SOME COGNITIVE MODELS AS POSSIBLE FUZZY STRATEGIES OF EMINESCU'S WORK RECEPTION

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Abstract. In this study, we are aiming to find an interpretation of a poetic text (Eminescu's poetry) on the basis of cognitive models of verbal poetic images. If the poetic images constitute the dominant of a poetic text and that the functions of textual elements are regulated by cognitive mechanisms, we'll try to demonstrate by our hypothesis that in the deep structures of the poetic text exists a program of its interpretation, fuzzy strategies and tactics in order to correlate the text semantics with the subjective and communicative knowledge.

Keywords: meaning, cognitive semantics, situated agent, schema, distinguishing criterion

Eminescu has been interpreted under multiple hermeneutic horizons, but never before from the perspective of the theory of cognitive neuroscience, cognitive linguistics or prototypical semantics. Cognitive poetics is the study of literary reading. Using Ingarden's distinction[1], literary texts are *autonomous objects*, having a material existence in the world, but literature is a *heteronomous object*, existing only when activated and engaged by the animating consciousness of the reader[2]. The research in cognitive neuroscience will both precipitate and necessitate a shift in the underlying theories of cognition and education in much the same sense as that proposed by Kuhn (1970). Cognitive linguistics has contributed to firmly anchor language in its mental, corporeal, social and environmental contexts. Classical and semiotic notions such as, for instance, categories, metaphors, iconicity, and style have been critically assessed and radically redefined in a way that foregrounds their centrality, and new notions have emerged such as mental space, collocation, prototypes, scripts and schemas, and text worlds, to name only a few. It is clear by the other hand that the conception of the mind as a serial Von Neumann computer is not confirmed by contemporary research findings in psychology and neuroscience, that existing theories of cognition may not map well on to the neurological processes of thought[3], and that new models of cognition are emerging[4]. Other authors (such as Berninger & Winn; Egan, 2002; Klahr & Nigam, 2004; Mayer, 2004; Ravitch, 2000) are thinking that cognitive neuroscience research can contribute to confirming or disconfirming evidence to support either traditional perspectives or revolutionary ones.

Several literary theorists and critics have been producing work through a dialogue with more fields within cognitive science: artificial intelligence, cognitive

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[1] Roman Ingarden, *Das literarische Kunstwerk*. Trans. George Grabowics (1973). *The Literary Work of Art: An Investigation on the Borderlines of Ontology, Logic, and Theory of Literature*, Evanston, IL, Northwestern University Press. 1973, 1931.

[2] Peter Stockwell, *Cognitive Poetics. An introduction*. New York, Routledge, 2002, p. 165.

[3] J. A. Fiez, "Bridging the gap between neuroimaging and neuropsychology: Using working memory as a case-study" in *Journal of Clinical and Experimental Neuropsychology*, 23, 2001, pp. 19-31.

[4] See M. Atherton, "A neurocognitive model for students and educators" in *Cognitive Science Society*, Fairfax, VA, 2002 and M. Atherton, "Applying the neurosciences to educational research: can cognitive neuroscience bridge the gap?" part I.. Paper presented at the annual meeting of the *American Educational Research Association*, Montréal, Canada, 2005.

psychology, post-Chomskian linguistics, philosophy of mind, neuroscience, and evolutionary biology[5]. Reuven Tsur (1992) has been developing a "cognitive poetics" since the 1980s; the psychoanalytic critic Norman Holland (1998) demonstrated that the "powerful psychology" emerge from cognitive neuroscience; Mark Turner (1996) advanced a "cognitive rhetoric" project in order to develop the notion of "blending". A blend marks the convergence zone of two "mental spaces," as in parable or metaphor, constituting a distinct third space that generates properties which cannot be found in any of the "input spaces." This offers a rich perspective to study Eminescu's poetry. And, finally, Ellen Spolsky (1993) with his theory of "cognitive instability" completes a comprehensive perspective. These critics respond to the limitations of poststructuralist conceptions of meaning and interpretation in order to forge a "new interdisciplinarity" (Crane and Richardson 1999).

In cognitive poetics, metaphor is extremely important as a topic for research and a central concept for understanding the workings of the mind throughout the cognitive disciplines. Yeshayahu Shen's *Poetics Today*[6] is devoted to metaphor and cognition. Cognitive linguistics has made a sophisticated model of metaphor production and comprehension (Lakoff and Johnson 1999). Computer scientists and philosophers of mind are using literary concepts like "scripts" and "stories"[7], "stream of consciousness," "multiple drafts," and "Joycean machine"[8]. Cognitive psychologists are researching some literary topics as reader response to narrative fiction (Gerrig 1993), the role of *deixis in narrative* (Duchan et al. 1995), and the oral transmission of poetic forms (Rubin 1995). Raymond Gibbs (1994, 1996) proposes an experimental validation for a *poetics of mind*. For him the traditional rhetorical figures (metaphor, metonymy, and irony) reflect the workings of fundamental cognitive processes.

Part of the UOS Research Cluster on Cognition and Poetics, the first international conference on Cognition and Poetics (Chapter12) will take place from the 25-27 April 2013 at the Institute of English and American Studies of the University of Osnabrück, Germany. This first international conference on cognition and poetics aims at bringing together scholars from a wide range of disciplines, including literature, culture, aesthetics, semiotics, linguistics, cognitive science, neuroscience, philosophy, history, and psychology in order to illuminate the possibilities of taking a fresh look at literature and other poetic artifacts from a cognitive perspective. In particular, a cognitive approach to literature raises questions about the basic nature of aesthetic experience and whether there are **differentia specifica** that characterize the individual art forms, their production, and their reception.

The cognitive analysis of literary works has opened new paths towards the integration of the cognitive sciences including the neurosciences into the space of

[5] Richardson, Alan, Francis F. Steen, "Literature and the Cognitive Revolution: An Introduction" in *Poetics Today* , Vol. 23, Number 1, Spring 2002, pp.1-8.
[6] Yeshayahu Shen[6] (1992: 567) *Poetics Today*
[7] Roger Schank and Gary Saul Morson, *Tell Me A Story: Narrative and Intelligence*, Northwestern University Press, 1995.
Roger Schank and Abelson, R.P., *Scripts, plans, goals, and understanding: An inquiry into human knowledge structures,* Hillsdale, NJ, Erlbaum, 1977.
[8] Daniel Dennett, D.C., *Consciousness Explained*. Boston, Little, Brown and Company. 1991, p. 111–13, 275–80. See also: Daniel Dennett, "The Self as the Center of Narrative Gravity," *Self and Consciousness: Multiple Perspectives*, Kessel, Cole, Johnson eds., Erlbaum, 1992 and Daniel Dennett, *Sweet Dreams: Philosophical Obstacles to a Science of Consciousness*, New York, MIT Press, 2005.

understanding human creativity. The question is how words, rhythms, melodies, and visual patterns can stir the human mind with such intensity in order to deliver meaningful knowledge and new perceptions.

New linguistic disciplines, cognitive poetics and the theory of prototypical semantics, seem to decipher the depths of the creation, the verbal images and semantics of poetic texts. Cognitive poetics is based on Freeman's linguistic strategies[9], on Rosch's prototype theory and on the theory of conceptual metaphor and metonymy (Rosch 1977; Lakoff and Johnson 1980). In their theory of metaphor, Lakoff, Johnson and Turner have analyzed the basic conceptual metaphors, tools to understand abstract notions and to construct the inner patterns of consciousness and the paradigma of the world visions (Lakoff, Johnson 1980; Lakoff 1987; Turner 1996). Cognitive poetics includes a theory of analogical mapping too, focused on the skills of seeing structural systems (Holyoak, Thagard 1995; Freeman 1997). On the one hand, the process by which the human mind creates abstract conceptualizations is explained in the frame of the theory of mental spaces and conceptual integration (Fauconnier 1994; Fauconnier, Turner 1996). By the other hand, the hermeneutical circle as the interpretive horizon might be a bond between the reader and the text (Schleiermacher 1838/1998). If we may learn new things, we'll thus transcend the circle first given (Stolze 2003). That is what happens in understanding: an enlargement of our horizon, and at the same time this prepares the basis for further understanding. The truth of a text thus revealed is historically determined[10]. Although Schleiermacher maintains that there is an additional aspect of intuition, and the truth reveals itself intuitively, Thiselton observes that this methodological approach corresponds to the text analysis via lexis, semantics and pragmatics[11].

But generally speaking, conceptual analysis of Eminescu's poetry could reveal two groups of poetic images: the *archetypes* and *stereotypes*, and the *idiotypes* and *kainotypes*. Cognitive model of a poetic image is a construal which combines various image schemas, representing three basic elements: the referent concept, the vehicle concept associated with the referent, the ground concept which exhibits the feature shared by the referent and vehicle (Vorobyova 1996; Belekhova 1999). The ground also includes mental spaces of the concepts which constitute "the image space of the poetic text and the connectors which show the paths of cognitive mappings across different input domains." (Belekhova 1999). In terms of Talmy's notion (Talmy 1996), the core of all cognitive and creative processes is the *ception*. The "initiation into meaning" of linguistic expression embraces four degrees, each based on a different type of context. Degree one involves internalized contexts ("knowledge of vocabulary") and grammar ("knowledge of grammatical rules"). Degree two covers the "co-text". Degree three referred to the "background knowledge", and involves information for the discursive mental spaces. Finally, the fourth degree covers knowledge provided by "individual texts biographies and expression of meanings via

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[9] Margaret Freeman, "'Poetry and the Scope of Metaphor: Toward a Cognitive Theory of Literature" in *State of the Art and Applications to English Studies*. ESSE 4, Debrecen, Hungary, 1997, p. 4.

[10] Anthony C. Thiselton, *On Hermeneutics. Collected works with new essays*, Cambridge, Eerdman Co., 2006, p. 747.

[11] *Ibidem*, p. 191.

individual creative extensions of the language system." (Janda, 1996, 1998; Recanati 2004). If the researcher is changing the perspective and enlarging his horizon of knowledge, he will be able to grasp a text's message that was written against another horizon. Gadamer in his work *Truth and method* (1960) speaks of a "fusion of horizons" when comprehension happens. And this process is ever dynamic, as individuals are placed in a historical situation, and their conscience is continuously growing.

"It is true - as argues Romul Munteanu - that at the time when Eminescu was blazing the trail along which Romanian poetry was to advance towards universality, Romanticism had already become dated in the cultural areas in which it had come to life, Romantic literary discourse being relentlessly challenged by other types of poetic expression." However, Eminescu's poetry is contemporary to that of Charles Cros, Baudelaire, Verlaine, Mallarme or Leconte de Lisle. But what could demonstrate this traditional comparison? What could demonstrate the cognitive analysis about Eminescu's literary works? To apply the cognitive models to the Eminescu's poetry means to translate into a new language. It means also that these hypothesis are *falsifiable*, testable by empirical experiment and thus conform to the standards of scientific method. *The criterion of the scientific status of a theory is its falsifiability, or refutability, or testability.* (Popper). The Romanian culture will have a "new" Eminescu in the globalization era, maybe.

A study conducted by Helen E. Fisher (2010), Rutgers University, New Brunswick, NJ, Lucy L. Brown, Einstein College of Medicine of Yeshiva University, New York, NY, Art Aron, Stony Brook University, Stony Brook, NY, and Greg Strong and Debra Mashek, the State University of New York at Stony Brook observes that the Romantic rejection stimulates areas of brain involved in motivation, reward and addiction. The pain and anguish of rejection by a romantic partner may be the result of activity in parts of the brain associated with motivation, reward and addiction cravings. According to Riane Eisler's work, *The Chalice and the Blade*, how a society structures relations between men and women is a critical component that forms the basis for all aspects of society, family, school, church, government, politics and so on. Hierarchical values are associated with thinking patterns: impose contradictory demands on the brain, without their conscious awareness, primarily out of fear; activate the brain's "fight or flee" system during problem solving; interfere with the formation of emotional intimacy in the couple relationship. The brain is a relationship organ. According to William Benzon (*Emotion Recollected in Tranquility, or Why Brains Need Poems,* 1987), for biochemical reasons, it is difficult to have a comprehensive view of one's own life. "How does one create an affectively neutral ground from which one can observe and order the full range of events in one's life?" Poems, plays, and stories allow us to experience a wide range of desires and feelings in an arena where our personal lives are secure and protected. "Through repeated immersion in this arena the brain creates cognitive structures about life events that are affect-neutral and that can be used in helping us obtain cognitive mastery of our own lives and self."

So, experiencing a poem involves a complex interrelationship among writer, reader, and text: (i) starting with the reader means to discuss the cognitive mapping strategies actual readers use; (ii) one will then look at the metaphorical structures of the text itself that prompt for readers' mappings; (iii) one will explore the way our understandings may reveal the cognitive processes at work in the mind of the writer.

But is the (neuro)multicultural model - the pluralistic world of self-enclosed cultures, each valuable in itself - sufficient for understanding new cross-cultural flows? These new models of Eminescu's poetry will challenge the globalization, the mosaic multiculturalism, as multiculturalism had earlier challenged the "melting pot" model and the "universal cultural" canon? How can we move away from multiculturalism and globalization without losing the value of cultural diversity? (Epstein 2001). What paradigmatic shifts in the humanities can we expect in the age of global culture? Could we move from the model of *difference* or *differance* (Derrida) that dominated the humanities in the 1970s-1990s to a model of *interference*, "assuming that the most beautiful patterns in culture are created by flows coming from various traditions, epochs and disciplines"? Globalization produces new effects of cultural networks. In the global age we are progressively liberating ourselves from our cultural limitations. "How can we conceptually articulate this new sphere in which humans position themselves outside their cultures? How are our physical and cultural bodies related to these new transcultural dimensions?" (Epstein). Thrown in the globalization, does a romantic poet have to accept any compromise or remain solitary and misunderstood in the amnesias of the history? "If Blaga felt *maya* as a veil, Eminescu felt it as a rhythm", says Sergiu Al-George in *Archaic and Universal*[12] . This assertion is not the conclusion of a cognitive analysis, but the intuition of a profound hermeneute. It is a beautiful sentence, but its falsifiability is vague rather than precise. It means that sometimes the beauty is a *fuzzy set* and the science can be as beautiful as a statue of Rodin.

REFERENCES

Al-George, Sergiu (1981). *Arhaic si universal* (*Archaic and Universal*). Bucharest: Editura Enciclopedica.

Atherton, M. (2002). "A neurocognitive model for students and educators" in *Cognitive Science Society*, Fairfax, VA.

Atherton, M. (2005, April). "Applying the neurosciences to educational research: can cognitive neuroscience bridge the gap?" part I.. Paper presented at the annual meeting of the *American Educational Research Association*, Montréal, Canada.

Belekhova, Larissa (1999). "New Images in Contemporary American Poetry: A Cognitive Perspective" in *34. Linguistisches Kolloquium*, University of Mainz, FASK, September 7-10.

Benzon, William, Hays, David (1987). "Metaphor, Recognition, and Neural Process" in *American Journal of Semiotics* 5: 59 – 79, 1987. http://asweknowit.ca/evcult/metaphor.shtml

Berninger, V., & Winn, W. (2009). "*Implications of advancements in brain research and technology for writing development, writing instruction, and educational evolution*" in C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *The Writing Handbook.* New York: Guilford.

Cercel, Larisa (ed. 2009). *Übersetzung und Hermeneutik – Traduction et herméneutique.* Bucharest: Zeta Books.

Crane, M., Alan Richardson (1999). "Toward a New Interdisciplinarity: Literary Studies and Cognitive Science," *Mosaic* 32 (1999): 123-40.

Dennett, D.C., (1991) *Consciousness Explained.* Boston, Little, Brown and Company.

Dennett, D.C., (1992) "The Self as the Center of Narrative Gravity," *Self and Consciousness: Multiple Perspectives*, Kessel, Cole, Johnson eds., Erlbaum.

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[12]Sergiu Al-George, *Arhaic si universal* (*Archaic and Universal*), Bucharest, Editura Enciclopedica, 1981, p. 280.

Dennett, D.C., (2005). *Sweet Dreams: Philosophical Obstacles to a Science of Consciousness*, New York: MIT Press.

Duchan, Judith F., Gail A. Bruder, and Lynne E. Hewitt (1995). *Deixis in Narrative: A Cognitive Science Perspective.* Hillsdale, NJ: Lawrence Erlbaum.

Egan, K. (2002). *Getting it wrong from the beginning: our progressivist inheritance from Herbert Spencer, John Dewey, and Jean Piaget.* New Haven, CT: Yale University Press.

Eisler, Riane (1989). *The Chalice and The Blade: Our History, Our Future.* New York: Harper & Row.

Epstein, Mikhail (2001). "The Role of The Humanities in Global Culture: Questions and Hypotheses" in *rhizomes.02 spring*

Fauconnier, G. (1994). Mappings in Thought and Language. Cambridge (Mass.): Cambridge University Press.

Fauconnier, G., Turner, M. (1996). "Blending as a Central Process of Grammar" in *Conceptual Structure, Discourse and Language.* Ed. by A. E Goldberg. Stanford: CSLI Publications.

Fiez, J. A. (2001). "Bridging the gap between neuroimaging and neuropsychology: Using working memory as a case-study" in *Journal of Clinical and Experimental Neuropsychology*, 23, 19-31.

Fisher, H. E., Brown, L. L., Aron, A., Strong, G., Mashek, D. (2010). "Reward, Addiction and Emotion Regulation Systems Associated with Rejection in Love" in *Journal of Neurophysiology*.

Freeman, Margaret (1997). "'Poetry and the Scope of Metaphor: Toward a Cognitive Theory of Literature" in *State of the Art and Applications to English Studies*. ESSE 4, Debrecen, Hungary.

Freeman, Margaret (1998). "Metaphors of Mind: Analogical Mapping in Teaching Poetry". *Pedagogical Quaterly of Cognitive Linguistics*1.1 http://pqcl.indstate.edu/ .

Freeman, Margaret (2002). "Cognitive Mapping in Literary Analysis". *Style* 36.3 (466-483).

Freeman, Margaret (2006). "The Fall of the Wall between Literary Studies and Linguistics: Cognitive Poetics." In *Cognitive Linguistics: Current Applications and Future Perspectives*. Ed.

Gitte Kristiansen *et al.* Berlin: Mouton de Gruyter: 403-428.

Freeman, Margaret (2010). "Mapping, Metaphor, and Mind: Experiencing the Poetic Text" in *Cognitive Poetics Lecture Series*, part of the seminar *Forging the American Mind*

Gadamer, Hans-Georg (1960, 1990). *Truth and Method.*

Gerrig, R.J. (1993). *Experiencing narrative worlds: On the psychological activities of reading*. New Haven, CT: Yale University Press.

Gibbs, Raymond (1994). *The poetics of mind*. Cambridge: Cambridge University Press.

Gibbs, R. W. (1996). "Why many concepts are metaphorical" in *Cognition,* **61,** 309–319.

Holland, Norman (1998). "The Mind and the Book: A Long Look at Psychoanalytic Criticism" in *Journal of Applied Psychoanalytic Studies*. Human Sciences Press.

Holyoak, K .J. and Thagard, P. (1995). Mental Leaps: Analogy in Creative Thought. Cambridge, MA: The MIT Press / Bradford Books.

Ingarden, Roman (1931). *Das literarische Kunstwerk.* Trans. George Grabowics (1973). *The Literary Work of Art: An Investigation on the Borderlines of Ontology, Logic, and Theory of Literature* (1973). Evanston, IL: Northwestern University Press.

Janda, Laura A. (1998). "Cognitive Linguistics", in *Glossos***,** The Slavic and East European Language Research Center. Duke Univ.

Janda, Laura A. (1996). "Unpacking Markedness", in *Linguistics in the Redwoods: The expansion of a new paradigm in Linguistics*, ed. by Eugene Casad. Berlin: Mouton de Gruyter, 207-233.

Jung, K. G. (1991). *Archetypes and Symbols*. M.: Renaissance.

Kuhn, T. S. (1970). *The Structure of Scientific Revolutions*. Second Edition, Enlarged. Chicago: University of Chicago Press.

Klahr, D. & Nigam, M. (2004). "The equivalence of learning paths in early science instruction: effects of direct instruction and discovery learning" in *Psychological Science*, 15, 661-667.

Lakoff, G., Johnson, M. (1980). *Metaphors We Live*. Chicago and London: The University of Chicago Press.

Lakoff, G. (1987). *Women, Fire and Dangerous Things. What Categories Reveal About the Mind*. Chicago: University of Chicago Press.

Lakoff, G. & M. Turner (1989). *More than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press.

Lakoff, G. (1993). *'The contemporary theory of metaphor'* in *Metaphor and Thought. Ortony* (ed.). (Second ed., pp. 202--251) Cambridge: Cambridge University Press.

Lakoff, G. & M. Johnson (1999). *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Langacker, R. (1987). *Foundations of Cognitive Grammar*. Vol. 1. *Theoretical Prerequisites*. Stanford: Stanford University Press.

Langacker, R. (1991). *Foundations of Cognitive Grammar*. Vol. 2. *Descriptive Application*. Stanford: Stanford University Press

Mayer, R. E. (2004). "Should there be a three-strikes rule against pure discovery learning? The case for guided methods of instruction" in *American Psychologist*, 59, 14-19.

Munteanu, Romul, **"**Eminescu and the timelessness of lyrical discourse" *in* http://www.mihaieminescu.ro/en/critiques/rmunteanu.htm

Ravitch, D. (2000). *Left back: A century of failed school reforms*. New York: Simon & Schuster

Recanati, F. (2004). *Literal Meaning*. CUP, Cambridge

Richardson, Alan, Francis F. Steen (2002). "Literature and the Cognitive Revolution: An Introduction" in *Poetics Today* , Vol. 23, Number 1, Spring 2002.

Rosch, T. (1977). *'Principles of Categorization' in Cognition and Categorization*. E. Rosch and B. B. Lloyd (eds.). Hillsdale, N. J.: Lawrence Erlbaum Associates.

Rubin, H., & Rubin, I. (1995). Qualitative interviewing: The art of hearing data. Thousand Oaks, CA: Sage

Schank, R.C., & Abelson, R.P. (1977). *Scripts, plans, goals, and understanding: An inquiry into human knowledge structures*. Hillsdale, NJ: Erlbaum.

Schank, Roger and Gary Saul Morson (1995). *Tell Me A Story: Narrative and Intelligence*. Northwestern University Press.

Schank, R.C., & Abelson, R.P. (1996). "Knowledge and memory: The real story" in R.S. Wyer (Ed.), *Advances in Social Cognition*. Mahwah, NJ: Erlbaum.

Schleiermacher, Friedrich (1838, 1998). *Hermeneutics and Criticism and other Writings*. Translated and edited by Andrew Bowie. Cambridge: University Press.

Shen, Yeshayahu (1991). "Schemata, Categories, and Metaphor Comprehension." *Poetics Today* 12.1 (1991): 111-124.

Spolsky, Ellen (1993). *Gaps in Nature: Literary Interpretation and the Modular Mind*, SUNY Press.

Stockwell, Peter (2002). *Cognitive Poetics. An introduction*. New York: Routledge.

Stolze, Radegundis (2003). *Hermeneutik und Translation*. Tübingen: Narr.

Talmy, Leonard (1996). "Fictive Motion in Language and 'Ception'". *Language and Space* ed. by Paul Bloom et al. Cambridge/London: MIT Press.

Taylor, J. R. (1995). *Linguistic Categorization: Prototypes in Linguistic Theory*. London, New York: Rutledge.

Thiselton, Anthony C. (2006). *On Hermeneutics. Collected works with new essays*. Cambridge: Eerdman Co.

Tsur, Reuven (1992). *Toward a Theory of Cognitive Poetics*. Amsterdam: Elsevier (North Holland) Science Publishers.

Turner, Mark (1996). *The Literary Mind*. New York: Oxford University Press, 1996.

Vorobyova, O. (1996). 'Linguistic Signals of Addressee-Orientation in the Source and Target Literary Text: A Comparative Study' in *The Parasession on Theory and Data in Linguistics*. Chicago: Chicago Linguistic Society.

Wierzhbicka , A. (1996). *Semantics, Culture and Cognition. Universal Human Concepts in Culture Specific Configurations*. New York, Oxford: Clarendon Press.