

## *The modernist mind extended*

### *Samuel Beckett, his fiction and the extended mind theory*

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THIS ARTICLE ELUCIDATES AN ON-GOING PHD PROJECT whose purpose is to apply the extended mind theory (henceforth the EMT) to Samuel Beckett as a modernist writer and to his fictional characters. The project is in turn part of a larger effort to reassess the alleged modernist “inward turn”,<sup>2</sup> following David Herman’s call to consider the environment as an important factor in the evocations of fictional minds in literary Modernism.<sup>3</sup> The article will also shed some light on the methodology applied in the project, discuss possible pitfalls and challenges it may harbour, and outline its structure. Furthermore, the article will attempt to motivate the choice of the EMT from a wide array of “externalist” theories in modern cognitive science, as well as explain how cognitive processes involved in creative writing can serve as an example of extended cognition.

The paper has the following structure: Part I begins with a sketch of the alleged “inward turn” in literary Modernism, as well as David Herman’s appeal for its thorough reassessment. After a brief overview of the origins of “active externalism”<sup>4</sup> in analytic philosophy and in cognitive science, the EMT will be discussed and its choice as the theoretical bedrock for the project explained. Part II deals with the writer as a cognising being and presents the creative writing process as an example of extended cognition, with the Flower and Hayes’s (1981) theory of cognitive processes involved in creative writing as a theoretical basis. Samuel Beckett (as a representative of late modernism) and his oeuvre will serve as a real-life case study for “extending” both the writing process and the fictional minds beyond the bounds of skin and skull, and examples from Beckett’s texts will be provided to illustrate the arguments.

Both the article and the PhD project it describes are heavily indebted to the ground-breaking work of Dirk Van Hulle, who launched the idea to combine cognitive narratology<sup>5</sup> and the EMT by means of genetic critical analysis in his book, *Modern manuscripts* (2014). My research is meant to offer example-based support for Van Hulle’s main idea – namely, that studying manuscripts as material traces of the writer’s extended mind will furnish us with insights on how the writers of narratives interact with their environment, and how the storyworlds the writer creates are part and parcel of the minds of fictional characters inhabiting them.

#### *I. Modernism and philosophy of mind*

##### *Modernism: not quite the “inward turn”*

Ever since Erich Kahler introduced the concept in 1973, it has become generally accepted to regard literary Modernism as a movement that has consciously made an “inward turn” towards the mind, making it the sole subject of its study and thus leaving the “external” historical, political, and socio-cultural elements largely outside the scope of literary endeavour. Modernists themselves have greatly contributed to this interpretation of their work, the famous example

<sup>2</sup> KAHLER, E. *The inward turn of narrative*. Princeton: Princeton University Press, 1973.

<sup>3</sup> cf. HERMAN, D. “Re-minding modernism.” In: *The emergence of mind*, edited by David Herman, Lincoln: University of Nebraska Press, 2011, pp. 243-272.

<sup>4</sup> Just like “extended cognition”, “active externalism” is an umbrella term for all theories that assign a constitutive role to extracranial objects in the process of human cognition. I shall be using the two synonymous terms interchangeably throughout the paper.

<sup>5</sup> According to David Herman (who coined the term), cognitive narratology is “the study of mind-relevant aspects of storytelling practices” (in *The living handbook of narratology*, <[http://wikis.sub.uni-hamburg.de/lhn/index.php/Cognitive\\_Narratology](http://wikis.sub.uni-hamburg.de/lhn/index.php/Cognitive_Narratology)>).

being Virginia Woolf's appeal to her peers to "look within" and "examine [...] an ordinary mind on an ordinary day".<sup>6</sup> With great verve she accused her "materialist" contemporaries of writing about "unimportant things", referring to their "[concern] not with the spirit but with the body".<sup>7</sup> Instead, she insists that the true task of a novelist is to "convey this varying, this unknown and uncircumscribed spirit, whatever aberration or complexity it may display, *with as little mixture of the alien and external as possible*".<sup>8</sup> It is interesting to see how Woolf uses the words "alien" and "external" in an almost synonymous fashion, thus inadvertently invoking the key Cartesian concept of the mind/body dualism. The "inward turn", according to Woolf, is the only method of writing "the proper stuff of fiction". x

While nobody doubts Woolf's good intentions, reality does seem to be more complex than her simple appeal to "look within", as the so-called "external" element has never quite disappeared from modernist fiction. Despite the presence of a great deal of introspection on the part of the characters, their thoughts and actions are more often than not activated by their context, not to mention their own bodies. It is therefore not surprising that in the past decades, the "inward turn" of literary Modernism has been successfully questioned by a number of scholars, most famously by David Herman. In his seminal article, "Re-minding Modernism", he argued that despite the programmatic calls to the contrary, both modernist writers and their fictional characters were firmly embedded in their environment: "Narratives written during [Modernism] can [...] be placed in productive dialogue with recent models of the mind as distributed across brain, body and world".<sup>9</sup> By linking modernist fiction to "externalist" theories of cognition (and explicitly referring to the EMT), Herman suggests that contrary to common assumption, "the [modernist] mind does not reside within; instead, it emerges through humans' dynamic interdependence with the social and material environment they seek to navigate".<sup>10</sup> Building on Herman's idea, Dirk Van Hulle refreshingly proposes genetic critical analysis as a tool for the exploration of the extended mind of the writer and of her fictional characters, and to study the writer's notebooks and manuscripts as "external" vehicles of cognition.<sup>11</sup> Aware of the danger of committing the mortal sin of the intentional fallacy,<sup>12</sup> Van Hulle rightly states that such an investigation "does not [...] necessarily imply a search for the author's intentions".<sup>13</sup> Indeed, it stands to reason that the knowledge of the writer's involvement in the production of narratives does not automatically endorse the autobiographical reading of her work, even though it is not implausible to imagine that modernist authors, in their quest to plumb the depths of the human mind, would probably look to their own minds (at least) as points of departure. However, in order to avoid the mire of the intentional fallacy debate, I shall keep the level of production of narratives (i.e., the discussion of the writer's "extended" cognitive processes) completely separate from looking for "extended minds" in the fictional storyworlds evoked in texts. In this sense, modernist fiction, precisely because of its preoccupation with human cognitive and conscious processes, represents a rich body of material for an enquiry into human cognition in the domain of literary narrative.

In the light of the above description, the work of the late modernist Samuel Beckett is a particularly interesting case in point. To begin with, he maintained a lifelong interest in the workings of the human mind, making it the central topic of virtually all his plays and works of fiction.<sup>14</sup> Beckett's habit of preserving his numerous manuscripts is another crucial reason for his choice as the case study for this project, as the availability of a large body of manuscripts obviously facilitates the genetic critical analysis of his (or indeed anyone's) literary oeuvre. By subjecting a selection of his notebooks and drafts to both the exogenetic and endogenetic

<sup>6</sup> WOOLF, V. "Modern fiction." In: *The common reader*, edited by Andrew McNeillie. San Diego: Harcourt Brace Jovanovich, 1919, 1984, pp. 146-154; see also HERMAN, D. Op. cit., 2011, p. 250.

<sup>7</sup> WOOLF, V. Op. cit., 1919, 1984.

<sup>8</sup> Ibidem, my italics.

<sup>9</sup> HERMAN, D. Op. cit., 2011, p. 253. Ibidem, p. 254.

<sup>10</sup> Ibidem, p. 254.

<sup>11</sup> VAN HULLE, D. *Modern manuscripts*. London: Bloomsbury, 2014, pp. 130-31.

<sup>12</sup> The term was originally defined in 1946 by Wimsatt and Beardsley as a reaction against the biographical approach to literary criticism, i.e. the claim that knowing what the author had in mind at the time of writing is key to the proper understanding of the text.

<sup>13</sup> VAN HULLE, D. Op. cit., 2014, p. 130.

<sup>14</sup> Also, Beckett's alleged Cartesianism is of interest to us, as the philosophical basis of the EMT is at least partly anti-Cartesian in nature.

analysis, I hope to uncover Beckett's extended mind as reflected in his writing style: in other words, I would like to establish just how his interaction with external sources (notebooks) and his own text (drafts) affect his creative writing. As for the extended minds of Beckett's fictional characters, I will attempt to trace them both in the manuscripts and in the published texts (focusing exclusively on the latter in this paper), despite the obvious difficulties in making plausible links between any changes in the drafts and the evocations of fictional minds, as Van Hulle also notes.<sup>15</sup>

<sup>15</sup> VAN HULLE, D. Op. cit., 2014, p. 4.

### *Philosophy of mind – analytic philosophy and cognitive science*

Modernist writers were not alone in their attempts to explore the human mind; the turn of the century also witnessed philosophers increasingly addressing the subject of human cognition and consciousness. In their typically modernist effort to “make it new” (an appeal by Ezra Pound to his literary colleagues), the founders of what was to become known as analytic philosophy (such as Frege, Russell and Wittgenstein) believed that philosophy should become much more scientific, i.e., based on the laws of logic and natural sciences. Specifically, it should rely solely on the third-person perspective and ban all “speculation” from philosophical discourse. In their fascination with a systematic approach, they used language as an example of a stringent and logical system. In the 1960s, analytic philosophy entered the realm of cognitive science, and the focus shifted from language to AI and neuroscience, with neural networks and computers acting as models for the human brain. Although cognitive science is clearly an umbrella term for a wide variety of mind-related disciplines and theories, one idea has remained unchallenged across its broad spectrum: while rejecting Cartesian mind/body dualism, early cognitive scientists have sealed the mind hermetically inside the brain and insisted that all cognitive processes happened inside the head, thus (perhaps unwittingly) upholding another Cartesian principle of the strict internal/external divide.

According to the traditional “Cartesian” cognitive science doctrine, human cognition turns on two essential ingredients: (1) mental representations of the world that are formed on the basis of perceptual information, and (2) a set of rules that manipulate these representations, whereby – crucially – “both the representations and the operations by which they are transformed are internal to the brain”.<sup>16</sup> It is important to realise that “Cartesian” cognitive science does not deny the role of the body and the environment in the formation of mental representations; however, this interpretation of the role of external factors means that all they do is *cause* cognitive processes to occur *inside the brain*; in no way do they participate in cognition properly so called.

<sup>16</sup> ROWLANDS, M. *The new science of the mind*. Cambridge, MA: The MIT Press, 2010, p. 30.

Despite the initial (and probably still on-going) dominance of traditional cognitive science, new developments – often brought together under the umbrella term of “active externalism” – have questioned in the past few decades the internalist mantra that mainstream cognitive science has made its credo. The scope of this paper does not allow for an elaborate account of all the theories belonging to the domain of “active externalism”: suffice it to say that the roles of the body and the world at large in shaping human cognition have finally received due recognition, although not everyone agrees on the degree to which external factors drive cognitive processes. In other words, while most cognitive scientists acknowledge their causal role (insisting on the actual cognitive processes being exclusively neural and therefore internal),

others – such as the founding fathers of the EMT – believe in their truly “constitutive” function, meaning that without external factors certain cognitive processes are simply impossible. The following section outlines the principles of the EMT and explains its choice as the theoretical cornerstone underlying the enquiry both into the creative writing process and into fictional minds.

### *The extended mind thesis (EMT)*

The idea behind the EMT is really quite simple: in fact, so simple that it took the “founding fathers” Andy Clark and David Chalmers just one article of a little over twenty pages to present it to the reader.<sup>17</sup> The cornerstone of the EMT is the claim that human cognition is neither exclusively neural (i.e., internal), nor merely embodied (i.e., depends on our sensorimotor activity): instead, it extends beyond brain and body into the world at large, often (though not always) including external objects as equal participants in cognitive processes. However, this apparent simplicity is deceptive, as the subsequent intellectual battle between their fierce opponents and die-hard fans has shown. The obvious issue here is the fact that many scholars are not convinced that external objects can *constitutively* contribute to cognition. Unlike the thesis of embodied cognition (that incorporates the body into cognitive processes), what Clark and Chalmers propose is seemingly even more counter-intuitive (at least for those who have been formed by the traditional internalist doctrine). Few can deny the connection between body and brain (indeed, the brain is obviously a rather essential part of the body), in whatever way this connection operates; however, external objects are quite a different story altogether (or so it seems).<sup>18</sup>

A clear pun on Hilary Putnam’s catchy conclusion (“‘meaning’ just ain’t in the head”), Clark and Chalmers’ claim is that “[c]ognitive processes ain’t (all) in the head”.<sup>19</sup> They propose that in extended cognition,

[...] the human organism is linked with an external entity in a two-way interaction, creating a coupled system that can be seen as a cognitive system in its own right. [...] If we remove the external component the system’s behavioural competence will drop, just as it would if we removed part of its brain.<sup>20</sup>

Clark and Chalmers note that offloading information from the brain into the environment has always been an intrinsic feature of human behaviour (referring to the invention of signs and symbols in order to record information or perform calculations as a prime example of such offloading). They use a thought experiment to illustrate their point, in which they compare cognitive behaviours of an Alzheimer’s patient (Otto) and of someone with a fully functioning natural memory (Inga).

Because Otto’s memory is highly deficient, he relies on a notebook that he carries with him wherever he goes and in which he enters whatever information he deems necessary (such as dates, events, names, addresses, etc.). Whenever he needs a particular piece of information, all he does is consult his notebook. Inga, on the other hand, has a normal biological memory and stores all the information in her head. Similarly, whenever she needs to retrieve a particular fact, name or location, she consults her natural memory and tries to find the right “entry”. Clark

<sup>17</sup> This is of course not entirely true: Clark’s 1997 book *Being there* had already outlined the main ideas behind the EMT before the article was published in 1998.

<sup>18</sup> Michael Wheeler makes a similar point when he states that both the traditional “internalist” cognitive science and the proponents of the embodied/embedded approach “ultimately think of cognition as a resolutely skin-side phenomenon” and do not consider external objects (such as pen and paper) part of a cognitive system (MENARY, R. “Cognitive integration and the extended mind.” In: *The extended mind*. Edited by Richard Menary. Cambridge, MA: The MIT Press, 2010, pp. 227-244).

<sup>19</sup> MENARY, R. Op. cit., 2010, p. 29.

<sup>20</sup> Ibidem.

and Chalmers argue that Otto's and Inga's information retrieval techniques are essentially not as different as they seem at first glance: the only difference is that Inga's path to the right piece of information is entirely internal, whereas Otto uses both internal and external elements in order to achieve the same goal (see Clark and Chalmers 1998).

It goes without saying that not all external objects can be part of an extended cognitive system (whereas the internal component is always present). The EMT claims that cognitive processes are hybrid (i.e., containing both internal and external components) *only* if these components are *reliably coupled* to one another.<sup>21</sup> Reliable coupling simply means that external objects required for certain cognitive tasks are always at hand and used for the right purpose. Clark and Chalmers refer to Otto's manipulation of his notebook as an example of reliable coupling. They also reject the danger of damage or loss of the notebook as a reason for its potential unreliability, stating rightly that the biological brain is by no means immune to failure. Similarly, the writer's interaction with her notebooks and manuscripts can also be seen as an illustrative example of reliable coupling and by extension of the extended mind at work.

Because reliable coupling may sound somewhat vague and too prone to personal interpretation, Clark invokes the Parity Principle as the criterion for the cognitive status of a coupled system's external component:<sup>22</sup>

If, as we confront some task, a part of the world functions as a process which, were it to go on in the head, we would have no hesitation in accepting as part of the cognitive process, then that part of the world is (for that time) part of the cognitive process.<sup>23</sup>

To use the popular example of a pocket calculator, the Parity Principle applies thus: obviously one could try and perform complex calculations in the head (even if the process is time-consuming and prone to error), but in order to save time and ensure an error-free result we resort to an external object instead. Hence the calculator could be said to "stand in" for the brain (for the time it is being used for calculations). Along the same lines, one could (at least theoretically) expect the writer of narratives to develop and retain all her ideas inside her brain; however, this will most probably lead to a considerable loss of information and a great confusion of structure, which is why some form of external memory aid (i.e., pen and paper) is typically used instead. To take an example relevant for our purposes, Beckett's novel *Watt* contains a high number of permutations that would have been impossible to realise without using pen and paper: Chris Ackerley mentions one particular example of 81(!) permutations all written out in full in one of the *Watt*-notebooks.<sup>24</sup>

Although it provides a clearly defined criterion for the EMT, the Parity Principle is also the target of much criticism both from the defenders and opponents of active externalism. In particular, Menary claims that invoking the liberal functionalism argument in order to equate Otto's notebook to Inga's biological memory is a bridge too far, since the differences are simply too fundamental.<sup>25</sup> Instead, Menary claims that the Parity Principle is in fact irrelevant for the discussion, and proposes the concept of Cognitive Integration - based on the *complementarity* rather than *similarity* of external and internal components - as a possibly less controversial alternative. This is how Hutto and Myin define the essential difference between the parity-based EMT and its complementarity-based counterpart: while the Parity Principle insists on the external components to cognition being mere "substitutes" for the

<sup>21</sup> CLARK, A. and CHALMERS, D. "The extended mind." In: *The extended mind*, edited by Richard Menary. Cambridge, MA: The MIT Press, (1998) 2010, pp. 27-42.

<sup>22</sup> The Parity Principle underscores the EMT's adherence to the principles of liberal functionalism: in simple terms, this means that an object's intrinsic properties are less important than its function within the system and that the same object may serve different purposes on different occasions (see also WHEELER, M. "In defense of extended functionalism." In: *The extended mind*. Edited by Richard Menary. Cambridge, MA: The MIT Press, 2010).

<sup>23</sup> MENARY, R. Op. cit., 2010, p. 44.

<sup>24</sup> ACKERLEY, C. J. *Obscure locks, simple keys*. Edinburgh: Edinburgh University Press, 2010, pp. 181-4.

<sup>25</sup> See also SUTTON in MENARY, R. Op. cit., 2010, p. 206 for a similar line of thought.

internal ones, complementarity-based EMT claims that “the external features [...] make acts and forms of cognition possible that would not be so by using internal means and resources alone. Thus the mind extends only if [...] internal and external features *play different roles*”.<sup>26</sup> Similarly, Sutton argues that complementarity could be key to “the investigation into ways in which integration into larger cognitive systems may alter even the inner parts of those larger systems”,<sup>27</sup> invoking language as a perfect example of an external structure that has the capacity to alter our neurological processes. The obvious relevance of language to the topic of creative writing merits a short detour into its place in the extended cognition debate.

<sup>26</sup> HUTTON, D. and MYIN, E. *Radicalizing enactivism*. Cambridge, MA: The MIT Press, 2013, p. 146, emphasis added.

<sup>27</sup> MENARY, R. Op. cit., 2010, p. 207.

As the basis for analytic philosophy and much of cognitive science (esp. in the early days of its development as a fully fledged scientific branch), language has always been important to the scientific study of the human mind. This is not surprising, since language (a linguistic system of syntax and semantics as opposed to a mere communication system) is a distinctly human phenomenon, and one that shapes our thoughts and actions in no small measure. Building on this unique connection, Clark and Chalmers use language as a prime example of reliable coupling: “Language appears to be a central means by which cognitive processes are extended into the world. [...]. It may be that language evolved, in part, to enable such extensions of our cognitive resources within such coupled systems”.<sup>28</sup> In an even stronger claim, Clark (1997) refers to language as “the ultimate cognitive artefact”, alluding to the crucial part it plays in aiding human cognition:

<sup>28</sup> Ibidem, p. 32.

By “freezing” our own thoughts in the memorable, context-resistant, modality-transcending format of a sentence, we thus create a special kind of mental object – an object that is amenable to scrutiny from multiple cognitive angles, is not doomed to alter or change every time we are exposed to new inputs or information, and fixes the ideas at a high level of abstraction from the idiosyncratic details of their proximal origins in sensory input.<sup>29</sup>

<sup>29</sup> SUTTON, J. “Exograms and interdisciplinarity: history, the extended mind, and the civilizing process.” In: *The extended mind*, edited by Richard Menary. Cambridge, MA: The MIT Press, 2010, p. 208.

It is noteworthy that the above quote, despite being about language and cognition in general, also aptly describes the quintessential part of the writing process, namely fixing an otherwise fleeting and fluid idea in the form of a sentence, in order to subsequently subject that sentence to “scrutiny from multiple cognitive angles” and eventually rephrase it or altogether eliminate it from the text. Doing all this “in the head” without resorting to pen and paper would be a very tedious and difficult task, as using external vehicles allows the writer to take a step back from the product of her imagination, which in turn facilitates its subsequent reappraisal and alteration.

## II. The extended mind theory and the (genesis of) narrative

### *The writer's mind extended*

The logical first step in the analysis of the writer's extended mind is determining which cognitive processes are involved in the act of creative writing, and if (and how) these processes can be extended according to the principles of the EMT. To this end I have used Linda Flower's and John R. Hayes's (1981) renowned “Cognitive process theory of writing”, since they were the

first to introduce an experience-based approach to the study of creative writing. Their main hypothesis is that “writing is best understood as a set of distinctive thinking processes which writers orchestrate and organise *during the act of composing*”.<sup>30</sup> Against the dominant “stage model of writing” (with its clear-cut divisions between various stages of text production), the authors propose a continuum of additions, revisions, emendations, deletions, etc., by stressing “a constant process of ‘re-vision’ or re-seeing that goes on while [the writers] are composing”.<sup>31</sup> They claim that “because stage models take the final product as their reference point, they offer an inadequate account of the more intimate, moment-by-moment intellectual process of writing”.<sup>32</sup>

<sup>30</sup> FLOWER, L. and HAYES, J. R. A cognitive process theory of writing. *College Composition and Communication*, 32.4, 1981, p. 366, emphasis added.

<sup>31</sup> Ibidem, p. 367.

<sup>32</sup> Ibidem.

Another reason for taking Flower and Hayes’s theory as a guideline for the study of cognitive processes in writing is the fact that the authors do not belong to the “externalist” camp. Flower and Hayes clearly confine the cognitive processes related to writing to the writer’s head (calling them “the inner processes of decision and choice”). Taking a well-known “internalist” theory of cognition and successfully extending virtually all of its constituents seems a more convincing strategy than simply stating the externalist perspective on “writing as thinking” (such as Menary’s [2007] valuable contribution to the debate). The following discussion will demonstrate that the theory Flower and Hayes have produced is much more “extended” than originally intended.

Flower and Hayes use the method of protocol analysis, in which they asked a group of writers to comment on their actual writing process (“compose out loud”), and studied the recorded comments in conjunction with the writers’ manuscripts and notes.<sup>33</sup> It seems that the methodology itself constitutes an argument for extended cognition, as the participants are asked to literally interact with their texts as they go on rather than introspect on the process afterwards (something the researchers consider to be “notoriously inaccurate”).<sup>34</sup> Furthermore, the material output of the writers’ work (i.e., manuscripts and notes) is also included in the analysis of their thinking processes.

<sup>33</sup> Ibidem, p. 368.

<sup>34</sup> Ibidem.

Flower and Hayes emphasise the non-linear nature of the writing process and divide the act of writing into three major elements: (1) the task environment, (2) the writer’s long-term memory, and (3) the writing process. The first element refers to “all of those things outside the writer’s skin, [...] including the growing text itself”.<sup>35</sup> Even this brief description makes clear that external factors play an essential role in creative writing, and the written text is explicitly mentioned. Far from advocating any form of extended cognition or implying hybrid cognitive processes involved in writing, Flower and Hayes nonetheless state that “each word in the growing text [i.e., an external component] determines and limits the choices of what can come next”.<sup>36</sup> This interpretation of the role of the written text certainly allows for an extended reading of the writing process, because of the clearly pivotal role assigned to this “outside-the-skin” element. I shall return to the text as part of the act of writing later in the section.

<sup>35</sup> Ibidem, p. 369.

<sup>36</sup> Ibidem, p. 371.

The second element – the writer’s long-term memory – is said to contain “stored knowledge” the writer may need in order to be able to create a particular piece of text.<sup>37</sup> Once again, the authors mention an external element by stating that the long-term memory “can exist in the mind as well as in outside resources such as books”.<sup>38</sup> Much like Otto, who keeps all the relevant information safely in his notebook, the writer creates a “storehouse of knowledge”<sup>39</sup> in order to use it whenever necessary; it matters little whether the location of the knowledge is within the skull or beyond it, since both types of storage are functionally similar, and therefore the Parity

<sup>37</sup> Ibidem.

<sup>38</sup> Ibidem.

<sup>39</sup> Ibidem.

Principle applies. Consequently, the second element also represents a hybrid cognitive system and is not entirely internal.

The third element – the writing process itself – will prove a tougher nut to crack when it comes to its possible extension into the world. According to Flower and Hayes, its constituents include planning, translating, and reviewing, as well as a monitor function to supervise the whole and a number of sub-processes. Since the monitor function is clearly internal, and the discussion of the sub-processes would take up too much time and space, I shall zoom in briefly on the three processes that constitute the act of writing and attempt to take them beyond the bounds of skin and skull in one way or another.

Although they are certainly not described as hybrid by the researchers, a closer look at planning, translating and reviewing reveals a different picture. For instance, planning – defined by the authors as “form[ing] and internal representation of the knowledge that will be used in writing”<sup>40</sup> – involves generating ideas as a sub-process, which in turn “includes retrieving relevant information from long-term memory”.<sup>41</sup> We have seen, however, that the “storehouse of knowledge” that the long-term memory contains may be (and typically is) external: due to the fallibility of our natural memory, we would rather rely on notebooks to record information than memorise it (not to mention the inefficiency of the latter compared to the former). This means that ideas do not just materialise in the writer’s mind out of the blue; instead, more often than not they come from other sources beyond the skin. A good case in point might be the role of external sources of inspiration in the process of creative writing. Indeed, if we look at Beckett’s oeuvre, the influence of Dante, Shakespeare, or Proust (not to mention a whole array of philosophers) is unmistakably present, even if the aesthetic treatment of their heritage is very much Beckett’s own.

<sup>40</sup> Ibidem, p. 372

<sup>41</sup> Ibidem.

As for the process of translating, Flower and Hayes define it as “putting ideas into visible language”.<sup>42</sup> The role of language as an external entity imposed on the writer need hardly be elaborated on: we have briefly discussed language as an example of a coupled cognitive system above, and a more philosophical discourse on the subject is far beyond the scope of this paper. Suffice it to say that the writer is caught between the private, internal “representations” he may have generated on the one hand, and the publicly shared, external linguistic systems of lexicon and syntax on the other, which makes the process of translation a hybrid one by definition.

<sup>42</sup> FLOWER, L. and HAYES, J. R. Op. cit., 1981, p. 373.

The last process, that of reviewing, is obviously related to the “text produced so far” (a rather self-explanatory term coined by Flower and Hayes): by reading what she has written, the writer will evaluate and revise the text.<sup>43</sup> This process is highly relevant for our purposes, as genetic manuscript analysis focuses specifically on the changes the writer introduces into the subsequent drafts. Obviously, reviewing entails all the other elements involved in writing, which emphasises the circular nature of the creative process. In general, Flower and Hayes repeatedly state that all the processes they discuss are “embedded within other components”: in other words, there is no fixed order of their use, and they all constantly intervene with one another.

<sup>43</sup> Ibidem, p. 374.

Despite the obvious spontaneous element implied by its inherent circularity, Flower and Hayes define writing as a goal-oriented process. However, this definition may be a little misleading because it typically implies thorough preparation and knowing in advance what the writer wants to achieve. In reality, as their research shows, “[goals] are created as people compose, throughout the entire process. This means that they do not emerge full-blown as the result of ‘pre-writing.’ Rather, [...], they are created in close interaction with ongoing



exploration and the growing text”.<sup>44</sup> Once again, the external dimension of creative writing is being emphasised here, and the role of the “text produced so far” proves to be crucial in “a sort of eternal triangle in which the writer’s goals, knowledge, and current text struggle for influence”.<sup>45</sup> Flower and Hayes emphasise time and again that the interaction of these three elements drives the creative process much more than any pre-set objectives or plans the writer might have prepared beforehand. More often than not, “the text itself attempts to take control”, not to mention the general semantic and syntactic restrictions imposed on the writer by the language she uses to express her creativity (as mentioned above). Also, the physical act of writing is significant: at least one of the participants reported that “in *writing* the sentence, he not only saw that it was inadequate, but that his goals themselves could be expanded”.<sup>46</sup>

<sup>44</sup> Ibidem, p. 378.

<sup>45</sup> Ibidem, p. 380.

<sup>46</sup> Ibidem, p. 385, emphasis added.

The cognitive processes described above have been studied and analysed by the researchers from a clearly internalist perspective. In their conclusion, they “plac[e] emphasis on the inventive powers of the writer [...], putting an important part of creativity where it belongs – in the hands of the working, thinking writer”.<sup>47</sup> However, we have seen that virtually all of the aspects that Flower and Hayes have included in their “act of writing” constitutively incorporate external components. For one, the writer’s long-term memory – “the storehouse of knowledge” – is partly located outside the brain. Furthermore, the writer’s creativity is constrained by the demands of language – an indisputably external phenomenon. But the most important external object the authors constantly invoke is the text itself. Nearly everything the writer does – be it goal-setting, reviewing, or introducing changes of any kind – is the result of her interaction with the living, growing, ever changing set of symbols on paper, making the text the principal driving force of the writing process.

<sup>47</sup> Ibidem, p. 386.

The above analysis has shown that the “externalist” view on the writer’s brain and the written text as an illustrative example of a hybrid cognitive system seems to be endorsed by the evidence from a highly influential “internalist” theory of cognitive processes in writing. The pivotal importance of the written text and the changes it undergoes as part of the writer’s cognitive framework underscores the potential relevance of genetic manuscript research in the study of the writer’s (extended) mind as a model for human cognition.

### *Samuel Beckett and extended cognition*

Having covered the more theoretical aspects, such as the foundational principles of the EMT and their application to the theory of cognitive processes in creative writing, we move on to the practical case study of Samuel Beckett (as a representative of late modernism) and his oeuvre. The following section will elucidate the reasons behind the choice of Beckett and his oeuvre for both genetic manuscript research and an enquiry into (extended) human cognition. Afterwards, a number of examples from his prose and plays will be discussed as the cases of extended fictional minds. In this connection it is important to remember that (as mentioned above) attempting to sketch Beckett’s extended mind as a “modernist writer” and uncovering extended fictional minds in his “modernist texts” “does not imply a conflation of author and character”.<sup>48</sup> The plan is to maintain the texts’ autonomy by keeping the two levels completely separate.

<sup>48</sup> VAN HULLE, D. Op. cit., 2014, p. 130.

The idea of choosing a real-life writer in general and Samuel Beckett in particular as an example of (extended) human cognition has a number of reasons behind it. First of all, using

a real-life case to support the EMT (in contrast to the thought experiments that underpin the original theory) will possibly add value and credibility to the principle of extended cognition in general. Indeed, demonstrating how a real mind can be extended to include external objects and successfully proving the existence of such a hybrid system by means of genetic critical analysis would answer Sutton's call for "more particularized illustrative studies" instead of "work[ing] with an overly restricted and puritanical notion of scientific explanation".<sup>49</sup> Samuel Beckett's habit of preserving his notebooks and drafts provides us with a wealth of material for such a study.

<sup>49</sup> MENARY, R. Op. cit., 2010, p. 214.

Besides this more "practical" reason, there are others that make Beckett and his oeuvre highly suitable subjects of enquiry into human cognition. To begin with, his lifelong interest in the mystery of the human mind is well known: the fact that the mind is the principal subject in virtually all his works should make it easier to analyse the evocations of the fictional minds of his characters. From the very start, the mind has been thematised by Beckett, even meriting a separate chapter (albeit a short one) in his first published novel *Murphy* (1938). Incidentally, the same novel turns on Murphy's self-proclaimed mind/body split – Descartes's famous notion that has earned Beckett the reputation of a devout Cartesian (although the more recent Beckett scholarship is more than divided on that subject).

At the same time, Beckett's "obsession" with the mind harbours a significant difficulty: in his later prose, there are virtually no characters worth the name, as the texts become increasingly obscure in terms of structure, plot and action. The only "presence" is that of some abstract entity (usually little more than a voice) engaged in a tormented, chaotic, and seemingly incessant stream of consciousness. In such cases, the question arises whether any external aspects in the fictional world can be identified in order for the fictional mind to be extended. It seems that the only possible line of enquiry here is the use of language: even the seemingly inward-looking "voices" in Beckett's late(r) prose are condemned to express themselves in language, however deficient they consider it to be as a means of expression.

Beckett's involvement in language issues is also well documented. The most famous example is his so-called "German letter of 1937" to his friend Axel Kaun, in which he confesses his own frustrations with the ultimate writer's tool and proposes to "bore one hole after another in it" in order to see what "lurks behind it, be it something or nothing".<sup>50</sup> In his novel *Watt*, the eponymous hero becomes gradually unintelligible to his environment by inverting first the order of sentences, then of words in the sentences, and finally of letters in the words, illustrating the impossibility and the insanity of a "private" language. As we have seen above in our discussion on philosophy of mind, language is often used as the perfect example of a hybrid cognitive system by the "externalist" camp in cognitive science; in this connection, Beckett's constant thematisation of language as a fatally flawed yet inevitable part of human cognition is a valuable nuance.

<sup>50</sup> BECKETT, S. *Disjecta*, edited by Ruby Cohn. New York: Grove Press, 1984, pp. 51-54.

Another compelling reason for choosing Beckett as the case study for the project is his keen interest in philosophy. There is a great amount of illuminating research on this subject, much of which either defends or rejects Beckett's alleged Cartesianism. Beckett's "Philosophy notes", based largely on a handful of encyclopaedias of (Western) philosophy, are a particularly interesting object of exogenetic research,<sup>51</sup> and as such are more than just a brilliant example of Beckett's profound erudition and extraordinary diligence. Keeping in mind Flower and Hayes's theory of cognitive processes in writing, Beckett's "storehouse of knowledge" was clearly external to a very large extent, as well as being an unmistakable source of ideas that

<sup>51</sup> I refer in particular to Matthew Feldman's excellent *Beckett's books* (2006) as a fine example of such research.

have found their way into Beckett's works throughout his writing career (albeit much more explicitly in his earlier period and much less so in his mature work).

Beckett's recurring thematisation of the painstaking process of creative writing is yet another reason why his oeuvre is a suitable research object. Two points of interest in this connection deserve mention here. First of all, Beckett's writing underwent a number of perturbations: from wordy and extremely intertextual in his early period to writing in French and a tendency towards "lessness" in the middle period, and finally to short and increasingly hermetic pieces with scarcely any structure or characters towards the end of his writing career. It seems that the growing insecurity and doubt in the writing style is reflected in the high on palpable desperation and exasperated soul-searching the characters display, and vice versa. The relationship between the writer and his work is famously epitomised in *Malone Dies*, a novel in which the writer/narrator constantly questions his writing and forms an inseparable duo with his "exercise-book", resulting in a climactic merger of the two at the novel's end.

The second interesting factor in Beckett's writing is his self-translation (between English and French), which often generated changes in the text beyond those necessitated by translation alone. This is a good example of the writer's interaction with his text even after the final version (in the original language) has been published, and the textual differences between Beckett's English and French versions provide valuable material for epigenetic research.

### *Examples of extended fictional minds in Beckett's texts*

It goes without saying that connecting fictional minds to their environments is a much more challenging affair than analysing the real-life mind of a writer. First of all, "reading" the fictional mind is more often than not a question of interpretation: while one can plausibly connect an entry in a notebook to a particular episode in the narrative it relates to, inferring the link between the characters' minds and their fictional worlds is arguably much less straightforward. On top of that, the exclusive use of the EMT for fictional minds could prove too restrictive and generate a limited set of examples, since it might prove difficult to find convincing cases of truly hybrid cognitive processes in fictional texts. For this reason, this enquiry (unlike that of the writer's extended mind) will also incorporate other strands of "active externalism", such as Hutto and Myin's radical enactivism (REC)<sup>52</sup> and other (if slightly less radical) theories of enacted/embodied cognition.

We have seen above that Beckett's lifelong thematisation of the mind makes his oeuvre a highly suitable object for any study of fictional minds. What follows is an overview of several cases of extended cognition to be found in Beckett's oeuvre (mostly from his early to middle period) that contain the more or less clearly identifiable minds interacting actively with their fictional environments.

To begin with, the eponymous hero of Beckett's first published novel *Murphy* (1938) uses his rocking chair in order to arrive at a certain mental state: by undressing and tying himself to the chair, and by rocking it in a particular tempo, he attains a state of bliss that eludes him

<sup>52</sup> REC stands for Radically Enacted/ Embodied Cognition and claims that "basic human minds" – i.e., the minds we use for everyday activities – do not have any intrinsic content of their own, and derive any information they might need from their context (unlike the EMT that insists of the irreducible presence of the internal component in human cognition). For details, see Hutto and Myin (2013).

without the external prop the chair represents. Staying with *Murphy*, it is also remarkable how the protagonist's entire life is determined by his horoscope, compiled for him by an Indian sage, although the link from this clearly external object to Murphy's cognitive processes is harder to substantiate. Furthermore, the novel's setting in London and the dominant presence of the urban environment (with detailed descriptions of streets, houses, parks, etc.) provides more than just a backdrop for Murphy's self-searching: it seems that his mind is rooted in his physical surroundings and cannot be separated from them (despite Murphy's desperate attempts to sever the connection).

A possibly more illustrative example comes from one of Beckett's plays, *Krapp's Last Tape*, in which a tape recorder occupies (quite literally) a central place in the setting. In fact, the whole play turns on Krapp's interaction with his younger self by means of a number of reels he plays on the tape recorder. It is through the manipulation of the external objects (i.e., the tape recorder and the reels) that Krapp's memories and thoughts take shape, making the tape recorder part of a hybrid cognitive system.<sup>53</sup>

In *Modern manuscripts*, Dirk Van Hulle discusses a beautiful example from Beckett's late prose, which (as mentioned above) is almost entirely devoid of fully-fledged characters or any context worth the name. In "Ceiling" – a short fragment describing a mind regaining consciousness – "Beckett 'extends' the mind by making neural processes interact with an external element".<sup>54</sup> By gradually discerning the "dull white" of the ceiling, the mind (presumably of a person lying on his back in a room and looking up) slowly re-enters the realm of the conscious, thus going through a hybrid cognitive process that includes an external object. Although the "constitutive" role of the ceiling might be contested in this case (as some might suggest that the ceiling is a mere trigger of purely internal cognitive activity), I agree with Van Hulle that this example could qualify as the case of an extended fictional mind.

Finally, one example from Beckett's novel *Watt* might be said to illustrate another model of extended cognition, namely Hutto and Myin's radical enactivism (see note 52 above). Watt's elusive master, Mr Knott, seems to exist entirely by virtue of his servants feeding him with a highly nutritious mixture of ingredients. Besides that, Mr Knott's appearance changes all the time, and nobody seems to know for certain what he looks like. To put it another way, Mr Knott seems to completely lack any distinctive content of his own, absorbing instead whatever the others (i.e., his servants) offer him. Because of these (and other) properties, it is plausible to treat Mr Knott as a metaphor for the mind that thrives on the sensory inputs the servants represent. Developing this idea a bit further, I propose that Mr Knott can be considered a fine example of a "basic mind without content", which, according to Hutto *et al.*, is "the most fundamental kind [...] of mind".<sup>55</sup>

### *Summary and conclusions*

The purpose of this paper was to elucidate my on-going PhD project that links the extended mind theory to literary Modernism and of which the study of Samuel Beckett's writing style and fictional minds forms the practical core. In particular, the paper has aimed to provide an explanation and motivation for the choices of (a) Modernism for exploring (extended) cognition in literature, (b) the EMT from a number of other "active externalist" options, (c) the writer in general as a model for (extended) human cognition, and (d) Samuel Beckett as a suitable

<sup>53</sup> Incidentally, the very idea for a play with a tape recorder playing such a pivotal role seems to have occurred to Beckett after his listening to the "reel-to-reel playback of *Molloy* and *From An Abandoned Work*" (FELDMAN, 2014, p. 47) – which is another case of the environment (in this case, technology) constitutively influencing the author's mind. I would like to thank Pim Verhulst for bringing this to my attention.

<sup>54</sup> VAN HULLE, D. Op. cit., 2014, p. 206.

<sup>55</sup> HUTTO, D.; KIRCHHOFF, M. D. and MYIN, E. Extensive enactivism: why keep it all in? *Frontiers in Human Neuroscience*, 8, 2014, In, doi: 10.3389/fnhum.2014.00706.

case study. By “extending” cognitive processes involved in creative writing according to the principles of the EMT, and by showing that Beckett’s fictional minds regularly interact with their narrative environments, the paper has hopefully demonstrated that literary Modernism is not as inward-looking as its illustrious representatives intended it to be. To return to Woolf’s passionate conviction that got us started, it seems that the “the proper stuff of fiction” in fact stretches far beyond the “look within” and inevitably includes “the alien and external” she so despised.<sup>56</sup> Advocating a similar idea in the realm of philosophy (long before the emergence of <sup>56</sup> WOOLF, V. Op. cit., 1919. “active externalism”), Martin Heidegger – another great modernist – aptly defined a human being as *Dasein* (1927, literally “being *there*”). The idea of the mind’s “splendid isolation” from the world, however deeply entrenched in cognitive science or in modernist literary criticism, thus turns out to be little more than an old but stubbornly persistent Cartesian illusion.

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