Knowledge in Action: Ian McEwan’s *Saturday* as a Fiction of Cognition

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**English Abstract**

In everyday understanding, knowledge is often taken to refer exclusively to facts. Similarly, literary fiction is usually not credited with relevance when it comes to processes of knowledge formation. This paper contradicts both these everyday opinions, proposing narrative fiction as an epistemic force in its own right. The case study to underscore these points is Ian McEwan’s *Saturday* (2005), a novel that engages in a systematic fashion with cognitive science and brain surgery. This fiction of cognition is an example of a piece of literature that forms the basis for generating great amounts of knowledge, in the process making cognition understandable from the interior perspective of an experiencing individual, in contrast to the external perspective that scientific writing has to adopt. The paper argues, furthermore, that narrative fiction is a unifying force that can counteract the fragmentation of scientific knowledge and can develop instead a more holistic image of cognition than scientific writing. In order to elucidate the processes of knowledge formation on the basis of a fictional text, the paper introduces three types of knowledge, rather than understanding knowledge exclusively as knowledge of facts. By demonstrating that McEwan’s novel represents the dynamic processes of knowledge use and generation in an everyday context, the paper also argues that narrative fiction has at least the potential to make cognitive processes palpable in their natural context, employing a broader notion of cognition than the narrow psychological one.

**German Abstract**

Im Alltagsverständnis wird Wissen meist ausschließlich als Wissen verstanden, das sich auf Fakten bezieht. Auf ähnliche Weise wird fiktionale Literatur als wenig relevant für Prozesse der Wissensbildung betrachtet. Dieser Aufsatz widerspricht beiden Ansichten, indem er vorschlägt, erzählende Fiktion als eigenständige epistemische Kraft zu betrachten. Ein literarisches Beispiel, mit dem diese Punkte untermauert werden sollen, ist Ian McEwans Roman *Saturday* (2005); ein Roman, der sich systematisch mit Kognitionswissenschaft und Hirnchirurgie auseinandersetzt. Diese fiction of cognition ist ein Beispiel für einen fiktionalen Text, der die Basis für die Generierung von großen Mengen von Wissen bildet. Im Zuge dieses Prozesses wird Kognition aus der Innenperspektive eines erfahrenden Individuums verständlich gemacht, im Gegensatz zu naturwissenschaftlichen Texten, die notwendigerweise eine Außenperspektive einnehmen müssen. Der Aufsatz argumentiert darüber hinaus, dass erzählende Fiktion eine vereinende Kraft ist, die der Fragmentierung des naturwissenschaftlichen Wissens entgegenwirken und stattdessen ein holistisches Bild von Kognition entwerfen kann als naturwissenschaftliche Texte. Um die Prozesse der Wissensbildung auf der Basis eines fiktionalen Textes zu beleuchten, stellt der Aufsatz drei Arten von Wissen vor, anstatt Wissen ausschließlich als Faktenwissen zu verstehen. Indem gezeigt wird, dass McEwans Roman die dynamischen Prozesse der Wissensnutzung und
I. Introduction

Just to the left of the midline, running laterally away out of sight under the bone, is the motor strip. Behind it, running parallel, is the sensory strip. So easy to damage, with such terrible, lifelong consequences. How much time has he spent making routes to avoid these areas, like bad neighbourhoods in an American city. And this familiarity numbs him daily to the extent of his ignorance, and of the general ignorance. For all the recent advances, it’s still not known how this well-protected one kilogram or so of cells actually encodes information, how it holds experiences, memories, dreams and intentions.¹

This quotation shows Henry Perowne, the protagonist of Ian McEwan’s 2005 novel Saturday, musing about the current state of knowledge about human cognition. Perowne is a successful neurosurgeon at a London hospital. The sequence from which this quotation is taken is one of the many passages in the novel in which the narrating instance makes the reader privy to Perowne’s musings, to the seemingly idle activity of the surgeon’s mind in undirected thought. The musings quoted in the epigraph occur after Perowne has performed an emergency surgery on Baxter, a man whom he has already met earlier in the day. In the morning Baxter and two of his friends were involved in a minor car accident with Perowne, which was followed by an almost violent confrontation in the street. In the evening Baxter and one of his accomplices break into the Perowne’s family home and threaten to rape their pregnant daughter in front of a family gathering. In both instances escape is narrow and in great parts due to Perowne’s medical knowledge. After the second confrontation with Baxter, Perowne and his son Theo manage to throw Baxter down a staircase, with the resulting injury making the nocturnal emergency surgery necessary. After the operation, waiting to close Baxter’s skull, Perowne’s wandering thoughts touch upon a crucial systematic problem of cognitive science, namely the connection between brain and mind, which also poses a problem for brain surgery. After all, brain surgery is directed at the brain in order to cure problems of the mind. There might be a certain amount of relatively secure knowledge about the brain which

¹ Ian McEwan, Saturday. (London: Vintage, 2006 [2005]), 254. For further quotations, Saturday will be abbreviated as S.
makes such operations possible. A question that remains unanswered, however, is how exactly the brain ‘does’ cognition.

Perowne’s questioning of the state of knowledge about brain and mind directly leads to the central problem upon which this paper focuses, namely the question of whether the methods of the empirical branch of cognitive science are sufficient to cover all possible kinds of knowledge of cognition. Is there not more to cognition than meets the empirical scientist’s eye? The argument of this paper is that fictional writing can develop an epistemic power in its own right that can provide a basis for producing knowledge of cognition different from, but by no means inferior to, scientific knowledge. Since *Saturday* is a novel that engages in a systematic way with cognition, its organic basis and several tenets of cognitive science, it can be designated as a fiction of cognition. The main observation on which this argument rests is that literary fiction possesses the ability to combine several types of knowledge. For instance, Perowne possesses great amounts of knowledge about human bodies in general and about the brain in particular. This knowledge consists for the most part of a collection of facts about the brain. This is what one would intuitively regard as knowledge, namely ‘knowing-that’. However, when reading about Perowne operating on a patient, one quickly notices that there is a different type of knowledge involved in his actions, namely a very pragmatic knowledge, a knowledge that concerns his bodily movements and the procedures he performs, probably without being able to frame it neatly into words. This type of knowledge is called ‘knowing-how’. Put differently, Perowne’s knowledge of the brain is twofold, consisting of facts and abilities at the same time. Both these components interact in that Perowne uses his ‘knowing-that’ to generate ‘knowing-how’. The collection of facts that he knows guides the intelligent performance of delicate actions. The operating sequence towards the end of the novel, from which the epigraph is taken, is one of several instances in which propositional and procedural knowledge intermingle.

This intertwining of several types of knowledge is mirrored in an intertwining of several aspects of cognition that are usually kept separate in empirical scientific research on cognition. Approaches in cognitive science that intend to capture the phe-
nommenon of cognition in such a holistic way are known as situated approaches. They define cognition as social, embodied, concrete, located, engaged and specific. In short, situated approaches regard cognition as centred in a subject who is him- or herself situated in a social and material context. Interest in situated cognition emerged in the 1980s in reaction to the classical, mainly computational approach, which conceived of cognition as individual, rational, abstract, detached and general. In other words, classical approaches to researching cognition treat the mind in an abstract way and in isolation from its concrete surroundings.2 Literary fiction will be introduced here as a medium for representing cognition “within its natural context”, as Colleen Seifert specifies the goal of situated approaches.3

To explore the epistemic power of literary fiction, this paper will proceed in three steps. The next section will discuss the nature of scientific knowledge in more detail and will justify the claim that knowledge can be formed on the basis of literary fiction. Section III will introduce two types of knowledge that can be identified in fictional writing in addition to ‘knowing-that’. Section IV will return to Ian McEwan’s Saturday as a case study to support the claims made in this paper. Saturday is a novel which not only incorporates, develops and interconnects different types of knowledge of cognition, but which also makes its protagonist’s cognition comprehensible from a first-person perspective. In pursuit of this argument, the analysis will concentrate on a sample passage from Saturday, exploring the connective and process-like knowledge of cognition that is generated by this piece of literary fiction.

II. Narrative Fiction as an Epistemic Force

Most received concepts of knowledge treat knowledge in terms of facts that can be known, a type of knowledge that is framed in propositions, which is why it is called

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propositional knowledge. A proposition is “what is asserted by a sentence which says that something is the case”. That is, a proposition encodes knowledge about facts, such as the fact that the earth revolves around the sun. The philosophical discipline of epistemology concentrates predominantly on propositional knowledge in the sense of “knowing that something or other is the case’ (that-knowledge), whereas other types of knowledge, such as ability knowledge, are not the focus of mainstream epistemology. There are several salient properties of propositional knowledge. First, propositional knowledge must necessarily be verbalised. Secondly, it does not depend on the consciousness of a particular knower but can be widely spread among a population of knowers — propositional knowledge claims general validity. And thirdly, propositional knowledge can only be about something. Therefore, it always takes an exterior viewpoint on its object.

The search for generally valid propositional knowledge is also at the heart of any scientific enterprise, since what the sciences strive for is reliable knowledge about facts, about things or phenomena that are the case. However, scientific knowledge has become more and more specialised, a development manifest in the isolation of smaller and smaller items of knowledge that are the subjects of propositions. This phenomenon can be framed as the fragmentation of knowledge that follows the dividing lines between scientific disciplines. The fragmentation of knowledge is not limited to different methodologies and research procedures, but is visible in the whole set-up that is used in order to produce knowledge. As the sociologist Karin Knorr-Cetina points out in her study Epistemic Cultures:

Magnifying this aspect of science — not its production of knowledge but its epistemic machinery — reveals the fragmentation of contemporary science; it displays different architectures of empirical approaches, specific constructions of the referent, particular ontologies of instruments, and different social machines.

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Indeed, scientific experiments isolate and reproduce in a standardised way one very special aspect of a naturally occurring phenomenon, thus splitting up the natural context into many isolated aspects that are difficult to recombine later on.

This fragmentation of contemporary science pertains particularly to cognitive science, an enterprise that is fundamentally interdisciplinary — and that has been so ever since its beginnings in the 1950s — incorporating research from neurology, psychology, linguistics and Artificial Intelligence research, but also from cultural studies and philosophy to name just the most important disciplinary groups. Even though cognitive research from these disciplines can be readily subsumed under the label “cognitive science”, the knowledges of cognition — the plural is used here deliberately — that are thus produced remain very much bound to their disciplinary origins. One reason for the especially deep fragmentation of cognitive science is its position astride what C.P. Snow has called the ‘Two Cultures’. After all, the disciplines contributing to cognitive science stem from the sciences and the humanities alike. Consequently, cognitive science cannot be regarded as a ‘hard’ science in the same way as, for instance, physics.

The object of cognitive science is to understand cognition. Seen from a functionalist perspective, cognition intervenes between sense perception and motor action. This means that in human beings a sensory stimulus, such as the perception of hunger, is not automatically coupled with a certain response. Instead, human beings are able to choose between different responses, such as getting food immediately or postponing the satisfaction of one’s needs. Many different processes are necessary for such a complex phenomenon to exist. Thus, in accordance with Margaret Boden’s monumental history of cognitive science, cognition will be understood in this paper as covering “all aspects of mind and behaviour”. In this view, cognition includes

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“cognition and more.”¹¹ That is, the notion of cognition employed here goes beyond the strict notion of cognition as it is defined in psychology¹² and includes adjacent phenomena such as motivation, volition and emotion.

The fact that so many disparate phenomena play into cognition is an additional reason for the fragmentation of knowledge in cognitive science. Experimental research requires in-depth analysis of single aspects, producing highly different items of knowledge. Combining several of these items of knowledge into an overarching concept of cognition is difficult and requires expert knowledge in many fields — consequently, it takes magna opera like Daniel Dennett’s *Consciousness Explained*,¹³ Gerald Edelman’s *Bright Air Brilliant Fire*,¹⁴ Antonio Damasio’s *The Feeling of What Happens*¹⁵ or Humberto Maturana and Francisco Varela’s *The Tree of Knowledge*¹⁶ to do so. However, it is doubtful whether scientific writing can convey a sense of the connections between all the different processes involved in cognition in a natural context. This natural context is, arguably, all the more difficult to grasp for experimental science because it necessarily isolates single aspects from a larger context.

The argument of this paper can now be formulated more precisely as consisting of three points. First, it will be claimed that fictional literature can achieve what scientific writing will tend to have great difficulty in achieving, namely representing cognition in a way that enables readers to develop connective and process-like knowledge of cognition that is markedly different from science’s system of propositions. Secondly, the knowledge of cognition that readers can generate on the basis of fiction can develop an image of the intricate web of relations in which cognition occurs —

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¹² For instance, *Psychology and Life*, one of the leading psychology textbooks, defines cognition as “a general term for all forms of knowing”. Moreover, it lists human intelligence, language, thinking and problem solving, memory, attention, and perception as factors playing into the discipline of cognitive psychology (cf. Richard J. Gerrig and Philip G. Zimbardo (Eds.), *Psychology and Life*, 18th ed. (Boston et. al.: Pearson Education, 2008), 236.). The emphasis on rationally explainable, rule-based phenomena is readily apparent.


not only of the relations between several phenomena like the feeling of one’s body, motivation or emotion, that are usually treated separately in empirical science, but also of the relations between individual cognition and the social surroundings in which it occurs. Third, it will be argued that literature not only develops this kind of knowledge but that it also makes it understandable from the interior perspective of an experiencing individual, in contrast to scientific writing among whose most prominent features is the taking of an exterior perspective on its object.

One might object to these claims concerning the epistemic power of fictional texts that fiction is merely invented. So how can one maintain that a fictional text can transmit or provide the basis for forming knowledge? To solve this problem one can advance an understanding of fictional literature that regards fiction as an “elaborated interdiscourse” in the sense of Jürgen Link and Hubert Zapf. Taking this view, a fictional text incorporates pieces from all kinds of specialised real-world discourses into an elaborated interdiscourse. After all, no piece of fiction can be entirely invented, appearing out of the blue, and written in complete isolation from the real world. This becomes apparent when one thinks of the mental models that emerge in one’s mind when reading a piece of fiction. Without connection to the real world, no fictional writing could make any sense to its readers. Thus, the underlying premise of this paper is that fiction is always involved in a dialogic relationship with the real world in which it is situated and with discourses that are constitutive of the real world.


This general embedding of literary fiction in the surrounding real world suggests that fiction in general can serve as a source of knowledge formation. There are, however, differences between diverse sub-genres of fiction as far as the type of knowledge is concerned that they are most apt to generate. For instance, the novel of ideas — such as, for example, Thomas Mann’s *The Magic Mountain* — is characterised by its rather straightforward relations with extra-literary ideas. Reference to items of propositional knowledge existing as ideas in the real world are clear, which enables the reader quite literally to learn facts about the world, or at least to comprehend certain debates between, say, opposed intellectual standpoints, such as Settembrini’s and Naphta’s. Depending on the intellectual level on which these ideas are negotiated in a novel of ideas, however, quite advanced background knowledge is necessary to penetrate the fictional interdiscourse. Other sub-genres of fiction, such as love stories or psychological novels, do not refer so much to extra-literary items of propositional knowledge, but provide the source of a more subtle kind of knowledge, such as knowledge about how people might react in certain kinds of situations — described in terms of fictional, i.e. hypothetical and thus harmless, situations. This type of knowledge remains implicit in the narrative text rather than being explicit in terms of references to items of propositional knowledge. However, all narrative texts have in common the fact can serve as a basis for the generation of narrative knowledge.

III. Three Types of Knowledge Developed in Narrative Fiction

In contrast to the one-dimensional traditional concept of knowledge that concentrates on propositional knowledge, this paper thus proposes two additional types of knowledge in order to grasp the potential of narrative fiction to form the basis for readers to generate knowledge. These additional types of knowledge are procedural knowledge and narrative knowledge. Using three types of knowledge for analysing literary fiction will arguably bring us closer to understanding the dynamics of knowledge inherent in a work of fiction than concentrating solely on propositional know-
ledge. In the following, procedural knowledge and narrative knowledge will be characterised by contrasting them with propositional knowledge.19

Philosophers often use procedural knowledge in order to characterise propositional knowledge more closely. For instance, Richard Feldman justifies the privileging of propositional knowledge in the philosophical discipline of epistemology by using the argument that many other types of knowledge can be reduced to propositional knowledge.20 However, as the short evaluation of the epigraph has shown, when one scrutinises the use that people make of knowledge in their everyday lives, concentrating on propositional knowledge would be too narrow. Instead, it seems to be more appropriate to go along with Gilbert Ryle who, in his *Concept of Mind*, was the first to differentiate between propositional and procedural knowledge: “‘Intelligent’ cannot be defined in terms of ‘intellectual’ or ‘knowing how’ in terms of ‘knowing that’; ‘thinking what I am doing’ does not connote ‘both thinking what to do and doing it’.”21 Instead, Ryle argues, performing an action intelligently manifests its own type of intelligence, namely knowing-how or procedural knowledge. There are several differences between procedural and propositional knowledge. First of all, both types of knowledge are related to language in different ways. Propositional knowledge completely depends on being verbalised because it consists of the content of sentences (hence the strong association of knowledge with language in the popular view). The predominant characteristic of procedural knowledge, by contrast, is the difficulty to verbalise it. Connected to the issue of verbalisation is the issue of conscious awareness. In order to know an item of propositional knowledge, one must be consciously aware of it, which is at the same time a prerequisite for verbalisation. Performing an action intelligently does not always depend on conscious awareness. For instance, while driving a car — without doubt an instance of advanced procedural knowledge — many people can easily concentrate on the radio news or a conversation. Finally, while propositional knowledge is independent from a particular

19 For a more extended version of the following considerations, see Stephan Freißmann, “Fictions of Cognition: Representing (Un)Consciousness and Cognitive Science in Contemporary English and American Fiction” (Ph.D. dissertation, University of Giessen, forthcoming).
knower, procedural knowledge is firmly rooted in the individual knower. Only those skills that a given individual masters can count as procedural knowledge.

The concept of narrative knowledge seeks to define the effect that a text’s narrative structure has on its potential for forming the basis for knowledge production. The basic assumption underlying the concept of narrative knowledge is that the interaction between the process of narrating and the facts that play into the narration determines the knowledge that readers can form on the basis of a narrative text. In the view of Pablo Valdivia Orozco, who originated the concept, narrative knowledge is mainly characterised by its position between propositional and procedural knowledge: “[N]either do elements of narrative forms of knowledge and logic suspend discursive [i.e. propositional] forms of knowledge completely, nor are they their exact opposite.”

That is to say, narrative knowledge cannot be reduced to the mere facts that are involved in a narrative text, nor can it be identified as solely residing in the process of storytelling. Instead, Valdivia Orozco says, the main surplus value of narrative knowledge is its capacity to generate relations between elements that seemed disparate at first.

In accordance with the general properties of the cultural technique of narrative, the relations established by narrative knowledge can be more closely characterised as causal-temporal relations between events that might seem unrelated. Moreover, since the intentional actions performed by the characters in a narrative text form the main causal-temporal links between events, narrative knowledge is also knowledge about intentional action. To drive this point even further, since intentional action almost always takes place in a social network of characters, one can even argue that narrative knowledge is knowledge of social networks.

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24 For a current contribution to the discussion about the nature of narrative that represents the mainstream of opinion in this matter, see David Herman, Basic Elements of Narrative (Oxford: Wiley-Blackwell, 2009).
These three types of knowledge interact in a work of fiction and thus allow the reader to form an image of knowledge in action. Thus, fiction potentially achieves two things at the same time. On the one hand, it can represent knowledge in action as it is embedded in its everyday context. On the other hand, it can make comprehensible a character’s cognition in its natural context by staging the interaction of different types of knowledge. The following analysis of an extended passage from Saturday will demonstrate these two points.

IV. Knowledge in Action and Comprehensible Cognition
A passage from Saturday that can serve to drive home the points made so far is the episode in which Perowne, on his way to a game of squash with his consultant anaesthetist Jay Strauss, is confronted by the petty criminal Baxter and his two accomplices after a minor car accident, and the episode in which Perowne finally does meet his colleague for the game. These episodes combine many different motives into a uniquely literary representation of how cognition works in a natural context, which is achieved through the interaction of the three types of knowledge delineated above.

The narrative strategy employed in Saturday supports the novel’s potential to serve as a basis for the formation of knowledge about how cognition works from the interior perspective, or for conjuring up a “thick description”\(^\text{25}\) of cognition in its natural context. Although the narrating instance in the whole novel is strictly heterodiegetic, Perowne is almost always the focaliser. In other words, the reader almost never gets more information than the protagonist possesses. Nevertheless, the very presence of the heterodiegetic narrating instance anchors the information that passes through Perowne’s mind in the world through which he moves. This narrative strategy supports the reader’s impression of gaining access to Perowne’s consciousness, while at the same time being oriented in the wider context of the novel. Therefore, the expression ‘cognition from the interior perspective’ should not be misunderstood as referring exclusively to narratives with a homodiegetic narrator.

\(^{25}\) Cantwell Smith, “Situatedness/Embeddedness” (cf. note 2), 770. The allusion to Geertz’ classic remains implicit.
The confrontation between the three petty criminals and Perowne takes place in a climate of imminent physical aggression. Perowne, the cultivated and highly specialised doctor, is not used to exerting physical violence: “[H]e hasn’t been in a hand-to-hand fight since he was eight” (S 88). So, he quickly decides not to let the dispute get out of hand for fear of being bodily harmed. This scene clearly displays situated cognition. In it, cognition originates from a sense perception coming from the environment; namely, that of being under physical threat. This perception of threat in turn activates the emotion of fear, along with the volitional act that this emotion entails (namely, wanting to escape a beating) as the individual response to the original sense perception. This cognitive act, then, is only possible in the particular social situation in which the individual body is involved: the situation that is depicted in the passage. The body produces an emotion that motivates its possessor to want something, namely to escape the imminent fight. The novel illustrates the relation between all of these different factors, only one of which — sense perception — would belong to the traditional image of cognition.

Perowne’s escape from the confrontation is narrow and he owes it to a great extent to his medical knowledge. No matter how convincing one may find this twist in the plot in literary terms, Perowne diagnoses Baxter in the street with Huntington’s Chorea — a diagnosis that is confirmed later on — and confronts him with his knowledge. In this face-to-face encounter the body serves as a source of information. The narrating instance describes bodily appearances and movements very closely in the post-car accident episode. The information gathered from Baxter’s bodily movements almost involuntarily triggers a process of diagnostic hypothesising in Perowne’s mind. Right away, Perowne notices a “jazzy twist” (S 84) in Baxter’s gait. After their first contact, he notices a “persistent tremor” (S 87) in Baxter’s hand and smells the odour that Baxter exudes because of his smoking habit. Perowne immediately speculates about Baxter’s kidneys being implicated (S 87), once again employing his propositional knowledge of the human body for practical purposes and regarding the human body as a system full of hidden connections. Later during the encounter, when the three other men have Perowne cornered, his attention once again returns to
Baxter’s right hand: “It isn’t simply a tremor, it’s a fidgety restlessness implicating practically every muscle” (S 90). Perowne forms several hypotheses about the causes for Baxter’s fidgetiness, the last of which — Huntington’s Chorea — turns out to be correct.

Clearly, great amounts of knowledge are involved in this “intellectual game of diagnosis” (S 91). In order to escape a beating, Perowne makes use of the propositional knowledge he has formed through observing Baxter and through comparing his observations with his previous diagnostic knowledge. The item of propositional knowledge about Baxter would be: “It is the case that Baxter suffers from Huntington’s Chorea”. Perowne, however, by confronting Baxter with this propositional knowledge employs it for pragmatic purposes, namely to steer Baxter away from his intention to commit an act of violence against him. It thus becomes part of Perowne’s procedural knowledge, namely knowledge about how to avoid a fight. Through this embedding of several types of knowledge in the context of a situation, this passage demonstrates knowledge in action. Moreover, the reader gets an inkling of how emotional and physical processes are intertwined and trigger the cognitive process of transforming propositional knowledge into procedural knowledge. Making these processes comprehensible is part of the narrative knowledge that can be formed on the basis of narrative fiction.

The immediate consequence of Perowne’s enigmatic statement “Your father had it. Now you’ve got it too.” (S 94) is a switch in the role distribution between him and Baxter. The latter knows right away what Perowne is talking about and tries to minimise the presumably shameful consequences by sending away his accomplices. In the ensuing one-on-one interaction both men quickly slip into examination mode, and Perowne’s propositional knowledge is once again brought to pragmatic use. Baxter’s accomplices finally desert their leader, which makes Baxter’s humiliation perfect and enables Perowne to go on to meet his colleague and squash partner.

This context is important for the episode that follows, since the memories of this encounter carry a persistent trace with them. As Perowne calls his wife before entering the gym, his “long fingers still trembl[e]” (S 99), a clear bodily manifestation of
his troubled emotional state. One might even say that the memory trace embodies itself in Perowne’s involuntarily trembling fingers. During his opening conversation with Strauss, Perowne does not mention that he was held up by a row in the street: “He doesn’t want to hear himself describe Baxter and his friends. They’ll interest Strauss too much, and prompt questions he doesn’t feel like answering yet” (S 102). This is a clear incident of what the sociologist Erving Goffman calls the ‘management of identity’: in order to preserve one’s own self-image, an individual generally carefully plans which parts of her or his actions are revealed to whom and how far one lets the other look into one’s own identity. The quoted passage continues: “He’s already feeling a rising unease about the encounter, a disquiet he can’t yet define, though guilt is certainly an element” (S 102).

The narrating instance makes the reader privy to several interlinked processes running simultaneously in Perowne’s head: his unease is a temporally extended emotion that is caused not by an interior bodily process but by a complex interplay between an individual memory of individual actions and the thought of what society would have said about these actions had there been any witnesses. In other words, the memory of the events is compared to social norms that have been internalised by the individual, in turn causing certain feelings and emotions. Several aspects that are emphasised by situated approaches to cognition are manifest in this passage. First of all, the cognitive processes going on in Perowne’s head are situated in a social context and are very much connected to his body. After all, remaining bodily unharmed was the initial motivation for his actions in the post-accident episode and his body reacts clearly towards the stressful situation. At the same time, the cognitive processes going on in Perowne’s mind could only have occurred in this concrete situation and in this particular location. In short, cognition is represented as being engaged and specific.

Perowne’s moral musings also result in a cleft between his actions and his cognitive processes: what he really wants to do is think through the post-accident episode but what he actually does is put on his goggles to begin the game (S 102). His aware-

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ness is averted from his actions, resulting in his feeling “misaligned” (S 103) during the warm-up period. While the game is going on, “unwanted thoughts are shaking at his concentration. He sees the pathetic figure of Baxter in the rear-view mirror” (S 104). Other thoughts and memories preoccupy him during the game: musings about a patient impose themselves and when he mentions the word “crash” (S 105) in the ensuing conversation with Strauss,

[e]verything that’s happened to him recently occurs to him at once. He’s no longer in the present. The deserted icy square, the plane and its pinprick of fire, his son in the kitchen, his wife in bed, his daughter on her way from Paris, the three men in the street — he occupies the wrong time coordinates, or he’s in them all at once. The ball surprises him — it’s as if he left the court for a moment. (S 105 f.)

Suddenly, everything seems to be connected in Perowne’s head and his mind is completely disengaged from what his body should be doing. This episode in the novel conveys a feeling for the connections and processes that can occur in one’s head when cognising in a natural context. Everything is intermingled, making the isolation of elements for empirical scrutiny difficult if not impossible.

From this passage, it becomes clear how narrative texts produce the relations that lead to the formation of narrative knowledge in the reader’s mind. The narrative knowledge that readers can form on the basis of this passage concerns the causal-temporal relations between earlier actions and current mental processes. It concerns the interplay of cognition — a phenomenon that is mostly regarded as essentially private — and behaviour in the public, essentially social domain of face-to-face interaction. And it concerns, on the basis of a fictional example, an understanding of intentional action, for Perowne’s actions are driven by intentions. In short, this passage demonstrates how far narrative fiction can serve as a representational medium for the workings of cognition in its natural context and for the potential of narrative fiction to be a rich basis for the generation of complex and dynamic knowledge.

This type of literary analysis can be transferred to any piece of narrative fiction, since, in principle, all fiction has the potential to serve as a basis for knowledge generation. Thus, any piece of fiction has the potential to display the delicate choreography of knowledge in action and to generate knowledge in its own right. This passage from Saturday, however, offered the convenient opportunity to demonstrate
both, for it represents the cognitive operations involved in the everyday use of knowledge and it provides the basis for generating knowledge about cognition at the same time.

V. Conclusion
This short analysis was intended to demonstrate how McEwan’s novel brings together a wealth of different processes into a depiction of cognition that comes close to understanding cognition in its natural context, from the interior perspective of an experiencing individual. The intermingling of volition, emotion and cognition in a situated environment makes it palpable to what extent cognition is a phenomenon that cannot be neatly isolated and reproduced in laboratory conditions. Instead, cognition in its natural context — which also means in a socially situated context — is a rather messy mixture in which many different processes play a part. It is hard to say which of the phenomena mentioned here are ‘cognitive’ in a narrow sense of the word and where cognition branches out into aspects of body, emotions, social and moral norms. It is the great potential of narrative fiction to provide a medium that is able to represent this network of relations in which individual cognition is embedded.

The added value of fiction here is not only that of describing the intertwining of many factors necessary for cognition in a natural context — cognitive scientists like Daniel Dennett, Gerald Edelman, Antonio Damasio or Humberto Maturana and Francisco Varela27 have done so and have proposed overarching models of cognition that take a broad scope of elements into account. However, scientific writing is concerned with propositional knowledge that has been generated by using the epistemic machineries that are a product and a mirror of the fragmentation of science. In other words, scientific results are, first and foremost, isolated facts that are supposed to be generally true. The process-like nature of cognition and its situatedness, within the individual and across its boundaries into the social world, are among its most salient features, which is acknowledged by situated approaches to cognitive science. As the analysis of the sample passage from McEwan’s Saturday has shown, literary fiction

27 Cf. notes 13–16.
has at least the potential to make cognition understandable as a concrete process from the interior perspective of an experiencing individual.

This potential of literary fiction is in large parts due to the intertwining of the three types of knowledge elaborated above. On the one hand, literary fiction can stage the interplay between propositional and procedural knowledge. This interplay demonstrates the embedding of knowledge in everyday life and its flexible application to everyday situations. On the other hand, through the staging of this interaction, narrative fiction provides the basis for the formation of narrative knowledge in readers’ minds. This narrative knowledge is connective and process-like, not reducible to its propositional content but operating in a much subtler way. In this way, narrative fiction succeeds at once in providing the basis for the formation of knowledge of cognition and in representing the way in which cognition works in its natural context. The narrative knowledge peculiar to narrative fiction thus provides a medium for forming knowledge in action, namely knowledge of how cognition works in a natural surrounding.

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