From Space to Mental Space: A Cognitive Perspective into Narrative and the Architecture of the Human Mind

Ana Margarida Abrantes
Catholic University of Portugal
ana.margarida.abrantes@ucp.pt
doi: 10.34632/diffractions.2021.9730

Abstract

Spatial metaphors are pervasive across models and theories about the structure and the meaning-making processes of the human mind: metaphorical and metonymic mappings (Lakoff and Johnson 1980, Barcelona 2012), mental spaces (Fauconnier 1994, 1997) or semantic domains (Fauconnier and Sweetser 1996, Brandt 2004) are examples of this spatial ubiquity in cognitive science.

In narratology, categories of location and place are often correlated with narrative spaces as expression of a dynamics of unfolding of events, from initial situation to catastrophe to its consequence and result (Brandt 2009). Narrative as such is viewed as a compelling way of worldmaking (Nünning 2010, Goodman 1975), inviting further metaphors in the description of the reading experience, such as 'being transported' by means of 'mentally performing' narrated actions and experiences (Gerrig 2003).

This paper follows a cognitive approach to literary texts (Zunshine 2015, Baumbach et. al. 2017) as a framework for the analysis of space, viewed as a central element in narrative and as conceptual unit for sense-making. The experience of progressing through narrative is understood as the navigation through space, and complementarily the experience of space, perceived or imagined, can unfold in a mental topography of representation. The description of this exchange is complemented by the analysis of a short literary narrative.

Keywords: Narrative – space – mental space – indexicality – worldmaking – cognitive literary studies – Julio Cortázar

Introduction

Let me begin with an invitation. Imagine walking along a beach and suddenly finding a bottle with a message inside. You pick up the bottle, take the message out and read: "Meet me here tomorrow". While perfectly intelligible, provided it is written in a language you master, the message is undecipherable in its illocutionary inference; in other words, you are uncertain as to what to do with it. The problem introduced by the situation is threefold: you do not know the referent to "here" (at the beach, where you found the bottle? Half a mile further? Where it was launched at sea?), you do not know what is meant by "tomorrow" (the day after you found the message, the day after it came ashore?), and more importantly you fail to ascertain the enunciational frame of the message: the first and second person and the subjects that the pronouns indicate. This simple example illustrates the significance of deixis, which in linguistics denotes the semantic relation of indexicality or the intrinsic pointing of certain words and phrases to temporal, spatial and subjective coordinates. Without this anchoring, the semantics of the words is understandable, but the discourse semantics fails. The example further shows that both space and time are ascertained on the basis of a reference to a subject, and so is the intersubject, the *alter*, a meaningful entity only with respect to that center of subjectivity, from where the coordinates irradiate.

This little message is the more intriguing as you engaged in the little exercise with great ease. When prompted to imagine a beach, to picture yourself walking on that beach, up to the point you came across the bottle and picked it up for its content, I trust you did not hesitate to conjure up a scenery which, regardless of individual variations, certainly entailed sand and sun(set), gentle waves, a bit of breeze. You may have pictured the scene from the angular perspective with which you navigate the world, or you may have seen yourself walking as though the scene were filmed by someone else's camera. In either case, you did not protest at my request, so I am confident the conceptual shift was taken at ease. My linguistic trigger invited you to conceive of a situation in which the location seems more prominent than time: the beach, with its coming and going of waves and one's own undefined path, stresses the uncertainty of this accidental finding, while a more defined time seems less significant (at sunset? In the morning?).

This brief exercise already points to the issues this paper intends to address and which could be summarized as follows:

1. The indexicality principle of language, from enunciation to subjectivity, and the anchoring of reference for understanding;
2. The shift from space to mental space, and the metaphorical conceptualization of imagination as location for alternative experience;
3. The experience of reading (narrative fiction, in particular) as being transported to an alternative world; space as a structuring element of this mental experience;
4. A brief illustration of the experience of reading as (mental) spatial shift.

1. Indexicality

The genealogy of the term *indexicality* leads us to semiotics, the study of signs and meaning, of conceptualization and interaction, of representation and interpretation. Index is one of the three main types of signs defined by semiotician Charles Sanders Peirce (291), which has with the *representamen* a relation of contiguity or proximity. The term *index* means 'indicate' and 'to indicate' finds it most prominent expression in the gesture of pointing. This gestural sign, simple at the surface, is rather intricate in the balance of attention, reference and intention that it entails. The gesture of pointing creates an invisible direct line from the tip of the finger to the object of reference in the vicinity and directs the other's attention not toward itself but to the direction it indicates. The gaze so oriented searches for the end goal of this invisible line, while the mind fills it with meaning by relating it to the anticipated intention behind or before the gesture. Evolutionary psychologist Michael Tomasello regards pointing as the likely precursor to human language in that it entails a condition without which symbolic communication is not possible: the conveyance of an intention and the acknowledgement by the other of both this intention and the act of sharing it. This capacity for sociality seems to be a human exclusive and without it human communication would be at best meaningless.[3]

In pragmatics, indexicality is defined as:

[3] "[A]pes can, in unnatural circumstances with members of the human species, learn to do something in some ways equivalent to pointing […]. And yet there is not a single reliable observation, by any scientist anywhere, of one ape pointing for another" (Tomasello 507).

> the pervasive context-dependency of natural language utterances, including such varied phenomena as regional accent (indexing speaker's identity), indicators of verbal etiquette (marking deference and demeanor), the referential use of pronouns (I, you, we, he, etc.)/ demonstratives (this, that), deictic adverbs (here, there, now, then), and tense. In all of these cases, the interpretation of the indexical form depends strictly on the context in which it is uttered. (Hanks 124)

In other words, an indexical sign in language is one deployed by the speaker to refer to an aspect of their proximal situativity. This is what is meant by the contiguity of reference in indices (unlike the similarity of iconic signs or the conventionality of symbols). While immediate situativity is relatively easy to verify in contexts of immediate verbal interaction (utterances are decoded with reference to the utterer), the definition above entails two aspects of complexity. On the one hand, context is larger than situation. Regional accent as indicator of identity goes beyond geographical reference and may encompass ideas related to that particular region and its inhabitants (stereotypes in humor often explore these). Moreover, verbal etiquette as indication of an attitude of deference is an index of social hierarchy. And much more may be entailed in such indexical words: tacit knowledge luring from experience, individual or shared, or representations that densely furnish the human environment which, in the words of art historian Dieter Wuttke, is cultural by nature (Wuttke 79).

On the other hand, in cases where utterer and interlocutor do not share the coordinates of their immediate situation (as in distance calls, in historical texts or in fiction), the indexical link between the sign and its referent is no longer immediately available and it may need the creation of a world in which both utterer and context of utterance are plausible and meaningful.

Two ideas we should retain thus far. The first is the ease with which we follow linguistic prompts and generate in imagination spaces and situations we may or may not have experienced. The second idea is that language is not understood in absolute terms but always stands in close relation with the context of the utterance: the here-and-now and the persons in the enunciation.

2. From Space to Mental Space

Ever since the cognitive turn in the humanities in the 80s, concepts such as metaphorical and metonymic *mappings* (Lakoff and Johnson, Barcelona), *mental spaces* (Fauconnier 1994) or semantic *domains* (Fauconnier and Sweetser 1996, Brandt 2004) have proliferated in the field of

cognitive linguistics (particularly semantics) and from there they have been used in cognitive poetics or cognitive semiotics. These spatial concepts are metaphorical in their use and iconically stand for spaces of thought that are not otherwise easily referred to or even conceptualized. The relation these concepts as signs have to the realities they represent is that of conceptual similarity.

In their seminal book *Metaphors we live by* (2003 [1980]) linguist George Lakoff and philosopher Mark Johnson propose a view of metaphor as a strategy of thought, a way of thinking about realities, which we cannot directly perceive, in terms of others that we can access experientially. The authors claim that metaphor is above all a strategy of thought, more than a rhetorical device deployed for aesthetic effect. It is a way of thinking about reality, and its linguistic manifestation is pervasive across instances of discourse and everyday language. The process of metaphorical thinking involves two conceptual domains: a source domain and a target domain, and a mapping from source to target. This implies that the understanding occurs not only at the level of a singular concept but involves the entire domain. Using their example (Lakoff and Johnson 82-86), when faced with an expression like "to attack another person's claim", we activate the conceptual metaphor ARGUMENT IS WAR and with it a whole understanding of arguments (the two contenders, the antagonistic views and aims, the argumentation and rhetorical fluency) as two enemies with opposing goals and sharp weapons, as well as strategies of fight. The same goes for other everyday expressions, which point to fundamental ways of understanding one reality in terms of another: 'saving time' assumes an understanding of TIME AS MONEY, 'a dear friend has departed' points to an understanding of LIFE (and death, for that matter) AS A JOURNEY, or 'our relationship is going south' which entails a more intricate conceptual architecture of an evaluative attitude based on a crossing of the semiotic representation of space in a map (north is up, south is down) and the orientational axis "up – abundance – positive" vs. "down – scarcity – negative". The crucial point in Lakoff and Johnson's proposal is that understanding and communicating about certain ideas (trivial, not necessarily aesthetic, but certainly not immediately tangible), happens by calling up another referent, resulting from embodied experience, which lends to the target concept an imagetic gateway for understanding. The result is a set of metaphors we live, think and communicate by.

The metaphorical mappings, the authors claim, happen between conceptual domains. This is in itself a spatial metaphor, which the authors try to explain:

> What constitutes a basic domain of experience? Each such domain is a structured whole within our experience that is conceptualized as what we have called an experiential gestalt. Such gestalts are experientially basic because they characterize structured wholes within recurrent human experience. […] Domains of experience that are organized as gestalts in terms of such natural dimensions seem to us to be natural kinds of experience. (Lakoff and Johnson 117)

Lakoff and Johnson continue stating that these domains result from the experience of our bodies, our interactions with the physical environment and our interactions with others within a frame of culture. While the use of the spatial metaphor of "domains" to refer to conceptual content seems unproblematic (it seems to result from a long-established understanding of knowledge in territorial terms – think of scientific *areas*, *fields* of knowledge or theoretical *territories*), the authors do not venture into establishing a finite set of such domains, a project that would make sense for a cognitive approach, which departs from the assumption of a common cognitive structure, before or beyond cultural editing. Subsequent theoretical attempts, particularly in cognitive linguistics, for the most part do not address this issue. In his *Glossary of Cognitive linguistics*, Vyvyan Evans defines conceptual or experiential domains as "relatively complex knowledge structures which relate to coherent aspects of experience" (61-62).

And referring to the projections from one conceptual domain to the other, so-called mappings, he defines them as "correspondences between entities inhering in regions of the conceptual system" which, when stable, are activated for "purposes of situated understanding" (130). Notice the spatial terms in his address, but an uncompromised attitude toward ascertaining which and how many such domains there may be.

Ronald Langacker, one of the founding authors of cognitive linguistics, uses the concepts of domain in his Cognitive Grammar.

> All linguistic units are context-dependent to some degree. A context for the characterization of a semantic unit is referred to as a domain. Domains are necessarily cognitive entities: mental experiences, representational spaces, concepts, or conceptual complexes. (Langacker *Foundations of Cognitive Grammar* 147)

And further:

> What exactly is a domain? To serve its purpose, the term is broadly interpreted as indicating any kind of conception or realm of experience […] how many domains we recognize and which ones, depends on our purpose and to some extent is arbitrary. The important thing is to recognize the diverse and multifaceted nature of the conceptual content an expression evokes. (Langacker *Cognitive Grammar. A Basic Introduction* 44)

According to Langacker, thus, domains are necessarily cognitive entities – mental experiences, representational spaces, or conceptual complexes – which provide a context for the characterization of a semantic unit.

Semiotician Per Aage Brandt builds up on this idea that semantic units are meaningful within a context and goes on to claim that "contexts are structured with distinct semantic domains, which are grounded in bodily experience, not only in a basic sense, as referring to motor activities, but in the sense of a stable articulation of our life-world as an experienceable whole" (Brandt *The Architecture of Semantic Domains* 33). In his "Architecture of Semantic Domains", an anthropology and philosophy inspired proposal, Brandt claims that domains have structure, so as to be referential units for meaning. They are "constituted by human experience in the richest possible phenomenological sense" (Brandt 37) and are thus not language-dependent or culturally determined, but rather linguistically edited and culturally informed. Grounded on linguistic analysis and drawing from anthropology and phenomenology, Brandt proposes an architecture founded on four basic domains of experience – the physical, the social, the mental and the interactional – whose subsequent progressively complex integrations result in a structure of 16 related domains, against which metaphorical conceptualizations are construed and interpreted.

One further prevalent "spatial metaphor" in cognitive science is the concept of mental space. First proposed by linguist Gilles Fauconnier, the concept refers to "partial structures that proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures" (*Mappings in Thought and Language* 11).

Fauconnier's approach is an alternative to logical semantics and an attempt at solving problems in philosophy of language, in particular linguistic reference. By positing that discourse prompts the set up of mental spaces and of connections between them, ensured by linguistic

space builders, Fauconnier aims at accounting for the flow of thought that accompanies the flow of discourse.

The concept of mental space turned out to be crucial for the subsequent theory Fauconnier developed with Mark Turner: Conceptual Integration or Blending Theory. In their seminal book *The Way We Think*, this is how they present the concept:

> [M]ental spaces are small conceptual packets constructed as we think and talk, for purposes of local understanding and action. […] Spaces are built from many sources. One of this is the set of conceptual domains we already know about. […] A single mental space can be built up out of knowledge from many separate domains. (102)

Words are thus prompts for building the representation of content, which inhabits a dedicated conceptual construct, dynamic and interactive by nature. Conceptual content integrates with other content in what the authors name a space of integration, conceptually valid but perceptually impossible: the space of the blend.

One interesting case in which space is used for understanding an indirect experience is the conceptualization of the experience of an other in terms of space: *if I were in your shoes, à ta place, no teu lugar, an deiner Stelle* indicates that assuming the experience of another is assuming his spatial existence, his perspective, possible only by assuming their location in (conceptual) space: this spatial taking over is accomplished mentally, by simulation, and is often accompanied in discourse by a different tense, marking the space of possibility, distinct from that of actuality. This mental space transition is, among other things, a necessary condition for empathy, as shall be seen ahead.

Drawing a balance on what was outlaid in this section, we could perhaps stress three important points. The first is that the study of human cognition is the study of mental representation of reality, either given or imagined. This understanding is based on the view that humans create and share representations of reality and experience, and that they can materialize such representations in artefacts that can be shared across space and time because they are grounded on stable textual meanings.

The second idea is that this stability of meaning can be accounted for by the fact that meaning is generated in context and context is structured by stable domains of experience that, taken together, compose the human phenomenological life-world.

And the third idea relates to metacognition, i.e. cognition about cognition. Metacognition relies strongly on spatial metaphors, which both inform the discourse about the way we think, and are structural and foundational for models and theories of the mind and thought. The concept of space, translated into "domains", "architecture" or "mental spaces" is thus more than the source of metaphor (conceptual and otherwise); it is constitutive of an understanding of human cognition.

In narrative, space is a structuring element of conceptual experience. To this we devote the next section.

3. Spatial foundations of the reading experience

The study of space in narrative can be informed by two perspectives. On the one hand, the traditional perspective of narratology, which views space on a par with other constitutive elements of narrative such as time, character, narrator, perspective or consciousness. On the other hand, a more recent cognitive perspective on narrative seeks to understand what goes on when we engage with narratives, by exploring concepts like 'immersion' or 'empathy'. We should consider these perspectives, each at a turn.

In narratology, the category of space involves related ones like location, surroundings, the natural or the urban setting of actions, as well as the objects and other features that furnish these spaces. As with other elements of narrative, every indication of space is intentional: it provides not only the background to the unfolding action, but often the way in which a given spatial environment is conveyed in the narrative – through techniques of focalization – can entail important hints as to the mental states of a given character in a specific moment.

Studies focusing on space in narrative are relatively sparse, when compared to the attention devoted to time. Gerhard Hoffman in his book *Raum, Situation, erzählte Wirklichkeit* ("Space, situation, narrated reality", 1978) proposes three types of basic spaces: a mood-invested space (*gestimmter Raum*), in which both space and objects acquire an expressive function, generating certain moods or invested with symbolic meaning – location is a center of experience, in this case; a space of the action (*Aktionsraum*), which is perhaps the elementary function of space as

contextualizing element for characters and events, and the space of observation (*Anschauungsraum*), entailing a panoramic overview.[4]

In his *Theory of Space in Narrative* (1984), Gabriel Zoran develops a three-level model for studying the space-time relation in narrative, entailing 1) a topological level, which corresponds to the cartography of the narrative world, based on all the elements of the text; 2) the chronotopic level, which builds on Bakthin's concept of *chronotope* or the nexus of space and time, and which contemplates these two dimensions and their relationship in the trajectory of the narrative unfolding; and 3) the textual level, where space is structured by the semiotic medium of the narrative text, as when the linear nature of verbal language organizes spatial relationships into a temporal continuum. These two exemplary typologies of space – Hoffmann's and Zoran's – are proposals for dealing with the category of space in a differentiated way, not just on its own, but in relation with other narrative categories (much as the differentiation of narrating and narrated time is intertwined with the category of the narrator). Taken together, they provide a first descriptive map for this category.

More recently, Per Aage Brandt (2009) has developed an outline for what he terms a "semio-cognitive narratology". This proposal draws from an understanding of the literary text and its meaning based on a cognitive prototype of categorization, by which we relate the text to a prototype of human exchange. The process by which we understand the meaning of the text would thus be related to the experience of listening to and making sense of a sentence. This way of understanding the meaning of a text is analogous to the process of sense-making of perceptual input, which consists in matching this input to known categories of experience. Without denying that the interpretation of a text relies on a cultural inform, Brandt tries to propose an alternative to a discretionary reading of the literary text based on idiosyncratic associations or ideological frameworks. The point of departure is how the human mind works.

According to Brandt's cognitive narratology, the text can be viewed as the exchange between agents, spaces and forces which interact dynamically for the progression of narrative events. Although not explicitly mentioned, this view is influenced by Leonard Talmy's "force dynamics" (2003), a theory of causation that manifests itself in language and structures

[4] Hoffmann 1978, Ch. 2, pp. 55-108). Interesting are also further distinctions of structures of space related with different genres, and also the general space structure of the novel (the book studies the American novel), and in particular the role of the city as structuring element.

experience in the physical, social, discourse, and mental domains. Central to Brandt's proposal is the notion of space, which he describes as follows:

> In each story, a narrative world is instantiated in terms of a sequence of event spaces, i.e. more or less clearly defined places set up by locative indications or descriptions, where characters are actively or passively connected to the play of conflicting forces of different types and affected by these forces through narrated time. (*Forces and Spaces* 9)

Spaces are thus event spaces, narrative instances often distributed through different locations, but not reduced to these described venues, and causally related by the interplay of agents and forces as they evolve throughout the story. The canonical spaces are the initial *conditioning space*, a *catastrophic space* where a critical event occurs leading to the *consequence space*, where a change of state effects, and finally a *conclusion space* of resolution. Brandt relates the dynamic interaction of agents, forces and spaces with variations of genre, through the deformation of a base genre of realistic narrative. We leave aside this further development to retain from his proposal the crucial understanding of space as conceptual scope for the representation of significant narrative stages or events. Space is thus more than location.

Besides this narratological understanding of space, which we have illustrated with the proposals by Hoffmann, Zoran and Brandt, space is also an important element in cognitive approaches to narrative and to reading, as they have been developed by cognitive narratologists and psychologists of reading. An example of one such approach is that by psychologist Richard Gerrig, who in his book *Experiencing Narrative Worlds* offers an account of the experience of reading in terms of two structuring metaphors: the experience of reading or engaging in a narrative as that of *being transported* away from the reader's situativity or his immediate here and now; and this experience as the result of the reader *performing* certain actions. Gerrig's approach provides an alternative to reader's passive attitude of being transported, by claiming that the reader actively contributes to the experience. This view is shared by other theorists approaching narrative from a cognitive angle. Neuroscientist Vittorio Gallese (2005), for example, proposes the notion of *embodied simulation* as a mental performance that accounts for the experience of reading, and specifically of the experience of immersion that he sees as a condition for empathy. In a joint paper with Hanna Wojciehowski, Gallese draws on philosopher Alfonso Iacono and his idea that engagement with a work of art affords the experience of

inhabiting an intermediate world, whose fictional character becomes natural by that performative entrance, and is no longer an artificial character. Wojciehowski and Gallese expand on this view of the naturalization of narrative (fictional) worlds:

> We propose that embodied simulation can be relevant to our experience of narrative for two reasons: First, because of the Feeling of Body triggered by narrated characters and situations with whom we identify by means of the mirroring mechanisms they evoke. In such a way, embodied simulation generates the peculiar seeing-as that plays a peculiar role in our aesthetic experience. Second, because of the bodily memories and imaginative associations the narrated material can awake in our readers' minds, without the need to reflect upon them explicitly. (n.p.)

The common view of Gerrig and Wojciehowski and Gallese is that the engagement with narrative is not passive. In this passage the authors propose "Feeling of Body" as a parallel concept to "Theory of Mind", which has been studied at length in narrative, among others, by Lisa Zunshine (2006), Patrick Colm Hogan (2014) or Kidd & Castano (2013). Reading implies performing at a very fundamental level: just as we develop theory of mind by familiarizing ourselves with the inner lives of characters and learn to infer their mental states, beliefs, desires from the hints left by their actions or the way they see and refer to their environments (including their spatial dimensions), so are their actions simulated at a bodily level during reading, an experience that accounts for immersion in the story and licenses empathy with characters.

One common observation among readers is that this experience of being transported and of performance seems intensified in fictional narrative (in the novel, as well as in other media, like film) with respect to narrative about actual events. Wojciehowski and Gallese propose an explanation:

> Perhaps because in aesthetic experience we can temporarily suspend our grip on the world of our daily occupations. We liberate new energies and put them into the service of a new dimension that, paradoxically, can be more vivid than prosaic reality. The aesthetic experience of art works, more than a suspension of disbelief, can be thus interpreted as a sort of "liberated embodied simulation". When reading a novel, looking at a visual art work, or attending a theatrical play or a movie, our embodied simulation becomes liberated, that is, it

> is freed from the burden of modeling our actual presence in daily life. We look at art from a safe distance from which our being open to the world is magnified. In a sense, to appreciate art means leaving the world behind in order to grasp it more fully. (n.p.)

Perhaps we could add that fictional narrative, as an intentional work, is free from the causal noise that interferes with actual life. In having to discern trivial circumstances from intended sequences of events that generate significant outcomes, our attention is split and our involvement perhaps less intense than the one we allow ourselves to develop in fictional narrative.

Before we move on to our final section, there is a notion I have been touching upon (and so do the authors I mention) which begs closer attention: the notion of *world* and with it the notion of *worldmaking*. Initially proposed by philosopher Nelson Goodman, this concept departs from the idea that the world we know already stems from other worlds, and what we experience as reality is the result of processes of worldmaking, which he identifies as composition and decomposition, weighting (attributing emphasis or relevance), ordering and reordering, deletion and suplementation and deformation. These processes are deployed through cultural shaping, resulting in world models or versions: "Worldmaking as we know it always starts from worlds already on hand; the making is a remaking", claims Goodman (6). Narrative worlds thus may use the same processes of worldmaking for prompting mental representations of alternative life-worlds.

In the following and final section, we will look into a short narrative by Júlio Cortázar, which has been discussed at length in narratology, especially with respect to genre. We will try to see how notions of mental space, representation and worldmaking may help us understand how involvement is triggered by the text and how the surprise there entailed may render clear the experience of reading as being transported, performance and ultimately immersion and empathy.

4. Circularity of space in Julio Cortázar's *La continuidad de los parques*

It is often observed with respect to literature that it is more eloquent in conveying experience than a non-fictional account or a scientific treatise. This goes also for the experience of reading, which is the central motif of Julio Cortázar's *La continuidad de los parques*. First published in 1964, the narrative starts with a man picking up a book he had begun days before and interrupted to attend to some business matters. He sits on a green armchair, his back turned to the door, delving in the pleasure of becoming engrossed in the story he is reading, while indulging in the

comfort of his cigarettes, the velvety surface of the armchair and the view of the park through the window in front. He soon becomes absorbed by the story, in which a woman and a man meet in a cabin. They are lovers, as the woman's gesture of kissing his face gives away. His face is bleeding, having been scratched by a branch. They are planning a murder, as he is going to kill her husband. They leave the cabin and go separate ways. The man approaches the house, following the instructions his lover has provided. He goes up the stairs, knife in hand, opens a door to the salon and sees his victim: a man sitting in a green armchair, reading a book.

This story is a wonderful metanarrative account. It begins and ends with the description of the experience of reading: "He had begun to read a novel" vs. "the man in the chair reading a novel".[5] Along the way, the experience of reading is described in terms similar to those we encounter in narratology: "he permitted himself a slowly growing interest in the plot, in the characterizations" and further "letting himself be absorbed to the point where the images settled down and took on color and movement".

The pleasure involved in this slipping from the real surroundings to the alternative world on the pages is described as a guilty one: "he tasted the almost perverse pleasure of disengaging himself line by line from the things around him". The reality that offers itself to him on the pages stands in sharp contrast with his own world, where he is faced with "urgent business conferences", instructions to his lawyer or discussions with the manager of his estate. His world seems populated with only functional characters, with whom he interacts for matter-of-fact business. On the contrary, the world in the novel he reads outlays a "sordid dilemma of hero and heroin", whose story involved the furtive "ceremonies of a secret passion", kisses and caresses, and the careful planning of an impending murder "of that other body it was necessary to destroy". In his own words, the reader-protagonist becomes witness to these deeds of the characters, but at no point is he disturbed by them, as they unfold in a different realm or dimension.

All along the story we, the now actual readers, mentally hold two parallel worlds that we compose and complete with prompts from the text, quite centrally spatial triggers. So, on the one hand, the actual world of the reader-protagonist, framed by the estate-related occupations and with a clear separation between the outside space, where the air dances under the oaks in the

[5] All passages are taken from the English translation of the original Spanish text (Cortázar and Blackburn).

park, and a space inside, separated from the former by large windows, where not even the thought of intrusion is allowed, and where the protagonist experiences the physical pleasure of sensorial perception: in the "tranquillity of his study", "his head rests comfortably on the green velvet of the chair", the cigarettes are within reach, he caresses the green velvet of the chair, its back toward the door.

The world of the novel he is reading is marked by a spatial setting - the mountain cabin. Much of the intentionality of the characters' actions is conveyed by spatial indicators: the parting trails that the couple follows, the avenue of trees leading to the house as the stage where the murder is to happen, the accurate description of the interior of the house, in the woman's words resonating in the lover's mind, implying her close acquaintance with the house and its habits and the premeditation of the murder.

Time is, by comparison, of little importance in this story. It is space that drives the action and it is through spatial triggers – descriptions of space but also conveyance of characters' interaction with these spaces – that the two worlds are set up. The reader-protagonist's space, fictional to us, actual readers, and the lovers' space, fictional to the protagonist. And as he does not intend to prevent the murder, but is mostly engrossed by the suspense of what is about to happen, so too we follow these actions, as if reading over his shoulder. Interfering is as little of his concern as it is of ours. And thus, we may be surprised by an impossible twist – after all we depict this world according to our own experience of our actual worlds. But confronted with this end, we are less likely to feel guilt (as is has been pointed in some readings of the text), because we know we are not able to interfere and are licensed instead to feel more liberated (as Wojciehowski and Gallese point out) to go with the story, following it where it might lead us, and forced to a constant remaking of worldmaking as such.

Cognitively, the intriguing thing about this story is how it renders evident the experience of reading. Most significantly, how reading happens in the mind, and how we feel safe even when reading about the most terrible deeds, certain that they will not come back to haunt us. The sensation of being tricked by the text (and its intention), surprised by a twist in the end that is cognitive more than event-related, and of insecurity in the fuzzy boundaries between realities, is a common feature in other stories by Cortázar, for example the *Axolotl* (Cortázar and Blackburn).

An anecdotal point, to finish this reading: I first came across this text years ago in a session of the Semiotic Circle, an informal gathering of semioticians and literary scholars that happened at regular intervals at the Department of Cognitive Science of Case Western Reserve University,

in Cleveland. The group had read and discussed the text at length, enjoying the intricacies and the geniality behind its construction, when a colleague surprised us by asking: "But now what? Is he really actually going to kill him?" To which many a scholar in the room may have thought: "Does it matter?" I would like to think that it does. I suspect I am not the only one turning the page at the end of one or another story in search of a line or paragraph that may bestow more meaning to the story. In such cases one feels tricked, being left with a story that is unresolved and with the drama of knowing it forever incomplete. Perhaps in these cases the narrative space of conclusion demands more from the reader, who needs to reassess the whole story in order to assign meaning and be at peace. In a certain way this is akin to the effort we make in discourse, when our interlocutor susprises us by leaving a sentence incomplete or formulates it in an ambiguous way. In cases like these we pause for a moment, view the interaction anew, interpret its meaning and get on with our lives.

Conclusions

The main points this paper aimed at making could be summarized as follows. Firstly, a literary narrative is an index, pointing to a significant realm of experience or indicating a specific aspect of the human life-world. This idea means that in reading and interpreting a literary narrative we look for the intentionality contained and conveyed in the text. Unlike in normal experience, in a literary narrative every aspect is intentional and hence becomes meaningful in the process of interpretation. And just as prototypical discourse is an indexical prompt to the here and now of speaker and interlocutor, so do we understand the literary text to mean, i.e. to point to, human, life-world context of reference that is an aspect of human experience.

Secondly, if literature is all about reading, as cognitive literary scholar Peter Stockwell claims (1), and reading goes on in the mind, literary narratives and how we interact with them are relevant to study from a cognitive perspective. What goes on in the mind as we read or how the experience of reading may be best described has been illustrated by the invitation at the beginning of this paper to imagine oneself walking on a beach to find a message in a bottle.

Thirdly, it turns out that many cognitive processes – including those engaged while reading – are best understood and described in spatial terms. Metaphorical thinking is theorized in terms of domains and mappings, representation is conveyed as the holding of ideas in mental spaces, conceptual integration is described as the combination of ideas from different domains. From a cognitive perspective, and given the universality, constraints and possibilities of our brain-mind

setup, it becomes important to know what and how much counts as a domain of experience, i.e. one of those domains that make up a significant human life-world.

Fourthly, one spatial key-concept for the representation of reality is the concept of world. This concept informs not only the outline of our contextual experience, but it is a conceptual tool for sense-making of counter-factual realities, as the ones we come across in literary narrative.

Finally, through the example discussed we can see how literature can be a privileged source of its own knowledge: cognitive evolutionist Merlin Donald, in his work on consciousness, mentioned that the kind of knowledge about this subjective experience of self-consciousness is different, whether we gain it from science or from art. Other than thinking of literature as adornment or illustration of scientific descriptions of the mind, Donald claims that "literature must become part of our database. It is perhaps the most articulate source we have on the phenomenology of human experience" (Donald 78).

It is impressive to see how Cortázar had already had this intuition in the 1960s, much before the cognitive turn in the humanities.

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