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The "Mystery of the Conscious": How Can We Know About That?

Around 1918, English painter Frank Budgen and James Joyce were chatting and physically wandering the streets of Zurich, where Joyce had been living while completing *Ulysses*. They debated arts, literature, and contemporary cognitive science—namely, Freudian psychoanalysis. In one of these conversations, Budgen reports that Joyce criticized the psychoanalytic focus on unconscious processes as a too quick dismissal of the enigma of conscious inner life: "Why all this fuss and bother about the mystery of the unconscious? . . . What about the mystery of the conscious? What do they know about that?" (qtd. in Budgen 356).

Thanks to the headways made in neuroscience, psychology, and phenomenological research, today we have more sophisticated

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models of the conscious mind. Progress in cognitive science in the past few decades has advanced our understanding of the qualities of conscious experience that modernist authors, often on the heels of Joyce, have aesthetically explored. One focus of recent research has been on cognitive processes that are not tied to specific tasks or goals—typically collected under the rubric of "mindwandering" (Callard et al. 1)—in which the focus of consciousness is construed as an oscillation between externally focused cognitions and perceptions on the one hand, and self-generated cognitions on the other. Research in this area has been given a particular impetus by the development of new paradigms for assessing self-generated thought and by growing interest in the "resting state" of the brain, particularly patterns of highly organized connectivity among neural systems that emerge when participants are not engaged in any particular task.[1]

Another area of growing research interest concerns the phenomenon of inner speech (the silent articulation of language within our mind), where researchers address the forms and functions of the covert, self-directed speech that characterizes many people's experiences.[2] Research in the last two decades has indicated that inner speech fulfills varied cognitive, emotional, and motivational functions and takes from social dialogues a variety of forms that relate to its proposed developmental emergence.[3] Despite this growth of research into mind wandering and inner speech, to date there has been little attention in the human neurosciences to the relationship between these two common, if not entirely ubiquitous, phenomena. Many episodes of resting-state cognition have a verbal character.[4] As such, some researchers propose that verbal mind wandering may represent an abstract or condensed form of inner speech, while more task-oriented, verbal self-talk may take a more concrete or expanded form. This is congruent with Charles Fernyhough's model ("Alien Voices") in which inner speech takes different forms according to the extent that it is condensed or abbreviated relative to external speech.

In contrast to this fairly recent scientific recognition, modernist literary narratives have already made these processes targets of sustained exploration. Accordingly, narrative theory has risen to the interpretive challenge posed by these works. Foundational studies as early as the 1960s recognized the relevance of wandering minds and inner verbalizing in modernist narratives. Robert Humphrey's seminal study on the *Stream of Consciousness in the Modern Novel*, for instance, dedicated insightful pages to mind wandering episodes, albeit under the rubric of "free association" (43) (a terminological forerunner of contemporary mind wandering). Narratologist Dorrit

Cohn's still superb work *Transparent Minds* (concerned with the presentation of consciousness in fiction), on the other hand, presented isolated yet innovative remarks on the fictional rendering of inner speech as the "mimemis of an unheard language" (90). Both studies were also (lightly, but beyond surface levels) in interdisciplinary dialogue with psychology, including research from William James and Lev Vygotsky.

This early interdisciplinary interest into the narrative presentation of the wandering mind and inner speech as specific processes, however, had been sidelined for decades until a recent resurgence of interest in cognitive literary studies.[5] This neglection has been due partly to the dominance of exceptionally technical and groundbreaking works on the stylistic devices for consciousness presentation;[6] and partly because of the demoting of both consciousness as an eminently inner phenomenon and modernism as an aesthetic "inward turn" (Herman, "Re-Minding" 248), whereby cognitive narratological works refocused on distributed traces of consciousness in outer actions.[7] This combination resulted in a conceptual hiatus for narrative mind wandering and inner speech, often dominated by the unproblematic acceptance of James's image of consciousness as a stream (thus ignoring James's own doubts and suggestions regarding its dynamic, penumbral composition, to which this essay shall return).[8] As a result, literary mind wandering and inner speech remained somewhat undertheorized, and confusion arose as to what critics meant both by consciousness as a phenomenon and by its streaming quality as a dynamic feature.

In his innovative *Fictional Minds*, Alan Palmer neatly summarizes this ambiguity: "[where] most emphasize the random, associative, illogical, and seemingly ungrammatical free flow of thought, others mention more controlled and directed thought; non-conscious, but also conscious thought; verbal, but also non-verbal thought" (24). To add ambiguity, Palmer says, "other theoretical definitions refer to a completely separate issue: the techniques of thought and consciousness presentation in the discourse." It is important to note that this confusion is bound to the origins of the conceptual mystery, because James himself was puzzled by the heterogeneous composition of the stream. In *Principles of Psychology*, James famously defined consciousness as a multifarious aggregation of several experiential "units" (145), claiming that "our mental states are *compounds*" of different "mind stuff." If not core units, mind wandering and inner speech are key dynamics animating the interactions of units and attentional shifts within mental compounds.[9] One ambition of this essay is to

promote the idea that current cognitive models of mind wandering and inner speech can help us better understand the phenomenological constituents of Joyce's "mystery of the conscious" as it is rendered and simulated by modernist literary investigations. These models can provide new ground for a more refined model of the narrative stream of consciousness, one that can account for modernist insights into the mysterious nature of the conscious as a simultaneously fragmented *and* unified mental realm. In particular, we rework models of how attention disengages from perception, known as "perceptual decoupling" (Schooler et al. [319]) and the interplay of focus and periphery in perception, known as "peripheral awareness" (Gennaro, *The Conciousness Paradox* 116). We draw on these models to interpret modernists' rendition of mind wandering episodes, textured by and interspersed with condensed inner speech. This aim aligns with an ambition in cognitive science to specify processes that combine to constitute conscious experience, thus creating distance from imprecise terms such as "thinking" (Fernyhough, "What Do We Mean By 'Thinking?'") and "thought."

These insights are what we claim narrative theory and studies on modernist literature can gain from cognitive science. But what about literature's relevance for contemporary research on mind wandering and inner speech? Our argument is that the novel in general, and modernist literature in particular, has developed its own modeling strategies to investigate these processes. Research findings from modernist narratives can thus enrich or correct scientific frameworks, building toward a more nuanced and phenomenologically accurate conceptualization of the mystery of the conscious. On the one hand, the simplifying power of contemporary cognitive models of mind wandering and inner speech—rooted in experimental constraints around what can and cannot be empirically tested—makes them effective tools for cutting through the chaotic mystery of narrative stream of consciousness. On the other hand, this selective simplicity must be challenged if we are to avoid losing phenomenological soundness. This is our second and equally (if not more) important ambition in this essay: to argue that modernist exploratory findings can offer resistance or intractable data to scientific models, notably on the dynamic relation between mind wandering and inner speech.

Another legitimate question then presents itself: how can literary authors have a say in cognitive modeling? The neurocorrelates of conscious states (the brain counterpart to our experiences) are beyond the realm of experience, so they are impossible to access through human metacognition. However, when it comes to the

experiential level of inner life our answer is that the creation of narrative worlds should be considered as an extended process of introspection, which reached an unprecedented methodological boost in modernism.[10]After the disavowal of introspective methods during and beyond behaviorism's heyday, cognitive science has recently reevaluated the potentialities and limitations of introspection as a method. The main problem of introspection still consists of the circularity that ties the observer to the observed phenomenon (as aptly put by Bermudes, "the explanandum is part of the explanans" [16]). In James's words, introspection (etymologically conceived as a "looking within") attempts impossibly to separate the unity of experience into a subject and an object—an inner looking that disrupts the phenomenon it intends to capture, like "turning up the gas quickly enough to see how the darkness looks" (244). The inseparability of the observer and the observed (which is the problematic ground for all theories of self-knowledge)[11] remains at the core of current debates on introspection.[12] How can literary authors have a privileged stance or methodology in investigating and then representing the findings of such introspective analysis?

We flesh out this question and our answer in the final section, where we claim that creative, authorial introspection has unique protocols, methods, and horizons that generate data that science should take seriously in cognitive modeling and especially in ideas of mind wandering and inner speech. Literary authors do not just have to look inside themselves to grasp how the conscious minds work, but they do so in order to simulate these conscious processes as running into another fictional consciousness (what Marco Bernini has called elsewhere "introspection for simulation" [*Beckett and the Cognitive Method* ix]). To the introspective moment, literary writers must therefore couple the running of mental simulations to test if their representation works and can be reconstructed by the reader. In so doing, they can sustain and stabilize introspective access through the technology of writing as a tool for extended introspection. The essay's final section reflects on reading as a process that reverses this authorial quest, transforming the fragmented encoding of conscious processes back into a phenomenologically flowing experience (thus presenting a model of reading as reversed introspection).

If cognitive and social science has defined the twenty-first century as "the era of the wandering mind" (Callard et al. 1), the first half of twentieth-century literature should be considered its aesthetic golden age. The time is thus ripe for resampling the mystery of the conscious in ways that bridge periodization in both the humanities

and the sciences. We contend that this interdisciplinary approach can change not only what we know about the mystery of the conscious but also *how* can we know about it. We refer to Joyce and Virginia Woolf as the usual suspects in the search for core innovators, although we identify comparative differences between the two in the final section. The bidirectional scope of this essay (from cognitive models to literary modeling, and vice versa) should hopefully lay the ground for further, cross-period reflections on the narrative modeling of mind wandering and inner speech. A limitation of our broader theoretical focus is that we lack space for deep dives into stylistic presentational technicisms (such as direct versus indirect or free indirect presentation of consciousness), though these technisisms have already received considerable attention. Rather, what we propose here can easily complement or update such approaches.

Narrating Penumbra: Perceptual Decoupling and Peripheral Awareness

The difficulty in defining mind wandering originates from its conceptual indistinguishability from the working of the conscious mind. This is why Jonathan Smallwood and Johathan W. Schooler, two of the more active researchers in the science of mind wandering, begin their critical review of the topic by remarking on the dynamicity of consciousness, of which mind wandering is for them an illustration: "Conscious experience is fluid; it rarely remains on one topic for an extended period without deviation. Its dynamic nature is illustrated by the experience of mind wandering, in which attention switches from a current task to unrelated thoughts and feelings" (Smallwood and Schooler 487). There are, as we address later, numerous potential problems in trying to pin down the specificity of mind wandering in its being "task-unrelated" (490) (because modernist mindwanderers have affective forces and concerns that relationally magnetize, as a task would do, their wandering trajectory out of their immediate perceptual present). Smallwood and Schooler also partly reject this task-related definition, focusing on the what of mind wandering to categorize it as a mode for how consciousness behaves. What they refer to as "self-generated thought" (488), Smallwood and Schooler say, "emphasizes that the contents of experience arise from intrinsic changes that occur within an individual rather than extrinsic changes that are cued directly from perceptual events occurring in the external environment" (490). While this definition has the benefit of accommodating different forms of mind wandering, from deliberate

(intentionally remembering an autobiographic episode or a song) to spontaneous (a personal memory or an earworm intruding), and from task-related (planning the soundtrack of a party while writing to guests) to task-unrelated (thinking about holidays while peeling potatoes), it establishes too strong a divide and mutual independence between the wandering mind and its external environment. We later examine how modernist renditions challenge this stark wedge, as modernist mind wandering episodes are much more dynamically generated by circuiting perceptual and cognitive loops between self and world, inner states and environmental conditions.

The most effective and uncontroversial of qualifiers for mind wandering is that of a process involving perceptual decoupling, a term that suggests that "during periods of self-generated thought, attention is disengaged from perception" (Smallwood and Schooler 500). A classic example of perceptual decoupling is the experience of driving, where our perceptual sensory-motor apparatus remains attuned to the road while our attentional resources are directed to inner thoughts or images. Perceptual decoupling shows how consciousness does not equal attention; it is constituted, rather, by the combinatory coupling and decoupling of perception and attention.[13] Whenever we are attentionally engaged with outer stimuli, perception and attention converge into a feeling of externally focused concentration. More often than not, however, perception and attention happily divorce when attention turns inward and the wandering state begins. The concept of perceptual decoupling is also useful in distinguishing mind wandering from external distraction, such as when we are distracted by our mobile phone while talking to someone (here, both perception and attention converge toward another perceptual stimulus). If characterizing mind wandering in terms of tasks or independence from the environment is at best reductive when looking at modernist representations of narrative wandering streams, we propose that the less controversial concept of perceptual decoupling can have good interpretive purchase in narrative analysis of modernist innovations, particularly Joyce's *Ulysses*.

The idea of wandering and its semantic field are heavily present in Joyce's novel. A lapsed Christian and a Jew, Stephen Dedalus and Leopold Bloom are, spiritually and historically, part of a community still of "wanderers on Earth to this day" (41). In a secularization of their spiritual fate, they rove through Dublin in multisensory explorations. In addition, their minds constantly wander or, in Joyce's words, are "unsteady" (704): "His (Stephen's) mind was not exactly what you would call wandering but a bit unsteady." This unsteadiness

accompanies many scenes where their eyes are continuously moving around, sometimes without a specific task or fixation point, as when Stephen aimlessly listens to Bloom's speech at the cabman's shelter near Butt Bridge. This is just one of the many examples in which one of the two protagonists' attention detaches from perception, inaugurating a mind wandering episode. The decoupling ignites when Bloom enumerates to Stephen the moral virtues of work:

> Over his untastable apology for a cup of coffee, listening to this synopsis of things in general, Stephen *stared at nothing in particular.* He could hear, of course, all kinds of words changing colour *like those crabs about Ringsend in the morning* burrowing quickly into all colours of different sorts of the same sand where they had a home somewhere beneath or seemed to. Then he looked up and saw the eyes that said or didn't say the words the voice he heard said—if you work.
>
> —Count me out, he managed to remark, meaning work.
>
> (747; emphasis added)

This moment can indeed be described quite easily by building on a cognitive model of perceptual decoupling. Maybe too easily. The problem with the model, in fact, is that it describes only two possible combinations of perception and attention: either perception and attention can be coupled on the same external object, or attention to an internal object (thoughts or mental imagery) and perception can be directed to an external object. Interpreting even a relatively straightforward mind wandering episode such as this one according to the model shows the extent to which Joyce represents a greater dynamism and combinatorial possibilities. To say that Stephen's attention simply disengages from external perception for a while and then returns would be like describing the source and delta of a river without accounting for its bends or currents and without sampling its water.

The decoupling of Stephen's attention is neither neat nor absolute. First, Stephen's attention only gradually decouples from visual perception, due to the unchallenging tedious moment in the conversation (corresponding with the idea that, as Smallwood and Schooler stress, mind wandering often initiates over unchallenging present tasks). Then it focuses on only sounds (a weak example of perceptual decoupling). But then the sounds soon act as synesthetic analogical triggers for internal images (more firmly marking increases in attentional inwardness), thus becoming the external background for an inner chain of images from Stephen's morning. Even when

Stephen scans inner memories, his attention shifts in scale and space, from a panoramic field (about a more holistic view of Ringsend) to close-ups on the colors of the crabs and sand. Joyce here presents a graduation and fluidity that are only partly accounted for by the somehow static and dichotomic description of the cowork of perception and attention in terms of coupling and decoupling. Joyce's novel asks us to rework the model of perceptual decoupling toward a more nuanced and dynamic capability for wandering streams. This reworking can be done by further updating modulations in the decoupling mechanism, as well as nuances in the decoupled state.

We argue that advances can be made by following analytic philosopher of mind Rocco J. Gennaro's theory that each conscious state has both focal (attentional) and peripheral (inattentional) awareness, which can be each and independently "directed at the outer world or directed back to one's own mental states" (*The Consciousness Paradox* 117). This way, as Gennaro elaborates, we end up with four possible combinations of a conscious state:

1) Outer focal/outer peripheral (OFOP), such as when we are at a café in conversation with a friend, yet peripherally aware of people chatting or moving at the next table.
2) Inner focal/inner peripheral (IFIP), such as when we are introspectively focusing on a specific visual memory, yet peripherally aware of other images, thoughts, sensory mental events, or feelings that surround, precede, or parallel that image.
3) Inner focal/outer peripheral (IFOP), such as in the standard mind wandering state, wherein focal attention zones out because it is directed to internal thoughts, images, or sounds without the subject's becoming perceptually insensitive to her environment.
4) Outer focal/inner peripheral (OFIP), such as when we are engaged in publicly telling a story, playing a piano, or rapping over a beat with a peripheral inner sense of what must follow or how embarrassed we feel.

As already noted, according to the perceptual decoupling model, only the third condition would count as mind wandering. By adding focal and peripheral awareness into the mix, we instead reach a more fine-grained spectrum for a water analysis of the conscious stream. This should be evident if we take a sample from the opening page of another milestone in modernist consciousness novels: Woolf's *Mrs Dalloway*. In addition to exemplifying the interpretive potential of Gennaro's model of focal and peripheral awareness, Woolf's text challenges it by calling for two more possible states. We introduce herein Gennaro's acronyms in Woolf's text for easier reference:

> [OFIP] What a lark! What a plunge! [IFIP] For so it had always seemed to her when, with a little squeak of the hinges, which she could hear now, she had burst open the French windows and plunged at Bourton into the open air. How fresh, how calm, [OFIP] stiller than this of course, [IFOP] the air was in the early morning; [IFIP] like the flap of a wave; the kiss of a wave; chill and sharp and yet (for a girl of eighteen as she then was) [IIFIOP] solemn, feeling as she did, standing there at the open window, that something awful was about to happen; looking at the flowers, at the trees with the smoke winding off them and the rooks rising, falling; standing and looking [IOFIIP] until Peter Walsh said, "Musing among the vegetables?"—was that it?—" I prefer men to cauliflowers"—was that it? . . . He must have said it at breakfast one morning when she had gone out on to the terrace—Peter Walsh. [IFOP] He would be back from India one of these days, June or July, she forgot which, for his letters were awfully dull; it was his sayings one remembered; his eyes, his pocketknife, his smile, his grumpiness and, when millions of things had utterly vanished—how strange it was!—a few sayings like this about cabbages. (1)

We cross the novel's threshold as Clarissa opens her window in London. In doing so, Clarissa is pleasantly assaulted by perceptual feelings of excitement (marking an outer focus) that suddenly awaken a background of analogical, superimposing memories. These past feelings are still in the shadow of her present sensory-motor pleasure, only surfacing at the level of an inner peripherical awareness. This initial segment therefore classifies as OFIP. However, the magnetizing affective power of the memories soon decouples her attention from external perceptions and turns it inward, initiating a mind wandering episode. This inward wandering state displays both focal attention (to the whole past action of opening the window in Bourton) and a peripheral zone of awareness (the squeaking hinges are sensorily present at the periphery of the memory). Here we have a case of IFIP, which already indicates how the simple idea of perceptual decoupling is not fully accounting for the richness of a single temporal slice of the wandering state.

Limitations become even more evident when we follow the dynamic unfolding and looping between inner and outer worlds in Clarissa's wandering mind. In fact, after the first wandering segment with focal and peripheral awareness both converging in her past, she compares the memory of the air in Bourton with her present perception of London (a focal return to her perceptual present marked by the indexical "stiller than *this*"). Here, the previously decoupled

attention of her wandering state momentarily fluctuates, with the memory scene regressing to the periphery of awareness (OFIP). This fluctuation is extremely brief, and attention immediately returns to Clarissa's inner world, like a kite that had just succumbed to gravity for a second before it is pulled again forcefully by the wind of affects and images. This inward flection, however, shows a curving progression: first with an inversion of the comparative arrow about present and past airs, where London's atmosphere recedes back to an inattentional perceptual background for how the air *was* in Bourton (IFOP); then with both focal and peripheral awareness jointly directed to the past, this time as Bourton's air falls in the periphery of the memory and Clarissa's remembering attention in London drifts into analogical equivalents between Bourton's air and the sea (IFIP).

Our expanded model, which updates perceptual decoupling by adding shifts in focal and peripheral awareness, seems so far to perform well in sampling Clarissa's wondering stream. Yet, an unaccounted fifth case emerges. After the analogical comparisons that the remembering Clarissa casts over the memory of Bourton's air, we are fully relocated in Clarissa's viewpoint as a girl looking outside of the past window while experiencing inner feelings of solemnity and ominousness toward the outer landscape. Here we are experiencing from within a past experiential stream, with its own past inner focus (subjective prescient feelings) and inner outer periphery (gazing at the landscape). This is a complex state of outer focal and inner peripheral awareness that is nested in the overall inner envelope of the wandering trajectory. This state should therefore be acronymized as IIFIOP (inner inner focus/inner outer periphery). Within this nested subjective past state, Peter comes to the window in Bourton and magnetizes Clarrisa's attention back to the outer environment (yet still an innerly experienced outer focus); even as her dreading feelings shift to the periphery, Clarissa's inner wandering, keeps framing this remembered reversal of focal attention and peripheral awareness, thus leading to a sixth case of IOFIIP. Peter's name then prompts Clarissa's inner remembering frame to break back to the present, where London is again the outer peripherical background (where Peter "would be back from India") of inner focal thoughts and images about Peter.

Even in resorting to unwieldly analytical acronyms, it took us three paragraphs to account for the spectrum of modulations that Woolf explores in fewer than twenty lines. If we had stopped with a definition of mind wandering as a process that is simply task-unrelated, we would have ended with an impoverished interpretation. Clarissa's

task for almost the entire novel is just to organize a party; therefore, most of her inner happenings would count equally as static blocks of task-unrelated mind wandering. Perceptual decoupling allows us to account for some dynamism in her mind wandering, yet with only two possibilities. But Gennaro's model of focal and peripheral awareness introduces something that James himself theorized as fundamental: the idea that each conscious state has a "nucleus or kernel" (258) (in Clarissa's inaugural episode that would be the dominant focus of her life in Bourton) always escorted by a "*psychic overtones*, *suffusion*, or *fringe*" (the peripheral perceptions, feelings, thoughts, and proprioception, either internally or externally oriented). For James, the peripheral fringe of consciousness and the transitional gaps between one state and another are what he also calls a "penumbra" (255): a key constituent area of the state's phenomenological whole and "a part of the consciousness as much as the joint is a part of the bamboo" (240). Gennaro's model of focal and peripheral awareness seems more capable of illuminating the interplay and dynamic shifts between lit and penumbral areas. And this seems a necessary quality for a model willing to accommodate mind wandering's dynamic nature.

Woolf, however, goes deeper, requiring further updates of the model to illuminate nested interplays when memories are not only witnessed but also relived within the perspectival, "experiential viewpoints" (Dancygier 111) of mind wandering states. *Mrs Dalloway*, like *Ulysses*, not only is an optimal fit for mind wandering research but also offers a resistance of discrepant data that should expand, question, and nourish current scientific frameworks on the wandering mind. In arguing for this, we are aligned with cognitive literary scholars such as Melba Cuddy-Keane, the first to promote an interdisciplinary account of Woolf's treatment of mind wandering and who claims that to take Woolf's presentation of mindwandering "seriously is of course to assume that writing (both fiction and life-writing) can tell us something about real-world cognition" (17).

Likewise, Patrick Colm Hogan, in his excellent work *Ulysses and the Poetics of Cognition*, claims that an author might have "captured something in the nature of human psychological processes" (101) (hence their work can be illuminated by cognitive models), while their work maintains "its own independent validity" and "should contribute to our understanding of those processes. In short, the relation between neuroscience and psychological realist fiction should be, in some degree, mutual." In *Beckett and the Cognitive Method*, Bernini theorizes such mutuality in terms of a "co-modeling of cognition"

(195), whereby authorial, narratological, philosophical, and scientific models are reciprocally updated, constrained, and challenged. Our essay makes the case for the potentiality of such practice in the interdisciplinary co-modeling of mind wandering and inner speech. The benefits and necessity of an interdisciplinary co-modeling of these processes, guided by and tested on literature's own modeling explorations, become even more salient if we examine the relationship between mind wandering and inner speech. As anticipated in the introductory section, this relationship is still undertheorized by cognitive sciences, whereas modernist literary narratives have once more reached a sophisticated presentation of their entanglement and constitutive relationship.

Consciousness Condensation: Inner Speech and/in the Wandering Stream

Since the seminal 1934 study by Russian psychologist Vygotsky, *Thought and Language*, inner speech has been featured in scientific accounts as a vital component of consciousness. Indeed, some reports have proposed that inner speech is a nearly universal phenomenon, coloring practically every aspect of our conscious experience. As neuroscientist Bernard J. Baars puts it, "we are a gabby species. The urge to talk to ourselves is remarkably compelling, as we can easily see by trying to *stop* the inner voice as long as possible. . . . Inner speech is one of the basic facts of human nature" (75). Vygotsky's developmental thesis was that inner speech represents an internalized form of children's early dialogues with caregivers. From an initial stage of outer spoken engagements in primordial conversations and dialogic exchanges with parents and caregivers, children first turn social speech into private speech (talking to themselves aloud to guide or accompany their actions), which is then progressively internalized into a silent form of inner talk. Crucially for Vygotsky, this internalized form maintains the dialogic structure of external conversation, with the self entertaining silent conversations with itself or with imagined conversational partners. It is important to note that the degree of inner speech awareness can vary greatly, ranging from a foregrounded quality to a feeble awareness in the penumbral areas of our conscious states.

Building on Vygotsky's developmental model, and following his insights about the condensation of such speech, Fernyhough suggests a further differentiation of inner speech into "expanded" and "condensed" inner speech ("Alien Voices"). Both are internalized forms of

speech, but expanded inner speech still "retains many of the acoustic qualities and turn-taking properties of the external dialogue from which (developmentally speaking) it was derived" (Fernyhough and McCarthy-Jones 90). Phenomenologically, this form of internalization is closer to a conversational interaction with "an exchange between voices in the head." Condensed inner speech, meanwhile, is "speech that has been fully internalized and therefore fully subjected to the transformational processes proposed to accompany internalization," such as the abbreviation of syntax and the stratified density of personal meanings as opposed to public ones.

Fernyhough also claims that the developmental sequence (external—private—expanded—condensed) can at times be reversed so that flexible transitions among levels in inner and outer speech are possible in adulthood. If the more fragmented level of condensed inner speech can be considered "the default setting of inner speech" (Fernyhough and McCarthy-Jones 91) under specific conditions such as "stress and cognitive challenge," then "condensed inner speech can be 're-expanded' into the developmentally more primitive form of inner speech, namely, expanded inner speech." This further distinction between two types of inner speech seems to be phenomenologically confirmed by empirical studies demonstrating how people report sometimes only fragments of words (condensed) in their inner experience and at other times more complex (re-expanded) sentences.[14] The idea of condensation and re-expansion will be central to our analysis of modernist renditions of inner speech, as well as to our model of reading such narrative encodings.

Cognitive science's recognition of a high frequency of both mind wandering and inner speech would predict an inevitable co-occurrence, if not a functional relation, between these two processes. Surprisingly, however, cognitive models of both mind wandering and inner speech, with few exceptions, only cursorily note the occurrence of verbal elements in mind wandering and appear even less sensitive to the dynamics of wandering in inner speech.[15] As a result, a series of questions on the mysterious dance between these two processes remains open. Is inner speech punctuating, commenting, enhancing, or even generating mind wandering events? If we scrutinize Joyce's and Woolf's texts, these questions can find answers or hypotheses that will and should challenge scientific models.

As the previous section explored, mind wandering is a dynamic process that demands to be understood in the context of its temporal unfolding. This is exponentially true if we also want to sample inner speech's dynamic patterns in the wandering mind, challenging us to

consider a thicker slice of the narrative stream. The following passage from *Ulysses* should contain enough interplays and loops to make the case for the fine-grained resolution of Joyce's modeling of these processes. Here we are with Bloom in the warmth of June sixteenth, stopping at the window of the Belfast and Oriental Tea Company. His mind soon starts to wander in a chain of images triggered by the outer perception of a Southeast Asian tea advertisement. Together with reproducing Gennaro's acronyms again to signal shifts in focal and peripheral awareness, we are bolding the units we will analyze as possibly articulated in inner speech:

> [OFOP] So warm. His right hand once more more slowly went over his brow and hair. Then he put on his hat again, relieved: and read again: **choice blend, made of the finest Ceylon brands**. [IFOP] **The far east. Lovely spot it must be**: **the garden of the world**, [IFIP] big lazy leaves to float about on, cactuses, flowery meads, **snaky lianas** they call them. **Wonder is it like that**. Those Cinghalese lobbing about in the sun **in *dolce far niente***, not doing a hand's turn all day. Sleep six months out of twelve. Too hot to quarrel. Influence of the climate. Lethargy. Flowers of idleness. The air feeds most. Azotes. Hothouse in Botanic gardens. Sensitive plants. Waterlilies. **Petals too tired to.** Sleeping sickness in the air. Walk on roseleaves. Imagine trying to eat tripe and cowheel. **Where was the chap I saw in that picture somewhere?** Ah yes, in the dead sea floating on his back, reading a book with a parasol open. Couldn't sink if you tried: so thick with salt. Because **the weight of the water, no, the weight of the body in the water is equal to the weight of the what? Or is it the volume is equal to the weight?** It's a law something like that. Vance in High school cracking his fingerjoints, teaching. The college curriculum. Cracking curriculum. **What is weight really when you say the weight? Thirtytwo feet per second**, **per second. Law of falling bodies: per second**, **per second**. They all fall to the ground. The earth. It's the force of gravity of the earth is the weight. (86–87)

This is a cognitively dynamic, formally complex, and temporally extended mind wandering episode in *Ulysses* that encapsulates all the problems and aspects covered so far. The outer warmth of day constitutes a peripheral background for the perception of the tea advertisement (OFOP), which loops back, affects, and envelops further mental traveling to deadly hot Southeast Asia. Bloom's attention only then progressively decouples from outer perceptual stimuli (IFOP) and focuses on inner images and thoughts, which pop into frame and then rapidly recede to the mental periphery (IFIP). These images and thoughts are a tight mixture of folk knowledge about Southeast

Asia ("the garden of the world" [86]), foreign cultural commonplaces ("*dolce far niente*" [87]), and more specific botanic information about plants. These images and thoughts in turn trigger more personal memories ("Where was the chap I saw in that picture somewhere?") about a picture Bloom has seen of a man bathing in the Dead Sea. This last piece of mental imagery subsequently prompts a confused rehearsal of laws of gravity and weight, which brings Bloom's mind back to high school images before his attention again returns to gravity.

This mind wandering chain, so tight syntactically that it approximates a feeling of parallel or overlapping mental units, shows how mind wandering can be both triggered (the advertisement) and escorted by (the felt warmth of the day) outside perceptions and embodied proprioception.[16] Mind wandering also shows how, once perception and attention have both become internal (IFIP), previously focused inner images (such as the physical theory of weight and gravity) can become a peripheral ground for a new focused image ("High school"), before returning to focus again. The passage therefore challenges current accounts of mind wandering not only in terms of a binary perceptual decoupling but also in terms of "self-generated" (Smallwood and Schooler 487) thoughts or images. Instead of stressing autonomy and independence, Joyce explores how mind wandering emerges from, and is textured by, relational and causal cognitive vectors or currents: each element in the chain, starting with outer perception, prompts and somehow orients the following unit. Joyce also explores how the mind wandering trajectory can be affected by contingent elements (the warmth of the day) or even more remote background conditions (for instance, a relationship can be traced between the emergence of Dead Sea images and gravity with the funeral Bloom will have to attend, or with his gravitation toward memories of his dead father). The affecting and affective circulation between wandering inner states and the outer world as rendered by Joyce is, as for Woolf, once more aligned with contemporary accounts in cognitive literary studies that see fictional minds as embodied, enactive, and distributed in the environment.[17]

Joyce's relational approach to mental units also seems to question the old label of "*free* association" (Humphrey 43; emphasis added) to describe mind wandering in narrative and everyday cognition. Causal relationships, albeit penumbral, are explored as guiding forces in what might appear instead as Bloom's "unguided thought" (Irving and Thompson 94). James himself invested considerable theoretical effort in trying to define these relations between "flights and perchings" (243) in the stream of consciousness. He distinguishes between

"transitive parts" (for relational flights) and "substantive parts" (for resting perchings). If the substantive parts are "resting places," usually "occupied by sensorial imaginations of some sort, whose peculiarity is that they can be held before the mind of an indefinite time," then transitive parts are what he calls "thoughts of relations." These are flickering conative arrows, and yet it is their work that structures the dynamics of the stream so that "our thinking tends at all times toward some other substantive part than the one from which it has just been dislodged." James does not talk specifically about the role of inner speech in this relational play, but, as previously discussed, he seems to prize mental images for their substantive parts as images that can be contemplated in the resting place. If we trace Joyce's narrative threading of the wandering stream, however, inner speech seems potentially to serve both flighting connections and perching rests.

We must signal the necessary ambiguity and limitations of written narratives in differentiating between verbal and visual imagery, especially in modernist representations of the mind where textual markers for thinking actions (such as Bloom "thought" or "pictured" things in his mind) are eliminated. When mental units are merely named ("cactuses" [87]), it is often hard to assess whether Joyce's character is silently verbalizing the word or if the name stands for an emerging, wordless image. Open to possible errors and future corrections, in the above passage we have signaled in bold all the lines that we can safely assume to be silently articulated by Bloom through inner speech. For instance, the "*dolce far niente*" or, even more securely, the "snaky lianas" appear to be bits of inner speech in Bloom's wandering mind, given that he takes the latter as the verbal transitive object of linguistic reflection ("snaky lianas, they call them"). Furthermore, the questions that Bloom frames in his mind in advance of answering them ("Wonder is it like that," "What was the chap," "Or is it the volume," "What is the weight") give the strong sense of having been verbally articulated in the dialogic fashion typical of inner speech's social nature, whereby the self takes itself as an addressee. The wacky rehearsal of the law of gravity also must be innerly spoken, as we can see Bloom's focalizing on the accuracy of its articulation, with echolalic repetitions of a mantra ("per second, per second").

As for the truncated texture of inner speech in the wandering mind, Joyce—in line with developmental models of inner speech—seems to navigate between different degrees of condensation. Sometimes he renders moments in which inner speech expands, which is expressed through caging verbal units in a paratactic syntax and punctuation that still do not impact the sentence's grammatical

sense ("The Far East" [86]). Other times he renders a condensed phenomenology through higher formal condensations, such as when he drops the first-person pronoun ("Wonder is it like that" [87]) or the transitive object of verbs ("Petals too tired to"). However, given that condensation is the central strategy deployed by Joyce for the entire wandering state, it is often difficult to discern whether a formally condensed unit is rendering a verbal phenomenon or a bit of mental imagery (for example, are "Azotes" or "Waterlilies" silently articulated words or semiotic tokens standing in for surfacing images?). This interpretive ambiguity is a telltale sign of how much we find, as readers and analysts, a phenomenological possibility that images and inner speech in mind wandering can be equally present, possible, and at times indiscernible because both share phenomenological condensations. This is in itself a modeling success on Joyce's part and a finding that challenges some empirical studies suggesting that inner speech and mental images are negatively correlated (unlikely to be both present) in mind wandering.[18]

That both images and inner words share condensation (phenomenologically in life, and formally in Joyce) also makes it difficult to discern which are, in James's terms, faster "transitive parts" (243) in this sampled stream and which are the contemplated "substantive" units. What seems safe to assume is that Joyce, in his creative exploration, found how (unlike in James's tentative intuition about substantive parts being visual images) both functions can be covered by either images or speech. If sometimes images appear like resting places, innerly contemplated by Bloom (such as the Cinghalese lobbing about in the sun or the plants in the Botanic Gardens), at other times attentional contemplation is directed toward inner speech (as in the temporally substantive rehearsal of the law of gravity). Equally important, Joyce's modeling reveals how transitive and substantive parts are in constant dynamic turn-taking and that transitional elements are crucial to the constitution and understanding of the whole substance and trajectory of a conscious state (even more so if that conscious state is highly kinetic, as in mind wandering).

This is not a minor achievement, as transitive parts are volatile, penumbral, and hardly accessible in cognition. In our daily acquaintance with our conscious life, as James notes, "it is very difficult, introspectively, to see the transitive parts for what they really are. If they are but flights to a conclusion, stopping them to look at them before a conclusion is reached is really annihilating them" (243). Today, introspection has new methods, such as Descriptive Experience Sampling (DES), wherein a random beeper prompts subjects

(who have been trained in the process) to record inner experience.[19] DES seems capable of capturing the floating and flying particles of transitive inner units. Methods such as DES certainly allow access to a wider spectrum of elements composing the inner stream (with thoughts being captured on par with visual imagery, inner speech, emotions, proprioceptive feelings, and more). However, James's worry still applies to these new sampling technologies. What DES captures in fact is (programmatically, as a scope of the method) too isolated from the stream: mental units are abstracted from the stream's temporal flow, thus making it difficult to retain the moving direction of a transitive part or the resting sense of a substantive pause. If new introspective technologies gain higher resolution for the transitive parts (and for the degrees of condensation and expansion of inner speech in conscious states), then they annihilate their transitive force by setting them aside from the temporal flow as well as their dynamic relations with substantive units. In short, they can capture the fleeting condensed nature of speech and images, but not their streaming relations. Joyce once again seems to have something to offer here: a more capable modeling strategy that renders condensation in the multisensory variety of mental units without losing dynamic flow.

To return to questions posed in the introductory section: how is it possible for a literary writer to access this raw yet flowing complexity? How have writers such as Joyce or Woolf managed to produce narrative renditions that both fit and challenge contemporary cognitive models of inner speech and/in the wandering mind? Cohn already framed these questions when she first noted similarities between Vygotsky's account of inner speech as condensed private speech and Joyce's creative findings. Cohn asks, "What are we to make of these remarkable correspondences? We can hardly suppose that Joyce listened to children talking to themselves" (97). Cohn's answer very much aligns with Bernini's view of writing as an "extended introspective technology" (*Beckett and the Cognitive Method* 24) when she claims "if we assume that Joyce, like William James, Freud, or other great pioneer psychologists, had extraordinary power of introspection, we may suppose that he might well have derived from self-observation the conception of inner speech that Vygotsky deduced from his experiments with children" (97). What remains is to refine this hypothesis of writers as introspectors by taking the idea of condensation and re-expansion from inner speech models and applying it to introspective authorial encoding as well as readers' interpretive reconstruction of narrative stream of consciousness.

Consciousness Re-Expansion: Reading as Reversed Introspection

The limits of introspective technologies such as DES are importantly close to the limits of narrativity and narrative understanding. If an introspective method captures only the raw material in what Hurlburt calls "pristine experience" (*Investigating*), the temporal flowing of relations is lost. When transitional and substantive parts are indistinguishable, the stream simply stops moving. Likewise, if in encoding narrative stream of consciousness a writer were to report purely raw and static mental units without a sense of temporal dynamism, then narrativity would be lost. Narrativity, in fact, is a scalar function of a text, admitting of degrees: the less the reader is able to process a text as an unfolding narrative, the lower the ratio of narrativity.[20] Even in a novel, then, if all the units were equally raw, emptied of their transitive and substantive qualities, the narrative engine would stall. Roland Barthes here meets James, when in his foundational "An Introduction to the Structural Analysis of Narrative" he places at the core of narrativity a similar dynamic interaction between what he calls "catalyses" (248) (narrative transitional parts) and "nuclei" or "cardinal functions" (pivotal events in the story that are "areas of security, rest, or luxury"). When a story is the story of a narrative stream of consciousness, its psychological value would reside in capturing the stream's catalytic parts in their conative, relational force with more substantive nuclei. The problem for creative introspectors such as Joyce or Woolf, then, is how to control the trade-off between objectivity (capturing a wide variety of mental units in their raw, variously condensed form) and phenomenology (preserving their relational flowing). Too much condensation, and we have discontinuity (and zero narrativity), with the temporal flow being lost. Too much expansion, and the objective value of the investigation is diluted in the illusory continuity of merely substantive parts.

When it comes to consciousness, cognitive scientists and literary authors therefore navigate a similar tension between objectivity and phenomenology. As Owen Flanagan puts it in his salient commentary on James in *Consciousness Reconsidered*: "Phenomenologically, consciousness is a stream. Objectively, it is less streamlike" (170). This trade-off between objective discontinuity and phenomenological flow links to the "binding problem" (Revonsuo 173) in consciousness studies, or how distributed processes on the neuronal level become subjectively unified in a mind's life. As DES demonstrates, however, the objective level within the mind is also fragmented in its pristine state before unifying into a flowing stream. The binding problem at the mind level therefore concerns how disparate, fragmented,

parallel bits of conscious processes (such as focal and peripheral images, sounds, thoughts, embodied feelings) on the objective level nevertheless feel bounded together in a unified phenomenological stream.[21] Interestingly, the most prominent critic of the stream metaphor, Daniel C. Dennett, identifies Joyce as representative of what he calls the objective "parallel pandemoniums" (253), seeing the brain as a "Joycean machine" (225). Partly contrary to Dennett, we instead argue that Joyce's introspective practice and modeling strategy of the mind (not of the brain), while aiming at the messier objective level, still intended to preserve a phenomenological, flowing, streamlike, and lifelike quality for consciousness. This is because Joyce, unlike cognitive scientists, has a reader within his laboratory and research horizon. His research into the mystery of the conscious would have failed if his findings had been impossible for the reader to process as a (narrative) stream. What he condensed and unbound, the reader must re-expand and phenomenologically rebind. Building on the idea that inner speech, by default, is condensed (at the objective level) but can be re-expanded (acquiring phenomenological flow), we suggest that this navigable axis of condensation and re-expansion can also account for Joyce's introspective encoding and for the reader's decoding of inner speech and wandering states. However, we argue that for these phenomena Joyce did not aim for full objectivity but rather for a compromise at the boundary between the objective and the phenomenological.

If writing as an introspective practice enabled Joyce to access the objective level of experience (as in DES), he reworked the raw data to write half-condensed formal representations of conscious units, thus bringing the reader as close as possible to the border beyond which experiential and temporal intelligibility would be lost. Thanks to this half-condensed narrative form, the reader can reverse the introspective process and reset mental units and relations in motion, thus re-experiencing the phenomenological level in its streamlike quality. This is what we propose in our conclusive model of reading as reversed introspection. It should be clear by now that by reversed introspection we do not mean that reading fictional minds is the opposite of introspection, but rather that reading is a rebinding of creatively acquired and aesthetically encoded introspective data (a process of reception that can actually be a training for readers toward introspective awareness).

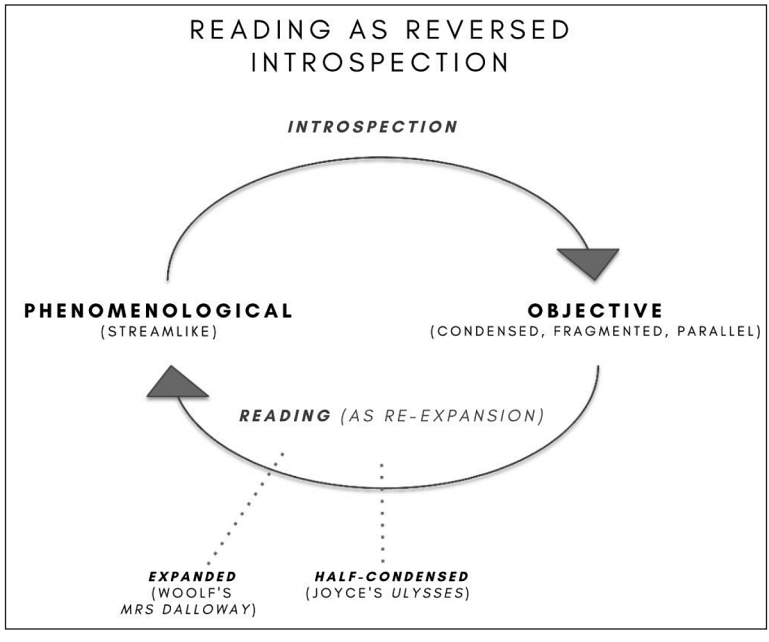

Figure 1. Model of Reading as Reversed Introspection

This model should not be valid only for Joyce. Different authors who have explored the mystery of the conscious stream can be placed across a spectrum of different degrees of condensation (leading to different needs for re-expansion by the reader). In addition, different readers might experience Joyce's findings as more or less reversable. Indeed, Woolf's reading of Joyce is a case in point. It is well known how Woolf called for new narrative forms capable of going beyond conventional narrative representations of the conscious stream, thus aligned in principle with Joyce's approximating access to objective levels. Woolf rejected previous distorting representations of the mind that were limited to the undisturbed, comforting flow of substantive units. She wanted instead for narrative to sample "an ordinary day of an ordinary mind" ("Modern Fiction" 212), and to encode the "myriad impressions—trivial, fantastic, evanescent, or engraved with the sharpness of steel." Importantly, she argues that we should "record the atoms as they fall upon the mind in the order in which they fall, let us trace the pattern, however disconnected and incoherent in appearance, which each sight or incident scores upon the consciousness" (213). This was Woolf's introspective and

aesthetic mission. As the second section explored, she fulfilled this promise and managed to record and encode a great dynamism in Clarissa's wandering state in ways that can challenge and nourish contemporary models of mind wandering.

And yet, as a reader of Joyce, Woolf found *Ulysses*'s introspective condensation too extreme. While publicly recognizing its importance (in "Modern Fiction"), in her diary Woolf writes that she has "finished Ulysses, & think it is a mis-fire. Genius it has I think; but of the inferior water. The book is diffuse. It is brackish. It is pretentious. It is underbred, not only in the obvious sense, but in the literary sense" (199). It seems that to her Joyce went beyond the threshold of readability and narrativity, by approximating too much the mind's raw state. For Woolf, the aesthetic encoding of mental units or atoms had to be less condensed or unbounded, not conventional but still more literary, because, "When one can have cooked flesh, why have the raw?" (188–89). Accordingly, Woolf went for less condensed forms of presentation. These are equally if not more capable than Joyce's in accounting for the interplay of focal and peripheral thoughts, perceptions, and affects; yet they feel nonetheless more distanced from the objective, condensed nature of processes such as inner speech. As a result, the reader has a shorter route to traverse in reversing Woolf's introspective process toward a phenomenological stream. However, the price to pay is that we feel more distant from the tightened, fragmented, almost parallel feeling of the objective level Joyce discloses.

A model must be judged according to what it captures as well as what it misses, and the same applies to literary narrative models of consciousness. Woolf's modeling of mind wandering is exceptionally dynamic but seems less capable of rendering the condensed form of consciousness as well as inner speech (even if other passages presenting Septimus Smith's fragmented stream might count as exceptions). Woolf does capitalize on the power of narrative to condense and expand the temporality of outer and inner events (and condensation and expansion are core qualities of narrative treatment of time).[22] She decides though—in line with her own reading taste and experience—to go for less condensed solutions, with the benefit of a higher narrativity but with a lower degree of accuracy for the objective level. This is why we place her novel slightly closer to the phenomenological end in the spectrum of condensation.

Together with offering comparative insights on how modernist authors have modeled mind wandering and inner speech with different degrees of condensation, we submit that a model of reading as reversed introspection can apply to a further range of authors and

texts across different periods and cultures. The idea that literature can function as an introspective technology should not be limited to the modernist golden age. Even when texts on the surface appear to promote more conventional, continuous presentations of consciousness, their modeling strategies and introspective findings should be assessed in relation to what they have captured and for the work they ask their readers to perform (and analysts should be conscious of period-specific and culture-specific presentational conventions).[23] We therefore hope that our model might be taken up beyond modernism, to add new challenges and resources to contemporary scientific models, toward a broader, transhistorical co-modeling of the mystery of the conscious.

Notes

1. By "resting state" the psychology and neurosciences refer to a configuration of areas in the brain that are activated in the absence of stimuli and through spontaneous cognition; for more, see Buckner, Andrews-Hanna, and Schacter. For its relevance to mind wandering, Smallwood and Schooler, Gruberger et al., and Andrews-Hanna et al.

2. For a comprehensive survey on the phenomenology and cognitive functions of inner speech, see Alderson-Day and Fernyhough and Perrone-Bortolotti et al.

3. The idea that that inner speech has an intersubjective and dialogic structure rooted in our early social interactions with caregivers comes from Vygotsky and has been reworked and updated by Fernyhough, *The Voices Within*.

4. A compelling qualitative study on the phenomenology of resting states can be found in Delamillieure et al.

5. For an application of scientific models of mind wandering to Virginia Woolf, see Cuddy-Keane. For a broader cognitive approach to inner experience in Joyce, see Hogan, Ulysses *and the Poetics of Cognition*. For a new stylistic approach to consciousness in the novel, see Sotirova.

6. Pivotal works in this direction include Leech and Short and, more recently, Semino and Short.

7. The cognitive reappraisal in narrative theory and literary studies of consciousness as something distributed in outer traces and behaviours has been forcefully promoted first by Palmer.

8. Elsewhere, one of us has dealt more extensively with James's later skepticism on the very notion of consciousness and its relevance for the narrative study of consciousness as a stream ("A Panting Consciousness").

9. On mind wandering and attentional resources, see Kam et al.

10. The idea that literature can be a scaffolding material technology enhancing introspective practice was initially formulated in Bernini ("Affording Innerscapes") and then updated and expanded (*Beckett and the Cognitive Method*). Bernini's theory originates in contemporary views of the mind as an array of cognitive processes that are not limited to the brain and skull, but that can be extended and distributed (to use a few key terms within this framework) when coupled with outer agents, processes and technologies, such as with the material agency of writing and narrative storytelling ("Supersizing Narrative Theory"). The idea of literary writing as a technology for introspection is also indebted to Butler's view of introspection as a practice that can be extended (what Butler calls "extended introspection" [95]).

11. An invaluable guide for an historical and critical survey of theories of self-knowledge is Gertler.

12. The demoting and resurgence of introspective methods in the science of mind has a fascinating history as well as a challenging and promising present to which this article hopes contributing to from an interdisciplinary perspective. To gather a sense of key phenomenological, methodological, and philosophilcal problems, as well as proposed solutions, curious readers can refer to Shear and Varela, Hurlburt and Schwitzgebel, and Smithies and Stoljar.

13. The equating of consciousness with what falls in our attentional field is still a widespread mistake, on which see Montmayor and Haladjan.

14. Persuasive data suggesting that inner speech is not as ubiquitous as we might think have been gathered by Hurlburt, Heavey, and Kesey.

15. A welcome exception of a contribution mentioning the interplay of inner speech and multi-sensory imagery operating in mind wandering is in Antrobus.

16. On parallel cognition and the formal rendering of simultaneous mental events in the novel see Hogan, *Ulysses*.

17. A substantial, collective and interdisciplinary effort to apply cognitive frameworks of distributed cognition to arts and literature has been recently completed by Anderson, Garratt, and Sprevak.

18. A mutual exclusivity of the two phenomena is, for instance, suggested by Stawarczyk (204).

19. For an exhaustive presentation and critical evaluation of this method, see Hurlburt and Schwitzgebel.

20. David Herman reflects on how Joyce's *Finnegans Wake* radically tests the limits of narrativity (*Story Logic* 91).

21. On the unity of consciousness and the binding problem in cognition, see also Bayne.

22. See the seminal chapter on "duration" by Genette in his *Narrative Discourse*, 86–112.

23. On the importance of considering and understanding historical conventions in the narrative presentation of consciousness across different periods, see McHale.

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