Toward a Semiotics of Blaise Pascal’s *Pensees*: A Model for Geometrical and Rhetorical Persuasions

*Roland A. Champagne*

Tout auteur a un sens auquel tous les passages contraires s’accordent ou il n’a point de sens du tout.

**Blaise Pascal, Pensees**

L’important n’est donc pas le temps ou l’espace mais, comme l’écrit Khlebnikov, “la mesure, l’ordre et l’harmonie.” Son but premier est de dénoncer le “soi-disant hasard,” de montrer qu’il n’y a rien de fortuit, que l’arbitraire n’est rien d’autre qu’une relation encore ignorée. L’harmonie universelle règne; l’homme doit l’honorer par un calcul généralisé, qui en révélera les règles.

**Tzvetan Todorov, Poétique de la prose**

The *Pensees* of Blaise Pascal constitute a rich document for the application of computer technology to the semiotics of epistemology. “Semiotics” is understood here to mean the rhetorical communication used by Pascal, and epistemology is the progress toward certitude he was demonstrating to his Interlocutor. The content of the *Pensees* was concerned with the attainment of certain knowledge by the Interlocutor, and yet its fragmentary and incomplete form apparently vitiates the coherence of the presentation. This form, however, is also an ideal testing ground for the assimilating and organizational potential of the computer to confirm the deceptiveness of appearances and the bedrock of underlying unity in Pascal’s presentation of the struggle for knowledge.

As a mathematician and “moraliste,” Pascal certainly had the inclination in the *Pensees* to examine the ties between his mathematical and his rhetorical concerns. Prior to this work, he had published an essay on the geometrical properties of cones (1640) and also a proposal for an “arithmetic machine” called a “pascalien” (1642). These mathematical concerns give us some of the keys to unlock his *Pensees* from the apparent confusion of its fragmented appearance. We may thereby gain access to
the unity of this rhetorical piece and to Pascal's insights into the mathematic precision of human understanding. In seeking this unity, the computer, as exemplified by the Davidson-Dubé Concordance to the *Pensees*, has indeed already revealed subtle components and patterns among Pascal's reflections. In this essay, I will concentrate on Pascal's presentation of the problems with time because Pascalian time contains the vital properties of knowledge in that he used his spatial or geometrical sensitivity to reveal the existential bond between time and being.

In his earlier work, Pascal observed that "la géométrie . . . a expliqué l'art de découvrir les vérités inconnues; et ce qu'elle appelle analyse." But even prior to analysis, the information in question must be gathered and organized in a certain manner so that the perspectives of geometry can be applied and studied in discovering "les vérités inconnues." A case in point is Pascal's own *Pensees* whereby he sought to convince an unsympathetic Interlocutor of the need for religious faith. Prior to this work, Pascal had learned from geometry what he called "l'art de persuader." He later distinguished geometrical proofs from syllogistic and dialectical ones. In his concerns with the nature of time in the *Pensees*, Pascal linked all three types of proof in order to isolate the quantitative and qualitative certainties about time, a phenomenon which appeared to be relative to the observer. Quantitatively, time engaged the Interlocutor thus: "Combien de temps faut-il? Un temps proportionné à notre durée vaine et chétive" (31). Likewise, a qualitative perception of time appears arbitrary. For example, Pascal noted that "toute histoire qui n'est pas contemporaine est suspecte" (436).

However, Pascal set out to engage the Interlocutor in a discussion that would lead toward certainty. The geometrical, syllogistic, and dialectical modes of reasoning about time were especially appropriate. Professor Davidson, in his *Origins of Certainty*, gave us one of his now classic "schémas," used in this case as a graphic means to "promote the intelligibility" of Pascal's nuances in the procession toward certainty:

- geometrical
- syllogistic
- dialectical

Proofs

- by reasoning
- by intervention of an agent

- mind

- geometrical
- syllogistic
- dialectical

- pragmatic

- from above reason; agent = God
- from below reason; agent = habit

- heart

- body
Within this “schéma,” we isolate the model of geometrical proof laying the basis for a procedure whereby the human mind could proceed in an architectural fashion, building a pyramidal scaffold (figure 1) pointing toward KNOWLEDGE at the apex of the structure. The pyramid is based (figure 2) on axioms, demonstrations, and definitions. Each of its three sides (figures 3, 4, and 5) has a method to attain KNOWLEDGE. Epistemology, rhetoric, and argumentation are all modes in the procession toward certainty. For epistemology, intuition provides the resolution for the conflict between reason and sense-perception. For rhetoric, thesis and antithesis can be attenuated through analogy. For argumentation, in this case about the problem of time, the contrary views of time as present moment and movement can be absorbed within the larger framework of time as duration. This pyramidal form exemplifies Pascal’s ternary logic in the Pensées and enables us to understand his insights into time and being therein.

The use of definitions, axioms, and demonstrations as a model of ternary logic has survived Pascal’s own geometrical sensibility to be a sign of modern times also. Anthony Wilden for example discusses this ternary logic as the heart of the analog and digital language of computer technology.\(^7\) Hence, the “pascalien,” which may have seemed impractical to seventeenth-century society, may be lurking in the structure of the rhetoric in the Pensées. For example, there is a scientific model for Pascal’s dialogical presentation of time. Louis Marin noted in his semiological studies of Pascal that “the Pensées constitute a sort of text-laboratory that permits the production of a text to be tested against its form which is the fragment, against its discursive mode which is interruption, and against its own logic which is digression.”\(^8\) The test for us here is to discover how Pascal’s rhetoric, with its triangular structure (figure 3), is viable as persuasion within such a context.

In his essay on the “art of persuasion,” Pascal observed that disagreement is a common human problem because of the inconstancy of human whims.\(^9\) However, his Pensées also point out that the multiplicity of opinions is necessary: “La multitude qui ne se réduit pas à l’unité est confusion; l’unité qui ne dépend pas de la multitude est tyrannie” (604). The computer respects this tension by providing us with a concordance that allows us to see the unity of the text without disavowing its components. Appropriately, Pascal recalled Zeno of Elea’s Paradox in explaining apparent spatial contradictions in geometry through temporal infinity (part
Pascal's Ternary Logic

THE PYRAMID OF RHETORIC

Figure I

Base

- Demonstrations
- Analogy

- Explicit & univocal definitions
- Self-evident axioms
- Thesis
- Antithesis

SIDE 1

SIDE 2

SIDE 3

Intuition
- Duration
- Epistemology
- Argument

Sense
Reason
Present moment
Movement
of Parmenides’ argument for essential being rather than the plurality of change).

In order to allow his Interlocutor to see the unity of argument in the *Pensees*, Pascal utilized the scientific method of geometrical certitude. His discursive grasp of “time” exemplified the rigor of this method and unified his discourse. The notion of time was crucial for Pascal because by it the interlocutor could use the three faculties of knowing—sense-perception, reason, and intuition (figure 4)—in order to measure and observe the proportions and disproportions of the universe.

The Davidson-Dubé Concordance to the *Pensees* is especially helpful in orienting the reading of time in Pascal’s work. This concordance gives us the principal allusions to time both by frequency lists of the predominant temporal themes and by their location in certain sections of Pascal’s discussions. With this information, the reader can return to the *Pensees* and be more apprehensive about the pivotal references to time and to the contexts of their occurrences. The ternary logic of geometry then surfaces as Pascal views the paradoxical nature of human time.

On the one hand, the human faculty of sense perception (figures 4 and 5) influences humanity to prefer the isolated present moment when reflecting upon time. Georges Poulet, in his presentation of Pascal’s sense of time, identified such a human feeling thus: “la tragique et l’absurde de la condition humaine, c’est que l’homme apparaisse comme incapable de renoncer à son présent et d’opter pour le futur.” Hence, time is defined as the present moment. The Concordance isolates significant recurrences of such words as “durer” (35 times) and “présent” (26 times). Pascal observed in one of his reflections (199) that humanity needs time to endure. The Interlocutor’s own life could well be measured in this manner. Yet Pascal was not content with such a definition because he was aware that “le présent d’ordinaire nous blesse” (47). The word “temps” occurs on 144 occasions within the *Pensees*. However, the contexts of that word indicate Pascal’s need for precision. The most frequent words associated with time—“même” (16 times), “à” (19 times), and “qui” (16 times)—indicate Pascal’s concern with specifying the word further. He observed that “… nous errons dans des temps qui ne sont point nôtres …” (47). So the present moment is an illusion about what time appears to be to our sense perceptions.

On the other hand, the human faculty of reason, the second means of epistemological apprehension (figure 4), provides proofs that time is a dialectical problem of moment and movement. Haunted by his rhetorical
need for "le renversement continu el du pour et du contre," Pascal realized that rational proofs can be given for "l'écoulement du temps" from the past (human memory as proof), to the present (which can't be sustained despite the human predilection for an eternal present), and on to the future (the moment about which we have no assurance of attainment, only a faint glimmer of a dream). Humanity is caught in a vortex of infinite time, within which human time dialogically contains man. The *Dasein* or Awareness of Being, so well-conceived by Martin Heidegger in his *Being and Time,* was already understood by Pascal in his rhetorical sense of engaging the Interlocutor with the authenticity of living ("ex-istence" and "ec-stasy" literally point to stepping outside of infinite time while still being involved in human time).

Humanity is so haunted by "l'écoulement du temps" that distractions must be sought. Ironically, "ils croient chercher sincèrement le repos et ne cherchent en effet que l'agitation" (136). Time does not appear to console in the long run: "Le temps guérit les douleurs et les querelles parce qu'on change; on n'est plus la même personne; ni l'offensant, ni l'offensé ne sont plus eux-mêmes" (802). However, the human aging process is measured against time also. Time as history-in-the-making allows us to measure our human shortcomings and weaknesses. Pascal referred to Biblical history for ample evidence of predictions which, when fulfilled, prove the rational contradiction of time as moment and movement. The word "prédit" recurs on 63 occasions throughout the *Pensees* to reinforce the importance of prophecies as testimonies to the dialectic of time. The Scriptures thus depict "le mouvement infini, le point qui remplit tout, le moment de repos" (682). The Interlocutor is called upon to respect the prophetic fulfillment of "Jésus Christ prédit et prédisant" (462). While Pascal observes that "tous les hommes passeront et seront consommés par le temps" (483), he points to the example of Christ as "un homme qui prédit clairement des choses qui arrivent et qui déclarent son dessein . . ." (344). Although reason allows us to read and to learn from the Bible, that human faculty does not take us beyond the contradiction which is human time. It is within human time where the uncertainties of life are encountered by Pascal, portraying that condition in this way:

Voilà notre état véritable. C'est ce qui nous rend incapables de savoir certainement et d'ignorer absolument. Nous voguons sur un milieu vaste,
toujours incertains et flottants, poussés d’un bout vers l’autre; quelque
terme où nous pensions nous attacher et nous affirmer, il branle, et nous
quitte, et si nous le suivions il échappe à nos prises, nous glisse et fuit d’une
fuite éternelle; rien ne s’arrête pour nous. [199]

Hence, Pascal must look elsewhere because, as Professor Davidson has
noted: “Pascal cannot start with religious beliefs, but he must locate
something equally firm; and we know that he eventually finds it in the
instabilities and contradictions of human nature, in the everlasting con­
flict between what man wants and thinks he is entitled to—truth and
happiness—and what he can actually have.”

It is the third order of human learning, that of intuition (also called
the order of will, 933), which allows Pascal to take the Interlocutor be­
yond the contradictions of finite time. Having established the axioms of
time as moment and as contradictory events (figure 5), Pascal moves to
the third side of his geometrical base—that of demonstration (figure 2).
Not being able to resolve the contradiction about time by the powers of
sense-perception or reason, he moves into an analogical discussion (figure
3) whereby the apparent contradiction is understood within the larger
context of nonhuman, that is, divine, duration.

The proportions of human time become upset when presented in a
larger framework as Pascal noted “la petite durée de ma vie absorbée
dans l’éternité précédente et suivante” (68). Gradually, we begin to realize
that “tout cet écoulement de temps, de la vie, et ces divers corps que nous
sentons, ces différentes pensées qui nous y agissent n’étant peut-être que
des illusions pareilles à l’écoulement du temps et aux vains fantômes de
nos songes” (131). In this section on the “Disproportion of Humanity,”
Pascal also discussed the two infinities of massive and minute size. The
introduction of the two infinities into the discussion takes the Interlocu­
tor into another epistemological order wherein intuition plays a key role.
Time is relevant to the infinities because perpetuity is posited as the con­
text of human time just as infinity is the context for finite human propor­
tions. Before this “secret impénétrable” (199) of the most minute part of
a second on the one hand and the most expansive epoch on the other
hand, Pascal invited the Interlocutor to observe the security of Christian
Law (149) and Religion (281) which endured because of divine presence
among men. Such a context created by divine time transforms the appar­
et contradiction previously identified in human time. The duration of
eternity encompasses human time such that “rien ne peut fixer le fini
entre les deux infinis qui l'enferment et le fuient” (199). Instead of the contradiction observed by reason, there is a unity within the universe. That unity is the intuitive order of eternity which leads Pascal the apologist to his wager. The cohesive structure of that eternity (“Je ne vois que des infinïtés de toutes parts, qui m'enferment comme un atome et comme une ombre qui ne dure qu'un instant sans retour,” 427) is thus demonstrated by the ternary logic of geometrical definitions, axioms, and demonstrations (see figure 5) as well as the three-dimensional pyramidal form rather than a simple triangular argument on a single plane.

Similar to the multiplicity of fragments and the twenty-seven structured chapters of the *Pensees* linked by the geometrical rhetoric of Pascal, the problem of human time is likewise governed by a unity which subtly leads the Interlocutor toward certainty. Thus, Pascal’s celebrated “esprit de géométrie” gave a formal identity to the more obvious stylistic procedure of the “esprit de finesse.” Pascal himself observed that “la multitude qui ne se réduit pas à l’unité est confusion” (604). Yet his conscious design for the *Pensees* was not concerned with imposing that unity as he remarked: “J'écrirai ici mes pensées sans ordre et non pas peut-être dans une confusion sans dessein. C’est le véritable ordre et qui marquera toujours mon objet par le désordre même” (532). Nevertheless, there is a geometrical strain that unites the rhetoric of the *Pensees* despite Pascal’s conscious aims. It was Pascal himself who pointed out that “tout auteur a un sens auquel tous les passages contraires s’accordent ou il n’a point de sens du tout” (257). His own example suggests that we can learn much about the proportion and order of discourse from mathematics. There is more that needs to be discovered so that we can establish, with the aid of a computer, a calculus of the rules of rhetoric. Jacques Derrida, in his *De la grammatologie*, announced the hopes of such studies for those of us interested in semiotics: “Mais au-delà des mathématiques théoriques, le développement des pratiques de l’information étend largement les possibilités du ‘message,’ jusqu’au point où celui-ci n’est plus la traduction écrite d’un langage, le transport d’un signifié qui pourrait rester parlé dans son intégrité.” 14 Pascal’s *Pensees* exemplify this extended understanding of the “message” in a written document. As we discover the subtle principles of rhetorical organization in the structure of this document, we begin to appreciate Pascal’s sensitivity to how our being interacts with time by exemplifying how his Interlocutor interacts with learning.
Notes

3. Hugh M. Davidson and Pierre H. Dubé, A Concordance to Pascal’s Pensées (Ithaca & London: Cornell University Press, 1975). The frequency lists and the isolated references to time in this study were derived from their presentation.
5. Pascal, Oeuvres complètes, p. 575.
11. Pascal, Oeuvres complètes, p. 93.