Letters to the Editor

Text, Consciousness, and Control:
Who's Looking at Whom?

To the Editor:

I am amazed, and frankly a little amused, not at Stephen Thaler's response (1998) to my editorial (Gunn, 1998), but at his professed surprise that anyone should challenge the claims for artificial intelligence (AI) that he made in his 1995 article, "Death of a Gedanken Creature." A man who has earned a Ph.D. has lived in academic culture long enough to know that any publication in a scholarly journal is likely to elicit responses from practitioners and theorists whose ideas differ from the author's. Indeed, the whole purpose for academic publishing is to provide an open forum for scholars across disciplines and to facilitate analysis, debate, and synthesis of ideas. Be that as it may, I will respond to Thaler's comments in "The Emerging Intelligence and Its Critical Look at Us," not as an expert in AI, which I have never pretended to be, but as a literary theorist.

First of all, Thaler questioned the currency of my sources, and given the rapid rate of change in computer technology it is not unreasonable to do so. As he himself knows, it is not unusual for at least two years to pass between the submission of an article to a journal and its subsequent publication. My editorial was composed in the spring of 1995. The AI sources upon which I based my strongest objections to his 1995 claims were the book published by Daniel Crevier in 1993 and the article published by Sara Hedberg in an AI trade journal in April, 1995. In other words, my sources were current at the time I was writing the article.

I made no new claims regarding AI or the nature of consciousness. I simply stated my reasons, based primarily on established literary scholarship, for disputing Thaler's assertions in his 1995 article. In his 1998 response to me, Thaler claimed that many of the AI concepts he promotes are "unveiled to the world" there for the first time; in other words, the theories and applications that he advanced were previously

unpublished, untested by independent scholars, and unknown to anyone except himself. I fail to see why I should accept blame for not having knowledge that Thaler has heretofore kept "veiled," away from public and academic scrutiny. It is worth note that Thaler's reference list in his response included only one scholarly source other than himself. His claims would seem more credible to me if he gave evidence that they had been examined and tested by independent scholars in his own field. The decade-old memory of the excitement accompanying announcements of successful cold fusion experiments, and the bitter disappointment that followed when independent scientists could not replicate the results, serve as cautionary reminders of the hazards in embracing results based upon one scientist's findings, however intelligent or credible he may be. For the purposes of this forum, however, I am assuming that Thaler's Creativity Machine will perform every assigned task exactly as he claims. I have no reason to doubt that it will do so. This still does not resolve the issue that I raised in the very first paragraph of my editorial, that is, whether or not a machine's flawless imitation of human linguistic (or any other) behavior is sufficient ground to ascribe consciousness to the machine.

The crux of the differences between Thaler and me is that we operate out of two different theories of the text and two different theories of consciousness. As a literary theorist, I subscribe to the Kristevan psychoanalytic view that the speaking subject exists prior to language and uses language for his or her own purposes. Thaler, I believe, would be more comfortable with Roland Barthes' theory that language uses the subject and that, in fact, there is no such thing as psychological subjectivity; there is only the text itself:

> Man does not exist prior to language, either as a species or as an individual. We never find a state where man is separated from language, which he then creates in order to "express" what is taking place within him; it is language which teaches the definition of man, not the reverse. (Barthes, quoted in Schilb, 1989, p. 427)

If the reader substitutes "gedanken" for "man," the passage above makes perfect sense; gedankens do not exist without the language (the program) that calls them into being, but from the Kristevan point of view such linguistic determinism does not and cannot apply to human life.

Discourse of any kind requires a subject with something to say and an audience to receive it; it consists of both effects and affects, and it always has a context. Thaler's example of "poetry," the sentence "all

men go to good earth," is a splendid example of language that is not discourse. Synthesized from the inputs of a dozen Christmas carols, the word group is a structurally complete sentence: it has a subject, verb, and predicate. However, for me, for classical rhetoricians, and for psychoanalytic literary theorists it fails as poetry or any other discourse. First of all, it is derived from Christmas materials, but it fails as a Christmas greeting (although it might be considered appropriate at a funeral Mass). It fails as poetry because it is language emptied of affect and intention both in its origination and reception, and its context is indeterminate. There is no one speaking, no one to receive the message, and no particular occasion or purpose for the speech act—or is there? Is it possible that beneath this seemingly opaque text there is another layer of language embedded with intention and where the author is more clearly present if only we can get through the surface noise?

In my theory of the text, every text is created by someone with something to say, someone we label an author or a speaking subject. The subject is always present in the text he or she creates, whether or not his presence is overtly visible to the reader. Because language is always mediated, there can be no such thing as a pure display of data (Schilb, 1989, p. 424). Whether a manuscript, a bound book, or a computer program, the technology is merely the means of delivery; the text itself comes from its human author. All texts, including computer programs, are embedded with the values, assumptions, and purposes of those who create them. For example, an expert system programmed to "recognize" particular features of art, music, or poetry as "good" does not react affectively to external stimuli; the software program that drives the machine is a text encoded with values of "good" that have been selected and input by the programmer. The output is the result of input based on some invisible human's judgment. Likewise, according to this theory of the text, Thaler's gedankens do not create their own reality; he creates it for them when he assigns values and weights to the various stimuli in their artificial world. They are not the authors of their life-text, nor is the text the author of them, but Thaler is the author of both. The gedanken creatures function not with intelligence of their own but as extensions and amplifications of Thaler's intelligence. He, of course, may insist otherwise, and that is his prerogative. He is operating from his own theoretical position regarding the text, but from the standpoint of established literary scholarship, my theory of the text is at least as plausible as his.

Thaler's and my theories of consciousness are likewise oppositional. He maintains that matter, under certain conditions, generates consciousness; and I maintain that consciousness originates outside of matter as we now understand it. In short, I subscribe to the "soul hypothesis," while Thaler apparently does not. The psychoanalytic literary theorists have long held that the existence of the unconscious, the home of all that resists intelligibility and signification, cannot be proven by hard science. Its existence is strongly suggested by physical manifestations of psychological distress (Moi, 1986, p. 90), although many theorists who accept the unconscious aspect of mind are not convinced that mind is independent of biological function. However, pediatrician Melvin Morse, in his study of transformations following NDEs, insisted that it is now scientifically possible to entertain the hypothesis that there is a soul in each of us that is independent of brain tissue (Morse and Perry, 1992, p. 169). Other scientists working on uploading, defined as "the (so far hypothetical) process of transferring the mental structure and consciousness of a person to an external carrier, like a computer," seem still to be exploring questions of identity (is the upload really you?), and asking whether intelligence and consciousness are possible in a computer: on Anders Sandberg's web site (http://www.aleph.se/Trans/Global/Uploading/), the voices of Hans Moravec, Roger Penrose, and even His Holiness, the Dalai Lama join the debate over what consciousness is, where it comes from, and who or what can possess it. The one thing that seems to be clear is that no clearly defined, widely accepted theory of consciousness, intelligence, or life acceptable to researchers on both sides of this debate exists, and I said that early in my editorial. Before Morse's soul hypothesis, with which I unabashedly and unrepentantly concur, or Thaler's reductionist theory can be conclusively tested there must be consensus about criteria for proof, and with that we are back to the Turing test. Thaler seems to accept Turing's hypothesis that a simulation of intelligence is real intelligence; others of us are not so easily convinced. The rejection of Turing's hypothesis does not mean that Thaler's Creativity Machine fails to perform its functions; it does problematize such performance as evidence of consciousness. Until such time as science can devise an adequate theory and methodology for evaluating consciousness, Thaler and I must agree to disagree. Academic journals exist for the sole purpose of advancing this kind of debate. I do not hope to control Thaler or force him to silence; I welcome his publications and respect his work. I simply disagree with some of his conclusions. Let us hope that theorists, researchers, and practitioners of all disciplines can continue to

negotiate their differences, both with passion and respect, on the pages of this and other journals to the benefit of all.

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Tunnel Vision and Tunnel Experiences

To the Editor:

I am very glad that James Whinnery (1997) has published his interesting findings on acceleration-induced loss of consciousness (GLOC) in the Journal. I have previously found his work very helpful in understanding the effects of anoxia (Blackmore, 1993; Whinnery, 1990).

His discussion of visual symptoms prompted me to consider the difference between "tunnel vision" as he described and the "tunnel experience" described by near-death experiencers (NDErs). Tunnel vision refers to a narrowing of the visual field down to a small area in the center. There is simply no visual experience in the periphery, rather than a specific visual impression of darkness. Tunnel vision occurs both temporarily and permanently in various diseases of the eye and, as Whinnery noted, in GLOC.

In a tunnel experience, by contrast, there is usually a bright light at the end of a dark, but often complex, tunnel. People describe spirals,

colored webs, tunnels made from multiple images, spaces full of stars, or solid tunnels like subways or sewers, and many other complex images in tunnel form. Tunnel experiences are common with hallucinogenic drugs such as mescaline, d-lysergic acid (LSD), and psilocybin, and in spontaneously occurring out-of-body and mystical experiences. They are thought to be caused by disinhibition in the visual cortex (Cowan, 1982; Kluver, 1967; Siegel, 1977).

I do not know whether tunnel vision is always associated with disturbances in the eye, and tunnel experiences with disturbances higher up in the visual system, but this is a reasonable hypothesis given what we do know. Perhaps other readers may be able to help. I suspect that both experiences may happen in NDEs. If so, then we should be careful to discriminate between tunnel vision and tunnel experiences during NDEs. We might find that the type of tunnel reported can provide clues as to whether the eye or the brain is implicated (or both), and so help us better understand the causes of the NDE.

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