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Charting Problems through Stories and Science Fiction

Abstract: *When scholars tackle the theorical problems presented by fiction and stories, they usually do so either from a philosophical standpoint or from a narratological one. This normally results in a partial or incomplete analysis. In this paper the two perspectives will be combined to achieve a theoretical account of how fiction can help to explore and chart problems in a narrative framework, getting in touch with them before moving to a more structured analysis in more specialized fields. To this end, I will analyse the genre of Science Fiction, which, thanks to its peculiar combination of scientific material with fictional one, will be the perfect case study. This line of research will show how fiction and non-fiction can be used concurrently to better understand the theorical challenges scholars can face in their work.*

Keywords: Cognitivism, Mental Time Travel, Possible Worlds, Science Fiction.

1. Introduction

The scholarly debate concerning the potential theoretical relevance of fiction – be it limited to one genre or to fiction as a whole – is often concerned with the contents of stories. However, it does not usually encompass an assessment of the hermeneutical structures from which said usefulness stems. Thus, the majority of these studies concerns only what stories are about, ignoring the means by which a reader is capable of understanding and reflecting on them. The purpose of this paper will be precisely to inquire this point. Focusing firstly on fiction in general and secondly on the genre of Science Fiction, I will provide a general definition of these hermeneutical ways, which I will call 'Narrative Charting'.

To achieve this, I will firstly give an account of where this phenomenon takes place (i.e. of fictional worlds), showing in which respects we can call them 'worlds' and how a brief incursion in modal matters can be helpful when considering such problem. Secondly, I will introduce some narratological concepts which will help define the uniqueness of Science Fiction with respect to the other genres.

Thirdly, I will move to a description of Narrative Charting from a theorical point of view, with the help of the psychological notion of Mental Time Travel.

Drawing on this notion, which will be integrated with Yablo's[1] epistemic account of conceivability, I will be able to account for the theoretical usefulness of fiction using not only philosophical means but also scientific ones. I will also make some critical remarks, dwelling on the limits of this hermeneutical device.

Finally, I will analyse what I take to be an example of Narrative Charting, namely the paper *The Paradoxes of Time Travel* by David Lewis[2], to show the capabilities and limitations of this approach from a more pragmatic perspective.

2. Storytelling and Possibility: What does it mean to call Fictional Worlds 'worlds'

Before trying to understand what Narrative Charting is and how it works, we shall first establish *where* it takes place. And that would be in the fictional worlds of stories. Now, it is evident that many stories do not take place in our world (or, in any case, take place in somewhat modified versions of it), especially the Science Fiction ones we will consider within this paper. Characterizing the status of these worlds can be a bit challenging and will require the help of some concepts from the field of modal logic. However, this does not imply that we will have to dwell on the debates of modal metaphysics, or any related issue[3]: these topics are not strictly relevant for my enquiry.

Instead, it will be quite useful to consider what can be gained by taking the 'world' in 'fictional world' literally. And this, I maintain, is the possibility to use the relations of closeness and accessibility between worlds[4] to account for the respects in which a fictional world differs – or, we could say, drifts apart – from our own.

The notion of 'closeness' is a relation that gives us the measure of the similarity between worlds. Suppose three of them: one where the physics is quantitative and relativistic, another where the physics is quantitative but Newtonian and a third one where the physics is qualitative. According to the closeness relation, the first and the second are *closer* than the first and the third.

On the other hand, for one world to be 'accessible' from another means that some properties and characteristics of the former are conceivable starting from the elements of the latter. Practically speaking, if two worlds have the same physical laws, they are physically accessible, since by using laws that work in one world we can predict and/or comprehend phenomena which could occur in the other. Should they have the same history, they would be historically accessible, since from

1 Cf. Yablo, 1993.
2 Cf. Lewis, 1976.
3 For those interested, an introduction to the topic can be found in Lewis, 1973, 84-91. For an in-depth description of both realism and ersatzism, see instead Lewis 1986, 1-96 and 136-191, respectively. For a purely semantical perspective on possible worlds, see Kripke, 1980 and Eco, 2020, 163-230.
4 On closeness, see Lewis, 1986, 20-27, on accessibility, see Lewis, 1986, 27-32 and Eco, 2020, 213-229.

the knowledge of the historical events of one world we could discover the other's ones.

It is easy to see how these two relations, in the study of fictional worlds, allow us to frame the respects in which a world is similar or different from ours in a clear and straightforward way, and, more in general, to compare various fictional worlds between them.

Even so, all that glitters is not gold. Using a modal framework to explain fictional worlds comes with its own costs, the most notable of which is tied to the fact that they are maximal sets of elements. This means that they are determined in all their details, in each moment of time[5]. A feature which is evidently not shared by fictional worlds. For example, while everybody can know how many stairs lead to the 221b ok Baker Street[6], can anyone tell what is the numbers of stairs that lead to the 221c? Or how many wizards, exactly, were there at Harry Potter's first visit of Diagon Alley? Or, again, which kind of material composed the walls of Lovecraft's Miskatonic University? Such questions may seem idle, but they do mean serious trouble for advocates of possible worlds in this field[7].

This problem is not something to be surprised of. If we look at the purposes of these two kinds of worlds, in fact, everything becomes clear. Possible worlds are primarily instruments to inquire and explain the field of modality. However, fictional worlds are constructions stemming from stories and novels, whose first concern is to be enjoyable by the audience and *plausible*, rather than strictly *possible*, in order to enact the Suspension of Disbelief[8]. To this end, a story tends to be rather lazy, and gives just the necessary elements to create a believable framework to be completed by a reader, thereby leaving to them most of the responsibilities to create the world they are experiencing. In this light, we could say that any text is naturally incomplete[9], and requires somebody to fill in the gaps. These gaps being exactly the reason why a fictional world is a non-maximal set.

Following in these steps, we could say that a fictional world is more like a non-maximal plausible framework to be completed by a user rather than a maximal possible set to be described by modal logic. And precisely in this incompleteness, I maintain, lies the theoretical utility of Science Fiction (and of fiction in general).

5 Cf. Lewis, 1986, 69-81.

6 I.e. 17, as Doyle writes in the short story *A Scandal in Bohemia*.

7 It is precisely because of this problem that Lewis supposes subsets of possible worlds for every fictional story to take place in, instead of a single possible world (cf. Lewis, 1978). Every world of this subset is a possible way to completely determine these details, effectively transforming each of them into a maximal set of elements, saving both the freedom of the reader to imagine these details as they please and the complete determination of possible worlds.

8 First introduced by Samuel Taylor Coleridge in 1817 (more precisely in chapter XIV of his *Biographia Literaria*), the concept of Suspension of Disbelief is employed referring to a voluntary suspension of the normal beliefs a reader holds about how the world works to immerse themselves in a fictional story in which new and different rules may be presented by the author.

9 On the constitutive incompleteness of literary works, see also Ingarden, 1973.

Therefore, speaking of a fictional world as a 'possible world' seems really close to the metaphorical definitions of Lakoff and Johnson[10]. In other words, it is a description which allows us to structure the abstract and unknown concept of 'fictional world' by virtue of the better-known concept of 'possible world', shedding light on the common parts (for instance, the fact that it is in many ways similar to what we would ordinarily call a world). At the same time though, it shadows other parts of the concept (namely, the fact that it is not a maximal set). This is something to be aware of if we want to use this kind of terminology.

Now, before moving to consider the nature of Narrative Charting, I shall introduce some further elements about fictional worlds from the field of narratology. So, without further ado, let's start this little incursion outside the traditional borders of philosophy.

3. A Journey from the Ordinary to the Extraordinary: Fictional Worlds in Narratology

Narratologically speaking, a fictional world is distinguished in two parts, namely the ordinary world and the extraordinary world. This subdivision follows one of the most influential frameworks of analysis and construction of stories, the so called 'Hero's Journey', devised by Christopher Vogler[11] on top of Joseph Campbell's anthropo-mythological studies[12].

The ordinary world is the one where the protagonist starts its journey through the plot, not only in a geographical sense, but also in a psychological one. Roughly speaking, it is the cultural and physical environment in which they have always lived. To give some examples, we can picture the farm on Tatooine for Luke Skywalker, in *Star Wars,* or District 12 for Katniss Everdeen, in *Hunger Games*. The extraordinary world, instead, is the portion of the fictional world in which the main plot is enacted, and, normally, where the protagonist discovers that the laws and conceptions of their little ordinary world are incomplete or altogether incorrect. Following on the previous examples, the *Star Wars* galaxy for Luke Skywalker and Capitol City and the site of the Hunger Game for Katniss Everdeen.

Story wise, the passage from one world to the other is marked by two stones: the Call to Adventure and the Passing of the First Threshold[13]. The first marks the arrival of a figure (be it a mentor, the shadow itself or even just a messenger) who pushes the protagonist to take action towards the theme/conflict the whole story is about. The second marks the first step in the adventure *proper*[14]. Even if, *mutatis*

10 Cf. Lakoff & Johnson, 1980.
11 Cf. Vogler, 2007.
12 The most widely known of which is Campbell, 2020.
13 See Vogler, 2007, 99-106 and 127-134, respectively, for details.
14 It is usual to place one or more Refusals of the Call between these two steps, to better explore the fragilities and the doubts of the protagonist, but I will defer to Vogler for details (cf. Vogler, 2007, 107-116).

mutandis, this framework is valid for the majorities of stories, whatever the genre, there is something peculiar about fantastic ones, whether it's Fantasy or Science Fiction.

This peculiarity is nothing other than the possibility, for the author, to play with the very bricks that make up a world, with internal coherence as its only limit. For example, if magic cannot take someone back from the claws of death, this cannot be an option if one of the characters dies. This limit, of course, is tied to the aforementioned plausibility that makes the Suspension of Disbelief possible. Sci-Fi, however, has another unique trait, which sets it apart even in the great sea of the fantastic stories.

As Tristan Garcia[15] and Margaret Atwood[16] remind us, the genre of Science Fiction orbits around two centres, namely the science and the fiction, or, as Garcia calls them, science and myth. The former amounts to the scientific background from which many authors smuggle ideas, the latter to the possibility to play with those ideas in ways that aren't strictly *possible* but must be, for aforementioned reasons, *plausible* in some way. In this light, the uniqueness of Science Fiction is the possibility to overcome, albeit fictionally, the theorical and/or material limitations which prevent us from putting those ideas into practice and to show us *plausible* results of said application. The exploration of these possible outcomes in stories is the first step of what I have called Narrative Charting. Now that we have reached a better understanding of *where* it takes place, it is time to inquire *how* it works.

4. Hitchhiker's Guide to Problems: The Narrative Charting

With an account of *where* the Narrative Charting takes place in hand, we can now move on to see *how* we can chart concepts through fictional worlds. Doing so will require some help from neuroscience and psychology, and a discussion of a minimal truth condition for this kind of operation.

The main component that has to be introduced to understand how we move between and beyond the pages of a book (and, through that, in fictional worlds) is Mental Time Travel (MTT)[17]. MTT is a theory which accounts for how we simulate events in our minds, including the fictional events we imagine according to the instructions given by novels[18]. According to Addis, while we simulate events inside our minds, we use a faculty which comprises both imagination and memory, called Constructive Episodic Simulation (CES)[19]. Through this, we simulate situations and events inside our minds, be them past, future or fictional, starting from the elements that are at hand.

15 Cf. Bradbury, 2019, Preface.
16 Cf. Atwood, 2022, *Scientific Romancing*.
17 For an introduction, see Addis, 2020.
18 See Eco, 2020, 91-162 for a discussion of these dynamics.
19 On the imaginative sides of memory, you may also see Gottschall, 2012, 156-176.

This blending of memory and imagination has an interesting implication for this work: namely, it grants that when we imagine fictional worlds, close or distant from ours, we always start from our own experiences. Experiences that, for obvious reasons, are rooted in our universe. This foothold in reality, as it will become fully clear in a couple of paragraphs, will prove to be crucial for my account.

So, through MTT we create and experience fictional worlds, following the instructions given by the narrator of the story and closing the gaps left by the author using our CES. But what exactly do we explore through fiction? It is commonplace to claim that fiction delves into various themes, normally examined through conflict or some similar kind of problematization[20]. So, it follows that through fiction we probe specific conflicts, or problems, or both. It is also maintained that good fiction does not solve problems, rather it should render them on the page, giving them the possibility to grow and expand as the story sees fit[21].

Even so, one problem remains. Normally, when we enjoy fiction, we use our imagination to sketch situations based on the words of the author. Then, how can we move from those to an effective charting of the problems enacted in those situations? To answer this question, we may call in Yablo and his analysis of epistemic modality[22].

Let's say we are imagining a room with a cup of coffee. To make this possible, it is necessary that in that world people have gained the knowledge and means to toast coffee beans, how to grind them, and how to infuse them in hot water. Then, we should suppose a distribution system to make said coffee arrive in the room. All this is implied by the situation, and so we can reach it with our imagination following its epistemic implications. In Yablo's words "conceiving *p* […] is imagining that *p* by imagining a world of which *p* is held to be a true description."[23]. Of course, such a mechanism can be analogically applied also to actions, conflicts, themes and characters[24].

Furthermore, we see that this kind of reasoning is frequently put in action by fiction enjoyers. For example, it is not uncommon for fantasy and sci-fi readers to scrutinize the actual plausibility of the worlds where the novel takes place, flowing through the epistemic implications of the author's descriptions. As I argued earlier, this kind of reasoning can lead to interesting theoretical results when it involves things like speculation on the fundamental principles of these worlds and their implications. Information gathered this way can then be employed in our analysis of other topics, leading to new, creative solutions reached via this "extended" familiarization with problems.

20 On conflict as a basic building block of stories, see Booker, 2004, 17-19. On the relation between characters and conflict, see McKee, 1997, 145-152.
21 Cf. LaPlante, 2007, 63-64.
22 Cf. Yablo, 1993 & Yablo, 2002.
23 Yablo, 1993, 29.
24 Given the scope of this paper, I cannot delve into these cases. However, I believe that a good starting point to move in this direction, specifically on characters and related issues, could be Zunshine, 2006.

A somewhat theoretical parallel of this conception is what Poma calls 'inhabiting problems', which, according to him, is one of the peculiarities of philosophy[25]. In his conception a philosopher is not somebody that solves problems, rather they are somebody who delves into them to deepen their understanding and familiarity with them. And from my analysis follows that fiction is also a place where we can explore problems through our imagination and memory.

Again, the element of memory here is pivotal, since it shows that, to understand and structure the problem the fiction is about, we start from our previous knowledge of it. This effectively transforms the fiction in an opportunity to sharpen our understanding of the matter. Then, like for many explorers of the past, with exploration comes charting[26].

So, our MTT capability, guided by the inputs given by a story and moving according to epistemic implication, begins to explore the problem in this narrative framework, sketching its conclusions, much like the explorers of the modern age sketched maps of the territories they were visiting. Then, if the conclusions reached show themselves to be worthy of further investigation, a philosophically (or scientifically) competent reader can push this operation further, refining their charts with more precise instruments taken from the various disciplines they are informed in. This practically amounts to importing the conclusions from their native narrative framework into a more defined disciplinary one, to see if and how they can aid in any research endeavour.

I shall therefore define Narrative Charting as a mental operation to gain insight about specific problems through stories and the fictional worlds they take place in. It is conducted via MTT and follows epistemic possibility and necessity. It can be used either leisurely or for theoretical ends. In this second case, it will require a formalization of the insight thereby gained in a scientifical or philosophical framework. This can lead to one of two outcomes: we can re-organize (or, we should say, re-chart) our pre-existing knowledge or it can help us comprehend new concepts.

The first case is close to what Gibson calls neo-cognitivism. Namely, a constellation of theories that account for the cognitive value of fiction in terms of perspectives which help us better understand and organize knowledge we already possess[27]. In this sense, we can use stories to re-chart our already existing knowledge about a topic in totally or partially new ways. To give some examples, we can think about how *The MANIAC* (by Benjamín Labatut) can warp our understanding of artificial intelligence, or how *Babel* (by Rebecca F. Kuang) can enrich and change our conception of language and colonialism.

The second, instead, is a little more subtle. I have already argued that stories, especially in the genre of Science Fiction, can let us explore situations and events beyond our actual means. Or, more precisely, bypassing them. It is so, for example,

25 Cf. Poma, 2002, 44-45.
26 Naturally, calling this operation 'charting' has a metaphorical value, similarly to what we said concerning calling fictional worlds 'possible worlds'. On this, see note 10.
27 Cf. Gibson, 2008, 585-586.

with the novels which comprise dimensional travel inside a multiverse (*Rabbits* by Terry Miles), or that describe possible futuristic societies (*Qualityland* by Marc-Uwe Kling). Doing so, we can expand our knowledge by exploring new possibilities, which we can then formalize more precisely by importing them into philosophical and/or scientifical frameworks[28].

Naturally, such an operation calls for a truth criterion. Although a more in-depth discussion seems to be needed, for the purposes of this work a minimal account will suffice. Since we have seen that for a fictional world (which I have previously defined as a plausible non-maximal framework) the most important characteristic is internal coherence, it seems natural to adopt coherence (with respect to the framework we are using) to judge the truth of the Narrative Charting too[29].

Furthermore, in importing conclusions from a fictional to a philosophical or scientifical framework, one of our first necessities would be not only to be coherent with the starting situation (i.e. the fictional elements with which we sketched our charting), but also to expand and better define them in a way which is coherent with the new framework we have chosen.

Also, it seems appropriate to integrate this criterion of truthfulness and validity with a case-by-case analysis, since it is evident that considering planar travelling in a Fantasy setting is profoundly different from exploring the possible implications of bioengineering.

Lastly, before moving on, a few critical remarks are in order. It shall be made clear that the Narrative Charting is not to be intended as a substitute for proper arguments or for a more detailed analysis, be it philosophical, scientifical or else. Rather, it is intended as a method to get in touch with a problem or a theme before the start of said research. After all, although they can be used for research purposes, stories are not primarily intended for this purpose.

Moreover, it should also be noted that, at times, there can be a really short distance between Narrative Charting and Confirmation Bias[30], since we could simply be drawing on a novel written by somebody with conceptions very akin to ours. Since Charting stems from our own preconceptions of the problem, this can very quickly bring to a vicious cycle of confirmation of old beliefs rather than to an exploration of new ideas. This also implies that we should be careful in the selection of the stories we use to chart concepts, and that we should experience stories by different authors and cultural backgrounds, when possible. Thus, it is pivotal to implement a rigorous analysis and research after having taken confidence with the problem through Narrative Charting.

With this account of what narrative charting is, of where it takes place, and of its limits, and having seen in which respects fantastic narrations – and, more precisely, Science Fiction – are unique and uniquely useful for theoretical purposes, we shall now consider what I take to be a clear example of this method of inquiry.

28 The example we will consider in the next paragraph belongs to this second category.
29 On coherence as a truth criterion in fictional situations, see Eco, 1997, 37-43. On the conception of truth in respect to a framework, see Carnap, 1950.
30 See Nickerson, 1998 for an introduction to the topic.

5. Time Travelling through the Page: From Robert Heinlein to David Lewis

Although the examples of Narrative Charting could be numerous[31], it will suffice to take one which is particularly clear, namely, the paper *The Paradoxes of Time Travel* by David Lewis[32].

The paper opens with a clear declaration of intents: Lewis will argue in favour of the possibility of time travel, albeit in a world peculiarly different (and so, in terms of closeness, very far) from ours[33]. But the kind of time travel he considers is not any time travel: it is the one which we usually see in Science Fiction. More specifically, he will analyse the cases depicted in two short stories by Robert A. Heinlein, 'By his bootstraps' and '–All you zombies–'. These are two of the earliest examples of causal loops via time travel in all the genre. In the first, a young man travels in the future to see a world devoid of civilization except for one individual, which later we discover to be none other than the protagonist himself, who ends up retroactively causing his arrival in the future in the first place. In the second, we see how an intersexual person grows up to become simultaneously their own father, mother, son and daughter, in a perfect predestination – or bootstrap, as for the first short story – paradox.

Trying to give a philosophical account of the time travel phenomena[34], firstly Lewis discards the option of a second dimension of time in which a traveller would move to go in the past or in the future, on the grounds that this account is not consistent with how we normally conceptualize time travel in Science Fiction[35]. We are therefore left with a four-dimensional space time just like the one we

31 To name a few: many papers in contemporary bioethics stem from Sci-Fi premises, for example Umbrello & Balistreri, 2023 considers the ethical dimension of life aboard generation ships; an online article by Pievani (Pievani, 2023) shows how short stories by Calvino and Borges can help us understand the relations between the various branches of science; a paper by Hartl and Mehlmann (Hartl & Mehlmann, 1982) where vampires are used as theoretical instruments to explore optimal control models for renewable resources.

32 Cf. Lewis, 1976.

33 This is so since with the current scientific evidence time travel, especially in the past, seems to be physically impossible. The only way to travel in time at a different speed from our usual second by second experience seems to be either the one described in the renowned twins' mental experiment or through highly theorical means, like wormholes. For details, see Feynman, 1963, 77-78 and Thorne, 2014, respectively.

34 Note that the framework in which Lewis moves is his modal realism, with all the pros and cons of the case. I believe this can be useful to show us how a fictional framework can interact with a philosophical one, even without taking the latter as valid.

35 Note that this can be seen as an example of what was said in the previous section on the relationship between Narrative Charting and Confirmation Bias. The fact that in some novels a single dimension of time suffices to time travel is by no means a justification to exclude other cases in the second phase of Narrative Charting. Of course, we can see this as setting a boundary on our research field, but this does not mean that multiple dimensions of time are to be altogether removed from our theorical analysis. It should be noted, in fact, that some branches of physics are using similar hypotheses to better understand some implications of special relativity and quantum mechanics (on this, see Hawking 2001, 29-65). So, after all, maybe stories with two dimensions of time are closer to our reality than others with just one.

suppose composes the fabric of our universe. Then, to explain how a traveller can go backwards in time while maintaining a linear cause-effect relationship, Lewis makes a distinction between their personal time (i.e. the time from their perspective, which flows in a linear way for them but in a convoluted way in the eyes of everybody else) and the external time (i.e. the time as we ordinarily conceptualize it, flowing tidily from the past to the future).

Having explained how one can move through time, Lewis subsequently defines their personal identity. Since temporal continuity, in terms of external time, isn't an option, it seems that he should resort to consider only the permanence of the consciousness in personal time. To this Lewis adds the causal continuity of the traveller's actions, to guarantee that the traveller who arrives is the same who departed. With this, Lewis moves to consider one of the most famous paradoxes in the history of the genre: the Grandfather Paradox.

This is one of the many paradoxes that play around the possibility of changing the past through time travel, and could be summarized as follows: what would happen if somebody went in the past and killed their grandfather before he had children? It is easy to see how the paradox unfolds: if the grandfather does not have any children, then the traveller cannot be born in the future, therefore how could they have travelled in the past to kill him in the first place? Coherently with the needs of his modal realism and with the narrative choices he found in Heinlein, Lewis solves the paradox by concluding that it is impossible for the traveller to kill their grandfather, since his presence in the traveller's personal past is not compossible with his death in external past. Thus, to maintain the logical consistency of the possible world in which time travel is possible, changing the past must be impossible[36].

Still, one might reasonably ask if we should take this as the only possible solution for the paradox, or for the more general problem of changing the past through time travel. To answer this objection, we will have to briefly go back to the previous paragraph, where I defined the minimal truth conditions for Narrative Charting, i.e. coherence with respect to the two frameworks at play: the fictional one through which we get in touch with problems, and the one in which we formalize our conclusions. So, we should suppose that, being coherent with respect to both Heinlein's depiction of time travel (in which the traveller cannot modify the past, what changes is only their perception of their role in it) and Lewis' theory of possible worlds (which must be internally coherent and have to avoid logical paradoxes), the conclusions of the paper are true. More precisely, they are true with respect to the frameworks we are taking into consideration. This means that if we try to integrate Heinlein's depictions with other philosophical (or scientifical)

36 Unless we are talking about a branching world (i.e. a world in which any change in the past creates a new temporal line, separated by the one from which the traveller came), but in this latter case Lewis argues that we are not really changing our past, rather we are creating a new future. For further details, see Lewis, 1976, 152.

frameworks, or if we chart the concept 'time travel' starting from other kinds of narrative backgrounds[37] we will get to different results.

This is to be expected, both because the conclusions stem from literature and not from real world observations and because the subject at hand is highly theoretical. But then how should we account for the applicability of the knowledge we develop through Narrative Charting? For the first outcome I have mentioned (i.e. a reorganization of our ideas concerning a topic) the problem subsides, since we are not considering any new information, and so its validity will remain unchanged, although our understanding of it will not. For the second one, and so for the case at hand, while it poses a subtler challenge, it is certainly manageable. Since we have said that the conclusions are imported in a new framework, and that the primary end of literature is not research, it should follow that if they hold true (in some sense) in our world or not is a question not relative to those conclusions only. Rather, it concerns also the truthfulness of the theory in which we have imported them, since the need to be formally and argumentatively accurate lies in it, and not in the novel. Lewis' example, in this light, is very insightful. If we want to disprove his conclusions about time travel, what we will have to refute is how it works under the rules of his own modal realism, or his modal realism altogether. And, with this, we can move to conclusions.

6. Conclusion

In this paper I have shown one way with which scholars can get in touch with problems through stories, and I named this phenomenon Narrative Charting. Building on our memory and expanding through our imagination (according to epistemic implication) the fictional worlds where tales take place, our CES capability enables us to sketch concepts and ideas in a narrative context, from which we can then move to more formalized frameworks, where we can suitably account for them.

In this account, Science Fiction occupies somewhat a unique place, being born as it is between science and imagination, building from scientific and philosophical ideas which can then be re-introduced in these disciplines in a virtuous circle of mutual elaboration and inquiry of concepts.

Nonetheless, we have seen that a measure of caution must be taken, since stories and academical research have different purposes, at least on a primary level. If we are not careful enough, stories can also be home to the Confirmation Bias and its grave consequences. If we use Narrative Charting as a preliminary mean of inquiry and integrate it with the right academical tools, though, a world of possibilities

37 Some examples could be *Back to the Future*, where time can be almost completely rewritten by a time travellers' actions, or *Doctor Who*, in which there are fixed points in time around which every other event flows freely, open to change, or even *Futurama*, in which one of the protagonists kills his original grandfather and creates a causal loop by replacing him, thus becoming his own grandfather.

opens itself to researchers, welcoming them in the realm of stories as companions in the exploration of new ideas.

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