

Cognitive Studies in Literature and Performance

Series editors

Bruce McConachie
Department of Theatre Arts
University of Pittsburgh
Pittsburgh, PA, USA

Blakey Vermeule
Department of English
Stanford University
Stanford, CA, USA

This series offers cognitive approaches to understanding perception, emotions, imagination, meaning-making, and the many other activities that constitute both the production and reception of literary texts and embodied performances.

More information about this series at
<http://www.palgrave.com/gp/series/14903>

Sylvain Belluc • Valérie Bénéjam
Editors

Cognitive Joyce

palgrave
macmillan

Editors

Sylvain Belluc
Paul-Valéry Montpellier 3
University of Nîmes
Nîmes, France

Valérie Bénéjam
University of Nantes
Nantes, France

Cognitive Studies in Literature and Performance

ISBN 978-3-319-71993-1

ISBN 978-3-319-71994-8 (eBook)

<https://doi.org/10.1007/978-3-319-71994-8>

Library of Congress Control Number: 2017961117

© The Editor(s) (if applicable) and The Author(s) 2018

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover illustration: Heritage Image Partnership Ltd / Alamy Stock Photo

Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

In memory of André Topia

ACKNOWLEDGEMENTS

First and foremost, our deepest thanks go to all the contributors in this volume: through the vicissitudes of its lengthy completion, they have all shown us the extent of their patience, support, and true friendship.

For valuable advice in discussing this collection, we also owe debts of gratitude to Carle Bonafous-Murat, Daniel Ferrer, and Catherine Rovera-Amandolese.

For their encouragement, assistance, and precious counsel, we also wish to thank especially our editor at Palgrave Macmillan, Allie Bochicchio, and her assistant Emily Janakiram.

Finally, there are no words to adequately express all we owe to the late Professor André Topia—as a teacher and as a friend. This book was one of his last projects and we know he would have been glad to see it in print. It is dedicated—with abiding respect and affection—to his memory.

CONTENTS

Editors' Introduction	1
Sylvain Belluc and Valérie Bénéjam	
Knowledge and Identity in Joyce	31
Fran O'Rourke	
Intentionality and Epiphany: Husserl, Joyce, and the Problem of Access	51
Jean-Baptiste Fournier	
Authors' Libraries and the Extended Mind: The Case of Joyce's Books	65
Dirk Van Hulle	
Characters' Lapses and Language's Past: Etymology as Cognitive Tool in Joyce's Fiction	83
Sylvain Belluc	
Joyce and Hypnagogia	103
Thomas Jackson Rice	

Spatialized Thought: Waiting as Cognitive State in <i>Dubliners</i> Caroline Morillot	131
The Invention of Dublin as “Naissance de la Clinique”: Cognition and Pathology in <i>Dubliners</i> Benoît Tadié	145
Cognition as Drama: Stephen Dedalus’s Mental Workshop in <i>A Portrait of the Artist as a Young Man</i> André Topia	155
Joycean Text/Empathic Reader: A Modest Contribution to Literary Neuroaesthetics Pierre-Louis Patoine	173
Configuring Cognitive Architecture: Mind-Reading and Meta-Representations in <i>Ulysses</i> Lizzy Welby	193
Hallucination and the Text: “Circe” Between Narrative, Epistemology, and Neurosciences Teresa Prudente	209
“[The] Buzz in His Braintree, the Tic of His Conscience”: Consciousness, Language and the Brain in <i>Finnegans Wake</i> Annalisa Volpone	229
Bibliography	251
Index	271

NOTES ON CONTRIBUTORS

Sylvain Belluc is Maître de Conférences in English literature at the University of Nîmes/Paul-Valéry Montpellier 3 (EMMA). He previously taught at the Institute of Political Studies in Lille. The recipient of several grants and research scholarships, he is the author of numerous articles on Joyce, linguistics, translation, and intertextuality, as well as on the film adaptations of Joseph Conrad's novels. His PhD thesis, which he wrote at the Sorbonne Nouvelle and completed in 2014, deals with the way Joyce's works both register and problematize the evolution of the concept of etymology at the turn of the twentieth century.

Valérie Bénéjam is Maître de Conférences in English literature at the Université de Nantes. A former student of the Ecole Normale Supérieure, she wrote her PhD under the supervision of Jean-Michel Rabaté at the University of Burgundy in Dijon. She has written numerous articles on Joyce, has co-edited with John Bishop a volume of essays on space and spatiality in Joyce's works (*Making Space in the Works of James Joyce*, 2011), and is currently completing a book-length study on Joyce and drama entitled *Joyce's Novel Theatre*. A trustee of the International James Joyce Foundation, she is on the editorial board of several Joycean journals (*James Joyce Quarterly*, *European Joyce Studies*, *Dublin James Joyce Journal*).

Jean-Baptiste Fournier is a former student of the Ecole Normale Supérieure. He studied philosophy at the University of Panthéon-Sorbonne (Paris 1), completing a PhD thesis under the supervision of Jocelyn Benoist on the concept of constitution in the works of Edmund Husserl and Rudolf Carnap.

Caroline Morillot is an independent scholar. Her PhD thesis, which she wrote at the Sorbonne Nouvelle, identifies and analyses a range of clinical, mystical, and cognitive states in James Joyce's early works. This exploration is coupled with a linguistic approach to the text in an attempt to formalize the transition between spiritual states and grammatical ones.

Fran O'Rourke is Emeritus Professor of Philosophy, University College Dublin. He is the author of *Pseudo-Dionysius and the Metaphysics of Aquinas* (2005), *'Allwisest Stagyrte': Joyce's Quotations from Aristotle* (2005), and *Aristotelian Interpretations* (2016). Co-editor, with Ann Fogarty, of *Voices on Joyce* (2015), he has published several articles on the influence of Aristotle and Aquinas on James Joyce. As well as philosophical influences on James Joyce, he is interested in Joyce's use of Irish traditional songs, which he regularly performs with John Feeley, Ireland's leading classical guitarist. A CD of their concert in Monaco on St Patrick's Day 2015 has been published (www.joycesong.info).

Pierre-Louis Patoine is Assistant Professor of American literature at Sorbonne-Nouvelle University. He is the author of a book on the role of the empathic, physiological body in the experience of reading (ENS Editions, 2015), has published articles on contemporary American literature, biosemiotics, ecocriticism, and literary neuroaesthetics, and is co-director of the [Science + Literature] research group at the Sorbonne Nouvelle and co-editor of the online journal *Épistémocritique*. His current research investigates the bio-ethical and aesthetic aspects of altered states of consciousness during reading and video gaming.

Teresa Prudente teaches at the University of Turin, Italy. She has authored a monograph on Woolf's temporalities (*A Specially Tender Piece of Eternity: Virginia Woolf and the Experience of Time*, 2009) and a book on Woolf, Joyce, and science (*To Saturate Every Atom: Letteratura e Scienza in Woolf e Joyce*, 2012), as well as edited *The Capricious Thread: Memory and the Modernist Text* (2011). Her current research explores the techniques of impersonality in Woolf and Joyce.

Thomas Jackson Rice is Professor of English at the University of South Carolina. Rice is the author of nine books and over one hundred articles and papers, chiefly on British, American, and world fiction from the nineteenth century to the present. Beyond two early books on the modern English novel, two books on James Joyce, and books on Charles Dickens, D. H. Lawrence, and Virginia Woolf, Rice's two most recent monographs are *Joyce, Chaos, and Complexity* (1997) and *Cannibal Joyce* (2008).

Benoît Tadié is a Professor of American Studies at the Université Rennes 2 Haute Bretagne. He has edited and translated *Dubliners* into French (*Gens de Dublin* 1994). His publications focus on Joyce, modernist periodicals, and American crime fiction. His books include *L'Expérience moderniste anglo-américaine* (1999), *James Joyce: Dubliners* (2000), and *Le Polar américain, la modernité et le mal* (2006).

André Topia The late André Topia was Professor Emeritus of English Literature at the Sorbonne Nouvelle, Paris. He has edited various Victorian and Modernist novels for French publishers and has written on Dickens, Hardy, Conrad, Joyce, Lawrence, Woolf, and more generally Victorian and Modernist fiction and poetry.

Dirk Van Hulle Professor of English Literature at the University of Antwerp and director of the Centre for Manuscript Genetics, recently edited the new *Cambridge Companion to Samuel Beckett* (2015). With Mark Nixon, he is co-director of the *Beckett Digital Manuscript Project* (www.beckettarchive.org) and editor-in-chief of the *Journal of Beckett Studies*. His publications include *Textual Awareness* (2004), *Modern Manuscripts* (2014), *Samuel Beckett's Library* (2013, with Mark Nixon), *James Joyce's Work in Progress* (2016), and several genetic editions in the *Beckett Digital Manuscript Project*, including *Krapp's Last Tape/La Dernière Bande*, *L'Innommable/The Unnamable* (with Shane Weller), and the *Beckett Digital Library*.

Annalisa Volpone is Professor of English Literature at the University of Perugia and co-director of the CEMS (Centre for European Modernism Studies). She is the author of *Speak to us of Emailia. Per una lettura ipertestuale di Finnegans Wake* (2003) and *Joyce: Give and Take* (2012). Her research interests include modernism (she has published on Virginia Woolf and on the (post)modernism of Vladimir Nabokov), romantic poetry (she has published on Blake, Wollstonecraft, Coleridge, and P. B. Shelley) and the interconnections between literature and science.

Lizzy Welby teaches English Literature at the Collège Français Bilingue de Londres, and is the author of *Rudyard Kipling's Fiction: Mapping Psychic Spaces* (Edinburgh: Edinburgh University Press, 2015). She is also the winner of the 2014 Lorian Hemingway Short Story Competition for a story entitled, "The Breakers." She is currently editing a new collection of Rudyard Kipling's fiction for Rosetta Books, New York.

ABBREVIATIONS

References to the publications listed below appear throughout this volume as abbreviations followed by page number, unless otherwise specified. Editions of Joyce's works other than those cited below are indicated in the chapters' notes and listed in the final bibliography.

Works by James Joyce

- CW* *The Critical Writings of James Joyce*. Eds. Ellsworth Mason & Richard Ellmann. New York: Viking, 1959.
- D* *Dubliners: Text, Criticism, and Notes*. Eds. Robert Scholes & A. Walton Litz. New York: Viking Press, 1967.
- FW* *Finnegans Wake*. New York: Viking Press, 1939; London: Faber & Faber, 1939. These two editions have identical pagination. References are by page and line, or occasionally by book and chapter.
- JJA* *The James Joyce Archive*. Ed. Michael Groden et al. New York & London: Garland Publishing, 1977–9. Volume citation conforms to the one given in the *James Joyce Quarterly*.
- Letters I* *Letters of James Joyce. Vol. I*. Ed. Stuart Gilbert. New York: Viking, 1957; reissued with corrections, 1966.
- Letters II* *Letters of James Joyce. Vol. II*. Ed. Richard Ellmann. New York: Viking, 1966.
- Letters III* *Letters of James Joyce. Vol. III*. Ed. Richard Ellmann. New York: Viking, 1966.
- P* *A Portrait of the Artist as a Young Man: Text, Criticism and Notes*. Ed. Chester G. Anderson. New York: Viking Penguin, 1968.

- PSW* *Poems and Shorter Writings*. Ed. Richard Ellmann, A. Walton Litz, and John Whittier-Ferguson. New York: Viking Press; London: Faber, 1991.
- SH* *Stephen Hero*. Ed. John J. Slocum & Herbert Cahoon. New York: New Directions, 1944, 1963.
- U* *Ulysses*. Ed. Hans Walter Gabler et al. New York & London: Garland Publishing, 1984, 1986. In paperback by Garland, Random House, and Bodley Head and by Penguin between 1986 and 1992. References appear as episode number plus line number.
- U-G* *Ulysses*. Ed. Hans Walter Gabler et al. New York and London: Garland, 1984. References to the Foreword, Critical Apparatus, Textual Notes, Historical Collation, or Afterword.

Other Works and Journals

- Critical Heritage* Deming, Robert H., ed. *James Joyce: The Critical Heritage*, vol. 1 (1907–27). London: Routledge & Kegan Paul, 1970.
- JJI* Ellmann, Richard. *James Joyce*. New York: Oxford University Press, 1959.
- JJII* Ellmann, Richard. *James Joyce*. New York: Oxford University Press, 1982.
- JJQ* *James Joyce Quarterly*.

“[The] Buzz in His Braintree, the Tic of His Conscience”: Consciousness, Language and the Brain in *Finnegans Wake*

Annalisa Volpone

*The brain is wider than the sky.
(Emily Dickinson 598)*

*Lulled in the countless
chambers of the brain, our
thoughts are linked by many a
hidden chain; awake but one,
and in, what myriads rise!
(Samuel Rogers 9)*

INTRODUCTION: SPEECH AND STUTTERING: A HISTORICAL AND SCIENTIFIC BACKGROUND

The second half of the nineteenth century and the first half of the twentieth are marked by an increasing interest in the potentialities and functions of the brain, in terms of both physical and psychological events. Accordingly, the emphasis is primarily laid on the brain, not only as the recipient and elaborator of sensory stimuli, but also as the seat of mental

A. Volpone (✉)
University of Perugia, Perugia, Italy

© The Author(s) 2018
S. Belluc, V. Bénéjam (eds.), *Cognitive Joyce*,
Cognitive Studies in Literature and Performance,
https://doi.org/10.1007/978-3-319-71994-8_13

229

processes. This distinct conception has paved the way for the establishment of the discipline of cognitive neuroscience (Bennett and Hacker 4–43). Among the various issues that cognitive neuroscience investigates, the relationship between thought and speech is certainly one of the most prominent. This is mainly due to the fact that at the basis of the interplay between thought and speech there are complex dynamics that involve the emotional as well as physical spheres. When such dynamics are for some reason impaired, different language disorders can occur. Hence it was precisely the analysis of patients with speech problems that gave early researchers the first clues as to how the brain is involved with language.

In the early 1870s, Paul Broca (1824–80) and Carl Wernicke (1848–1905) discovered and studied the roles and functions of the left and right hemispheres, with reference to language and speech (lateralization). In particular what is now called Broca’s area (or convolution of Broca) lies in the third frontal convolution, just anterior to the face area of the motor cortex and just above the Sylvian fissure. In the *Bulletin de la Société d’Anthropologie*, Broca theorized that the left hemisphere is distinct or dominant for language, because it matures faster than the right. He reasoned that the two hemispheres, which look so much alike, are probably not very different in innate capacity, although one clearly takes the lead in the case of speech, and then dominates the other (cerebral dominance). In 1874, Wernicke hypothesized that another part than Broca’s area of the brain could be linked with language disorders, in particular those related to language comprehension. This area (now called “Wernicke’s area”) was further back and lower in the brain as compared to Broca’s. Connected by a bundle of nerve fibres called the arcuate fasciculus, the two areas are now considered responsible for different kinds of aphasia and language deficit.

Drawing on Broca’s and Wernicke’s research on language comprehension and production, Samuel T. Orton (1879–1948) and Lee Edward Travis (1896–1987) developed the theory of “cerebral lateralization,” also known as “handedness,” because it was first associated with the phenomenon of left or right handedness. Orton and Travis postulated that stuttering is the result of a conflict between the left and right cerebral hemispheres. Moreover, they concentrated on the consequences of incomplete lateralization of language.¹ In their opinion, stuttering, in particular, was the

¹The theory of lateralization focuses on brain asymmetry—the way the two hemispheres differ functionally and structurally—, and how they participate in the cortical and subcortical circuitry underlying complex cognition (Hugdahl and Davidson 8).

result of an absence of normal cerebral dominance, which caused an incoordination of cortical areas essential for speech production and perception (Dorman and Porter, Jr. 181). Stuttering, they argued, stemmed from various medical conditions such as neurological diseases, brain injuries, or even psychological traumas.

Although Freud showed no particular interest in stuttering, he expressed his thinking in several case presentations and theoretical writings, beginning in 1888 (Packman and Attanasio 48). A few years after Broca's and Wernicke's studies, in the late 1880s, he treated a forty-year-old widow, Frau Emmy von N., who had a tendency to stutter. Freud held that the aetiology of stuttering was mostly psychological.² Later, he stated that “stammering could be caused by displacement upward of conflicts over excremental functions” (Glauber 330): Freud felt the adult stuttrer's speech mechanism depended on conflict between the wish to defecate symbolically on his parents and authority figures by using hostile words and a concurrent fear of retaliation. Hence, because stuttering is ultimately the result of such contradictory and antithetical drives, it can only manifest through repetition (verbal fixity of hostile utterances) and hesitation (fear of retaliation).

This essay intends to focus on the influences that contemporary medico-cultural discourse might have exerted on Joyce's *imaginaire*,³ and in particular on his treatment of stuttering in *Finnegans Wake*. Indeed, not only is stuttering a peculiarity of HCE and his projections, but also the symptom of a new poetic form, the highest achievement of Joyce's linguistic experimentation. As David Spurr has explained:

Stuttering and related forms of defective speech constitute a phenomenon that we witness throughout Joyce's work, and especially in *Finnegans Wake*. These phonetic anomalies have the effect of staging precisely the material production of the utterance which is so important to Joyce's language. [...]

² Current research distinguishes various forms of stuttering. That referred to by Freud is “psychogenic stuttering.” For a comprehensive account of the psychological implications of stuttering see Boberg.

³ Important scientific discoveries in the history of neuroscience were made during this period, resulting in at least three Nobel prizes. In 1906 Camillo Golgi and Santiago Ramon Y Cajal were awarded the prize for their work on the structure of the nervous system, and in 1932 Edgar Douglas Adrian and Sir Charles Sherrington were recognized for their discoveries regarding the functions of neurones. Finally, in 1936 Sir Henry Hallett Dale and Otto Loewi were awarded the prize for their discoveries in the field of chemical transmissions and nerve impulses.

By means of stuttering and other phonetic imperfections, Joyce prepares the ground for a new literary language that finds its final form in *Finnegans Wake*. (121–2)⁴

In the *Wake*, Joyce modifies the patho-logical deferral of meaning and sense produced by stuttering into an epistemo-logical quest for a new order of speech. Such a new order of speech paves the way for what I would call the poetics of the “[y]ou’re not there yet” (*FW* 205.14), the asymptotic relationship between signifier and signified, which is a stylistic hallmark of the *Wake*. The overt disclosure of the (once) hieratic arbitrariness of the signifier proves that even the *signum* can be profaned, disrupted, and mutilated by means of an endless “continuanarration” (*FW* 205.14) in which the language of dream becomes the language of reality.

From a cognitive perspective, such a disjointed language invites a reflection on the mechanisms of its production and its pragmatic effects. In this regard, HCE and his projections, in particular his two sons Shem and Shaun, enact and embody the paradoxes and limits of literary and non-literary communication. On closer examination, it could be argued that Shem and Shaun are something more than their father’s projection: provocatively, we could think of them as the left and right hemispheres of HCE’s brain. Revealingly, in the “Nightlessons” episode, Shaun and Shem make marginal remarks to the text of the lesson, Shaun on the right hand margin and Shem on the left. Indeed, their struggle for dominance, as well as their different functional specializations—especially in terms of written and oral language—seem to be modelled according to the hemisphere lateralization suggested by contemporary neuroscience. In consequence, each of the brothers’ abilities are meticulously categorized and listed throughout the *Wake*: while Shaun is associated with oral language, Shem is associated with the written word; indeed his oral communication proves to be inadequate and ineffective, because he has his father’s stutter.

In the first part of this essay, I will focus on HCE, whose *ur*-stuttering serves as a model for all the other characters’ stuttering and for Joyce’s *modus narrandi*. I will then concentrate on Shem and Shaun and on their relationship with HCE, which I intend to investigate in terms of

⁴David Spurr’s essay on “Stuttering Joyce” was published in *Errears and Erroriboose* as I was completing research for my own article in May 2011. I wish to thank him for his evocative and compelling reading of stuttering in Joyce’s writing, and in particular in *Finnegans Wake*, which confirmed some important aspects of my own investigations in the field of cognitive sciences.

cognition, emotion, and memory. Accordingly, by examining the three of them holistically, i.e. as functional patterns of the same neural network (which ultimately is the *Wake* itself), I will try to open new reading perspectives and semantic possibilities.

“BYGMESTER FINNEGAN, OF THE STUTTERING HAND”
(*FW* 4.18) AND THE EXTENDED CONSCIOUSNESS OF HCE

It is with a stutter that the *Wake* begins, or re-begins. A stutter is the sound of Finnegans fall that is rendered morphologically by a long compound, which in its turn is made of a sequence of broken lexemes designating the word “thunder” in different languages: “bababadalgharaghtakamminarronkonnbronntonnerronntuonnthunntrovarrhounawnskawntoohooordenenthurnuk!” (*FW* 3.15–17). Thunder is also the voice that Vico assigned to God, as the first meaningful sound ever uttered. However, the verbal hesitation expressed by the repetition of the monosyllable “ba” suggests that the voice of thunder, the voice of God, is in fact a stuttering voice. Furthermore, the tautological nature of the Wakean word for thunder is in itself a kind of stutter: the voice of God is nothing but the infinite chain of signifiers standing for the same inaccessible signified. Ironically, in the quotation, rather than God’s voice, the sound of the fall better corresponds to that of a child in his first awkward attempt to speak (“bababa”). In this regard, God’s stutter prefigures and announces the limits of verbal communication by evoking the biblical Tower of Babel in the initial “bababa,” which is followed with a con-fusion of barely intelligible languages. It should be noticed, moreover, that again “bababa” refers to stuttering via the Latin word *balbus* (stutterer), which Joyce widely employs throughout the *Wake*.⁵ Such a combination of scattered languages and stuttering signifiers will later converge in the evocative image of the “Tower of Balbus” (*FW* 467.16) which is associated to Shem.

Echoing the biblical Tower of Babel, as presented in Genesis, the wakean “Tower of Balbus” posits stuttering both at the “beginning” (genesis?) of the story and of the language employed to recount it.⁶ In this regard, the dialogue between Mutt and Jute is particularly revealing,

⁵ See for example “balbulos” (*FW* 4.30), “balbly” (*FW* 37.16), “Balbaccio, balbuccio!” (*FW* 45.34) or “Tribalbutience” (*FW* 309.2).

⁶ For further reading on stuttering and the Tower of Babel, see Atherton 174.

because it invites the reader to reflect on the very nature of stuttering in the novel:

Jute.—But you are not jeffmute?

Mutt.—Noho. Only an utterer.

Jute.—Whoa? Whoat is the mutter with you?

Mutt.—I became a stun a stummer.

Jute.—What a hauhauhauhaudibble thing, to be cause! How, Mutt? (*FW* 16.14–19)

Representing respectively hearing and speaking, Jute and Mutt never really communicate, since they are both impaired: Jute cannot properly hear while Mutt cannot properly speak. Their awkward conversation seems to be deeply affected by stuttering at the level of both the signifier and the signified. When Jute asks Mutt: “Whoa? Whoat is the mutter with you?” (i.e. “What is the matter with you?”), he does it, not only in the sense of “What is wrong with you?”, but also, and more interestingly, in the sense of “What is the matter of your utterance?”. Here the term “matter,” which is implicit in “mutter,” recalls the Latin *materia*, i.e. the substance from which something is made; significantly, to Jute’s question Mute’s answer is stutter: “I became a stun a stummer.” Stutter is the semantic substance (signified) of Mutt’s speech and a stutter is what Jute can hear and reproduce phonetically as a signifier: “What a hauhauhauhaudibble thing, to be cause!”

Matter in the sense of *materia* indicates also the phenomenal world, which is perceived as something different from or outside consciousness. However, the neuroscientist Ramachandran has observed that “the barrier between mind and matter is only apparent and arises as a result of language” (quoted in Lodge 9). Hence stutter, as a pathological manifestation of language, becomes an epiphenomenon of the limits and imperfections of such an artificial barrier, of the apparent separation between the subject and outer reality. Along these lines, the expression “mutter” is particularly evocative. Seamlessly embodying the subject (“Mutt”), his language (“utter”) and the matter, “mutter” epitomizes the overcoming of the difference between what is inside and what is outside subjectivity. In this perspective, Jute’s insistence on the who (“Whoa”) and what (“whoat”) involved in Mutt’s utterance can be associated with the philosophical notion of *qualia*, the plural of *quale*, which is the Latin for “what sort,” or “what kind.” *Qualia* are used to refer to subjective

experience, to define experiential properties of sensations, feelings, perceptions and, more controversially, thoughts and desires as well.⁷ Therefore, Jute’s question alludes also to the complexity of Mutt’s experience, that of an individual human being “moving through space and time” (Lodge 10).

It is not by chance, then, that further on in their dialogue Mutt and Jute discuss their perception of the reality around them and what has happened inside the mound that comes to sight as the morning mist gradually fades away. The kind of reality that they are describing, as well as their comments about it, is ambiguously presented: we never fully understand whether it is part of the “outer world” or whether it belongs to the characters’ inner dimension. At some point in their conversation, Mutt says to Jute: “you skull see” (*FW* 17.18). Here, not only does the skull refer to the past, to a pre-historical time that is paradoxically presented as a future possibility (“you *shall* see”), in a vertiginous subversion of linear time, but also as the bony framework which encloses the brain. “You skull see” implies a kind of vision that is first and foremost mental. Accordingly, if we return to Jute’s early question (“Whoa? Whoat is the mutter with you?”), the “mutter” alluded to her might refer to the brain matter that was first described by the ancient Egyptians in the *Book of the Dead*—a major reference for the *Wake*—and more particularly in the so called *Edwin Smith Surgical Papyrus*, the earliest written account of the anatomy of the brain.⁸

God’s initial stutter, evoked by the multi-lingual thunder, conflates into Tim Finnegan’s scream as he falls down. Finnegan is the first stuttering character in the narration, and notably he is presented as the “Bygmester Finnegan, of the Stuttering Hand” (*FW* 4.18). Much has been said about the image of Finnegan’s stuttering hand, which symptomatically occurs in the opening pages of the *Wake*, and the act of stuttering associated with the hand has been regarded as a paradigm of how stuttering works in the writing of the text itself.⁹

However, the reference to Finnegan’s hand also echoes the notion of handedness. As I have already mentioned, contemporary theory of lateralization considered stuttering as the result of either an absence of cerebral

⁷For a more detailed description of *qualia* see Stubenberg 21.

⁸For an account of the influence of *The Book of The Dead* on the *Wake* see Atherton 191–200 and Bishop 86–125.

⁹See for example Atherton 172–3 and Spurr 126.

dominance or of its abnormal manifestation, usually in connection to left-handedness.¹⁰ The lateralization of the hemispheres had become quite popular since the late Victorian age, not only because it explained human behaviour, emotions, and consciousness scientifically, but also because it inevitably called for a new representation of the psychophysiology of the individual. For instance, it challenged the notion of stable and unitary human identity:

By suggesting that certain parts of the brain controlled specific emotions and behaviours, localizationists contradicted the popular belief in a unified soul or mind governing human action, thus narrowing possibilities for human agency. (Stiles 10)

Lateralization acknowledged a concept of identity based on duality and potential multiplicity. In this regard, the character of Tim Finnegan, with his many projections, epitomizes such a disruption of identity. The effects are visible in the writing itself. The synecdochic image of his stuttering hand indicating writing *tout court* deconstructs the monolithic views of writing as a self-contained and self-sufficient process. Its “stuttering quality,” moreover, emphasizes how writing, like speaking, is ultimately the result of hesitancy, and of multiple negotiations among different, and often opposite, drives.

From the opening pages of the *Wake*, it is clear in fact that, in his role of storyteller, the writer is no longer capable of offering a monolithic perspective of the world. His hesitating voice and writing tools are the evidence that language is the result of complex psychological and physical dynamics, in which many different components are called into question. In this view, then, the well-known search for the writer’s identity through the Rorschach image of the “teatimestained terminal” gathers new meanings:

The teatimestained terminal [...] is a cosy little brown study all to oneself and [...] its importance in establishing the identities in the writer complexus (for if the hand was one, the minds of active and agitated were more than so) will be best appreciated... (*FW* 114.29–35)

¹⁰Notably, Lewis Carroll, who is an inescapable reference point in the *Wake*, had a stutter and was left-handed. Carroll’s physical peculiarities were clearly a model for the character of HCE and his projections, in particular for Shem.

The recurring synecdochic relation between the writer and his hand is contrastively presented here: the hand is one, while the minds are multiple. The writer's identity becomes a “complexus,” in which complexity is combined with the idea of an intricate, composite structure (“plexus”), like a neural nexus could be. Indeed, writing becomes the result of a collaboration of “active and agitated” minds. Notably, the lateralization of the brain was popularly referred as “split-brains” to indicate the different roles performed by the two hemispheres; elsewhere Joyce employs “Scatterbrains” (*FW*99.34), which seems to evoke the same concept.

HCE is the major stuttering character of the *Wake*. As we know, he stutters whenever he deals with his supposed guilt. In this case, stuttering is a sign of his presence throughout the novel, a mark of his legacy when it is manifested in other characters, especially in his twin sons Shem and Shaun.

In I.ii, precisely after his assumed infraction, HCE encounters the cad who asks him the time. The pub owner reacts nervously to the apparently innocent question, as if it were a statement of his guilt. He tries to stay calm and to answer appropriately, however all he can say is almost incomprehensible, because of his stuttering:

Shsh shake, co-comeraid! Me only, them five ones, he is equal combat. I have won straight. Hence my nonation wide hotel and creamery establishments which for the honours of our mewmew mutual daughters, credit me, I am woowoo willing to take my stand, sir, upon the monument, that sign of our ruru redemption. (*FW* 36.20–5)

Evidently, the stuttered words reveal HCE's guilt. For instance, the basic word “comrade” (which has a military connotation) becomes “co-comeraid,” a compound expression that contains the verb “to come”—here obviously in a highly marked sexual connotation—and “raid,” i.e. a surprise attack, a totally unexpected ambush, as is for HCE the meeting with the cad.¹¹ “Nonation” refers both to the biblical character “Onan,” and therefore to “onanism”—again to be related to HCE's sexual infraction—, and to the fate of Ireland, of which HCE is representative, as a sort of Irish Albion.¹² “Nonation” can be also read as “no nation,” as if

¹¹ It should be noted that cad, apart from being the short form of “cadet,” also means “a man who does not behave in gentlemanly manner towards others” (*OED*).

¹² Cf. Frye 45–6.

Ireland's stuttering hero were losing his identity both as an individual and as a citizen. Further, the possibly incestuous nature of HCE's crime is revealed by the expressions "mew mew," which echoes the crying sound of a cat, in this case of "pussycats" (incidentally "mew" indicates also a place to hide away), and "woo," which means "to court, to make love" or, remarkably, "to invite with importunity, to solicit in love" (*OED*).

The above passage exemplifies how HCE's stuttering is pre-eminently represented from an emotional point of view. Consequently, HCE's sensations, betrayed by such a language disorder, disclose important aspects of his personality and add essential information to the character. In this perspective, his stuttering has a crucial cognitive function for the reader.

Stuttering is disseminated throughout the *Wake* like a virus affecting the characters who deal with HCE. For instance, when the cad recounts his encounter with him, he does it by employing a "secondmouth language as many of the bigtimer's verbaten words which he could balbly call to memory" (*FW* 37.16). The expression "secondmouth" indicates, in fact, that he is reporting something said by another. Here HCE's speech disorder is somehow inherited by the cad as a "babble" (which is a bit different from stuttering—a meaningless confusion of words or sounds) although, as I have shown earlier, "balbly" might also refer to the Latin "balbus," which means "stutter."

As David Hayman has remarked, HCE is permitted direct expression in the *Wake* only twice: in his address to the pub clients of II.iii and in the concluding long monologue of III.iii, the so called "Amtsadam, sir" monologue. Here, during a kind of séance, or perhaps a psychoanalytic session, since the four judges have now become "bright young chaps of the brandnew brain trust" (*FW* 529.5), the "expansive voice" of HCE emerges from the depth of the ground,¹³ or maybe from the midden, to which it seems he contributed with his own excrements.¹⁴

The expression "brain trust" referring to the four judges not only echoes the well-known group of advisors to Franklin Roosevelt during his presidential administration, but also, and more interestingly, the cerebral, empathic, connection that HCE gradually, and ironically, establishes with the four judges, similar to the kind of relationship of trust and confidence that is at the basis of psychotherapy.

¹³Hayman speaks of a voice "buried in the nightmare of history" (Hayman 193).

¹⁴Notice that the midden is the same "place" in which the letter (mamafesta) had previously been recovered by the hen.

In a passage from his speech, HCE tries to praise his wife to (unsuccessfully) hide his sexual drive towards his daughter:

On my verawife I never was nor can afford to be guilty of crim crig con of malfasance trespass against parson with the person of a youthful gigirl frifrif friend chirped Apples. (*FW* 532.18–21)

Here, Joyce’s treatment of stuttering is almost entirely psychological, and Freudian to be more precise, with the many references to excrements, for example when he declares “I popo possess the ripest littlums wifukie around the globelettes globes” (*FW* 532.30–1): “popò” in Italian, as well as in English (“poo” and “poop”), means “shit” (faeces), and in German means “bottom”. Although HCE tries to avoid the four judges’ probing questions, and to deny everything before he is actually accused of anything, his distinctive stuttering is evidence once again of his sense of guilt and embarrassment about his supposedly inappropriate behaviour towards a young girl (“against parson with the person of a youthful gigirl frifrif friend”); further, the above sentence alludes to strong terms of guilt such as “fuck” (“wifukie”). The emergence of such an uncontrollable drive as well as the exhaustion of his last masks, used to hide his shame, could be compared with what Antonio Damasio would call “extended consciousness” or “autobiographical self.” According to the Portuguese neurologist, the extended consciousness:

is a complex kind of consciousness, of which there are many levels and grades, it provides the organism with an elaborate sense of self and identity, because it places the person at a point in individual historical time, richly aware of the lived past and of the anticipated future, and keenly cognizant of the world beside it. (Damasio 1999, 16)

To the notion of extended consciousness Damasio opposes that of “core consciousness,” which:

provides the organism with a sense of self about one moment (now) and about one place (here). The scope of core consciousness is the here and now. For core consciousness there is no elsewhere, there is no before, there is no after. (Damasio 1999, 16)

In this regard, the “Amtsadam sir” monologue represents the moment of HCE’s self-revelation, of the emergence of his autobiographical self.

Until then, what we have been allowed to know about him is only his “core consciousness,” that is to say, HCE as he is in different times and spaces, as well as in different and even contradictory versions. Therefore, HCE, as the Great Master Builder of the City (Amsterdam), presents himself as a complex archetypal figure of gigantic proportions (a kind of new Adam Kadmon or Irish Albion). At the same time, HCE’s controversial autobiographical self is sublimated into his role of builder and bringer of the psycho-archeological history of mankind.

Marked by an “elaborate sense of self and identity” (Damasio 1999, 14), as well as by an awareness of our life in time, Damasio’s extended consciousness perfectly fits the context of HCE’s stuttering declarations in his final monologue. For instance, although he is still trying to conceal his sins and deny his urges, his sense of self and identity emerges from the very beginning of his speech, when he declares:

I am bubub brought up under a camel act of dynasties long out of print, the first of Shitric Shilkanbeard (or is it Owllaugh MacAusculpth the Thord?), but, in pontofacts massimust, I am known throughout the world. (*FW* 532.7–10)

Even though mostly concocted, the allusions to his complex lineage (“the first of Shitric Shilkanbeard (or is it Owllaugh MacAusculpth the Thord?”), to his ancestors and origins strongly reveal HCE’s need to reconcile himself with his-story and his conscience. Therefore, it is quite remarkable that HCE’s consciousness arises when he tries to explain and to give voice to his conscience, for the first time. His stuttering signals such an effort. Rather than being a mere symptom of HCE’s guilt, it indicates that his conscience is coming to the surface through language. Thus, the interruptions and hesitancy in his discourse are evidence of intense psychological activity.

Only at this point of narration, when HCE is apparently ready to deal with the paradoxes of his conscience, his consciousness can finally overcome subjectivity to be part of the wider flux of existence. Further, sentences like “one of my life’s ambitions of my youngend from an early peepee period while still to hedjeskool, intended for broad-church” (*FW* 533.25–7) and “Here we are again” (*FW* 532.6) confirm his newly gained sense of life in time, in particular in the past and in the present.

Conversely, there is no immediate future, because now HCE needs to give way to his sons Shem and Shaun, or better, to transform and transfigure himself into them. In this regard, the quotation chosen for the title of this essay is particularly appropriate: “[t]he buzz in his baintree, the tic of his conscience” (*FW* 180.22) is a reference to Shem, but could be associated with Shaun and HCE as a unique subjectivity too. On closer examination, in fact, “the buzz in his baintree” could be attributed to Shaun as the paradigm of a “disordered rationality.” Moreover, Shem’s baintree evokes the arboreal representation of the nervous system, whose harmonic balance is threatened by an unidentifiable sound (“buzz”) of unknown origin, like the sound of an untuned radio. It should be remembered that HCE’s head is variously employed in terms of acoustical and broadcast technology: thus, according to the moment of narration, it can function as radar, radio, sonar, telegraph, or television.¹⁵ The “tic of his conscience” echoes HCE’s stuttering both as a psychosomatic response to his sense of guilt and, as I have argued, as the passage from a core consciousness to an expanded one.

THE HAUNTED INKBATTLE HOUSE: CONSCIOUSNESS AND CEREBRAL DOMINANCE

The final section of this essay will concentrate on how consciousness is presented in the episode known as the “Inkbattle house” (*FW* 169.1–186.18), and on the motif of the struggle between brothers in connection with the lateralization of cerebral hemispheres and cerebral dominance. From the very beginning of the episode we realize that Shem’s house is a pathway through his own consciousness. Indeed, apart from the obvious association of Shem with writing, the reference to the “inkbattle” recalls the experiments of the Swiss Freudian psychoanalyst Hermann Rorschach (1884–1922) who, before moving to Russia, studied and worked in Zürich. He used the perception of inkblots as an approach to theoretical problems in psychology (Lanyon and Goodstein 13).

In the *Wake*, the reader seems to be invited to explore and interpret the blurred and irregular depths of Shem’s consciousness as if it were a Rorschach test. A consciousness that primarily manifests itself through the writing of the tea-stained letter *mamafesta*, whose alphabet could again be interpreted not only in terms of signs but also in terms of images; like the

¹⁵ See Theall on the technological transformations of HCE.

logographic elements of the Egyptian hieroglyphs (“The proteiform graph itself is a polyhedron of scripture,” *FW* 107.9).

In one of the crucial passages of the episode, Shaun defines Shem as “son of Thunder, self exiled in upon his ego” (*FW* 184.6–7). The thunder Shem is associated to is, of course, the stuttering thunder of the opening pages, which recalls Finnegan’s fall and, through him, HCE. However, there is a distance between Shem and the thunder: Shem has sunk into the abyss of his self-exiled consciousness, he is a “soulcontracted son of secret cell” (*FW* 182.34–5), “writing the mystery of himself in furniture” (*FW* 184.9–10).

Hence, delving into Shem’s psychological recesses, layer after layer, allows us to arrive at the mental area in which the writing process occurs, or first begins. As if we were scanning and mapping Shem’s brain, it is possible to identify his “chora,” which according to Kristeva is the prelingual stage in development dominated by a con-fused combination of opposite drives: □

The *chora* is a modality of significance in which the linguistic sign is not yet articulated as the absence of an object and as the distinction between real and symbolic. We emphasize the regulated aspect of the *chora*: its vocal and gestural organization is subject to what we shall call an objective *ordering* [*ordonnancement*], which is dictated by natural or socio-historical constraints such as the biological difference between sexes or family structure. We may therefore posit that social organization, always already symbolic, imprints its constraint in a meditated form which organizes the *chora* not according to a *law* (a term we reserve for the symbolic) but through an ordering. (Kristeva 26–7)

Shem’s hideaway is the locus of the undifferentiated, where written and oral languages conflate into the language of the self, where Shem’s symbolic and real spaces seamlessly overlap. According to Shaw Sailer:

Kristeva declares that only a few avant-garde poetic texts explore the full range of the signifying process to reach the chora, one of which is *Wake*. As the place where the unity of the speaking subject “succumbs before the process of charges and states that produce him”, the chora is the force behind such phenomena as HCE’s stuttering as the sign of his sexual guilt, the incoherent sensual babbling of Issy’s letters as the sign of her awakening adolescent sexuality, and the fury of Shaun/Jaun’s tirade to Issy in III.2 as the sign of his attraction to her. (Shaw Sailer 17–18)

Therefore, the chora is the psychological drive that remains at the basis of Shem’s verbal instability, whose most overt symptom is, in fact, his stuttering. In its chaotic mix of perceptions, feelings, and needs, the chora is materially represented by the infinite catalogue of objects that can be found in Shem’s house such as: “broken wafers” (*FW* 183.29), “unloosed shoe latchets” (*FW* 183.29), “burst loveletters” (*FW* 183.10), “tries at speech unasyllabled” (*FW* 183.13), “best intentions” (*FW* 183.17), “crocodile tears” (*FW* 183.21) and “alphabetty formed verbage” (*FW* 183.12).

In such a peculiar archive we can also find an extremely evocative object: the “amygdaloyd almonds” (*FW* 183.12). Since “amygdaloid” is the ancient Greek word for almond, the Wakeese expression might be translated as “almond-shaped almonds.” This reference, however, is not just a redundant definition for an object that is almond-shaped, as amygdale is also the French word for “tonsil.” Before Broca’s and Wernicke’s studies, it was held that stuttering was caused by congenital physical abnormalities, such as enlarged tonsils. Indeed, tonsils were the first tissue to be removed in an attempt to treat stuttering. In this regard, the reference to tonsils, to a physical part of Shem’s body, as a possible cause for his verbal impediments (which become verbal creations) is in line with Joyce’s view of artistic creation. The body is part of such a creation, strongly influences it, and even becomes one with it, as when Shem writes on his bodily parchment. Indeed, the whole episode might be read as a long reflection on the physical, corporeal side of creative writing, which cannot be separated from its mental counterpart. In fact the term amygdala has this double meaning, i.e. it recalls a specific part of the body, but also another one, closely connected to the mind.

In the years in which Joyce was writing the *Wake*, neurologists such as Paul Bucy and Heinrich Klüver studied the areas of the brain associated with memory. The amygdala, in particular, is an almond-shaped sub-cortical structure in the temporal lobe. Discovered in the nineteenth century, it is considered responsible for storing painful and emotion-related memories, as well as initiating memory storage in other brain regions. In the 1930s, scientists found that damage to the temporal lobe caused a variety of changes in people’s behaviour. The most prominent changes were related to fear reactions, feeding, and sexual behaviour. Further investigations have proved that damage to the amygdala leads to specific changes in emotional processing.

Shem’s behaviour, as Shaun portrays it (given that the Inkbattle house is described from Shaun’s point of view), seems to present “anomalies”

precisely in the functions attributed to the amygdalae. Take, for example, the way fear is manifested in Shem: Shaun describes his brother as fearful and timid, always trying to avoid battles, as he “was cowardly gun and camera shy” (*FW* 171.33–4); or how he is associated with food, as Shem has “unusual tastes.” Shaun remarks that he prefers canned and filthy food to fresh food, and a urinous white wine (“he preferred Gibsen’s teatime salmon tinned, as inexpensive as pleasing, to the plumpest roeheavy lax or the friskiest parr,” *FW* 170.26–8). As for his sexual behaviour (which is synthesized as “immoral,” “nonproductive” and “degenerate”) Shaun emphatically reports that Shem swims “in the pool of Sodom” (*FW* 188.23–4).

The reference to the amygdala, moreover, strongly emphasizes the importance of memory, both as an archive in which experience is stored, and as a creative dimension halfway between imagination and experience itself. Shem’s inkbattle house epitomizes such a peculiar form of memory, which echoes Coleridge when, in *Biographia Literaria*, he operates a crucial aesthetic distinction between fancy and imagination, whereby imagination is the only power of the mind that makes memory come into act. Therefore, imagination:

dissolves, diffuses, dissipates, in order to recreate; or where this process is rendered impossible, yet still at all events it struggles to idealise and unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead. (Coleridge, vol. I, 202)

Shem’s house is a place of artistic recreation, of secular resurrection from death and fixity, a place in which consciousness, with its fund of active memory, gives life to the work of art.

Throughout the novel Shaun and Shem perform various roles and functions. However, rather than being autonomous characters (with an individual existence), they are usually presented as psychological and/or physical elements of the two ur-types HCE and ALP. Accordingly, they can be considered the upper and lower parts of HCE’s body (Shaun would be the brain and Shem the genitals), the left and right banks of the river Liffey, or even ALP’s thighs.

It can be suggested that, when related to HCE, Shem and Shaun play a much more sophisticated function, as they respectively represent his left and right cerebral hemispheres. Indeed, in many crucial passages of the *Wake*, the connection between the two brothers seems closer than that

between a father and his sons. Precisely because none of the characters is a Dickensian individual, but a general type, his/her ambiguous presence in the text can perform multiple tasks (Epstein 4). For instance, in III.iii, HCE resurrects within the depths of Shaun/Yawn (“Arise, sir ghostus! As long as you’ve lived there’ll be no other,” *FW* 532.4–5), subverting and disrupting a father’s biological link to his son. On closer examination, then, the twins are a kind of organic, physical component of their father’s body. The kind of symmetrical (twin) relation that links one to the other, as well as their being two halves of the same whole, can be compared to the two cerebral hemispheres that constitute the largest part of the brain. Even the brothers’ antagonism, which Hayman considers a major nodal system of the *Wake*, can be read in terms of struggle for cerebral dominance.

The competences and functions that Joyce attributes to the twins throughout the novel correspond to those which, in his time, were generally attributed to the cerebral hemispheres. Shem is usually associated with the left side of the human body, while Shaun is associated with the right. For example, Shaun’s use of language is literal and analytical, while Shem’s is poetic and creative. According to studies of the lateralization of the functions in cerebral hemispheres conducted by Broca, and some years later by Wernicke, the left hemisphere is connected to a sophisticated use of language, and controls general cognitive functions.¹⁶ Some researchers have recently gone so far as to ascribe consciousness to the left hemisphere. The right hemisphere is credited with pragmatic and contextual language, and the processing of non-verbal emotional stimuli and musical abilities.¹⁷

In the *Wake*, Shem is the artist, the creative part of the body, while Shaun is the rationalist, the cold mathematician, who cannot bear the anarchy of creativity. Above all, Shaun is emotionally and artistically limited; as Epstein remarks, when he needs language to insult Shem, he must ask Shem for the appropriate words:

¹⁶In this regard something should be said about the question of left-handedness as it was studied in Joyce’s time. According to Broca, left-handedness would imply a hemispheric switch. Therefore, the dominant hand was considered a reflection of cerebral dominance.

¹⁷It must be said that broad generalizations are often made in popular psychology about certain functions (e.g. logic, creativity) being lateralized, which is to say, located in the right or left side of the brain. These ideas need to be treated with care, as certain specific functions are often distributed across both hemispheres. In this essay, reference is only made to what was believed about lateralization in Joyce’s time.

you (will you for the laugh of Scheekspair just help mine with the epithet?)
 semisemitic serendipitist, you (thanks, I think that describes you)
 Europasianised Afferyank! (*FW* 191.1–4)

In III.ii, Mamalujo's donkey suggests that Shaun has as great gift for language, like his celebrated brother Shem. Shaun obviously denies Shem's abilities. He then violently vituperates against him, which shows Shaun's constant unease about what his own bottom half is up to:

—Kind Shaun, we all requested, much as we hate to say it, but since you rose to the use of money have you not, without suggesting for an instant, millions of moods used up slanguage tun times as words as the penmarks used out in sinscript with such hesitancy by your cerebrated brother—excuse me not mentioningahem?

—CelebrAteD! Shaun replied under the sheltar of his broguish, vigorously rubbing his magic lantern to a glow of fullconsciousness. HeCitEncy! Your words grates on my ares. (*FW* 421.15–23)

Despite Shaun's attempts to outwit Shem, to cerebrally dominate him, the latter is defined as the "cerebrated" brother. He thinks that his mother is far too kind to the disreputable Shem, and he totally rejects the suggestion that Shem is any relative of his. The pun "cerebrated" is particularly revealing. For the first time it associates Shem with two elements that until that very moment have been considered Shaun's prerogative: fame and intelligence, suggesting perhaps that Shem's is the dominant side. Indeed "cerebrated" is composed of the word "celebrated" (repeated by Shaun in his answer) and "cerebral", i.e. pertaining to the brain, conveying the sense of being endowed with mental faculties, intelligence. Moreover, Shem is here associated with his father HCE via the expression "Hesitancy," a recurrent motif in the *Wake*.¹⁸

Shaun's aggressive reaction is telling. Notice in particular that in this epiphanic moment the logical and rational Shaun needs to rub a magic lantern in order to regain his "fullconsciousness": after all, awareness and wakefulness cannot be exhausted or wholly explained by considering the world only in mathematical terms. Consciousness is here seen in terms of light ("glow of"). Damasio employs the idea of "stepping into the light" as a metaphor for consciousness, the birth of the knowing mind, the sense

¹⁸ In his essay "Hesitancy in Joyce's and Beckett's Manuscripts," Dirk Van Hulle uses the expression "hesitancy" in reference to the Parnell scandal and the forged letters.

of self becoming known in the mental world. This is the critical transition from innocence and ignorance to real knowingness and selfness: such a movement describes an interaction between the organism (that within which consciousness occurs) and the object (that which the organism encounters), an interaction in which a mediating consciousness constructs knowledge about that interaction, and the changes that the object brings about in the organism. Remarkably, Shaun’s call for “fullconsciousness” is uttered (performed) in the chapter in which he almost becomes dawn: in fact he is later described as “Thy now paling light lucerne” (*FW*472.22–3).

CONCLUSIONS

These examples outline the rich hermeneutic possibilities of a cognitive reading of *Finnegans Wake*. It is a challenging approach that invites reconsideration of the characters’ functions and of their mutual relations. In considering neuroscience related to speech and speech disorders, it is remarkable how these are always elements of creativity and inspiration in the novel, even when they reveal a psychological uneasiness or a complex emotional response. In this regard, Joyce’s pun about the “Tower of Babel,” which becomes the “Tower of Babble,” is certainly paradigmatic: all speech that deviates from conventional expressive patterns becomes creative and inspiring. It is from this perspective that we should consider stuttering in the *Wake*: not as an impairment, but as a challenge to language itself. Stuttering, as with other forms of linguistic transformation, constitutes what Spurr has defined as “a new poetics of narrative fiction” (121), perhaps the *Wake*’s greatest achievement.

I would like to conclude this essay with a quotation from Gilles Deleuze about poetic/creative language as a stuttered language. In an essay entitled “He Stuttered” he writes that:

a great writer is always like a foreigner in the language in which he expresses himself, even if this is his native tongue. At the limit, he draws his strength from a mute and unknown minority that belongs only to him. He is a foreigner in his own language: he does not mix another language with his own language, he carves out a nonpreexistent foreign language within his own language. He makes the language itself scream, stutter, stammer, or murmur. (Deleuze 109–10)

Stuttering is the only possible response to the congenital foreignness of the language, which ultimately is a foreignness between the self and the

phenomenal world. As consciousness expands beyond the limits of individuality, language becomes a “stuttering language.” Stuttering, then, no longer occurs “at the level of *parole*, of individual discourse, but at the level of *langue*, of collective system” (Lecerclé 19–20). In its carnivalesque *mise en scène* of communication, the *Wake* discloses the mechanisms of language production, and the (im)possible reconciliation between the mind and the verbal translation of its thoughts, as well as between subjectivity and the phenomenal world, or as Shaun says, speaking about HCE, between “His thoughts that wouldbe words” and “his livings that have-been deeds” (FW 531.31).

BIBLIOGRAPHY

- Atherton, James. *The Books at the Wake. A Study of Literary Allusions in James Joyce's Finnegans Wake*. Carbondale: Southern Illinois University Press, 1974.
- Bennett, M. R., Peter Michael, and Stephen Hacker. *History of Neuroscience*. Oxford: Wiley-Blackwell, 2008.
- Bishop, John. *Joyce's Book of the Dark: Finnegans Wake*. Madison: Wisconsin University Press, 1993.
- Boberg, Einer. *Neurophysiology of Stuttering*. Edmonton: University of Alberta Press, 1993.
- Broca, Paul. Sur le principe des localisations cérébrales. *Bulletin de la Société d'Anthropologie* 2 (1861): 190–204.
- Bucy Paul, and Heinrich Klüver. ‘Psychic Blindness’ and Other Symptoms Following Bilateral Temporal Lobectomy in Rhesus Monkeys. *American Journal of Physiology* 119 (1937): 352–353.
- Coleridge, Samuel Taylor. *Biographia Literaria* (1817). 2 vols. Oxford: Clarendon Press, 1907.
- Damasio, Antonio. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. London: William Heinemann, 1999.
- Deleuze, Gilles. He Stuttered. In *Essays Critical and Clinical*. Trans. Daniel W. Smith and Michael A. Greco, 107–114. Minneapolis: University of Minnesota Press, 1997.
- Dickinson, Emily. The Brain Is Wider Than the Sky (CXXVI). In *The Poems of Emily Dickinson*, ed. Ralph William Franklin. Cambridge, MA: The Belknap Press of Harvard University Press, 1998.
- Dorman, M. F., and R. J. Porter, Jr. Hemispheric Lateralization for Speech Perception in Stutterers. *Cortex* XI (1975): 181–185.
- Epstein, Edmund Lloyd. *A Guide Through Finnegans Wake*. Gainesville: University Press of Florida, 2009.

- Frye, Northrop. Quest and Cycle in *Finnegans Wake*. *James Joyce Review* 1 (1957): 45–46.
- Glauber, Peter. Freud’s Contributions on Stuttering: Their Relation to Some Current Insights. *Journal of American Psychoanalytic Association* 6 (1958): 326–347.
- Hayman, David. *The Wake in Transit*. Ithaca, NY: Cornell University Press, 1990.
- Hugdahl, Kenneth, and Richard Davidson, eds. *The Asymmetrical Brain*. Boston: MIT Press, 2004.
- Kristeva, Julia. *Revolution in Poetic Language*. Trans. Margaret Waller. New York: Columbia University Press, 1984.
- Lanyon, Richard I., and Leonard D. Goodstein. *Personality Assessment*. New York: Wiley, 1997.
- Lecerclé, Jean-Jacques. *Deleuze and Language*. New York: Palgrave Macmillan, 2002.
- Lodge, David. *Consciousness and the Novel: Connected Essays*. Harvard: Harvard University Press, 2002.
- Packman, Ann, and Joseph S. Attanasio. *Theoretical Issues in Stuttering*. Hove: Psychology Press, 2004.
- Rosenthal, David M. *Consciousness and the Mind*. Oxford: Oxford University Press, 2005.
- Rogers, Samuel. The Pleasure of Memory. In *The Poetical Works of Samuel Rogers*, ed. Samuel Rogers, 9. London: G. Bells, 1892.
- Shaw, Sailer Suzanne. *On the Void of to Be: Incoherence and Trope in Finnegans Wake*. Ann Arbor: University of Michigan Press, 1993.
- Spurr, David. Stuttering Joyce. In *Errears and Erroriboose: Joyce and Error*, ed. Matthew Creasy, 120–133. *European Joyce Studies* 20. Amsterdam: Rodopi, 2011.
- Stiles, Ann. *Popular Fiction and Brain Science in the Late Nineteenth Century*. Cambridge: Cambridge University Press, 2012.
- Stubenberg, Leopold. *Consciousness and Qualia*. Amsterdam: John Benjamins Publishing, 1998.
- Theall, Donald F. Beyond the Orality/Literacy Dichotomy: James Joyce and the Pre-History of Cyberspace. *HJS* 1.1 (1995). <http://hjs.ff.cuni.cz/archives/v3/theall.html>.
- Van Hulle, Dirk. Hesitancy in Joyce’s and Beckett’s Manuscripts. *Texas Studies in Literature and Language* 51 (Spring 2009): 17–27.