Literature and the Construction of Reality

Venkat Ramanan

Introduction
The epistemological question of what is reality and how we acquire knowledge of the world has occupied the minds of thinkers for well over two millennia. During this period, one of the most prevalent notions has been that the world exists independently of our minds. Allied to this concept of an “objective reality” is the belief that the reality we can see around us may not be ‘ultimate’ reality. Plato added, as part of his theory of forms, that the world we see around us is not what is ultimately real but is merely its reflection. While there may be some differences in how this “metaphysical realism” is interpreted, the one thing that these philosophers across the millennia have agreed on, as the analytic philosopher Hilary Putnam pointed out, is the link between truth and objective validity: something can be called ‘true’ only if it corresponds to an independent objective reality. Consequently, in trying to understand reality we are forced to grapple with at least two questions: firstly, this reality which is allied with universal truths exists, the philosophers tell us, independent of our consciousness of it and secondly it may not be accessible to our minds.

But while this transcendent reality may be beyond our reach we need some version of reality (even an imperfect one) that best fits human needs: namely, to provide the knowledge and meaning adequate for us to understand and navigate the world around us. This article considers the idea

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Venkat Ramanan CPA is a former technology and management professional from Brisbane, Australia. His interests include literature, comparative philosophy, philosophy of mind/artificial intelligence, science, and technology.


that “radical constructivism” (as proposed by philosopher Ernst von Glasersfeld) offers an ideal framework for putting in place such a reality. But, for us to gain a fuller understanding of the efficacy of radical constructivism, I feel that it may be necessary to consider two other questions. They are: firstly, an examination of the fundamental biological and epistemological limitations that we are faced with when trying to fathom objective reality. Secondly, there appears also to be an inescapable gap between language – which we use as a primary – and perhaps unique – cognitive tool in our attempt to comprehend the world. I will therefore look at these two questions in the next two sections before identifying some features of this reality of the best fit that we seek and then moving on to examine radical constructivism itself.

In the subsequent sections, I wish to show that literature – especially fiction – best meets the criteria for constructing such a model of reality of the best fit in line with what radical constructivism proposes. This discussion includes my argument that fiction is able in this process of shaping reality to not only overcome language’s inherent deficiencies but also engender social cohesion through its understanding and use of the concepts of the theory of mind. (This is also the reason why I have, prior to considering how literature enables us to construct reality, interposed a detailed discussion of the role of language.)

**Our limited understanding of reality**

Alcmaeon of Croton, a philosopher from the fifth century BCE, wrote that only “[t]he gods have certainty,” when it comes to comprehending objective reality, “whereas to us as men conjecture [only is possible].”

Discussed below are some reasons why, to paraphrase Alcmaeon, only inferences and guesswork are available to us for use in this quest.

When logician and mathematician Kurt Gödel first published his two incompleteness statements about the limits of proof in formal systems in 1929, not many may have anticipated their implications for not only the fields of mathematics and logic but also other domains such as philosophy of mind and artificial intelligence. The first theorem postulates that “Any consistent formal system F within which a certain amount of elementary arithmetic can be carried out is incomplete; i.e., there are statements of the

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language of F which can neither be proved nor disproved in F.” The second theorem goes on to add that such a formal system cannot prove that the system itself is consistent.⁵ These insights, Gödel concluded, led to the “amazing fact” that “our logical intuitions (i.e., intuitions concerning such notions as: truth, concept, being, class, etc.) are self-contradictory.”⁶

While ostensibly applying only to mathematics and logic, Kurt Gödel’s idea which imposed limitations on knowledge and certainty and presaged much wider reverberations is not a lone example of its kind. We come across similar observations also in physics and epistemology, to name a few. Oxford physicist David Deutsch contends that as quantum interference – where a quantum particle or wave can influence the trajectory of another – is so prevalent there must be hosts of shadow particles that correspond to every single neutron or electron in the universe. Owing to this, Deutsch argues, “reality is a much bigger thing than it seems… most of it… invisible,” and what we observe is “the merest tip of the iceberg.”⁷

In epistemology, Thomas Hofweber, a professor of philosophy at the University of North Carolina, divides the act of knowledge into two separate tasks: one is the ability to represent the world and the second to confirm that our representation is accurate. Our inability to complete either of the tasks can result in ignorance.⁸ There may moreover be some facts that humans cannot represent in thought or language. Hofweber refers to these as “ineffable facts”. Although it may be difficult to give examples of such facts (because if we were able to describe them we will be on the way to knowing them), Hofweber points out, “we might still have good reasons to think that there are such facts.” Hofweber suggests that “the answer to

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this question is significant for our conceptions of ourselves… and for… an understanding of the world as a whole.”

Deutsch stresses in a similar vein the need to think of the nature of some entities “which, if any, can be explained only in a way that attributes an independent existence to them… [as they] must be part of the fabric of reality.”

We need to enquire, for instance, whether abstract, non-physical entities – such as numbers and the laws of physics – exist. For this, Deutsch feels, we need to go beyond word usage. It appears that this immeasurability may be a feature of reality at the level of the individual organisms too – for instance, even when we try to fathom not universes but just our fellow beings. In a seminal article from 1974 called “What it is like to be a bat?” American philosopher Thomas Nagel highlighted the difficulty of looking into and comprehending other minds. This hurdle arises because there is something that it feels like uniquely for each organism and another organism can never access that feeling.

With reference to the relationship between our minds and reality, Immanuel Kant pointed out that we use our mind to view reality but our mind organises and categorises reality and so what we may see is always a “coloured” version of objective reality. Kant stressed that “a real predicate (a predicate which aids in the determination of a thing) resists almost all the endeavours of explanation and illustration.” In his argument, Kant cites the example of “a hundred real dollars” and explains how the idea of “a hundred possible dollars” is an inadequate representation of the former. This is because “as the latter indicate the conception, and the former the object… in reckoning my wealth there may be said to be more in a hundred real dollars than in a hundred possible dollars— that is, in the mere conception of them.” As Kant further argued, we should be sceptical of any views of reality that are independent of human experience. As Ernst

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9 Hofweber, ‘Ineffable facts’.
10 Deutsch, Fabric of Reality, pp. 222-223.
11 Deutsch, Fabric of Reality, p. 222.
14 Kant, Critique of Pure Reason, pp. 472-473.
von Glasersfeld suggests, for Kant what we perceive via experience is “the totality of objects of experience.” It is necessarily limited to our experience and is “not that mythical experiencer-independent world” which some dream of.\textsuperscript{16}

Glasersfeld thinks moreover that “man… alone is responsible for his thinking, his knowledge” and “we have no one but ourselves to thank for the world in which we appear to be living.”\textsuperscript{17} In support, he refers to how Sextus Empiricus, the Pyrrhonian philosopher, pondered - using an apple as an example - the question to what extent what we perceive using our senses corresponds to an objective reality. We may view the apple as being red, smooth and sweet. But it is far from evident that the “real” apple possesses these qualities (nor can it be concluded that these are the only properties an apple possesses.) These questions are unanswerable because no matter what we do, as Glasersfeld elucidates, we can verify our perceptions only by employing other perceptions, but never directly with the apple as it exists.\textsuperscript{18} Glasersfeld reiterates the comparability of this idea with that of Kant’s view of nature. For Kant too it is the raw material of sensory data that becomes our knowledge of objects. Glasersfeld adds that this “experiential world… makes no claim whatsoever about [its] correspondence with an ontological reality.”\textsuperscript{19}

Humberto Maturana, the Chilean biologist, lends support to these views while looking at cognition and perception from a biological perspective. He asserts that cognition “is a biological phenomenon and can only be understood as such; any epistemological insight into the domain of knowledge requires this understanding.”\textsuperscript{20} Perception, Maturana emphasizes, is necessarily tied to the “anatomical and functional… [parameters of the organism] and not the properties of an independent reality.” Perception is “nothing but a process of construction and… cannot reflect an objective reality.”\textsuperscript{21}

\textsuperscript{16} Glasersfeld, ‘Introduction to Radical Constructivism’, p. 79.  
\textsuperscript{17} Glasersfeld, ‘Introduction to Radical Constructivism’, p. 70.  
\textsuperscript{18} Glasersfeld, ‘Introduction to Radical Constructivism’, p. 75.  
\textsuperscript{19} Glasersfeld, ‘Introduction to Radical Constructivism’, p. 77.  
\textsuperscript{21} In Schmidt, ‘The Fiction is that Reality Exists’, p. 256.
Language and its limitations

The foregoing arguments lead us to the conclusion that there is necessarily a gap between our knowledge and what is thought of as “objective reality”. What exacerbates this gap is that language, in its use as a tool for apprehending the world around us, carries with it certain limitations. According to Brown University psycholinguist Julie Sedivy, the biggest way language may fail us is when it “under-specifies reality” as it is “a very indirect mapping of the world around us.”

In this respect, language, instead of enhancing information, functions as a “great simplifier”. When we refer to an apple using a simple “symbolic word”, as Sedivy tells us – reminiscent of Sextus Empiricus employing the example of an apple to question how far what we perceive corresponds with objective reality - we remove from the apple all the sensory detail that defines it.

This feature of language sloughing away information is related to the fact that language (as S.J. Schmidt, philosopher and communication theorist, has attempted to show) functions more as a “system of instruction [rather than] a system of information conveyance.” Schmidt argues that when two people communicate that act of communication produces information essentially by reducing uncertainties. In this sense, language is not “denotative”– where precise meaning is expected to be conveyed – but “connotative”. Schmidt adds that Maturana, the biologist, too stressed this view when the latter observed that in an interaction the speaker and the listener remain in their own cognitive domains. “In a strict sense, there is no transmission of information from the speaker to his interlocutor.”

It would therefore seem that what we call “meaning” may be a product of a set of cognitive systems where there is no certainty that what the speaker intended will be transmitted to the listener with the fullest fidelity. The listener hence has to “create” meaning via the interaction with the speaker (or speakers) and using socially generated linguistic and cultural conventions. In other words, meaning is a product of social collaboration. The American mathematician and philosopher Hilary

23 Berger, ‘Ingenious’.
24 In Schmidt, ‘The Fiction is that Reality Exists’, p. 260.
Putnam expanded upon how this partnership is achieved by proposing his “sociolinguistic hypothesis” including the concept of “linguistic division of labour”\textsuperscript{26}. To elucidate these ideas, Putnam offers this analogy: to know the value of gold, you do not need to have been a producer of gold, a jeweller or be an expert in international trade. There are always others in society who can supply the necessary expertise. As Putnam puts it using another analogy, “words are more like ships” which involve the expertise of many people to operate - unlike “hammers or screwdrivers” which one person can use on his own\textsuperscript{27}. In other words, they signify a co-operative linguistic activity and creation of meaning by society.

Besides how meaning is created in this way, our beliefs and understanding of time also have considerable bearing on how we communicate. While meaning may be “out there” as Putnam’s arguments imply, a complete congruence between what is intended and what is understood is (we should reiterate) rarely if ever realised. A reason for this is that, as the American philosopher Donald Davidson has argued, “a central source of trouble… [for language] is the way beliefs and meaning conspire to account for utterances.”\textsuperscript{28} When a person holds an utterance he or she has heard to be true, Davidson explains, it is partly because of the speaker’s intentions and partly because of the speaker’s beliefs. Meaning and belief play “interlocking and complementary roles in the interpretation of speech”, Davidson notes, and hence the need to understand both to work out if our reading of what someone says is correct\textsuperscript{29}.

Our relationship with time too influences language in multiple ways. These include how our perception of time as a succession of discrete moments is reflected in the way language is structured. American philosopher Susanne Langer draws our attention to the fact that language possesses a linear and discrete order and the elements of language need to appear in a serial arrangement specified by its grammar. Because of this, when the rules of grammar are not correctly adhered to there is potential for meaning to be eroded. Langer explains that language requires us to present

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  \item \textsuperscript{27} Putnam, ‘Meaning and Reference’, p. 288.
  \item \textsuperscript{29} Davidson, ‘Belief’, p. 309.
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our ideas in a linear fashion even though “their objects rest one within the other…” Langer illuminates this idea by using the metaphor of our clothes being strung side by side in a clothesline – not one over the other, the way we tend to wear them.

Hence, while the nature of language may align with our perception of time, it nevertheless tends to collide with the nested nature of reality we experience when we apprehend the world - be it looking at a mountain, talking to someone or reading a book – when many of our senses are involved concurrently in the act of perception. This multi-dimensional feature of perception comes into play also when we tend to view our life as a coherent narrative where a separation of past, present and future is not that apparent.

Lastly, the fact that the term “time” possesses a multiplicity of connotations adds considerable complexity to the interpretation of what is uttered by someone. Here are some examples. When someone asks, “What time is it?” what the speaker is referring to is usually quite obvious: it is a reference to time as a quantity measured in hours, minutes and seconds. But when the same person remarks “how time flies” it may not only refer to time as measured by clocks and calendars but can also denote an evaluation of the events in someone’s life. And, to consider another example, when we talk about “Elizabethan times”, we allude not only to the life and reign of the Good Queen Bess but perhaps also to epochs specifically associated with the monarch’s life.

The word “time”, as Paul Valery pointed out, doesn’t thus pose any interpretational difficulties when used in an everyday expression. But it does become a problem when we look at it isolated from its context. Valery cites St Augustine’s famous question, “What is time?” as an example of the latter situation. When framed this way, Valery explains:

The word then becomes an unfathomable enigma. It seems to have far more meaning than the sum of its uses in ordinary language. One might compare the word to a plank over an abyss that holds your weight without difficulty if you step briskly across it, but that breaks, plunging you into the chasm, if you stop half-way across… This word [then]… has become the object of a frightful philosophical desire. It changes itself into enigma, into abyss, into torment of thought…

Reality is what best fits our requirement

An idea that I hope stands out from what is discussed so far is this: in our attempts to decipher objective reality and understand the world, we are reliant on our senses, intellect, language and our mind – but they are not perfect tools. But, what is remarkable is that our experience of the world nevertheless seems generally rational and stable, despite these handicaps. We have in other words some version of reality that appears to function like a working model that may (to some extent at least) suit our requirements in our attempt to find answers to what makes for a meaningful life.

How do we explain this? Or, is it worth explaining? Giambattista Vico, the 18th century philosopher and historian, considered these questions moot points. This is because Vico held, as Glasersfeld explains, that this world we get to know is necessarily constructed by ourselves: in which case it is no surprise that it appears rational and stable to us. Vico alludes further to the separation between a transcendent reality and the reality we construct when he observes that “[a]s God’s truth is what God comes to know as he creates and assembles it, so human truth is what man comes to know as he builds it shaping it by his actions.”

For Vico the only way of “knowing” something is by putting together that knowledge via our senses and experiences without being able to resort to some a priori, immutable principles. Furthermore, Vico’s observation that human truth is what is revealed to us when we build that knowledge has strong links to the human aspiration for finding meaning in our lives. We are not certain if there is meaning behind the universe. Answering this question requires perhaps lifting the veil around objective reality. Faced with these impediments, we create instead our own meaning, defined by our experiences and the moral universe we identity and adhere to.

What is also noteworthy is that we are also mostly unaware of how we seemingly experience a rational and stable world. Glasersfeld, while noting this fact, feels that a closer awareness of how we acquire this knowledge, could help us do better. In other words, we need to look for strategies that can improve this model of reality that we construct and can work with. As Glasersfeld tells us, “if, as Alcmaeon… suggested, the human activity of knowing cannot lead to a certain and true picture of the

33 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 76.
34 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 75.
world but only to conjectural interpretation, then that activity can be viewed as the creating of keys with whose help man unlocks paths towards the goals he chooses." The success of this key, Glasersfeld adds, does not depend on finding a lock it can open, but whether it is good enough to open any lock that opens the way to the particular goals we want to realise. And, these goals may not be limited to the "human truths" that Giambattista Vico talked about (and these verities may not necessarily be the same as the perhaps unattainable universal truths from some metaphysical realm). We would hope that the process will provide us with knowledge, meaning and an inner certainty and growth of authenticity that would lead us to what Paul Valery termed as "a beginning of our selves." 

**Radical constructivism and the cognitive construction of reality**

In this section, I intend to show that what could serve as a possible template for identifying this key that can unlock a better fitting reality for us – in other words enhance its suitability to the human aspirations we referred to above - is another idea proposed by Ernst Glasersfeld: what he calls "radical constructivism". Radical constructivism begins with the premise that knowledge is not something that can be exchanged like a commodity between one person’s mind and another. The thinking person therefore "has no alternative but to construct what he or she knows on the basis of their own experience." Allied to this thought is Glasersfeld’s observation that all human experience is essentially subjective and we have no way of knowing whether others’ experiences are like ours. And what’s more, the interpretation of language is no exception to this dictum.

An idea that is fundamental to radical constructivism is that “man – and man alone – is responsible for his thinking, his knowledge and, therefore... we have no one but ourselves to thank for the world in which we appear to be living.” To explain this idea - which, with its sanguinity, has a kinship closer to humanism rather than existentialism - Glasersfeld...

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35 Glasersfeld, 'Introduction to Radical Constructivism', p. 75.
40 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 70.
uses the metaphor of how a bricklayer constructs a wall. Whenever the bricklayer comes across the need for the opening for a door or window, he realises he needs to provide for a supporting arch at that point. The arch in this case can be viewed as a limitation endemic to the design, analogous to the constraints we looked at earlier in relation to our cognitive tools. But such a limitation, Glasersfeld argues, should not however be mistaken for a fundamental law of nature or an attribute of objective reality. Glasersfeld contends that we instead “experience these constraints from the ‘inside’, as it were.”

“What we experience and the knowledge we acquire,” Glasersfeld reiterates, “is necessarily built up of our own building blocks and can be explained in no other way than in terms of our ways and means of building.”

As noted earlier, Glasersfeld felt that an understanding of our responsibility for the world we create together with “an awareness of this operating” can help us do it better. More importantly, this goal of improving our picture of reality requires not mere passive absorption of external stimuli but an active and discerning use of our cognitive apparatus. We need also to be cognisant of the fact that our “knowledge does not reflect an objective ontological reality” but requires “an ordering and organizing of a world constituted by our experience.”

This activity moreover does not consist in simply “manipulating… ‘things in themselves’” (entities akin to the Kantian ding an sich, objects as they are before we perceive them). In this situation, we do not receive a pre-packaged picture, so to speak, of reality. Instead, we build reality from the bottom up. This involves what Jean Piaget called a “cognitive construction” of reality where knowledge is built up by a cognitive entity which “organizes the world by organizing itself.” “For Piaget,” Glasersfeld tells us, “organization is always the result of a necessary interaction between conscious intelligence and environment.”

Glasersfeld compares this organising feature of cognitive construction to watching a movie. We may be aware that a film is made up

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41 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 82.
42 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 82.
of a series of slightly different static images. If, however, we wish to perceive (and enjoy) the narrative underlying that sequence of images we need to indulge in certain specific cognitive activities. Whether or not the horse that appears in the movie really did walk around at some time somewhere we are forced (as Glasersfeld explains) when watching the film to construct the horse’s motion by perceiving a series of images as one “moving” sequence. What is more important, Glasersfeld adds, “[t]he fact that we do that unconsciously cannot alter the fact that we have to do it in order to perceive the motion.”

**Literature and constructivism**

While discussing such constructive theories - including Glasersfeld’s radical constructivism - in general, S.J. Schmidt notes that “reality (in the sense of world models) is always a ‘construct’” - whether in “fiction” or in “reality”. Schmidt also highlights that “none of these exists; but some of them fit better” - which resonates with our references in the previous section to the human search for a model of reality that suits our needs.

This comment by Schmidt implies that fiction is as good a tool as any for providing us with a suitable model of reality. I would argue further that fiction (despite the distorting nature of language) in fact best meets the criteria for such a task. I intend to explain in the next two sections how fiction can achieve this in various ways including how fictional narratives and the characters developed within them can perform as pointers towards how we construct reality by organizing ourselves, in line with what Glasersfeld’s radical constructivism tells us.

As we saw earlier, one of the significant tenets of Glasersfeld’s theory is about the impossibility of a complete exchange of knowledge between two minds. Instead, “[w]hat we experience, cognize, and come to know,” Glasersfeld contends “is necessarily built up of our own building blocks and can be explained in no other way than in terms of our ways and means of building.” Glasersfeld cites the example of John Fowles’s novel *The Magus* to explain how a work of fiction can best explain his constructivist ideas including that we have no choice but (to paraphrase Glasersfeld’s earlier observation) to organise ourselves in order to organise

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50 Glasersfeld, ‘Introduction to Radical Constructivism’, p. 82.
the world around us. He considers *The Magus* as “one of a small number of literary works into which I can read... a view of the world and a constructivist theory of knowledge that I have worked at for a good many years.”

In *The Magus*, the narrator Nicholas, a disillusioned poet contemplating suicide, falls under the spell of Conchis - a Prospero-like figure - who is the owner of an estate in a Mediterranean island. Nicholas then becomes an unwitting performer in the psychological games that Conchis plays and loses gradually the ability to distinguish the real from the artificial. He realises in the end that the stories that Conchis enacts are not actually from Conchis’s life but his own. Nicholas comes to understand partway through the story also that he has no control over the events taking place around him and this leads to a sense of self-pity and despair. Glasersfeld compares this disillusionment to our misconceptions about reality, our futile ambition to hold objective reality in our hands. “Like many of us,” Glasersfeld notes, “[Nicholas] knew what the world was like. He himself had loaded the dice long ago by unquestioningly accepting a naïve, commonplace view of the world.” 52 These misapprehensions emanate from the fact that there is no absolute knowledge and this is one of the themes of the book. Fowles acknowledges this in his preface to *The Magus* when he writes that it is about “a series of human illusions about something that does not exist: absolute knowledge and absolute power.”

Glasersfeld however perceives this not solely as a case of our illusions getting annihilated by reality. But, alongside this destruction comes also “the growth of an... inner confidence.” In his view *The Magus* is “one long chess game between knowledge and certainty.” As what Fowles calls the “Godgame” progresses, there is a growth in inner certainty in the narrator and a rise in the balance between knowledge and being. This is when, as Glasersfeld points out, Conchis begins to show Nicholas (and the reader) that it is the experiencer who creates reality by discerning the relationship between the “facts” and “the structures he comes to consider real.” With growth in knowledge and self-assurance, the experiencer can create his or her own narratives and learn to live with it.

51 Glasersfeld, ‘Reflections on John Fowles’, p. 444.  
52 Glasersfeld, ‘Reflections on John Fowles’, p. 446.  
54 Glasersfeld, ‘Reflections on John Fowles’, p. 446.
Glasersfeld feels that in *The Magus* Fowles illustrates also the subject-dependent nature of reality that is constructed by us - an idea that is “the core of constructivist epistemology”, as Glasersfeld tells us\(^{55}\) - when Conchis explains the nature of coincidence to Nicholas by referring to two dramatic incidents. The first one is about the burning down of a chateau belonging to a wealthy art collector. The second one is about a hermit who has been awaiting the coming of God for several years. One night the hermit gets the vision he has been waiting for and it is also the night when the chateau burnt down. Is there a connection between these two events? “There is no connection,” Conchis asserts. On the other hand, “I am what the connection is, I am whatever meaning the coincidence has.”\(^{56}\) Glasersfeld identifies a similarity between this avowal by Conchis and “an everyday paraphrase of Einstein” whose remarkable insight was that “there is no simultaneity without an observer.” Constructive theory holds that not only coincidences, but also the events behind them and “even those experimental compounds that we call ‘objects’… come about through the experiencer…”\(^{57}\)

As for objects, the more we move away from what we call ‘objective reality’, the reality that we build too moves away from “the world of manipulable objects,” as the French philosopher Paul Ricoeur notes.\(^{58}\) Ricoeur adds that by aiding this transformation (as *The Magus* was seen to do by Glasersfeld) literature - especially in its employment of imagination in poetry and fiction - makes a “productive reference” to reality. Ricoeur equates this concept to reality shaping. In this context he juxtaposes the adjective “productive” against the term “reproductive” to signify not just the replication of a referent but as a process that involves creating something anew. To explain this point, Ricoeur compares literary works of imagination to images (such as photographs). Images have a pre-existing referent that they can reproduce whereas fiction does not possess such a referent. Ricoeur therefore considers fiction’s productive reference


\(^{56}\) Glasersfeld, ‘Reflections on John Fowles’, p. 447.

\(^{57}\) Glasersfeld, ‘Reflections on John Fowles’, p. 447.

to reality as paradoxical: that only fiction - which does not already have a referent - is able to reveal the world to us.\textsuperscript{59}

Ricoeur argues also that fiction’s “productive state of imagination”\textsuperscript{60} is able even to “increase” reality via what he terms “iconic augmentation”.\textsuperscript{61} Iconic augmentation occurs when something enables us to see the world in a different way. Ricoeur gives for example the invention of the alphabet and its development across a number of stages, from pictograms and ideograms to associating sounds with elements of the alphabet. What was remarkable about this process was that our capacity for expressing thoughts increased with a reduction in the number of elementary signs in the language. Ricoeur thinks that this feature is a “decisive condition of all iconic augmentation, for it is in abridging his alphabet that man simultaneously increases the generative power contained in the… ensemble of discreet units.”\textsuperscript{62}

After explaining iconic augmentation thus, Ricoeur draws a parallel between fiction and painting both of which appear “to be an attempt to capture the universe in a web of abridged signs,” by offering characteristics comparable to the alphabet, such as concision and generative power.\textsuperscript{63} Ricoeur then goes on to assert that fiction advances a function akin to that of painting in this respect in presenting a different world to us when it “redescribes reality. One sort of language describes reality; then… a second sort of language arises to redescribe the world.”\textsuperscript{64} Ricoeur asserts also that “iconic augmentation is the rule for poetry” and this “creative reconstruction” - which is not simply a duplication - is realised “by means of the mediation of fiction”.\textsuperscript{65} Ricoeur equates this process to a “mimesis of reality” where the poet fashions a new \textit{mythos} of reality.\textsuperscript{66}

There is also a noticeable similarity between Ricoeur’s idea that fiction produces reality and Julie Sedivy’s thoughts on the purpose of fiction. Sedivy holds that fiction helps us assimilate the world. It allows us to “step out of the constraints of actual reality to project ourselves into

\textsuperscript{60} Ricoeur, ‘The function of fiction’, p. 128.
\textsuperscript{61} Ricoeur, ‘The function of fiction’, p. 128.
\textsuperscript{62} Ricoeur, ‘The function of fiction’, p. 137.
\textsuperscript{63} Ricoeur, ‘The function of fiction’, p. 137.
\textsuperscript{64} Ricoeur, ‘The function of fiction’, p. 139.
\textsuperscript{65} Ricoeur, ‘The function of fiction’, p. 140.
\textsuperscript{66} Ricoeur, ‘The function of fiction’, p. 140.
possibilities that don’t exist, might exist, may not exist, might have existed in the past.” What makes fiction so powerful, Sedivy thinks, is that it is able to create for the reader “an incredible space to explore hypotheses… [and] to generate, to create in language, worlds that aren’t in front of us.”

**Literature and the theory of mind**

J.A. Baker’s book *The Peregrine* is a recounting of the author’s observations of that eponymous avian over a few months as part of a much longer obsession with following the behaviour of these birds of prey. Philosopher John Gray views this book as a tribute to the sense of freedom the bird evoked in the author. Gray then makes a more telling point when he adds that “the book is a record of the author’s struggle to see the landscape in which he pursued the bird through the eyes of the bird itself.” Some may recall that there have in the past been other similar narratives - such as Richard Bach’s *Jonathan Livingston Seagull* - wherein the author exhibits an understanding and oneness with an animal that may transcend normal cognitive boundaries. These writers succeed eminently at providing a “first person account” as it were of, say, what it feels like to glide on jet streams or how to spot and swoop on prey from miles away.

What is also remarkable is the author’s desire - and ability - to get into the mind of an animal and to experience the world - and tell us about it from the perspective of the animal (without trying to “humanise” the animal). A *New York Times* essay - about, among other questions, why we care so much about fictional characters - points out that “this layered process of figuring out what someone else [whether human or animal] is thinking… is both a common literary device and an essential survival skill.” The essay offers the sentence “Peter said that Paul believed that Mary liked chocolate” as an illustration of this process. (While these remarks refer to such a feature with reference mainly to humans, the books by writers such as Baker and Bach bear witness to the fact that this interpretation can apply to our relationships with other animal species too.)

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67 Berger, ‘Ingenious’.
68 Berger, ‘Ingenious’.
While referring to this process as “mind reading” may sound like something out of folk psychology, it is something cognitive science equates with what it calls the “theory of mind”. As Lisa Zunshine, a professor of English at the University of Kentucky, explains, the theory of mind refers to our ability to explain a person’s (or animal’s, as Baker attempts to do) mind and how “we attribute to [that] person a certain mental state”71 based on their behaviour. This model of the mind tells us that cognition may not be limited to our own minds alone (otherwise we may run the risk of lapsing into solipsism). Instead, in our everyday lives and within a social context we assume the existence too of “other minds” who possess thoughts and aspirations like our own.

“Writers intuitively exploit our constant readiness to posit a mind whenever we observe behaviour,” Zunshine tells us. Zunshine then adds, “when we compose an essay… a song, a novel… [we] try to imagine how this or that segment of our target audience will respond to it.”72 When a writer is able to skilfully employ empathy and other emotional skills to describe what goes on in other minds it has an effect of triggering similar feelings in the reader too.

There are also some other benefits that we can derive from reading good literature, as Julie Sedivy points out. Sedivy feels, for instance, that exposure to language that talks about the idea of peering into other people’s mind in fact increases our ability to read other minds.73 Good literature has also the potential to enhance our social intelligence, the ability to interact with others successfully, the ability to read communication with implied meanings and to be open and flexible in the way one communicates. The evolution of literature toward inner voices, Sedivy contends, has as a matter of fact been driven by an increased awareness of the importance of social intelligence.74

In her view of how fiction generates reality, Lisa Zunshine reveals an affinity with Glasersfeld’s idea that we organise the world not by merely manipulating things in themselves but by constructing reality from the bottom up. “Fictional narratives,” Zunshine believes, “endlessly experiment

72 Zunshine, ‘Why We Read Fiction’, p. 29.
73 Berger, ‘Ingenious’.
74 Berger, ‘Ingenious’.
with rather than automatically execute our evolved cognitive adaptations.” An example of this experimentation is how writers challenge the “cognitive constraints” that science may identify. Zunshine claims that in fact “where there is a cognitive constraint, there is a ‘guarantee’ of sorts that writers will intuitively experiment in the direction of challenging that constraint…” Cognitive constraints thus present writers with “creative openings rather than with a promise of stagnation and endless replication of established forms.”

An example of how writers challenge a cognitive constraint - such as the limit on the number of mental states we may be able to process without difficulty - can be seen in the use by writers of fiction of the technique known as the “free indirect style”. This involves the deliberate mixing up of first-person and third-person narratives. Paul Scott, for instance, uses this mode quite well in his The Raj Quartet novels about the last days of British rule in India. Blakey Vermeule, an associate professor of English at Stanford, has looked at “free indirect style” from an evolutionary perspective and thinks that it evolved because it satisfies our “intense interest in other people’s secret thoughts and motivations,” as it enables the reader to dwell in multiple states of mind at a time.

Another way that writers attempt to defy cognitive limitations is, as Zunshine points out, to “manipulate the amount and kind of interpretation of the characters’ mental states that they supply themselves and that they expect us [the readers] to supply.” This can be done by both over-interpreting and under-revealing the characters’ feelings and motivations. Zunshine cites Henry James as an example of the former and Hemingway’s writing as illustrative of the latter. Hemingway is, for instance, as Zunshine indicates, known to occasionally use the description of his protagonist’s physical action as a proxy for what the character thinks and leaving the reader to guess the character’s emotional state. Award winning novelist Cormac McCarthy uses a similar ploy where the punctuations and grammar

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78 Cohen, ‘Next Big Thing’.
80 Zunshine, ‘Why We Read Fiction’, p. 30.
relating to dialogue are only inferred. This forces the reader to “listen” more carefully to what is being said.

Despite the differences between the literary devices and stratagem employed by writers ranging from Henry James to Hemingway and the others we have cited so far, an objective common to all of them appears to be a desire to not simply describe but to make the reader participate in the probing and relate to the psychological experiences of the characters. Julie Sedivy believes that fiction of this nature has actually shaped our culture by pushing us “to be more attentive to… the intricate, complex contents of each other’s minds and [training us to explore] what other people are thinking and feeling.”

When the reader is thus left to figure out the mental state of a character in a novel it bears a similarity too to how we deal with multi-layered social encounters in real life. In such situations, even if our understanding of what the other person is thinking may not be wholly accurate, it is (as Lisa Zunshine explains) “the default way by which we construct and navigate our social environment.” Fiction, Zunshine contends, delivers a fecund stimulus to our “mind-reading and mind-tracking” cognitive abilities that are vital for this social interaction. We derive such a bounty from fiction by imagining what goes on in the minds of the characters, following the pointers provided by the author to such mental states and comparing our ideas about them with what either the author may tell us or with the thought processes of the other characters in the story. “Many of us come [in fact] to enjoy such stimulation to such a degree,” as Zunshine opines, “that we need it as a steady supplement to our daily social interactions.”

Conclusion
We have noted in this article how owing to various constraints - some evolutionary, some epistemological - we may never have direct access to objective reality, that realm of universal truths. We have also looked at how one of our primary cognitive tools - namely, language - too exacerbates the difficulties with this quest. This is because of the way language works: it packs all the sounds we can make into a finite number of vowels and

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81 Berger, ‘Ingenious’.
82 Zunshine, ‘Why We Read Fiction’, p. 29.
83 Zunshine, ‘Why We Read Fiction’, p. 31.
consonants. While this provides great concision in how we communicate, it risks eroding meaning and knowledge. Samuel Beckett hence called language a veil. As Sedivy elucidates, language creates a veil “between the thing that it’s describing and the way in which it’s described.”

But in order to find meaning in our lives, we are impelled to fashion - while also utilising the pointers provided by Glasersfeld’s radical constructivism - a working model of reality (albeit imperfect) adequate for our purposes. We have in this article also seen how literature is able, as part of this process, to circumvent the constraints posed by language and to ameliorate the other constraints we looked at. Literature is able in this respect to fulfil the task of being a “universal translator”, a term Baudelaire is reputed to have used to refer to poets as they, in his view, translate the language of the universe into the language of man. While drawing our attention to Baudelaire’s observation, the Mexican poet Octavio Paz asserted that poets “have always had something to show modern man.”

Paz felt that poets - whom he referred to as “muses of the moment” - were able to do so by opening for us “a window to the other side of time - eternity”.

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84 Berger, ‘Ingenious’.
86 In Gardels, ‘West Turns East’.
87 In Gardels, ‘West Turns East’.