests that Callisto is fitting his materials into a nonscientific, quasi-religious pattern. Indeed, for all the differences between his obsession with endings and the party-goers' version of the pathetic fallacy, both outlooks could loosely be described as 'Romantic'....

Three times in the course of the story Callisto asks Aubade to check the external temperature, thereby paralleling a similar action in an earlier modernistic [Postmodernist] work—Beckett's *Endgame* (1958).... The relation and clipped idiom between Hamm and Clov parallels that between Callisto and Aubade.... Callisto's hothouse may be hermetically sealed, but it also shuts in both himself and Aubade. It is, in other words, an exotic prison. Secondly, Callisto is determined to shut out chaotic elements, but the one form of energy which he cannot control is sound. The noise of the rain impinges from outside, of music from below. It seems, then, that Pynchon is swift to indicate the futility of Callisto's enterprise as soon as we see the apartment. It his is so, Aubade's final gesture of smashing the window is implied from the very start.... Callisto and Aubade are melodramatists of form. They think in terms of violently opposed extremes (anarchy versus order) and, although Callisto is ostensibly waiting for a run-down of energy (which would not be at all dramatic), he and Aubade are both arguably more anxious about the point of fracture when their hothouse would collapse into chaos.

Once Callisto starts dictating his memoirs it becomes clear that he is a parody of Henry Adams, specifically the author of *The Education*. Like Adams at the time of composing the book, Callisto is living in Washington. Both describe themselves in the third person, both are attempting to articulate the cultural implications of modern scientific theory... The key chapters in *The Education* as far as Pynchon's story is concerned is 'The Virgin and the Dynamo,' where two of Adams' central symbols come into confrontation. His aesthetic idealism, which Pynchon ironically hints at in Callisto's name (i.e. 'most beautiful'), gives

ground before the modern embodiment of force. In trying to balance the modern scientific notion of force against religion Adams feels himself groping in labyrinths....

Randomness is the mathematical equivalent of the chaos which terrifies Callisto.... Struggling to understand the kinetic theory of gases, he arrives at the stark conclusion that 'Chaos was the law of nature; Order was the dream of man.' Adams carried his pessimism with such urbanity that a statement such as this is never allowed to generate its full emotional impact. However, this contrast between order and chaos, dream and nature, parallels Callisto's polarities, especially that between his hothouse and the outside weather.... When discussing the notion of heat-death [Norbert Wiener] cautions: 'It is necessary to keep these cosmic values well separated from any human system of valuation.'

This is exactly the mistake which Adams makes in *The Education* and essays of 1909-10, and which Callisto repeats. Their use of metaphor and analogy leads them to draw hasty inferences from badly digested scientific theory, and results in a not completely unpleasant sense of pessimism and inertia.... The various ways in which [he] limits his commitment to Callisto's viewpoint suggest that Pynchon has accepted Wiener's caution.... Firstly, Callisto's is only one viewpoint within the story. Secondly, the story is too humorous in tone to underwrite his apocalyptic gloom [as also in *Gravity's Rainbow*?]. Thirdly, Pynchon's use of musical references and form...suggests a detachment from Callisto. And there are enough ironies to indicate that in some ways Callisto *embodies* entropy rather than examines it.... As Callisto's uncertainty grows he in turn becomes more rambling and incoherent.... With the death of the bird, like Beckett's Hamm, he lapses into silence....

Callisto seems to be suffering from a hand-me-down pessimism, an ersatz gloom without any roots in his own experience.... The choice of a piece of music which contains a number of then current dance rhythms suggests a preoccupation with the Lost Generation. Callisto, like Scott Fitzgerald, went to Princeton; and he tries to put the clock back by returning to France after the war, taking with him a Henry Miller novel as a substitute Baedeker. He fails, however, to recapture the past and here we meet yet another common element between himself and the other characters in 'Entropy'...The references deliberately evoke memories of the Lost Generation but reduce the notion of 'Europe' to a fashionably cosmopolitan style, a matter of exotic dishes and wall posters....

Bischoof is the only critic to date who has spotted the stereotyped nature of the story's characters. Mulligan's party-goers use the same fashionable jargon that Pynchon mocks in the description above. Callisto is a 'romantic' in the Fitzgerald sense, and Saul and Miriam parody middle-class intellectuals who brandish slogans like 'togetherness.' Mulligan's guests, at the beginning of the story, are lying around in drunken stupors or simply sitting and listening to music. As more guests arrive, or as they wake up, lethargy gradually shifts into chaotic movement. The ironic implication of pointlessness runs throughout Pynchon's presentation of these scenes and looks forward to his satire of the Whole Sick Crew in *V*.... As movement increases at Mulligan's party, so does its randomness.... The disorder and noise reaches a climax where we could also say that the entropy within the party has approached its maximum....

The closet offers an attractive alternative and in effect repeats on a smaller scale Callisto's retreat into a hothouse. The very fact that Mulligan can choose to restore order and does so, contradicts a superficial fatalism which the notion of entropy might create... Rudolph Arnheim has pinpointed this superficial application, specifically to the arts: 'Surely the popular use of the notion of entropy has changed. If during the last century it served to diagnose, explain, and deplore the degradation of culture, it now provides a positive rationale for 'minimal' art and the pleasures of chaos.' The intricacies of Pynchon's story demonstrate conclusively that he has no interest in minimalist art and Mulligan's final actions reverse a trend toward chaos in his party. The party anyway is neither the universe nor a microcosm and once again Pynchon is being true to a scientific theory. Wiener assets that 'in non-isolated parts of an isolated system there will be regions in which the entropy....may well be seen to decrease.' One such island is the party and its entropy apparently does decrease...

When Saul climbs into Mulligan's apartment from the fire escape...Pynchon is here parodying the biblical narrative of Paul's visit to Ephesus. *Acts* 20: 9-11 recounts how a young man named Eurychos (i.e., 'lucky') fell asleep while Paul was preaching and fell down from a loft. Paul embraced him and thereby

restored him to life. He then continued his discussions until daybreak. Simons argues that 'Saul is an ironic parody of Paul in Pynchon's story, and...appears not as an apostle of the new Christian religion, but rather as a spokesman for the new science of decline and decay in the twentieth century.' Saul parodies Paul in having had a slanging match with his wife, not a proselytizing discussion; and he saves only the book which she threw at him, not a human being....

Simons argues that Pynchon's recurring use of threes in the story is also biblical in the sense that it arouses expectations of resurrection but reverses them into death.... But the whole point of Pynchon's examination of entropy is to undermine an apocalyptic gloom arising from it.... Pynchon never allows an apocalyptic tone to be sustained and even at the end leaves a deliberate ambiguity.... By Simons' account, Aubade's final action would be a gesture of despair...but only viewed from her perspective. It could equally well be seen as a liberating gesture which has the immediate result of freeing herself and Callisto from their hothouse....

Saul himself is denied any of the stature of his biblical counterpart.... Ironically, despite his claims to be a communications expert, he cannot understand why his wife flared into anger. His stumbling block appears to be love.... Here biblical ironies shade into communications theory.... Entropy grows in the conversation between the two men as their exclamations increase until finally Saul cuts off Mulligan with an abrupt 'the hell with it.' It is of course comical to witness a communications theorist break down into cliché and exclamation, and finally lapse into silence.... In fact none of the characters in Pynchon's story demonstrate any sustained capacity to engage in dialogue.... The ironies which Pynchon directs against Saul specifically, undermine yet another attempt to impose order, and suggest a broad skepticism about dialogue's capacity for meaningful communication....

Apart from specific applications of musical topics, the structure of 'Entropy' draws extensively on the techniques of the fugue, a term which actually occurs in the text several times. One of the distinguishing characteristics of fugue is the use of counterpoint which in fictional terms can emerge as a rhythmic contrast. The contrast is basically between the two apartments—Mulligan's and Callisto's—and the narrative moves to and fro in such a way that differences and similarities emerge clearly. For instance both Mulligan and Callisto awake from 'rest' in the same posture, but the electronic noise downstairs contrasts strongly with the natural sounds in Callisto's hothouse. Even the physical positioning of the apartments corresponds…to the printed arrangement of musical staves… If the basic theme of the story is the contrast order/disorder, then obviously Callisto's apartment represents the first. All the elements are synchronized into harmony, a harmony which Aubade personifies. Her very name refers to a musical form and her identity is defined in 'terms of sound'...

'Entropy' examines various notions of order and disorder in such a way as to make it very difficult to locate Pynchon's own viewpoint.... Pynchon ironizes all the theories which are proposed with a bewildering thoroughness, so that at times his method appears to be purely negative.... In a story which focuses so much on analogy and implication, Pynchon in effect suggests a caution about drawing conclusions.... Pynchon's story forces a relativistic viewpoint on the reader, which acts against a final resolving certainty, or one definite moral direction. The various aspects of form illuminate and examine different meanings of 'entropy'."

David Seed "Order in Thomas Pynchon's 'Entropy"" The Journal of Narrative Technique 11.2 (Spring 1981)

"While at work on *V.*, Pynchon published several shorter works, the most significant of which is 'Entropy' (1960)... 'Entropy' leads directly into Pynchon's three novels to date....The scene, degenerative, disorganized, discrete, urban. Time is running out, and things do not cohere. Tensions make life irresolvable at every level, so it diminishes, disintegrates. The epigraph is from Miller's *Tropic of Cancer*, to the effect that the weather forecast is so bad we can expect calamities, more death, more despair: 'We must get into step, a lockstep toward the prison of death. There is no escape.' The time: early February of 1957; the place: Washington, D.C.

'Entropy' warns of apocalypse, but with omens: temperature threats, heat-death as potential endings. Binary choice—the lot of those in *The Crying of Lot 49*—seems the reductionism of our time: survival, through wild parties, or doom, by way of disintegration, heat-death. Downstairs is the party, run by Meatball, called a 'lease-breaking party,' characterized by destruction, torpor, diminution of self; that aspect of the world Pynchon associates with Henry Adams's dynamo, the technological principle which upsets and disorganizes. Upstairs, at another level, is Callisto and his controlled universe, a form of art which is, he hopes, impervious to Meatball's disorganizations. Downstairs. Upstairs is the organizing principle based on balance of elements, especially of temperature, that was suggested by Adams's Virgin. The proof of Callisto's plan will be whether he can keep a canary warm. His task is monumental, for in his sealed room, he is doing nothing less than attempting to preserve life.

The basic situation, however, is not this simple. For Meatball also attempts to create some organization; and Callisto is not quite sane, his sense of entropy being that all efforts to triumph over the phenomenon are doomed; he is doomed, we are doomed. Callisto's efforts are apparently negated by what he already knows: that 'the entropy of an isolated system always continually increases.' As a result of knowledge, he has to forsake his idea of a theoretically perfect engine which runs at 100 percent efficiency—that is, Heaven, a perfect Upstairs—in favor of an alternative plan in nature: 'the horrible significance of it all dawned on him ...that the isolated system—galaxy, engine, human being, culture, whatever—must evolve spontaneously toward the Condition of the More Probable [less than perfect efficiency]. He was forced, therefore, in the sad dying fall of middle age, to a radical reevaluation of everything he had learned up to then; all the cities and seasons and casual passions of his days had now to be looked at in a new and elusive light.'

Just as Meatball's desired perfect party cannot be obtained, so Callisto's plan of a perfect art or science is foiled by the constancy of temperature, which he sees as nature's plot to cause heat-death. The beauty of Pynchon's patterning is that no matter how paranoiac any particular idea proves, it can be reinforced by nature heat-death or not, entropy or not, social decline or not. Upstairs and Downstairs are ever-changing; each is a system with its own flaws. Nothing brings balance or salvation. The canary, or course, dies, to prove to Callisto that his plans are invalid; and his girl friend, Aubade—a musical form connected to the dawn—smashes the window in order to disprove Callisto's obsession that the 'transfer of heat' has ceased to work. While the breaking of the window will be no solution, it will return a momentary balance, 37 degrees inside and outside, and propel them both 'into a tonic of darkness and the final absence of all motion'."

Frederick R. Karl American Fictions 1940-1980 (Harper & Row 1983) 307-08

"As the title makes obvious, 'Entropy' advances...his first extended application of thermodynamics to psychology and sociology. Again he presents an ongoing wild party composed of pseudo-intellectuals who live empty lives and mouth anti-establishment cant while working for the government, usually in some facet of communications. Having no coherent or unified culture of their own, they stitch together a rather grotesque substitute, a patchwork of clashing unrelated parts—Armenian delicatessens covered with bullfight posters, and so on.

On the floor above, Callisto and Aubade have tried to seal themselves off from the party and whole outer world. They create a 'hothouse jungle,' 'a tiny enclave of regularity in the city's chaos, alien to the vagaries of the weather, of national politics, of any civil disorder.' Despite the changing weather, Callisto notes that the temperature outside stays at 37 degrees, and in this uniformity of heat energy he sees 'omens of apocalypse'—not the sudden, violent advent of 'Mortality and Mercy in Vienna' or *Gravity's Rainbow* but rather the slow apocalypse of Henry Adams or Fausto Maijstral. When Callisto reaches middle age, the 'spindly maze of [thermodynamic] equations' he learned in his youth becomes 'a vision of ultimate, cosmic heat-death.' This vision in turn becomes 'an adequate metaphor' by which to analyze American society; he discovers in the public world 'a similar tendency from the least to the most probable, from differentiation to sameness, from ordered individuality to a kind of chaos'....

But 'intellectual motion' has effectively ceased within the hothouse, which neither person can leave for fear of disturbing its delicate balance. Pynchon equates the actions of Callisto and Aubade with a

convoluted, lifeless dance in which the partners are strangely separate. Certainly, each is in a closed sphere within the closed system—Callisto 'helpless in the past,' Aubade living 'on her own curious and lonely planet,' both locked in the hothouse. Aubade tries in her own world (just as desperately as Callisto does in his) to stave off disorder and maintain an artificial unity. One sees in her mind 'arabesques of order competing frugally with the improvised discords of the party downstairs.... That precious signal-to-noise ratio, whose delicate balance required every calorie of her strength, seesawed inside the small tenuous skull.' Like Callisto, she illustrates the recurrent Pynchon device, perhaps inherited from Poe, of mixing up design with chaos in the perceptions of a disturbed intellect. Also, the mention of calories reveals that she and Callisto expend energy in their futile attempts to maintain order, and so they hasten the very processes they work to forestall....

Hermetically sealed off on the floor above Meatball's party...Callisto has tried to create a closed system safe from the disintegrating forces at large in the cosmos and society. But the system has become a prison. Callisto and Aubade cannot 'be omitted from that sanctuary; they had become necessary to its unity.' Their attempt fails for a variety of reasons. First, Callisto and Aubade are no more in touch with each other for being shut away together: each is in a separate world. Second, each one has to burn up calories in a frantic and futile struggle to regulate that artificial realm, thus speeding up the heat death they try to avoid by the very intensity of their trying. They enact one of Pynchon's favorite ironies, adumbrating a host of other characters who also merely hasten some end in their efforts to escape it. Callisto's and Aubade's endeavor is self-defeating, for as the theorem of Clausius states, 'the entropy of an isolated system always continually increases.' Through Callisto's failure, Pynchon impugns the strategies of Dennis Flange and all those characters who seek to buffer themselves with hothouses, towers, siege parties, mathematical graphs, or work on the Rocket....

Callisto tries to prevent the death of one of the birds in his hothouse by transferring heat to it from his own body, but again Pynchon employs a musical motif to describe the inevitable winding down to endgame: 'the heartbeat ticked a graceful diminuendo down at last into stillness.' Naturally, Callisto sees in the bird's death the ominous logic of entropy: "'Has the transfer of heat ceased to work? Is there no more..." He did not finish.' At this point, the strain of maintaining the balanced system finally becomes too much for Aubade, who acknowledges the inevitable by smashing the window that had buffered them from the world... This passage recalls the ending of Poe's 'Masque of the Red Death,' another tale of attempted and unsuccessful retreat for protection against the destructive forces of the world. Abortive attempts at retreat appear throughout Pynchon's fiction....

Meatball Mulligan of 'Entropy' demonstrates another application of caring. His party, while not an ideal mode of living, does not become a self-defeating closed system, not does it despairingly give over to the chaos of the street. When three coeds from George Washington University crash the party, Sandor Rojas cries, 'Young blood.' Infusion of the new staves off exhaustion. When the party really gets out of hand, Meatball realizes that he can retreat to the closet, his equivalent of Callisto's hothouse, but instead he goes to work. Very sensibly, he starts with himself; first he finds the tequila and begins 'restoring order to his nervous system.' Then he moves on to others, trying 'to calm everybody down, one by one.' He will direct his energy toward creating order through interchange, communication, and treatment of individual cases, somewhat as Maxwell's sorting demon would. Meatball's solution, based on common sense and the need for community, is 'more a pain in the neck, but probably better in the long run.' A human intelligence and concern can retard entropy."

Peter L. Cooper Signs and Symptoms: Thomas Pynchon and the Contemporary World (U California 1983) 65-67, 77-78, 97

"Entropy' (1957) dramatizes that point at which thermodynamic entropy and information entropy intersect. It is partly modeled on Maxwell's demon experiment, in which two chambers were separated by a selective partition. In one apartment, Meatball Mulligan hosts a party filled with bureaucrats who contribute informational entropy; in another apartment directly above, Callisto has converted his quarters into a hothouse in an attempt to war off the inevitability of thermodynamic death. The text is filled with references to machine-like behavior; catchphrases and slogans of cybernetics drift in and out of the entropic cocktail chatter: 'ambiguity and redundancy'; 'noise...disorganization in the circuit.' Of course, if we carry the analogy to the Maxwell experiment further, we might say that Pynchon plays the role of demon guiding the characters and the bits of information in the story, achieving an order that would be incomprehensible without the presence of such an intelligence. In a sense, 'Entropy' is a parable of all fiction-making, in cybernetic and thermodynamic terms, the artificial but paradoxical imposition of order (intention) on entropy.... Pynchon refines this notion over the ensuing fifteen years until it forms the basis of his artistic methodology."

> David Porush The Soft Machine: Cybernetic Fiction (Methuen 1985) 118

"According to the Entropy Law, whenever a semblance of order is created anywhere on earth or in the universe, it is done at the expense of causing an even greater disorder in the surrounding environment.... The Entropy Law destroys the notion of history as progress...the notion that science and technology create a more ordered world.... It becomes harder to maintain order and more costly to generate order. The more we try to spread technique over the culture, the more fragmented society becomes. The whole process of increased complexity, increased problems, increased entropy, and increased disorder proceeds exponentially, and that's what makes the modern world crisis so frightening. The closer the entropy of the environment moves to a maximum, the more costly everything becomes...we in the United States continue to consume one-third of the world's resources annually... It requires roughly one-third of the world's annual production of mineral resources to support that 6% of the world's population residing in the United States... It becomes apparent that even one America is more than the world can afford....

Overspecialization, say the biologists, is one of the most important contributing factors in a species' becoming extinct. The more stages in the mental process, the greater complexity, abstraction, and centralization, and the greater the dissipation of energy and disorder. The history of human mental development has been a history of removing the human mind farther and farther away from the reality of the world we live in. Each successive stage of economic and social development has only increased the physiological strains on the human being and further eroded our chances for long-range survival as a species. For example, infectious diseases were virtually unknown in the hunter-gatherer environment, where the communities were small, extremely mobile, and lived an outdoor existence. Strangely enough, it seems that the more information that is made available to us, the less well informed we become. Decisions become harder to make, and our world appears more confusing than ever." [See in particular *The Crying of Lot 49* (1966) by Pynchon and "The Literature of Exhaustion" (1967) by Barth].

Jeremy Rifkin with Ted Howard *Entropy: A New World View* (Bantam 1981) 6, 83, 126, 189, 191, 136, 93, 167, 180-81, 170

Michael Hollister (2014)