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LETTER AND NOTE

Pynchon's Creative Misuse of Entropy

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The article argues that David Letzler's critique of Thomas Pynchon's "Entropy," while accurate in some respects, is misguided in its attempt to close down interpretations of the short story that focus on its use of entropy, both in the field of Information Theory and Thermodynamics. While acknowledging that Pynchon got things wrong, the article asks critics to explore how Pynchon tries to manipulate his lack of knowledge by situating what he thought he knew in contexts not normally associated with Thermodynamics or Information Theory.

David Letzler has recently written about the inaccuracies in Pynchon's undergraduate understanding of entropy, demonstrating the honesty of Pynchon's confession in *Slow Learner* (1984) that it was shallow.[1] Letzler, among other things, points out that Saul is wrong to treat the terms "ambiguity," "redundance," "irrelevance," and "leakage" as different manifestations of noise in Information Theory and objects to critics' tendency to accept Saul's mistake for fact,[2] although Letzler inaccurately describes Saul's treatment of the terms, including "noise," as synonymous. Saul treats the first four terms as subcategories of noise, not as synonyms of each other. That doesn't make Saul correct. For Information Theorists, the terms are not necessarily subsumed by the category noise. One can, for instance, "introduce redundancy properly so as to overcome the effects of noise,"[3] rather than create noise.

Readers, nonetheless, have little choice but to accept Saul's explanation in the context of "Entropy," because that is its understanding of the terms. To reject it is to make the story uninterpretable. The story, of course, should not be used to teach how the concepts should be understood in Information Theory or to introduce students to entropy, and Letzler does a service to English professors who might otherwise not fact check the characters. Having acknowledged that Saul does not accurately understand Information Theory, critics will still want to understand what the story is up to, something that requires the reader to take Saul at his word, unless one is to argue that the story's shallow understanding of Information Theory and entropy renders it worthless, or undermines its value as a manifestation of the development of Pynchon, and should no longer be read.

Letzler goes on to address the related issue of the meaninglessness of Saul's discussion of the phrase "I love you" in the context of Information Theory. Saul discusses the complication of saying "I love you" as a problem of noise, apparently

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[1] Thomas Pynchon, *Slow Learner* (Boston: Little, Brown and Company, 1984), 13. All other references to *Slow Learner* will be cited parenthetically.

[2] David Letzler, "Crossed-Up Disciplinarity: What Norbert Wiener, Thomas Pynchon, and William Gaddis Got Wrong about Entropy and Literature" (*Contemporary Literature* 56: 1 [2015]), 23–55: 33–34.

[3] Claude E. Shannon, "The Redundancy of English," *Cybernetics: The Macy-Conferences 1946–1953*. Vol. 1: Transactions. Ed. Claus Pias. (Zürich: Diaphanes, 2003), 248–72: 261.

treating redundancy and ambiguity as the applicable subcategories, as Letzler's analysis demonstrates.[4] The two other terms in Saul's list do not seem relevant. They thereby represent noise, and that's "[h]alf of what [he] just said" (91), we might note, appropriating Saul's own line. Throwing in the two extra terms thus seems a subtle use of Pynchon's "misattribution of [Shannon's] 50 percent figure to noise instead of redundancy,"[5] an error in "Entropy" that illustrates that Pynchon must have learned about Shannon's talk from a secondhand source, something also suggested by his not being aware of the mathematician Leonard J. Savage's demonstration, during Shannon's talk, of the value of redundancy when it comes to a husband's saying "I love you" to his wife throughout a marriage.[6]

In the context of Pynchon's thought, however, Saul's discourse on "I love you" has meaning. First, it relates, in terms of the ambiguity, to the double quality of Pynchon's thinking about love at the time, that is, his seeing it as an affirmation of life[7] and as a negation of life through its association with death (See *SL* 5), a contradiction that could render the term meaningless as an idea, if not as a definable word in a context. That possibility may not be immediately apparent in Saul's discussion but may have been behind Pynchon's choice of the 37° temperature, a temperature that is as warm as life on the Celsius scale and as cold as death on the Fahrenheit scale. "Cute, huh?" (*SL* 13). Redundancy, meanwhile, has remained problematic for Pynchon. One thinks of Doc's "footnote that the word ["love"] these days was being way overused"[8] so that it was losing its meaning. That's not to say that Pynchon's understanding wasn't shallow; it is to say that the shallowness enabled Pynchon to appropriate elements of Information Theory and use them in ways that make sense in the context of his thought, if not in the context of the thought of the theorists from whom he believed he was borrowing.

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[4] Letzler, 34–35.

[5] Letzler, 35.

[6] Letzler, 35.

[7] See Letter to Kirkpatrick Sale and Patricia Mahool.

[8] Thomas Pynchon, *Inherent Vice* (New York: Penguin Press, 2009), 5.

Similarly, the way the lack of soundness to "Pynchon's treatment of thermodynamic entropy"[9] manifests itself could very well be the result of Pynchon's eliding contexts that would not normally overlap, that is, his trying to make sense of concepts taken from thermodynamics without his doing the necessary work to learn the field and thus employing them in ways they are used in a different context. In the case of the idea of chaos, that other context is classical elemental thought, a discussion of which would have been standard in a 1950s course on not only Classical Literature but also English Renaissance Literature, where the use of death as a metaphor for orgasm or love making would have been brought up as well. The elemental cosmos appears to be alluded to in the description of the changing weather pattern: "Outside there was rain. [. . .] The day before, it had snowed and the day before that there had been winds of gale force and before that the sun had made the city glitter" (82). We have, if you like, water, earth, wind, and fire. ("Snow," as Paracelsus explained, was made up of "crystals and beryls" and under the right conditions "the water which is in combination with the snow is coagulated into a stone."[10] Note water, as is explained here, is not only separate from the snow but also transformed into stone by it, making the snow a manifestation of the element of earth, that is, all stone.) There are two notions of chaos in this system of thought, a pre-creation notion as an undifferentiated mass, that is, chaos as it was when the elements had yet to become distinct from each other, and a post-creation notion, that is, chaos as it is when one of the elements comes to dominate so much that the others cease to be manifest. The story of the Flood, for example, is a story of a return to chaos: water predominates. Similarly, Ovid's description of Andromeda chained to a rock when Perseus finds her[11] is another example of a chaos-returned story, one limited to the sphere of an individual: earth predominates. "Andromeda bound to the stone is, in effect," as Leonard Barkan puts it, "transformed into stone"[12]: she is

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[9] Letzler, 36

[10] Paracelsus, *Hermetic Chemistry*, trans. Arthur Edward Waite (London: J. Elliott and Company, 1894), 225.

[11] Ovid, *Metamorphoses*, Trans. Rolfe Humphries (Bloomington: Indiana University Press, 1955), Book IV.

[12] Leonard Barkan, *The Gods Made Flesh: Metamorphosis and the Pursuit of Paganism* (New Haven: Yale University Press, 1986), 53.

petrified. The chaotic can thus seem disordered, as it does during the Flood, or static, as it does in the statuesque figure of Andromeda.

The paradox of the latter manifestation of chaos is that it is chaos as a homogeneous state, that is, a state in which everything is subsumed by one element: by earth, by wind, by fire, or by water. The genius of Pynchon's running through the weird changes in the weather is that on a meta-level there is, as is the case of the temperature, no change, because each condition symbolizes the same thing, a manifestation of chaos as homogeneity, but taken together they seem to signify chaos in the sense it is used in standard English, that is, as something synonymous with disorder. The changing weather that symbolizes sameness thus appears as the wildness one imagines when trying to conceive of pre-creation chaos, even though pre-creation chaos is also homogeneous, because it lacks differentiation. The pre-modern elemental cosmos, of course, has very little in common with the thermodynamic cosmos, but the notion of entropy participates in the same paradox as the notion of classical chaos, that is, it is a chaotic state that is also a homogeneous one. Pynchon's understanding of entropy, both thermodynamic and informational, may have been misguided, but his ability to work with what he thought he knew was as magical as anything Paracelsus would have liked to perform with his knowledge.

Competing Interests

The author has no competing interests to declare.

References

Barkan, L 1986 *The Gods Made Flesh: Metamorphosis and the Pursuit of Paganism*. New Haven: Yale University Press.

Letzler, D 2015 Crossed-Up Disciplinarity: What Norbert Wiener, Thomas Pynchon, and William Gaddis Got Wrong about Entropy and Literature. *Contemporary Literature*, 56(1): 23–55. Available from: muse.jhu.edu/article/582160. DOI: https://doi.org/10.3368/cl.56.1.23

Ovid 1955 *Metamorphoses*. Trans. Rolfe Humphries. Bloomington: Indiana University Press.

Paracelsus 1894 *Hermetic Chemistry: Volume 1 of The Hermetic and Alchemical Writings of Aureolus Philippus Theophrastus Bombast, of Hohenheim, Called Paracelsus the Great*. Trans. Arthur Edward Waite. London: J. Elliott and Company.

Pynchon, T 1959 Letter to Kirkpatrick Sale and Patricia Mahool (c. January 1959). Harry Ransom Humanities Research Center, The University of Texas at Austin.

Pynchon, T 1984 *Slow Learner*. Boston: Little, Brown and Company.

Pynchon, T 2009 *Inherent Vice*. New York: Penguin Press.

Shannon, C E 2003 The Redundancy of English. *Cybernetics: The Macy-Conferences 1946–1953*. Vol. 1: Transactions. Ed. Pias, C. Zürich: Diaphanes, pp. 248–72.

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