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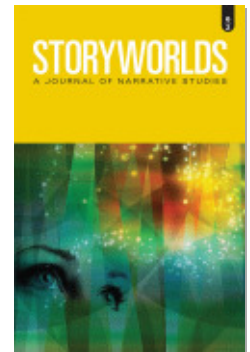
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## Tell-Tale Rhythms: Embodiment and Narrative Discourse

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# Tell-Tale Rhythms

Embodiment and Narrative Discourse

Marco Caracciolo

## Introduction

Consider the beginning of Nabokov's *Lolita*: “Lo-lee-ta: the tip of the tongue taking a trip of three steps down the palate to tap, at three, on the teeth. Lo. Lee. Ta” (1997: 9). The well-known power of these lines lies in their rhythm of assonances, consonances, and alliterations. Prose has a prosody which may be less overt than the prosody of poetry, but can still be leveraged by specific texts to produce quasi-musical effects, often through the use of punctuation (see Chafe 1988): in Nabokov's sentence, it is not just the repetition of sounds but also their articulation through hyphens (“Lo-lee-ta”) and periods (“Lo. Lee. Ta”) that calls attention to the musicality of this passage. Such rhythmic patterns emerge at the linguistic and stylistic level. This article asks whether another kind of patterning, existing at another level of analysis, can also take on rhythmic qualities. The patterns I have in mind arise from narrative composition and plot dynamics; in short, they are *discursive* patterns.

The term “discursive,” of course, points to the basic narratological distinction between story and discourse (see Chatman 1978; Fludernik 2005). “Discourse” refers to the temporality of the act of telling—what is told, in what order and in what ways; more generally, discourse stands for the overall organization of a narrative text. By contrast, “story” is usually seen as the temporality internal to the narrative—that is, the order in which the events represented by discourse are assumed to have taken place. Recent approaches to narrative temporality have stressed that story is not a textual given but an “interpretive construct,” as suggested by Richard Walsh (2007: 52). In other words, readers infer and keep track of narrative-internal events as they engage with textual cues: the story is the dynamic result of this interpretive activity. There is a convergence between Walsh’s account and cognitive models of narrative here: recipients of narrative construct mental models of events (Gerrig 1993), characters (Schneider 2001), and spaces (Ryan 2003), using those models to make sense of the narrative representation or discourse. Collectively, those dynamic models form what goes under the heading of “storyworld” in narrative theory (see Herman 2002: 5–6)—an imaginary domain occupied by the events and existents of a narrative. “Story” can, therefore, be defined as the storyworld-internal temporality reconstructed by readers on the basis of discursive cues.

The organization of narrative discourse has a major role in shaping recipients’ experience of narrative: we don’t just respond to story-level events and existents (i.e., characters and spaces), we respond to the ways in which they are represented by discourse. This article zooms in on responses that involve readers’ bodies in observable ways and can potentially create bodily feelings. I inscribe my account within the larger endeavor of cognitive narrative theory, where (as I will explain in a moment) several scholars have already explored readers’ embodied projections into storyworlds, arguing that our engagement with fictional characters and narrative space is mediated by embodied processes.

My hypothesis in this article will be that the manipulation of narrative discourse can lead to kinesthetic feelings. The key to understanding this connection between narrative and bodily responses is provided by the concept of rhythm: it is possible for readers to respond to narrative discourse through their bodies because discursive patterns can take

on quasi-musical, rhythmic qualities. According to Noël Carroll, “the impression of movement in music . . . engenders feelings that in one way or another *bring to mind* certain kinds of movement” (2003: 549). Perhaps discursive patterns can also work in this way, eliciting bodily responses that accompany readers’ overall engagement with a narrative text. While this phenomenon is by no means as straightforward and pervasive as in music, it can be exploited by narrative (and particularly artistic narrative) in striking ways. I am not claiming that we *always* engage with narrative at this kinesthetic level, not even in terms of unconscious bodily responses; rather, the link between narrative discourse, rhythm, and bodily experience can emerge in specific instances of narrative, given a sufficiently predisposed reader. The challenge here is to demonstrate that discursive structures—which are usually thought of as relatively abstract, conceptual, and disembodied—are grounded in bodily processes and can potentially result in bodily feelings. In the second part of this article I will comment on two narratives—Edgar Allan Poe’s 1843 short story “The Tell-Tale Heart” (Poe 2006) and the German film *Run Lola Run* (*Lola rennt*; Tykwer 1998)—where bodily responses of this kind become particularly likely (and prominent).

By juxtaposing these case studies, I will show that the embodiment of narrative discourse can be instantiated by different media through their specific stylistic means and by manipulating plot, character, and narrative composition. Before examining this hypothesis and tackling my case studies, however, I will briefly survey recent work on the embodiment of narrative. My argument in the following sections is partly speculative, partly based on textual analysis, and partly based on indirect evidence from psychological studies. It would be interesting to see how my hypotheses and suggestions fare in an experimental setting or in the context of a more rigorous phenomenological investigation. What I hope to offer, then, is a rich conceptual avenue for empirical research on narrative.

## Embodiment and Narrative: A Brief Survey

The question I will begin considering in this article is: How does one embody narrative discourse? “Embodiment” is a broad concept that can

be approached from numerous angles (see Mark Johnson 2008), so it would help to spell out what I mean by “bodily responses.” If we take on board the materialist assumptions of contemporary cognitive science, any response to narrative is embodied in the sense that it is physically realized in readers’ brains and bodies. At another level, one could say that emotions are bodily responses, both because they have an affective component (i.e., they involve bodily feelings) and because Western culture tends to see emotions as closer to our corporeal nature than to conceptual activities or rational thinking. If we take into account this bodily aspect of emotion, then answering my question about the relationship between embodiment and narrative discourse should be relatively unproblematic: as is well known, the discrepancy between story and discourse is responsible for what Meir Sternberg (1978) calls the “master interests” of suspense, curiosity, and surprise. The manipulation of narrative time has an immediate repercussion on readers’ affective responses, insofar as the omission of narrative information (in suspense and curiosity) or its sudden revelation (in surprise) creates specific emotional states. Patrick Colm Hogan (2003, 2011) has investigated the connection between the structures of emotions and the structures of narrative (and narrative genres) as they can be described cross-culturally. To the extent that emotion has a bodily, affective component, these and other theorists have come up with a convincing solution to the question of how narrative discourse and corporeal experience intersect.

Suppose, however, that we wanted to restrict the scope of the term “embodiment” even further. We could ask about the link between narrative discourse and somatic cognition, where somatic cognition includes, first, the unconscious processes that regulate our physical posture, movement, and perception; and second, at the level of conscious experience, non-affective feelings that are localized in the body, especially proprioception and kinesthesia (i.e., people’s awareness of their bodily position and motion).<sup>1</sup> This is the sense in which I will use the word “embodiment” in this article. Let me stress that embodiment at this level includes both unconscious bodily processes and conscious experience: many of our responses to narrative reflect bodily parameters (e.g., heart rate, skin conductance) and embodied brain activity without necessarily emerging in experience.

Theorists of narrative have given special attention to the phenomenon of “embodied simulation,” sometimes linked to so-called mirror neurons (see Rizzolatti and Craighero 2004): the processing of language involves part of the same neural pathways that are activated during our everyday, embodied interaction with the world.<sup>2</sup> For instance, making sense of the sentence “Because the music was too loud, he turned down the volume” (see Zwaan and Taylor 2006) relies on some of the same neural resources that would be implicated in performing a rotating movement with one’s hand. It has been suggested that this unconscious simulation mechanism provide a basis for experienced bodily feelings in response to narrative. In Caracciolo (2011) I argued that readers’ sensorimotor knowledge—their familiarity with movement—can mediate their imaginative experience of narrative space: we reconstruct narrative space by projecting an imaginary, “virtual” body into the storyworld, and we apprehend it through cognitive strategies drawn from everyday experience—for example, by imagining moving our eyes and bodies. According to Anežka Kuzmičová (2012), a mechanism of embodied simulation is at the root of readers’ feeling of presence or immersion: unconsciously enacting characters’ goal-directed movements can create a sense of “being there,” physically present in the storyworld beside the characters. Guillemette Bolens (2012) links readers’ kinesthetic engagement with characters’ gestures to a more conscious meaning-making activity, as if our bodily involvement in narrative could stimulate the production of interpretive and thematic meanings.<sup>3</sup> Yet all these bodily responses are directed at existents—characters, settings—that are *internal* to the storyworld; they are “imitative” responses, in Ellen Esrock’s (2004) term, since readers understand a representation of X (for instance, a character’s visual perception) through an embodied simulation of X (by experiencing imagery roughly analogous to what the character would see).

However, not all bodily responses to narrative are imitative. Consider Esrock’s (2004: 82–84) concept of “reinterpretation”: in her example, the reader may use his or her breathing to understand a short story by Italo Calvino where the narrator recounts falling through space. The character’s fall is thus “reinterpreted” through the reader’s representation of the sensation of breathing. Both breathing and falling are corporeal activities, but they involve different sensory modalities, so no direct

imitative relationship seems to hold between the reader's and the character's experience. The responses I will discuss in this article are also reinterpretations in Esrock's sense, but they focus on discourse-level phenomena such as plot and narrative composition. This does not mean that these responses are completely uncoupled from narrative representation, of course: as we will see, they tend to be cued by events or existents internal to the storyworld. Yet they seem to expand from the story to readers' own experience, tingeing their overall engagement with narrative and becoming full-fledged "reinterpretations" of discourse. While this is likely to happen at the level of readers' conscious experience, I see two precursors for this experiential phenomenon: in the next two sections I will examine them under the headings of "cognitive-linguistic" and "developmental" approach. I will then turn to the question of how bodily feelings may emerge in experience proper.

### Cognitive-Linguistic Approach: Embodied Metaphors for Plot

Since George Lakoff and Mark Johnson's work in the 1980s, cognitive linguists have used the term "image schemas" to refer to preconceptual patterns that arise from our physical engagement with the world.<sup>4</sup> Everyday experience gives us a basic grasp of the up-down axis, or of directional movement with a source, a path, and a goal: hence, UP-DOWN and SOURCE-PATH-GOAL are examples of image schemas. These structures are, in themselves, preconceptual and grounded in perceptual and kinesthetic experience, but they can be used to organize *conceptual* experience through metaphorical language: for instance, an idiom like "I feel down" associates a location in physical space ("down") with sadness and depression.

The work of cognitive linguists such as Charles Forceville and Marloes Jeulink (2011) suggests that narrative structure also reflects image-schematic structures. At a basic level, time is conceptualized in terms of movement through space (see Evans 2003): a sentence like "the summer is coming," for instance, conceptualizes time as movement along a path, with the summer heading toward the speaker. The ways in which we talk about narrative time, and particularly time as organized in a plot, are also rich in spatial and kinetic metaphors. A plot can be more or

less “linear,” it can have different “strands,” it “advances” toward an ending. The Italian word for plot, *trama*, literally means “weave” and thus points to a parallel between narrative and the interlaced arrangement of threads in a piece of cloth. This spatial metaphor also emerges in the narrative technique of the *entrelacement*, an interwoven narrative design common in medieval French romance (see Vinaver 1971) and later in poems of the Italian Renaissance such as Ludovico Ariosto’s *Orlando furioso*. Other metaphors for plot have a distinct kinetic dimension: a plot can have “twists” and “turns,” it follows an “arc” or “trajectory,” it “jolts” from one scene to another, and so on.

Such metaphors can be understood in terms of image schemas and are, therefore, anchored in our bodily experience of the world (cf. Coëgnarts and Kravanja 2012: 97). For instance, the conventional metaphor “plot twist” suggests that a surprising revelation of narrative information traces a quasi-circular pattern, as if recipients of narrative were, quite literally, “plotting” the plot on a diagram-like representation. Building on similar considerations, Michael Kimmel (2009) suggests that image schemas play a role in understanding plot structure. This drives home the point—central to cognitive linguistics—that abstract, conceptual structure is somehow built on more basic, physical modes of engagement with the world.

Yet the fact that we *talk about* or conceptualize plots in certain ways says nothing about how we actually experience plots. The use of spatial and kinetic metaphors in discussing narrative is certainly suggestive, but it does not prove that somatic cognition (in the sense defined in the previous section) is directly involved in understanding narrative discourse. Further, for all we know, those who employ such figurative language for plot could be relying on crystallized metaphors that appear embodied from a linguistic perspective but do not engage our bodies in observable ways. Some psychologists have suggested that embodied metaphors are understood by drawing on bodily imagery or by running unconscious embodied simulations (Gibbs and Matlock 2008). Yet Sam Glucksberg (2008) provides psycholinguistic evidence that conventional metaphors are processed through categorization, and not by directly mapping bodily experience onto conceptual structures. Take, for example, a metaphor such as “linear plot.” According to Glucksberg, this kind of metaphor is



processed through categorization by extending a preexisting mental category: we comprehend the meaning of the expression “linear plot” by extending the category “linear things” to include things that are simple without being, literally, line-like. If Glucksberg is right, then, the spatiality of the “line” concept may play no role in how people understand figurative language of this sort at the cognitive level. All in all, the jury is still out as to whether embodied metaphors are embodied not only in terms of their linguistic surface structure but also in terms of their cognitive processing. For now, it seems safer to conclude that a cognitive-linguistic approach may make a first step toward embodying narrative discourse but that it cannot by itself offer a comprehensive account.

### Developmental Approach: Prelinguistic Patterns

Another strategy for bridging the gap between narrative discourse and embodiment looks at storytelling from a developmental perspective, where the term “developmental” refers to *both* ontogenetic development and phylogenetic evolutionary history. As in the cognitive-linguistic approach, the emphasis here does not fall on people’s *experiences* of narrative discourse but on factors that may pave the way for, or underlie, such experiences.

A developmental perspective tends to see narrative in quasi-musical terms, exploring what Ellen Dissanayake (2011) calls the “prelinguistic and preliterate substrates” of narrative, or the “common basis of narrative and music” in Walsh’s (2011) phrase. Dissanayake, a music scholar, builds on research by developmental psychologists such as Daniel Stern (1971) and Colwyn Trevarthen (1979): she looks at the exchanges between mother and infant in the early phases of the child’s development, when their interactions and vocalizations—commonly known as “baby talk”—have no linguistic, propositional content but take on their significance through affectively charged patterns of repetition and elaboration. According to Dissanayake, these patterns have “proto-aesthetic qualities” and anticipate the organizational principles of human rituals and artistic practices. Dissanayake thus establishes a developmental link between narrative patterns—particularly the manipulation of expectations through suspense, curiosity, and surprise—and the quasi-musical

structure of baby talk. But of course this structure is primarily affective rather than proprioceptive or kinesthetic; it forms some sort of “deep,” evolutionary background to narrative that need not (and usually does not) emerge as specifically bodily experience.

Walsh’s account is more straightforwardly embodied, since he finds a common evolutionary basis for both music and narrative in the effects of physical interaction with rhythm. In hunting rituals, for example, participants could become absorbed in rhythm and enact such rhythmic patterns through dance-like behaviors that served to promote social bonding and allay fears before exposure to danger. We can think of this psychological phenomenon, known as “entrainment” (see Phillips-Silver, Aktipis, and Bryant 2010), as an alignment between the external, perceptual rhythm of music and the internal, sensorimotor rhythm of our moving bodies. According to Walsh, entrainment underlies our interactions with both music and narrative, two temporal practices concerned with the quasi-rhythmic segmentation of time. Unlike Dissanayake’s mother-infant vocalizations, such patterns are not only affectively charged but also kinesthetic, insofar as they implicitly call for bodily movement as a way of enacting or performing a given rhythm. Yet Walsh seems to consider the rhythmic patterning of narrative discourse little more than a vestigial structure: it is, like the appendix or the tailbone, an evolutionary leftover in a mode of sense-making that in the course of human history has become—unlike music—entirely representational, abstract, and conceptual. One passage from Walsh’s article is worth quoting in full:

The narrative pulse, in symbolic representation, is therefore no longer a direct experiential phenomenon at any level; rather, it is an equivalent principle of expectation and resolution, punctuating a sense of time and sequence that has become fully abstract. Narrative rhythm in this context is completely abstracted from rhythm’s somatic origins and works instead in relative terms, through the interplay of two conceptual temporal structures. (2011: 58)

Walsh is quite right to say that the rhythmic and kinesthetic nature of narrative patterns is not as obvious as in instrumental music, whose close relationship with movement has been widely studied by psycholo-

gists and musicologists (see, e.g., Jones 1981). Yet we shouldn't be too hasty in completely uncoupling narrative patterns from bodily experience. One thing we know about time is that it can be directly experienced in terms of (internal) bodily rhythms and (external) movement. The so-called circadian rhythm provides a biological foundation for our time perception, entraining our internal clock to external events—usually, the coming and going of daylight (see Foster and Kreitzman 2005: chap. 1). Another rhythm that underlies our perception of time is, perhaps, the most basic rhythm of all—namely, our heartbeat. Here is an anecdotal example of the embodiment of time perception: according to Galileo Galilei's biographer, Vincenzo Viviani, the young Galileo used his own pulse to time the oscillations of the chandelier in the cathedral at Pisa, discovering the isochrony of pendulum motion (see Heilbron 2010: 60). An external movement is thus measured against an internal, bodily rhythm.

Surely, narrative temporality operates differently from this embodied sense of time: as Walsh and other commentators have noted (Herman 2003), telling a story involves segmenting and organizing experienced time by way of conceptual, symbolic representations. But we should not forget that such representations can only be grasped in a process that is, in itself, experiential and temporally extended. After all, the rhythmic "entrainment" described by Walsh appears strikingly similar to readers' or listeners' absorption in a well-wrought story, which has the capacity to adjust our attention to the temporality of narrative discourse, the rhythm with which events and existents are threaded together into a meaningful pattern. It is difficult to imagine what Walsh calls "a sense of time and sequence that has become fully abstract," because time perception—including the experience of narrative temporality—is always concrete, embodied, and shot through with affective qualities. Such qualities have their roots in evolution and ontogenetic development, as suggested by Dissanayake and Walsh. However, insofar as narrative discourse gives rise to experiential states in readers, it can draw in its wake bodily feelings that serve as the experiential correlates of Dissanayake's and Walsh's "prelinguistic patterns." The question, then, is the following: In what scenarios does this embodied basis of discourse come to occupy the center of our conscious aware-

ness? In other words, when do we become aware of our responding to discourse-level time and plot through our bodies, not only affectively but proprioceptively and kinesthetically, imagining movement and rhythm like listeners of instrumental music? With these questions—and with the previous considerations—we have entered the realm of experience or phenomenology.

### Experiential Approach: Bodily Feelings

Calling a story “slow” or “fast-paced” may seem a figure of speech, not unlike the metaphors I have examined above. Yet these adjectives appear more directly in touch with our actual experience of narrative than, say, talk about “plot twists” and “turns.” Whenever readers and spectators use labels such as “slow” or “fast-paced,” they are effectively applying musical categories to narrative, as if they could experience narrative’s intrinsic tempo. In *Six Memos for the Next Millennium*, Italo Calvino devotes a chapter to the literary value of “quickness,” comparing narrative speed to mental speed and arguing that the pleasure of a fast-paced story lies in the “agility of both thought and expression” (1988: 39). Building on Calvino, Kathryn Hume (2005) has explored the use and ideological implications of narrative speed in contemporary fiction.<sup>5</sup> However, while neither Calvino nor Hume dwells on the phenomenological underpinnings of narrative speed, calling a story “fast-paced” seems to reflect the bodily feelings that we may experience when engaging with stories told in a brisk, clipped fashion, with emotionally charged events quickly following one another. The exact phenomenology of these feelings will vary, of course, but we can describe them as affectively charged sensations of tension or jerkiness.

Similarly, narrative suspense is not only a “master interest” of storytelling—in Sternberg’s (1978) term—but a phenomenological state with *both* affective and proprioceptive qualities. Usually, suspense is defined as a mixture of apprehension and expectation about the outcome of an action sequence. But I would argue that suspense can also be experienced at a bodily level, as if readers were literally “hanging from” the storyteller’s words until they are “released” by the disclosure of the anticipated outcome. Philosopher David Velleman develops along these

lines Frank Kermode's (2000: 44–45) famous parallel between plot and the tick-tock rhythm of a clock:

The cadence that makes for a story is that of the arousal and resolution of affect, a pattern that is biologically programmed. Hence we understand stories viscerally, with our bodies. The notion of visceral understanding is illustrated by Kermode's case of a ticking clock. For I suggest that we understand the cadence of tick-tock with the muscles of our face and mouth, which are tensed for the first syllable and relaxed for the second. (2003: 13)

These intuitions on the phenomenology of narrative speed and suspense go some way toward showing that the rhythm of narrative can be experienced through bodily processes of either kinesthesia (feeling the pace and movement of narrative) or proprioception (experiencing suspense as a pattern of muscular tension and release). However, one may wonder why, if these phenomenological states are part and parcel of our engagement with narrative, are they so easily overlooked? A possible answer is that these mental states, while conscious, are “pre-reflective” in the sense that we do not usually reflect on them (see Gallagher and Zahavi 2008: 46): they pass unnoticed because, in engaging with narrative, our attention is captured by the representational contents of the text—its events and existents. Phenomenological psychologist Claire Petitmengin (2006) theorizes a similar phenomenon under the heading of “absorption in the objective”: in phenomenological research, participants tend to favor the “what” of experience over the “how.” When asked to describe their experiences, participants normally focus on the *objects* of perception (e.g., “I had a pen in my hand”) before attending to the sensory qualities of perception (e.g., “the pen felt smooth and slightly cold”). Likewise, in engaging with narrative we privilege the representational objects of narrative over the sensory qualities of our own experience. At best, we can project our experienced qualities onto the narrative artifact by describing a given story as fast-paced when such fast-pacedness is—first and foremost—a feature of our experiential responses to it. This spontaneous projection should be adequately “bracketed” in phenomenological research: part of what I am suggesting here is that the bodily qualities of narrative experiences could be produc-

tively investigated through empirical phenomenological methods such as those devised by Russell Hurlburt (Hurlburt and Akhter 2006) or by Petitmengin (2006) herself. My case studies in the following sections adopt a less reliable, introspective method, since they build on my own experience, but they can still offer insights that may be assessed in more structured empirical research.

Before moving on, I would like to highlight an experiential effect that will figure prominently in both my case studies. So far I have distinguished between embodied responses to story-level constructs (events and existents) and embodied responses to discourse. The main difference between these responses can be characterized as follows: the first are relatively discrete, insofar as they are directed at specific representational contents of narrative (e.g., a focalizing character, the space of the setting); by contrast, discourse-level responses to plot and narrative composition are spread over readers' engagement with narrative and can therefore fall into a broader temporal pattern. Yet story and discourse can be distinguished only in principle, because in readers' moment-to-moment engagement the story and its discursive presentation are intimately bound up: after all, as I argued in the introduction, what we call "the story" is an interpretive construct, a psychological (and processual) by-product of our interaction with discourse.

The upshot is that story-level phenomena can spill over into our interaction with discursive structures. To put this point otherwise: bodily feelings cued at the level of the storyworld may give rise to bodily qualities that extend to our overall engagement with narrative. We will see that *stylistic* patterns (such as those of the beginning of Nabokov's *Lolita*) play a major role in mediating between these two kinds of bodily responses. In this way, embodiment as thematized by narrative can modulate readers' embodied involvement, possibly making them more aware of the bodily feelings evoked by discursive patterns. Daniel Punday's (2003: 77–83) concept of narrative's "general body" comes close to this idea, since it is meant to capture the overall "corporeal atmosphere" emerging from a text. However, while Punday focuses on the general body as a hermeneutic tool, my emphasis falls on the *phenomenological* qualities of the audience's temporally extended interaction with narrative.

## Case Study 1: Narrative and Interoceptive Rhythm

Edgar Allan Poe's short story "The Tell-Tale Heart" is an excellent example of how a storyworld-internal, bodily happening can spill over into the reading experience. Here is a quick summary of the plot: The story's unnamed narrator shares his lodgings with an old man and develops an obsession with what he calls the man's "Evil Eye." He decides to kill the man to free him (and himself) of the Evil Eye. For seven nights the narrator steals into the man's room, only to find him asleep and his Evil Eye closed. On the eighth night, however, the old man wakes up, and the sound of his heartbeat—quickened by his fear of the intruder—invades the narrator's consciousness:

[There] came to my ears a low, dull, quick sound, such as a watch makes when enveloped in cotton. I knew *that* sound well, too. It was the beating of the old man's heart. It increased my fury, as the beating of a drum stimulates the soldier into courage. (2006: 189)

This passage deploys two similes comparing the heartbeat to a rhythmic pattern, first faint but insistent (the sound of "a watch enveloped in cotton") and then increasingly loud ("the beating of a drum"). The second simile presents the man's heartbeat as a form of rhythmic entrainment that "stimulates the soldier into courage," thus pointing to the close connection between rhythm, bodily experience, and emotional responses. It is because of this unsettling sound that the narrator resolves to attack and kill the old man: the heartbeat is thus depicted as the immediate cause of the narrator's action, and works—along with the man's Evil Eye—as the prime mover of the plot. Indeed, the narrator tries to dispose of the man's body, but the sound of the man's heartbeat will continue haunting him, eventually causing him to reveal the body's location during a police inspection of the house (hence, of course, the "tell-tale" of the title).

Prompted by the comparison between the old man's heart and the watch (or the beating of a drum), it is easy for readers to become aware of the prosody of the narrator's own exclamations as he descends into madness. This rhythmic pattern emerges through stylistic cues, and particularly through the narrator's frantic syntax and punctuation, building up to the final paragraph (pay attention to the repetition of dashes and exclamation marks<sup>6</sup>):

[The pulse] grew louder—louder—*louder!* And still the [policemen] chatted pleasantly, and smiled. Was it possible they heard not? Almighty God!—no, no! They heard!—they suspected!—they *knew!*—they were making a mockery of my horror!—this I thought, and this I think. But anything was better than this agony! Anything was more tolerable than this derision! I could bear those hypocritical smiles no longer! I felt that I must scream or die! and now—again!—hark! louder! louder! louder! *louder!* (2006: 191; emphasis in the original)

This passage encourages readers to perceive a pulse-like pattern in their own experience because of the joint action of stylistic cues and story-internal happenings. In this way, Poe's story leverages our familiarity with our heartbeat as the most basic bodily rhythm in time perception (remember Galileo's use of his own pulse to time the oscillations of a chandelier). That this rhythm can emerge in the phenomenology of reading is suggested by a number of commentaries on Poe's tale, including—in a completely different context—Alber et al.'s “unnatural” interpretation: as they put it, at the end of Poe's story “the heart completely takes over the narrative, and we hear more than anything else the heart's beating” (2010: 126). Or, in the words of another commentator, “sound and sense meld here as we more typically think of them melding in a poem” (Fisher 2002: 87).

In addition to the auditory pattern described by these readers, the narrator's references to the heartbeat can evoke bodily feelings in readers by triggering interoceptive memories. In his ravings, the narrator insists that the heartbeat is heard and not felt.<sup>7</sup> Yet it seems far easier for readers to imagine a beating heart “from the inside” because our experience of our own heartbeat is prior, in both biological and phenomenological terms, to any external perception or recording. Hence, interoceptive feelings may become bound up with our experience of reading Poe's story, accompanying the rhythmic patterning of the narrator's tale. We shouldn't forget that the heartbeat is not just a storyworld-internal event but one of the catalysts of narrative progression, since it provokes the narrator's murderous actions, obsessively haunts his mind throughout the second half of the story, and leads to the final discovery of the man's body. The heartbeat-like imaginary sensation created by stylistic



cues can thus become blended with the patterned movement of the discourse itself, enabling readers to experience the narrator's downward trajectory of obsession and murder in a bodily way. In other words, the auditory or interoceptive pattern of the man's pulse appears to expand from the narrator's imagination to the stylistic qualities of the text to readers' own experience, where it can be seen as a rhythmic correlate of discourse-level temporality and causality.

This process may even leverage readers' awareness of their own heartbeat. Indeed, following William James's (1884: 189–90) famous contention that emotional experience can be equated with the experience of physiological changes in one's body, psychologists have devoted considerable attention to the link between heartbeat perception and emotion. One of the findings of this research program is that, in the words of psychologist Rainer Schandry, if "a subject is regularly aware of heart activity, situations of potential emotional content will lead to comparatively more frequent emotional experiences" (1981: 487). To put this point otherwise: awareness of one's own heart activity is positively correlated with the intensity of emotional experience (Wiens, Mezzacappa, and Katkin 2000). This insight suggests that calling the audience's attention to a heartbeat-like pattern in their own reading experience serves to heighten the emotional impact of the narrator's tale and thus underscore the temporal-causal arc of narrative discourse. (Incidentally, this could explain why heartbeat-like patterns are often used in horror movies: the pulse makes us aware of the temporality of our engagement with narrative and its emotional stakes.) By implicating the heart's interoceptive rhythm and its affective significance, Poe's story maximizes the rhythmic nature of our encounters with narrative, thus bringing to light (and to consciousness) the "prelinguistic substrates" explored by Dissanayake and Walsh. This inherent rhythm is, I would argue, partially responsible for the fascination exerted by Poe's tale on many readers.

## Case Study 2: Narrative and Kinesthetic Rhythm

The sound track of Tom Tykwer's 1998 film *Run Lola Run* also mentions a heartbeat: "I wish I were a heartbeat that never comes to rest" is a line from one of the film's songs. But while Poe's tell-tale heart is

disturbingly poised between the interior of the body (or of the narrator's mind) and the public world, the narrative of *Run Lola Run* externalizes its rhythm into observable movement by foregrounding the protagonist's sensorimotor action of running. Tykwer's film has attracted attention in film and narrative theory through its juxtaposition of three alternative scenarios (see Bordwell 2002; Richardson 2013). The basic setup is as follows: Lola, the protagonist, has twenty minutes to find 100,000 deutsche marks to save her boyfriend, Manni, from a drug dealer's rage. (Manni, who is a drug courier, has just lost the same sum while being pursued by the police.) The film is structured around Lola's three alternative "runs" from her Berlin apartment to the phone booth where Manni is waiting for her—and for the money. During each of these runs, Lola follows the same itinerary and stumbles into the same set of characters, but she responds differently, leading to three divergent outcomes (in the first run, Lola dies; in the second, Manni dies; in the third, both survive). As noted by several commentators (see, e.g., Heidbrink 2013), Tykwer's film draws inspiration from video games for this repetitive, trial-and-error structure, where Lola's success is a matter of skill as well as of timing: through a number of subtle cues, the film enables us to time Lola vis-à-vis her previous runs. For example, in the first part of the third sequence Lola appears to be "running late": when she arrives at her father's office to ask him the 100,000 marks, he has already left, while in the previous two runs he was still there.

*Run Lola Run* is a film obsessed with time, not only diegetically, because of the twenty-minute time window Lola has to reach her boyfriend, but also thematically: clocks appear everywhere right from the film's title sequence, which features an oscillating pendulum and an antique clock. Tom Whalen, the reviewer for *Film Quarterly*, remarks: "So conscious is the film of time that several of its images serve as visual metaphors of clocks: an overhead shot of Lola running across a square (Round One) makes a circular fountain look like a clock; another overhead (Round Two), of Manni lying on the pavement after an ambulance has run over him, positions him as if his limbs were the hands of a clock" (2000: 35). Surprisingly, however, Whalen does not mention the film's most conspicuous metaphor for time—namely, Lola's action of running. We have seen that time is typically conceptualized as

movement along a path: this basic conceptual pattern is deftly exploited by Tykwer's juxtaposition of three alternative timelines where time is blended with Lola's physical movement through space. Shots of Lola racing through Berlin's streets take up a sizeable portion of the film, connecting all the film's locations and scenes and allowing the director to open windows onto some of the characters' future lives (through flash-forwards introduced by the words "AND THEN").

Yet, crucially, our understanding of Lola's "runs" is anything but purely conceptual. While we piece together the film's story lines and their interconnections, we are asked to engage with Lola's running body as it speeds through the storyworld. Psychologists suggest that observing skillful action calls for an empathetic response (see Hayes and Tipper 2012): *Run Lola Run* seems to heighten the effects of this unconscious resonance mechanism, inviting its spectators to imaginatively enact Lola's runs through their own bodies. This is what I have called a story-level response, of course, since it is cued by the representation of the character's body. However, it should be easy to see why spectators' bodily involvement goes well beyond the level of story in this film. Lola's runs, I have argued, are metaphorically blended with time, and not just story-internal time but the temporality of narrative discourse itself.<sup>8</sup> As in Poe's short story, the experiential rhythm of discourse is entrained by the narrative's representation of rhythm—in this case, Lola's sensorimotor trajectory, along with its hidden "heartbeat that never comes to rest." By engaging with Lola's physical movement, the spectator may indeed come to experience the narrative composition (and particularly the juxtaposition of three story lines) at a visceral level, as an imaginative pattern of stasis—motion (first run)—stasis—motion (second run)—stasis—motion (third run)—stasis. The final stasis is, of course, the most rewarding, because it has successfully resolved the instability of the film's premise, Manni's losing 100,000 marks.

As in Poe, the film's style is crucial to attuning discursive patterns (and the spectator's reactions to them) to the character's rhythmic motion: fast editing and the techno sound track contribute to the sense that Tykwer's film is moving at the same pace as its protagonist. Through these rhythmic cues and their constant exposure to Lola's running body, spectators may become aware of their own pre-reflective bodily

responses to both story and discourse. A prototypically “fast-paced” narrative, *Run Lola Run* has been described as “highly kinetic” (Malcolm Johnson 1999); on a blog we read that the “music creates a feeling of adrenaline pumping action for the audience, and does a great job of keeping this feeling throughout the film” (Lyons 2009). This feeling, I have tried to show, is a bodily sensation that accompanies and reinforces the audience’s engagement with the discursive structures of *Run Lola Run*; moreover, it resonates with the film’s thematic exploration of the temporality of human existence. In the prologue we see one of the film’s characters, the bank guard Schuster, kicking a soccer ball after stating: “Ball is round, game lasts ninety minutes. That much is clear. Everything else is theory.” By drawing a connection between time perception and spectators’ bodily feelings, *Run Lola Run* effectively conveys to its audience what is *not* theory—namely, the phenomenological basis (and biological limitations) of our temporal existence.

## Conclusion

Narrative cannot do without semiotic representation and conceptual thinking (see Caracciolo 2014b: chap. 1), both of which appear to widen the divide between narrative discourse and bodily modes of interaction with the world. Yet, despite this divide, the embodiment of our cognitive faculties (see Gibbs 2005) underlies narrative engagements at many levels. This article suggests that embodiment matters even beyond story-oriented responses such as kinesthetic empathy for characters and feelings of immersion in a storyworld—the two areas on which narrative theorists have tended to concentrate so far. I have explored the embodiment of narrative discourse from three complementary perspectives. First, I pointed to the embodied nature of the spatial and kinetic metaphors through which we characterize plot as “twisting,” “advancing,” “branching,” and so on. Second, I examined the link established by scholars such as Dissanayake and Walsh between narrative and prelinguistic patterns in both developmental and evolutionary terms.

Third—and this has been my main contention here—I argued that bodily feelings *can* participate in our engagement with narrative by becoming attuned to what we may characterize as the “rhythm” of dis-

course. This attunement is a possibility inherent in narrative transactions, and one on which storytellers can build to achieve specific effects. Bodily feelings can emerge in response to narrative discourse, especially when there is a “spillover effect” from the representation and thematization of the body to readers’ or spectators’ bodily experience. The intuition behind this claim is that direct references to story-internal bodies and bodily feelings can heighten recipients’ awareness of their own embodied involvement, thus bringing to light responses that would otherwise tend to remain unconscious or pre-reflective. The style of narrative, as we have seen, plays a key role in translating storyworld-internal happenings to perceived discourse-level patterns.

My analysis of Poe’s short story “The Tell-Tale Heart” and Tykwer’s film *Run Lola Run* has explored two cases in which a bodily rhythm is likely to overstep the boundaries of the storyworld and modulate the reader’s overall engagement with the narrative at an experiential level. This rhythm is tied to an interoceptive sensation in Poe’s tale (the beating of the heart) and a sensorimotor trajectory in the film (Lola’s runs through Berlin): in both cases bodily experience becomes blended with a plot pattern—namely, the narrator’s decision to kill the old man and its tragic consequences in “The Tell-Tale Heart” and the protagonist’s repeated attempts at saving her boyfriend in twenty minutes in *Run Lola Run*. Predisposed recipients of both narratives may indeed feel through their bodies the plot’s (usually metaphorical) movement.

More research—both theoretical and empirical—is needed to flesh out the claims I have advanced here. A particularly promising subject for further investigation is the link between bodily feelings and psychological phenomena such as narrative absorption (Gerrig 1993) and—from a rhetorical perspective—persuasion or belief change (Green and Brock 2000). Importantly, I have suggested that cognitive-psychological or psycholinguistic approaches to the embodiment of narrative comprehension, which deal mainly with unconscious responses, should be complemented by *phenomenological* investigation. The introspective method I have adopted in my case studies has obvious limitations and cannot take us far in exploring the bodily feelings elicited by narrative: to advance this project, we would have to adopt more rigorous empirical methods such as those developed by Hurlburt (see Hurlburt and

Akhter 2006) and Petitmengin (2006). This is one of the many challenges that a truly “embodied” or “corporeal” narratology (see Punday 2003) will have to face going forward.

## Notes

1. Cf. Esrock's (2004: 79) concept of somato-viscero-motor system (svm), which I take to be synonymous with my “somatic cognition.”
2. For more on the concept of “embodied simulation” and its possible neural correlates, see Wojciehowski and Gallese (2011). Psycholinguistic and neuroscientific evidence for the involvement of embodied simulations in discourse comprehension can be found in studies by Zwaan (Zwaan and Taylor 2006) and Pulvermüller (2005).
3. I advance a similar argument in Caracciolo (2011: 136). For problems with this view, see however Caracciolo (2013).
4. See Lakoff (1987) and Mark Johnson (1987). Hampe (2005) offers an overview of approaches to image schemas in today's cognitive linguistics.
5. See also Jan Baetens's rejoinder to Hume's article (Baetens and Hume 2006).
6. For more on the use of typographical devices (including punctuation) to represent consciousness in literary narrative, see also Caracciolo (2014a).
7. Cf. Shen's (2008: 331–33) in-depth discussion of the heartbeat and its critical interpretations.
8. On metaphor as conceptual blending, see Fauconnier and Turner (2002).

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