

The Materiality of Cognition: Concrete Poetry and the Embodied Mind

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Canadian poet bpNichol's concrete poetry, among his other experiments with language, garnered him international recognition in the late 1960s.¹ Interestingly, while his lyric and fictional works have received much critical attention,² his concrete and visual poetry has seen relatively little discussion, perhaps in an attempt, as Christian Bök puts it, to "sentimentalize his subversiveness...at the expense of his most experimental achievements."³ Concrete poetry is often multimodal and uses both visual and verbal cues to construct meaning; the poems employ the materiality of both the page and language through manipulations and evocations of space, arrangement, typography, artistry, generic conventions, and spelling.⁴ Therefore, this poetic style constructs meaning through emphasizing the often ignored visuality of words and the page.

One of the notable scholars on bpNichol's corpus, Stephen Scobie, states that bpNichol's often overlooked "visual concrete poems...are the most witty and elegant ever produced in Canada....they exemplify the virtues of what might be called 'pure' concrete poetry: playfulness combined with a deep sense of beauty, the reeducation of the eye to the visual possibilities of language."⁵ Johanna Drucker has catalogued the history and variety of visual and concrete poetry. She notes that within this longer tradition the Canadian poet bpNichol is "unorthodox"⁶ and has a style best described as "hybrid eclecticism, with its synthetic capacity to absorb material from any of a wide variety of conceptual, critical, and linguistic sources."⁷

Interestingly, Drucker also acknowledges that the trends in concrete poetry, which focus on synthesis, have outmaneuvered theory. She concludes, "What is evident is that the terms of poetic tradition or linguistic analysis adequate for a critical understanding of earlier work is inadequate to confront the synthetic sensibility of the present—work which poses profound questions about ... the processes of signification so essential to these projects as they are conceived in aesthetic terms."⁸

It is this profound question of signification that this paper addresses. Previous approaches have largely viewed visuality as transgressing all other meanings, by universally communicating through form or by disrupting and negating linguistic signification.⁹ However, these models place a tension between the image and the text in poems that largely synthesize these cues, exposing a theoretically fraught engagement with these poems.¹⁰ I will examine the aesthetic characteristics of this poetry which synthesizes language and visuality through embodied notions of materiality, iconicity, and performativity. Furthermore, I will show that research in Cognitive Science can offer insight into this synthetic medium and a way out of the traditional analytical and theoretical quagmire in which it is currently surrounded.

Cognitive poetics, a blanket term for studies of cognition that impact or are interested in literary analysis and theories of language,¹¹ holds as one of its central tenets that our minds are embodied and that this impacts our capacity to construct meaning. In this way, cognitive poetics asserts that the body impacts the mind's ability to conceptualize. This notion traces its roots back to the phenomenologist Maurice Merleau-Ponty and the pragmatist John Dewey who both explored embodiment in their philosophical work, either as the 'phenomenal body' or the 'body-mind', respectively.¹² Both of these philosophers argued that we cannot understand our mind outside of the bodily experience: that the body is, as the cognitive linguist and philosopher Mark Johnson notes, a "lived body...the situation from which our world and experience flows."¹³ Under the embodied view, meaning is not limited only to a linguistic phenomenon, and art need not be explained through the analogy to language.¹⁴ As Johnson concludes, "[i]n poetry and prose, there is much meaning beneath and beyond concepts and propositions. In the visual arts, it is images, patterns, qualities, colors, and perceptual rhythms that are the principal bearers of meaning. The obvious fact that we usually cannot put into words what we have experienced in our encounter with an artwork does not make the embodied, perceptual meaning any less a type of meaning."¹⁵

In this passage Johnson works against the linguistic turn's privileging of language over images, arguing that both carry meaning and should be engaged on a broader, embodied level.

While words have for quite some time been regarded as wholly arbitrary signs, cognitive poetics shows that those areas of language which reveal iconic and metaphoric layers are motivated by our embodiment. I am referring to, most obviously, onomatopoeic words, but also to other forms of sound iconicity, aspects of grammar, syntax and semantics, and most importantly pervasive conceptual metaphors, which I will discuss in a moment. These areas challenge the simplified notion of arbitrariness within language (although it is certainly there as well, it just isn't all pervasive). An embodied understanding of mind has quite convincingly explained many of these phenomena.¹⁶ This research has shown that under much of language is a strong rootedness in conceptual metaphors and embodied gestalts which derive from our bodily experiences, and that in fact perception and action play essential roles in how we use language and construct meaning.

To articulate how language connects to our bodily experience, and therefore can connect to images as well, we must examine research on the interaction between embodied perception and conception. Studies in metaphor were the first key to the puzzle. They found layers of complexity within metaphors, at the bottom of which were "conceptual metaphors" derived from embodied experiences.¹⁷ Researchers soon found that these metaphorical structures to be pervasive in language use, not just that typically labeled "metaphorical" or "figurative." For example, a phrase as simple as "I don't get what you're saying" is using the metaphors of ideas are objects and understanding is grasping.¹⁸ Thus, getting what someone is saying is tantamount to grasping an object of exchange (the idea), thereby having control over it but on the abstract level.¹⁹ These are conceptual metaphors, which construct the abstract world of the mind from our bodily engagement with things. Likewise, there are vast numbers of examples like this throughout everyday descriptions of such diverse areas as emotions, mathematics, biological processes, and philosophy.²⁰ Embodied metaphorical conceptualizations, then, start to address how images and texts can synthesize since they offer a means of connecting perceptual and conceptual meanings, but they don't go far enough.

Underneath conceptual metaphors are image schemas, which bridge the conception-perception divide. These are basic spatial-perceptual concepts (or conceptual perceptions) derived from our bodily engagement with things, and they explain in

more detail how meaning can emerge out of our bodily experience in the world.²¹ Mark Johnson defines an image schema as "a dynamic, recurring pattern of organism-environment interactions. As such, it will reveal itself in the contours of our basic sensorimotor interactions."²² Image schemas then, reflect embodied gestalts that provide meaningful connections between ourselves and the things around us at the most basic level. Image schemas range from the schema of the container, to the source-path-goal schema, to other schemas like force, up-down, center-periphery, and so on. These basic conceptions are essential aspects of meaning, since they place us as perceptual subjects in conceptual relation to the things around us, and even influence understanding things on the level of grammatical systems, syntax, gesture, and so forth.²³ To return to the earlier example of not grasping an idea, the conceptual metaphor uses the basic image schemas of containment, with the idea or words being a container for meaning, and the schema source-path-goal, where understanding is the goal or object of the process of discovery along which this container moves. The movement of the container along the path also implies the importance of agents interacting with the environment and each other by moving the container, relying on the force and proximity schemas, among others, too. This simple example shows, along with many other possible illustrations of embodied meaning, the intimate connection between conception, perception, and action.

Using these embodied conceptual and perceptual roots of language and meaning construction it is possible to look at how Nichol and other concrete poets, as Johanna Drucker notes, "pushed the capacity of traditionally non-verbal visual forms into syntactic or semantic relations"²⁴ and why the verbal and visual can so seamlessly mingle into meaning. Interestingly, bpNichol believed that the voice and language were deeply resonant with the material world and that proprioception and affect were important to meaning construction.²⁵ In this sense, he felt that the voice which visible language carried on the page connected still to a broader reality, tying the speaker to the physical realm. Thus, it would appear that Nichol was moving, at least intuitively, away from the arbitrariness of signs towards meaning through embodied motivation and perception. I won't go into too much detail about his theories of language, which are arguably somewhat vague and at times contradictory,²⁶ but suffice it to say that what he was mulling over resonates in some key ways with an engagement with the embodied mind through a deep connection between bodies, things, and meaning (including language). His concrete poetry, in my opinion, is the best expression of this. By taking



Fig. 1. bpNichol, *untitled poem*. From *art facts: a book of contexts* (Tucson: Chax Press, 1990).

visible language as his medium, within the fixity and limitations of the page, bpNichol engages communication in its complexity, where images are essential in constructing and motivating meaning rather than being separate from it, and which play off of elements of materiality, performativity, metaphor, and iconicity within visible language.

I'll turn now from the theoretical to an example, so as to show rather than explain how I see these elements working within a more complex concrete poem. In this example (fig. 1), we have three words: the unrecognizable *fr*, as well as *pond*, and *glop*. To understand what this poem is about requires the visual cues of the orientation of the words and the two curved lines as well. These two lines may either denote action or shape (using common iconic conventions). Upon contemplation, we come to realize that this poem is in fact not about any of the words within it, but about a frog, which is constructed through all of the different components on the page in different ways. The orientation of the words, using the up-down image schema and English conventions of reading left to right, denote a connective order: we move from the *fr* through the *pond* to *glop*. This movement is mimicked and reinforced by the iconic lines, which manifest the source-path-goal images schema as well, showing a path of movement. However, the lines also offer an emphasis on particular places of each word, taking the end of *fr*, connecting it to the hole in the middle of the pond, the *o*, and then leaving us at the beginning of *glop*. Using the emphasis of these lines, in part, we are able to construct the word *frog*, out of the movement and connection of these different parts, and our desire to make meaning out of the two letters, *fr*.

However, the construction of *frog* is not just through visual connection but also through association, developed through

the semantic connections and spatial relations between *pond* and *glop*. *pond* evokes a natural setting and its associated activities and organisms (which the lines reinforce as the shape of an embankment and which subsequently transform the perception of *fr* into tufts of grass). *glop* elaborates on this presentation of a pond iconically (onomatopoeia being a classic case of iconicity in spoken language). The word *glop* reinforces as well the drawn lines as movement or action, since it elaborates on the water of the pond with an associated sound created by something breaking the surface. In this case, the illustrative lines simultaneously support both the location and the action. This association of the two words both semantically and visually is rooted in the source-path-goal image schema, since they provide us with the path of motion and the goal of the pond (which is reinforced by the motion lines and the sound following their movement). The pond setting further focuses us when we try to make sense of the *fr* that started this synthetic process. And thus, a frog is born.

However, the most interesting aspect of this poem emerges from the performativity of the embodied mind of the reader, playing with the visual and verbal cues.²⁷ The perception of the *frog* in which the letters make up words, non-words, and objects, and the experiential enactment of people's engagement with frogs, create a synthesis of cues, both visual and linguistic. It is quite easy to envision this poem as an encapsulation of a common episode while walking near a pond. A person walking scares a frog, which jumps into the water. The observer, not realizing the frog was there until seeing a slight rustle in the grass and hearing the *glop* of it entering the pond, will reconstruct the event to figure out the source of the sound. In this poem, the bodily presence of the reader creates the scene and makes sense of it, as we perform it in our minds.²⁸ Furthermore, to understand this poem, the reader/viewer must make use of many embodied conceptualizations and associations that move well beyond the arbitrary sign. bpNichol makes use of key aspects of each word to motivate the construction of the frog. For example, the movement of the frog through the hole in the surface of the pond requires the *o*. This poem doesn't work if the frog is located on the bank of a lake or stream. The *fr* becomes a glimpse of the frog itself as it leaps to safety (and simultaneously creates the grass in which it was initially hiding). The words become objects, both through our embodied understanding of them and their material placement on the page, thereby acquiring iconic meanings while retaining their symbolic ones. As objects, Nichol also plays with our metaphorical understanding of words as containers (an image-schematic construct), or cohesive units. By fracturing the frog, and recon-

ATTEMPTED DIAGNOSES

ssck	skss
iick	ssks
sicc	skcs
sikk	kssc
iiik	kiic
sskk	ikci
ssec	icki
iiic	icki
iiii	iksi
sssi	isci
sssc	icsi
sssk	kick
kkks	kcik
sccc	kisk
cces	ksik
csc	ksek
ccsc	kcsk
kcsc	ckic
kksc	cike
kksk	cske
kskk	cksc
iskk	cisc
isik	
isii	
iisi	
isis	
sis	
sis	
ssis	
sscs	

Fig. 2. bpNichol, *Attempted Diagnoses*. From *art facts: a book of contexts* (Tucson: Chax Press, 1990).

structuring it out of other words, Nichol plays with these underlying conceptualizations of language in a material and visual way. Nichol's poem requires an embodied mind to perform it, to engage with its uses and abuses of metaphors and iconic connections, and to synthesize the perceptual and conceptual meanings rooted in the materiality of language and the page.

Another example of a concrete poem by bpNichol, very different from the first figure, is "Attempted Diagnoses" (fig. 2). In this example no actual official English words appear except in the title. However, there are consistencies across all of them: each

"word" is four letters long, and over the course of the poem, the letters s, i, c, and k are used in almost exactly equal numbers. Just at a glance, we know what word these letters are trying to say, sick, by blending these fractured word forms. Again we are making meaning out of a space where a simple view of linguistic meaning is troubled, where the "words" are not containers of meaning but need to be visually reconstructed to be comprehensible. The poetic aspect of this poem emerges out of its use of non-words and space to encapsulate a process and its associated emotions.

In "Attempted Diagnoses," again, the source-path-goal schema is essential in constructing meaning. The title of the poem prompts this schema, since it catches us *in medias res*—in attempting diagnosis—with the anticipated goal of the process being a named problem. Also, the list format of the poem iconically replicates, imagically, the path, through which the doctors move to diagnose their patient. If we are diligent readers, and read through the entire list, the unfulfillment and incompleteness of the words tell us what we already know from the title, that the diagnosis of the sickness has failed. By moving the reader along this path, Nichol invokes an affective response to the diagnostic process.

The affective response generated through the process of interpreting this poem is due to a few key features. We enter into it from the cultural understanding of medical knowledge, thereby assuming that the patient went to the doctor for a diagnosis for a perceived sickness. We then proceed through an unfulfilling process caught in the tension between known and unknown illness. This unfulfillment is a great source of anxiety and frustration due to the rupture in our basic schema of source-path-goal, which assumes a tangible outcome. By dragging the reader through this process, bpNichol causes the reader to perform the role of an empathetic observer or the patient being diagnosed incorrectly numerous times, and, in the end, the original sickness which led down the path of false diagnosis never gets resolved (but we still all know the answer). The basic visual cues of the path and fractured words are essential in generating frustration and highlighting the obviousness of the answer in tension with the need to have it stated. The form of this poem synthesizes conception and perception, through the reader's recombination of letters into meaningful words (graspable conceptual containers), and the lengthy path that finds an unfulfilling end. Nichol again engages the embodied mind in this poem, this time in performing on the page and in our minds, the attempted diagnosis which never fulfills.

With these two brief examples I've shown that image schematic and conceptual metaphoric analysis of both images and words can be melded together to form a more comprehensive understanding of how meaning is constructed in multimodal texts. This model of meaning making addresses WJT Mitchell's statement that "[w]e still do not know exactly what pictures are, what their relation to language is, how they operate on observers and on the world, how their history is to be understood, and what is to be done with or about them."²⁹ Since the embodied model of meaning shows that in fact our actions and perceptions are central to many forms of meaning production,

we can start to nuance an analysis of the relationship between our bodies and our environment, culturally, physically, and so on. Cognitive poetics offers a way of engaging with both the textual and non-textual expressions of these societal shifts, which can in turn inform much of our analysis of how images and texts interact with our historical, cultural, social, and physical realities. Mitchell proposes to take "iconology well beyond the comparative study of verbal and visual art and into the basic construction of the human subject as a being constituted by both language and imaging."³⁰ However, in light of the cognitive poetic evidence, in fact we need to push further to the embodied conceptual structures behind or under language and images, which simultaneously construct meaning around us through conceptual metaphor, iconicity, and image-schemas. For Mitchell, language and images are in tension with each other, forcing the repression of one or the other.³¹ I would argue that in fact they are each engaging the embodied mind, but harnessing different aspects of image schematic and metaphoric meanings, and would take his notion of the "pictorial turn" in analysis one step further to a cognitive one. Here again I return to Johanna Drucker's emphasis on bpNichol's concrete poetry as an eclectic synthesis of materiality, performativity, metaphor, and iconicity within visible language. In these cases, if there is tension, it is between embodied conceptualizations and culturally assumed ideas about language rather than between images and words. As Mitchell illustrates, what we have done in recent theory is schematize words and images in such a way that makes them incompatible. Cognitive poetic analysis, I believe, can offer a way back to engaging with both words and images in a synthetic and generative manner, through their material linkages both on the page and in the mind.

(Endnotes)

¹ I would like to extend my appreciation to Carla Benzan for her insightful comments and questions on an earlier draft of this paper. I also thank the organizers (including Carla) of the 28th Annual Graduate Symposium, Art History, Visual Art and Theory Department, UBC (2009) for a great symposium and the invitation to represent my paper here in *Wreck*. bpNichol was included in three influential international anthologies even before he became well known in Canada: Hansjörg Mayer, ed., *concrete poetry great britain canada united states* (Stuttgart: Bath Academy of Art, 1966); Mary Ellen Solt, ed., *Concrete Poetry: A World View* (Bloomington, IN: Indiana University Press, 1968); Emmet Williams, ed., *An Anthology of Concrete Poetry* (New York: Something Else Press, 1967).

² Two scholarly books, two collections of essays, and four focused

issues of the journal *Open Letter* have primarily focused on bpNichol's long poem *The Martyrology* without any extended discussion of the strong interconnection between his visual, verbal, and multimodal works (within and outside of that lengthily project). Stephen Scobie notes that understanding bpNichol's visual poetry is essential "for any consideration of Nichol's development" in *bpNichol: What History Teaches* (Vancouver: Talonbooks, 1984): 51. Clearly, this paper cannot connect the importance of the visual components of Nichol's oeuvre to the extant criticism; however, I hope it shows one methodology that can begin to do so through its basis in a broader understanding of meaning.

³ Christian Bok, "Nickel Linoleum" *Open Letter* 10.4 (1998): 62.

⁴ While concrete poetry focuses on the materiality/visuality of language for the production of meaning, the fluidity of the material practices of concrete poetry has led some, like Pedro Reis, to argue that in fact it should not be considered a genre unto itself but rather as an "intermedia" (a term coined by Dick Higgins) since it falls in between media that are already known ("Concrete Poetry: A Generic Perspective," in *Experimental—Visual—Concrete: Avant-Garde Poetry Since the 1960s*, eds. K. David Jackson, Eric Vos, and Johanna Drucker [Atlanta: Rodopi, 1996]: 293-295.). bpNichol would probably be in agreement with this assertion, since he also described concrete poetry, with a term he ascribes to Dom Sylvester Houéard, as "borderblur" (afterword to *The Cosmic Chef: An evening of concrete*, ed. by bpNichol [Toronto: Oberon, 1970]: 78). Susan E. Billingham describes the term as expressing "the disappearance of definitive categories, the deliberate (con)fusion of styles and genres, typical of Nichol's writing" (*Language and the Sacred in Canadian Poet bpNichol's The Martyrology*, [Queenston, ON: Edwin Mellen, 2000]: 247, n13).

⁵ Joanna Drucker, Scobie, 214.

⁶ *Figuring the Word: Essays on Books, Writing, and Visual Poetics* (New York: Granary, 1998): 128.

⁷ *Ibid.*, 130.

⁸ *Ibid.*, 134.

⁹ See Solt's description of various views, 7-8.

¹⁰ This tension is articulated well by W.J.T. Mitchell in *Picture Theory: Essays on Visual and Verbal Representation* (Chicago: University of Chicago Press, 1994. 11-28), in which he argues that the linguistic turn has placed images and text in opposition by locating meaning as a wholly linguistic phenomena.

¹¹ Relevant fields that contribute to the Cognitive Poetic discussion include primarily Cognitive Linguistics (in which I include the subfields of Cognitive Grammar, Cognitive Semantics, and Cognitive Rhetoric), Cognitive Psychology, Developmental Psychology, Psycholinguistics, and Neurophysiology.

¹² Mark Johnson discusses in detail how these philosophers' ideas parallel recent research in Cognitive Science in *The Meaning of the Body:*

Aesthetics of Human Understanding (Chicago: University of Chicago Press, 2007).

¹³ *Ibid.*, 275.

¹⁴ *Ibid.*, 207.

¹⁵ *Ibid.*, 234.

¹⁶ For a good discussion of the research and implications of embodiment see Raymond W. Gibbs, Jr. *Embodiment and Cognitive Science* (New York: Cambridge University Press, 2005). George Lakoff and Mark Johnson begin to sketch out the philosophical implications of embodiment, and the linguistic history that has led down other philosophical roads, in *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Philosophy* (New York: Basic Books, 1999). Diane Pecher and Rolf A. Zwaan's edited collection of research essays also provides an interesting overview of the various avenues embodiment leads down, in *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thinking* (Cambridge: Cambridge University Press, 2005).

¹⁷ See the texts in 15, as well as Zoltán Kövesces, *Metaphor and Emotion: Language, Culture, and Body in Human Feeling* (Cambridge: Cambridge University Press, 1988) and his recent book *Language, Mind, and Culture* (New York: Oxford University Press, 2006). Also see the book that really got the ball rolling, George Lakoff and Mark Johnson's *Metaphors We Live By* (Chicago: University of Chicago Press, 1980).

¹⁸ Conceptual metaphors and image schemas, as a typographical convention, are always referred to with small caps throughout the Cognitive Poetic literature.

¹⁹ This common notion of words and communication is called the CONDUIT metaphor. Lakoff and Johnson note in *Metaphors We Live By* that Reddy documents more than a hundred types of uses of this metaphor, and that he concludes that this metaphor makes up 70% of the expressions we use to talk about language (10-13).

²⁰ Many of the texts from notes 15 and 16 cover examples from these different fields.

²¹ An important compilation analyzing image schematic research and its implications is Beate Hampe, ed., *From Perception to Meaning: Image Schemas in Cognitive Linguistics* (New York: Mouton de Gruyter, 2005).

²² Johnson, 136. Tim Rohrer shows how neurological studies can help illustrate the importance of image schemas in tying action to language ("Image schemas in the brain" in Hampe, 165-196). Rohrer shows that someone performing an action and someone reading about abstract concepts with the same image schematic basis will activate the same parts of their brains to do so. Gibbs also discusses how embodiment and brain function are connected. Raymond Gibbs and Teenie Matlock illustrate how this same connection between action and language impacts metaphorical understanding and analysis in "Metaphor, Imagination, and Simulation: Psycholinguistic Evidence" in Raymond W. Gibbs, Jr., ed., *The Cambridge Handbook of Metaphor and Thought* (New York: Cambridge University Press, 2008): 161-176.

²³ For example, see Lakoff and Johnson, Ronald Langacker, *Foundations of Cognitive Grammar*, 2 vols., (Stanford, CA: Stanford University Press, 1986), Eve Sweetser, *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure* (Cambridge: Cambridge University Press, 1990), and Sarah Taub's *Language from the Body: Iconicity and Metaphor in American Sign Language* (New York: Cambridge University Press, 2001).

²⁴ Drucker, 133.

²⁵ Steve McCaffery, in an interview with Jaeger (*Open Letter* 10.4 [1998]: 77-96.), notes how bpNichol introduced him to the connection between proprioception and language (78) and that Nichol was aware of the work of George Lakoff and Mark Johnson (87; judging from publication dates this would have been Lakoff and Johnson's important text *Metaphors We Live By*, indicating that Nichol was interested in this emerging arena of metaphor studies that strongly influenced research in embodiment). Billingham also discusses in detail Nichol's discomfort with deconstructionist/poststructuralist deterministic critiques of the sign (50). Lori Emerson notes that bpNichol's "poetry points towards how we have outgrown the Cartesian/positivist mind, and teaches through the embodiment of what is being taught how we might begin building a new language for a new art" ("Nicholongs / because they is" *Open Letter* 10.4 [1998]: 27-36; 29). Nichol was also enamored with the myth of Palongawhoya who "made the whole world an instrument of sound" and "set the vibratory axis of the world in motion" (Scobie 120-121). Nichol's inclinations and intuitions all seem to point to an intuitive understanding of embodied language and action that was ahead of his times but emerging in and congruent with the Cognitive Poetic research.

²⁶ Marjorie Perloff, in her review of *Meanwhile: The Critical Writings of bpNichol* (Ed. Roy Miki [Vancouver: Talonbooks, 2002]), notes that while there are many inspirational passages in this collection it reveals the lack of theoretical consistency on Nichol's part, indicating that the really helpful theoretical work may have been that of Nichol's collaborations with Steve McCaffery in their work as the Toronto Research Group (Review. *University of Toronto Quarterly* 75.1 [2003/4]: 352-354). McCaffery corroborates this point, in his interview with Jaeger, when he mentions that he was definitely "the more 'theoretical' of the two" (Ibid., 77). McCaffery edited a compilation of his collaborative reports with Nichol in *Rational Geomancy: The Kids of the Book-Machine: The Collected Research Reports of the Toronto Research Group, 1973-1982* (Vancouver: Talonbooks, 1992).

²⁷ It is an interesting fact that many scholars of concrete poetry comment on the activeness of the reader in constructing the meaning of the poems, as "co-creators." This focus in the scholarship corroborates what I am presenting here: concrete poetry requires active construction of meaning through the workings of the embodied mind.

²⁸ It should be noted that while the adventurer's knowledge of ponds and related organisms and activities is essential for interpreting the

poem, the perspective of the text is cross-sectional rather than top-down. This, I would argue, is partially due to the focus of the poem on the frog rather than the viewing, embodied subject, and also on the best, economical presentation which allows for the clearest connection of the visual and verbal cues (for example: this view allows for the simultaneous use of the lines as motion and structure, which another perspective would not so easily afford).

²⁹ *Picture Theory*, 13.

³⁰ Ibid., 24.

³¹ Ibid., 28.