Narrative Transportation and the Powers of Fiction

Abstract

Siamo soliti attribuire alle opere di finzione un grande potere di influenzare le nostre credenze, i nostri desideri e i nostri comportamenti. Ma le cose stanno davvero così? Tali opere posseggono davvero il potere che attribuiamo loro? E nella misura in cui lo posseggono, che ruolo gioca l'immaginazione nel determinare le suddette influenze? Il presente articolo cerca di dare risposta a queste domande sulla base di alcuni importanti studi sulla psicologia della fruizione di opere di finzione: i cosiddetti 'transportation studies'. Tali studi mostrano che gli influssi delle opere di finzione sulla nostra psicologia sono possibili in virtù di alcune caratteristiche fondamentali della nostra architettura cognitiva, aventi a che fare da un lato con la stretta connessione tra sistema immaginativo e sistema emotivo, e dall'altro con i meccanismi di formazione e revisione delle credenze. Da questa discussione emerge anche un'importante lezione di carattere metodologico riguardante la fecondità di un approccio psicologico ed empirico alla filosofia dell'immaginazione e della finzione.

Fictions are credited with a significant power to change our attitudes and behaviours. But do they actually have such a power? What precisely can they do? And what role does imagination play in that? In this paper, I address these questions drawing on some important studies on the psychology of fictional engagement, which go under the label of 'transportation studies'. These studies, I argue, show that fiction's influences are made possible by some basic features of our cognitive architecture, such as the capacity that imagination has to interact with our emotional system, on the one hand, and some standard mechanisms of belief formation and revision, on the other hand. From this discussion I also draw a more general methodological lesson concerning the fruitfulness of the interactions between philosophy and psychology when it comes to investigating our engagement with fiction: if philosophers cannot ignore the work that psychologists have done in this area, psychologists can benefit from philosophers' work of conceptual analysis, which provides a broader range of explanatory options for their data.

Introduction

Fictions are credited with a significant power to change our attitudes and behaviours. Censorship and heated pedagogical debates about children books are just two examples of the power that we assume – and often fear – fictions to have on us. But do fictions actually have such a power? What precisely can they do? And what role does imagination play in that? This paper will address these questions drawing on some important studies on the psychology of fictional engagement.

The question of fiction's influences upon our real-world attitudes has been discussed by philosophers and psychologists in distinct ways. Philosophers have been interest-

ed in that question at least since the times of Plato. While Plato was pessimistic about it – banning fictions from his Republic because of their supposedly dangerous influences – many after him have suggested that fictions play an important role in enhancing our understanding of ourselves and in our moral education. According to Martha Nussbaum, for example, by providing "close and careful interpretative descriptions" of scenarios that we could never encounter otherwise, (good) fictions extend and sharpen our knowledge of human nature, and allow us to think without the distortions of self-interest that astray us in the real life, thereby improving our emphatic capacities and our moral judgements.[1]

Psychologists, on the other hand, have focused on fictions' effects upon our factual (as opposed to moral) attitudes, without any bias towards showing that such effects are beneficial or rationally justifiable; they have run systematic experiments with fictions, generally ones of no particular artistic quality, in both written and visual media.

With a few exceptions, philosophical and psychological researches on fiction's effects have gone on in almost total disregard of each other, appealing to radically different kinds of evidence and reaching, by and large, different conclusions. This is worrying. The question about fictions' effects is to a large extent an empirical question, which no one can seriously think to answer simply by speculating from her armchair on the basis of her own experience.

Here I will then consider some of the relevant psychological studies, to see what empirical evidence we actually have concerning the effects of fiction on bits of our mental economy and how that evidence can be interpreted. In so doing, I hope to show also that, if philosophers cannot ignore the work that psychologists have done in this area, psychologists can benefit from philosophers' work of conceptual analysis, which provides a broader range of explanatory options.

1. TRANSPORTATION

Empirical studies on the effects of our engagement with fiction have been growing fast in the last decades. In this section, I am going to consider a large and growing body of studies concerning a phenomenon that has come to be called "narrative transportation" (or even just "transportation", for short).

By this term, psychologists refer to the experience of being engrossed by the world of a story, so much that the real world seems to temporarily disappear. We are all familiar with something like that: in reading novels and watching films we sometimes get completely absorbed into their narrative worlds, loosing contact with the real world around us; all what matters then is what happens in the story, which might even make us forgetting important things to do, not realizing what people around us are doing, nor how much time has gone by. Following GERRIG 1993, psychologists describe this with the metaphor of a physical journey: a reader (or movie/play watcher – I assume

[1] NUSSBAUM 1990, p.47 (see Ch. 1, 2, 4). Other philosophical discussions of the moralizing effects of fictions include CURRIE 1995; 1998; GAUT 2003; 2007.

this addition to be tacitly understood from now on) is transported some distance from her world of origin; some aspects of that world become inaccessible; she returns somewhat changed by that journey.

Gerrig took the metaphor rather seriously, building on it his entire theory of the psychology of narrative engagement. «My evocation of this metaphor – he says at the beginning of his influential book – will enable me to refer concretely to otherwise elusive aspects of readers' experiences (...) This image [i.e.: being transported] will serve both as a shorthand expression of what it feels like to experience narrative worlds and as a touchstone for generating research questions about those experiences.»[2]

In line with this suggestion, psychologists have undertaken to investigate all the relevant features of our narrative journeys systematically. Very important here have been some studies led by Melanie Green and colleagues since the beginning of the 2000's (see for example Green – Brock 2000; Green – Brock – Strange 2002; Green 2004; Green – Donahue 2009). I will thus start with them.

1.1. Transportation: the outward journey

The phenomenological experiences of transportation that I have just described seem to be made possible by the fact that, for a while, all the readers' mental resources get focused on the story rather than on their own real situations. This might happen to various degrees. A reader will be the more transported, the more her attention will keep her emotional and cognitive faculties absorbed in the narrative world; on the other hand, transportation might simply shade off into mere low-level engagement.

Green – Brock 2000 created transportation experiences in the laboratory using a story called *Murder at the Mall*. This study has been very influential, reviving the interest in the pioneering works of Richard Gerrig and Deborah Prentice at the beginning of the 1990s.[3] So I will take it as a paradigm and discuss it as a chief example.

Murder at the Mall is the story of a little girl, Katie, who goes at a shopping mall with her older brother and there is brutally stabbed to death by an unrestrained psychiatric patient. The murder is described in vivid details, followed by a powerful account of Katie's final moments. This tragic narration was expected to be rather transporting. In the experiment, it was presented to some participant as a fiction (fiction condition), and to some others as a true journalistic account (non-fiction condition). Green and Brock then developed a scale to measure the actual degrees of transportation of the readers in terms of the extents to which their cognitive and affective faculties were absorbed by the story. That scale was based on readers' self-reports in relation to the following items:

1. While I was reading the narrative, I could easily picture the events in it taking place.
2. While I was reading the narrative, activity going on in the room around me was on my mind. (R)

[2] Gerrig 1993, p. 2.

[3] See in particular Gerrig – Prentice 1991; Gerrig 1993; Prentice – Gerrig – Bailis 1997.

3. I could picture myself in the scene of the events described in the narrative.
4. I was mentally involved in the narrative while reading it.
5. After the narrative ended, I found it easy to put it out of my mind. (R)
6. I wanted to learn how the narrative ended.
7. The narrative affected me emotionally.
8. I found myself thinking of ways the narrative could have turned out differently.
9. I found my mind wandering while reading the narrative. (R)
10. The events in the narrative are relevant to my everyday life.
11. The events in the narrative have changed my life.
12. I had a vivid mental image of [character name].[4]

Readers were asked to express their agreement/disagreement on each of these items, rating it on a seven-points table anchored by "Not at all" and "Very much". Items 2, 5 and 9 were reverse-scored; hence, the scale was constructed with a theoretical range from 15 to 105, where higher global scores were representative of greater degrees of transportation. As predicted, subjects in all the three experiments revealed, on average, rather high degrees of transportation (M= 74). No one reported very low scores (under 31), though some were significantly more transported than others. These differences in degrees of transportation were quite striking in that they did not seem to be dependent on the subjects' beliefs about the fictional / non-fictional status of the story: high levels of transportation were registered equally among subjects in both the fiction and non-fiction conditions.

The scale just described is not appropriate only to *Murder at the Mall;* Green and Brock introduced it as a universal transportation scale, applicable to any narrative – either fictional or non-fictional – in order to capture what they take to be the three basic dimensions of transportation: presence of *mental imagery* related to the story, *emotional involvement* with the story, and *cognitive attention* focused on the story.

Among these three dimensions, they emphasize the first – mental imagery – as the most important one. As they have it, indeed, forming very rich and vivid images of what happens in a story is the key factor to be transported in it. This is why they call their general theory the "Transportation-Imagery Model", building it on the assumption that mental imagery has "the paramount role" in determining both the characteristic phenomenology and the consequences of transportation experiences.[5]

Quite surprisingly, imagery is the only form of imagination that Green and Brock – and various other in their wake – seem to consider; they never mention different forms of propositional imagining such as make-believe, and do not explicitly attribute to such other 'cognitive' forms of imagining an important role in transporting the readers into narrative worlds.

[4] GREEN – BROCK 2000, p. 704. Note that item 12 can be repeated for the number of the main characters in the story, substituting a different character name for each item. The letter "R" indicates the items that were reverse-scored.

[5] GREEN – BROCK 2000: see in particular pp. 318-319. The paper is indeed entitled: *In the Mind's Eye. Transportation-Imagery Model of Narrative Persuasion*.

However, we can observe that some form of cognitive imagination seems in fact to play a role in their transportation scale.[6] Even if perhaps it is not expressly designed for that purpose, item 8 in the transportation questions on which the scale is based seems to measure a kind of imaginative activity that operates not with mental images, but rather with propositions. Item 8 measures the extent to which the reader thinks of possible alternative endings of the story: this seems to involve precisely what we call propositional imagining – i.e. imagining *that* the story will end in this or in that other way.

A somewhat similar consideration might be true also about item 1, which asks how easily the reader can *picture the events taking place in the story*. If on the one hand the term "picture" refers to the formation of visual images, on the other hand the very notion of "event" seems to involve a narrative structure which presupposes an exercise of propositional imagination.

Admittedly, this might not be necessary so; one could argue that it is possible to form visual images of a given event without imagining *that* it is happening. Even granting this to be possible, however, this is not what we generally do when we engage with fictional stories. What we typically do, instead, is to imagine that 'this and that' happen in the story, often enriching such imaginings with more or less vivid and detailed images.[7]

It thus seems plausible to assume that readers confronted with item 1 in the transportation questionnaire naturally consider "picturing the story events" as referring to a joint exercise of perceptual and propositional imagination, and respond consequently. If so, item 1 is a measure not only of imagery, but also of propositional imagination.[8]

A further factor that contributes to determining the degrees of transportation in Green and Brock's scale has to do with the relation in which the contents of the story stay to the readers' everyday lives; this is measured by items 10 and 11, which ask how important the events narrated look from the reader's actual perspective.

So, in short, Green and Brock's transportation scale provides one way of measuring a reader's degree of transportation into the world of a given story as a function of five

[6] I here use "cognitive imagination", "propositional imagination" and "make-believe" rather interchangeably, to indicate some or some other form of "imagining *that"* which does not (necessarily) involve any sensory mental image.

[7] Cf. Peacocke 1985 on the relation between mental images and one's imaginative project.

[8] An objection to this could be that the narrative here in question are not always fictional: the psychological studies on transportation that I am discussing use both fictional and non-fictional narratives, revealing that the readers are equally transported in all cases. In the cases of non-fictional stories, readers' representations of the events narrated would probably involve belief, more than propositional imagination. So, following my line of argument we should say that item 1, measuring the extent to which a reader "pictures the event taking place in the story", measures: (i) the extent to which the reader forms mental images about those events, and (ii) the extent to which she frames such images in a kind of propositional structure, by exercising a propositional attitude which will be either imagination (make-believe) or belief, or both. This is indeed a more precise interpretation of what item 1 says. However, since here I am mainly concerned with transportation into fictional stories, for the moment I will not consider this complication. My considerations, if they are correct, has shown that when Green and Brock's scale is applied to transportation into fictional worlds, its item 1 provides a measure (also) of the readers' propositional imagination. Moreover, the measures provided by item 8 seem to reveal a role of propositional imagination also in transportation into non-fictional stories.

basic factors: her *emotional involvement* into the story, her *cognitive attention* focused on the story, her *imageries* of the story content, her *propositional imaginings* of the story content, and the *relevance* of the story content to her real life.

As we have seen, Green and Brock stress in particular the importance of the first three of these factors, and of imagery above all. But also the other two factors (i.e. propositional imagining and relevance of the story to real life) seem to play an important role in their scale's measuring. And this seems to be a good, desirable feature of that scale: it is plausible to think that the extent to which we are transported into a story importantly depends both on the extent to which we engage in making-believe what the story itself narrates, and on the extent to which that narration is connected with our actual beliefs and interests.

Let's then say a few more words on these two factors and on the possible reasons why Green and Brock tend to neglect them.

As to propositional imagination, Green and Brock's neglect might simply be due to the fact that they are more or less consciously assuming a kind of image-based account that identifies imagination in general with imagery, considering imagination as a kind of quasi-perceptual state – a 'seeing with the mind's eye'. On this view, there would be no room for other non-perceptual-like forms of imagination. There would not exist such thing as propositional imagining; propositional attitudes like that mentioned in item 8 ('thinking of alternatives ends of a story') would not really count as imaginative.

Now, a similar image-based theory of imagination is questionable. But I am not going to discuss it here, since this would take me far beyond the purposes of this paper.[9] Here I am basically interested in the data that recent empirical studies provide about our psychological engagement with fictions, and notably in putting such data in relation with data about fiction-driven attitudinal changes. Being inclined to think that in our psychological engagement with fiction what I call "propositional imagination" plays a crucial role, I am looking for evidence relevant to this.

As I have it, Green and Brock's studies do provide such evidence: I have shown that their transportation scale measures transportation also on the basis of what *I* call propositional imagination – i.e. on the basis of what the readers (avow to) make-believe about the stories they read. Once given that, the way in which Green and Brock conceptualize such data – whether or not they consider attitudes such as 'thinking of alternatives' and 'representing (fictional) events' as propositional imagination – is not so relevant for me here. I think it is just fair to conclude that their studies reveal a sig-

[9] Note however that, even irrespective of the intrinsic problems of the image-based theories of imagination, a further problem for an account of transportation based on the paramount role of imagery would arise in relation to narratives in visual media, like plays or movies. Indeed, visual and auditory imagery seem to play little or no role in our engagement with such narratives, which provide us with the relevant visual and auditory stimuli. This is not merely a matter of visual and auditory imageries being redundant: vision and visual imagery tend to exclude one another, as do hearing and auditory imagery. Of course, there still remain tactile and motor imagery, which are not yet replaced in cinema and theatre by virtual reality systems that provide convincing tactile and motor experiences. However, attributing to tactile and visual imagery a "paramount role" in determining our transportation into movies/plays-worlds would not be obviously plausible, and would require some specific argument.

nificant role of (what I conceptualize as) propositional imagination in transportation experiences with fictional stories.

To be sure, nothing of what they say is at odd with this conclusion. Quite the opposite: I think that assuming that their idea of imagination includes both imagery and make-believe is a charitable and sensible thing to do, which makes their arguments on the influences of fictions upon readers' beliefs more plausible, as we will see in short.

Something similar to what I have just said about propositional imagination seems to be true also about the relevance of the story contents to the reader's real life. Even if Green and Brock do not stress the importance of this latter factor very much, the fact remains that their measure of transportation is based also upon it – as items 10 and 11 seen above clearly reveal.

The reason why Green and Brock somewhat neglect the role of the relation between story contents and reader's real life in determining transportation might be due to some *a priori* idea about transportation itself that they get from their initial abstract characterization of it.

Indeed, their initial reading of the transport metaphor – in line with Gerrig 1993 – emphasizes the separateness and distance between the real world from which the reader departs and the narrative world where she is transported. Transported readers, they say, typically loose access to some aspects of their world of origin, and this is true at different levels:

> This loss of access may occur on a physical level – a transported reader may not notice others entering the room, for example – or, more importantly, on a psychological level: a subjective distancing from reality.[10]

Now, the fact that the experience of transportation into a narrative world implies some kinds of "subjective distancing" from the real world is beyond doubt. But this does not mean that all the bridges between the two worlds are burned.

On the contrary, it seems plausible to think that a reader will enter the narrative world the more in depth, the more she will find in it items, characters and situations that are interesting and somewhat relevant for her – thus somewhat related to the items, people and situations which are part of her actual world. And it seems also plausible that the more a reader will be able to rely on her previous experience of the real world to understand the narrative world, the richer her experience of that narrative world will be.

These plausible ideas are confirmed by a series of studies revealing that the readers enjoy, understand and get absorbed in the stories they read the more such stories recall their memories and previous first-hand knowledge (see for example Larsen – Seilman 2009; Green 2004; Strange 2002).

All this seems to suggest that the loss of access to the real world that characterizes transportation experiences, though certainly implying a break with our immediate surroundings, does not mean that we make a clean break with our real life. The existence of significant relations between real and narrative worlds has an important role in de-

[10] Green – Brock 2000, p.702; italic mine.

termining transportation, and even if Green and Brock do not emphasize that factor, their scale does take it in account.[11]

1.2. Transportation and Transportability

The empirical methods and the theoretical questions introduced by Green and Brock have informed several studies on the psychology of narrative/fiction enjoyment, with developments in various directions.

A group of psychologists from the University of Waterloo has elaborated a scale similar to Green and Brock's scale but aimed at measuring, instead of 'transportation', what they call "transportability": the extent to which different individuals are inclined and likely to be transported by the narratives they engage with (DAL CIN – ZANNA – FONG 2004).

Their *transportability scale* is based upon an adaptation of Green and Brock's twelve self-report items reproduced above. Whereas those transportation items ask the readers about their experiences with a specific narrative at a specific time, the transportability items ask them to generalize their experiences across different narratives and contexts, stating their general tendencies (so, for example, an item like 7 above: «The story X affected me emotionally», is reformulated and generalized as 7*: «When reading for pleasure I am often emotionally affected by what I've read»).[12]

Starting from the observation that some of us are more easily and readily transported than others by what they read, Dal Cin and colleagues were thus aiming to measure such individual differences in transportability and to test the hypothesis that, all things being equal, such differences are predictive of differences in *actual* degrees of transportation.

Their experiments were then structured in two stages. The same group of subjects were first given the transportability scale questionnaire, and then, after several weeks, were confronted with a particular narrative (*Murder at the Mall* or other short stories/movie clips) and with a related transportation scale questionnaire. In accordance with the initial hypothesis, individual differences in transportability turned out to be strictly correlated with (*i.e.* predictive of) different degrees of transportation into the various particular narratives.

But what is more interesting for us here is a further correlation that this and many other studies pointed out: a correlation between the extent of transportability and transportation, on the one hand, and various kinds of attitudinal changes, on the other hand. In line with what the metaphor suggests, empirical findings reveal that transported readers typically come back *changed* by their journeys into narrative worlds. In what follows I am going to consider the extent, the nature and the underlying mechanisms of such changes.

[11] Perhaps an improvement of their scale might consist in giving larger space to that factor, for example adding to the transportation questionnaire one further item which measures the amount of memories awakened by the story.

[12] DAL CIN – ZANNA – FONG 2004, p. 184.

1.3. Transportation: the journey back

In the previous section I have been mostly concerned with the phenomenological experience of 'being transported' into a narrative world. I have presented various psychological studies aimed at describing the mechanisms which underlie such kind of experience and the relevant factors that determine or influence it. Those studies do not consider only the phenomenological aspects of transportation experiences, though. They are also concerned with the consequences that such experiences have on the readers' psychology – that is, with the ways in which the readers are affected and changed by such experiences.

A starting hypothesis of all the studies in question is that fictional – as well as non-fictional – stories have the power to change us in various ways, and in particular to influence our attitudes such as beliefs. Those studies provide evidence relevant to this hypothesis.

Let's consider again Green – Brock 2000's experiment. Immediately after having read *Murder at the Mall* and completed the transportation questionnaire, participants were given a second questionnaire testing the reader's attitudes towards issues related to the story content, in order to see whether and to what extent such attitudes have been influenced by the story itself (the measure of that influence being given by the comparison with the attitudes that the reader herself reported on the same issues some weeks before having read the story).

This second questionnaire included statements about the likelihood of violence and the levels of justice in the world (*e.g.* «The world is violent and unjust»; «By and large, people get what they deserve»), or about the dangers of allowing freedom to psychiatric patients (*e.g.*: «Psychiatric patients who live in an institution should be allowed to go out in the community during the day»), asking readers to express their agreement or disagreement with those statements on a 0-60 scale anchored by «agree completely» and «disagree completely».

The idea was that such statements would have been understood as either endorsing or contradicting the views suggested more or less implicitly by the story, thereby revealing story's influences on the readers. Green and Brock's hypothesis was that high degrees of transportation are associated with more significant influences of the story upon the reader's attitudes.

In line with Green and Brock's expectations, the readers that had previously reported higher levels of transportation expressed stronger agreement with the statements endorsing views suggested by the story and stronger disagreement with the statements contradicting those views, often changing their pre-existing beliefs on the relevant matters.[13]

[13] Indeed, belief pre-texts were effectuated five to nine weeks before the experiment in order to rule out the hypothesis that more transported readers were those who already had beliefs in line with those suggested by the story. Regression analysis revealed significant *changes* in the relevant beliefs of the readers, suggesting that transportation was the cause, and not the effect, of endorsing beliefs suggested by the story. Here it is worth noting that the contents of the beliefs that changed, which concerned

Similar results have been replicated in several other studies involving not only written narratives, but also cinematographic narratives (STRANGE 2002, GREEN 2004; DAL CIN – ZANNA – FONG 2004). For example, after watching a film denouncing unfair working conditions and promoting worker's rights, highly transported viewers turn out to endorse pro-workers attitudes much more than their less transported counterparts do (DAL CIN – ZANNA – FONG 2004).[14]

These and similar studies provide evidence for the claim that the more a reader is transported by a story, the more she is likely to change her attitudes in ways that somewhat reflect the views suggested (again, more or less explicitly) by the story itself.

What is particularly striking in this evidence – and particularly interesting for us here – is the fact that the changes in question occur irrespective of whether the story is presented as fiction or as non-fiction. Indeed, as the readers' degrees of transportation, also their consequent attitudinal changes are independent of their beliefs about the fictional/non-fictional source of the story: more transported readers turn out to be more influenced by the transporting story, whether they take it to be fictional or not.[15]

How can we explain such 'source-indifferent' attitudinal changes?

2. THE EXPLANATORY OPTIONS

2.1. Green and Brock's explanation: 'narrative persuasion'

Green and Brock explain the attitudinal changes revealed by transported readers' reports in terms of *belief* changes, appealing to what they call *narrative persuasion.* This is supposed to be an odd, irrational process of belief-formation. While standard processes «lead to belief change via logical consideration and critical evaluation of arguments»,[16] transportation seems to change our beliefs by exploiting quite opposite mechanisms.

general statements about the nature of the world and human nature, suggest that the belief-changes in question could be counted as cases of what philosophers, at least since WEITZ 1943, have been calling 'learning from fiction' (see ICHINO – CURRIE 2017 for a more extensive discussion of this notion). Thanks to an anonymous referee of this journal for pointing this out.

[14] Cf. also BUTLER – KOOPMAN – ZIMBARDO 1995 on the psychological effects of the film *JFK*.

[15] To be sure, not only the fictional/non fictional status of the story did not affect transportation and attitudinal changes, but it seemed to be a question the readers did not care very much about; even though they were precisely informed about this at the beginning of the experiment, almost one third of the participants in the first studies by GREEN – BROCK 2000 ended up either misidentifying the source of the story, or reporting that they did not know it. Of course, this does not mean that generally speaking, also outside the experimental settings, people do not care about whether the stories they encounter are fictional or non-fictional; on the contrary, as CURRIE 1990 observes, «there can hardly be a more important question about a piece of writing or speech than this: 'Is it fiction or nonfiction?'» (p. 1). The indifference to such question displayed by participants in the transportation experiments simply suggests that *in the context of such experiments* people tend to represent the stories they are told irrespective of whether they take them to be real or not. In this sense, if we think of imagining as "representing something irrespective of whether we take it to be true or not", we might say that in the cases we are considering the readers' attitude towards the stories were typically imagination.

[16] GREEN – BROCK 2000, p. 702.

When we are transported into a story-world we lower our critical thinking and become more vulnerable to influences that rational scrutiny would suggest to be suspicious of.

This is, Green and Brock say, because transportation tends to keep all our cognitive and affective resources absorbed into the story content, so that very few – if any – of them is left to evaluate that content from an external, critical perspective.

Moreover, our attitude towards narratives is more 'relaxed' than that we usually adopt towards arguments/theories: when we are told a story, we take the purpose of the narrator to be to entertain, rather than to persuade, us, and thus we do not even try to critically assess the message that she communicates, ending up believing it too easily. Referring explicitly to Dan Gilbert, Green and Brock write:

> Building on this [i.e. Gilbert's] work, we suggest that transportation into a story causes people to be less motivated (or less able) to disbelieve any particular conclusion; transported individuals are so absorbed in the story that they would likely be reluctant to stop and critically analyse propositions presented therein. (...) Furthermore, stories are generally presented as entertainment, rather than as vehicles for attitudinal change. These qualities of narratives provide few explicit triggers for critical thinking, and thus counterarguing is less likely to occur.[17]

Note that this explanation of fictions' persuasive power depends on the assumption that – by absorbing our mental resources and obscuring the persuasive intentions of the narrators – fictions lower our epistemic vigilance.

This makes a difference with another explanation still in terms of belief change but appealing to the operation of the availability heuristic – which does not seem to depend on that assumption. On this latter view, what happens would be simply that *Murder at the Mall* makes available to the reader, when asked the right question, representations of violence and of dangerous psychiatric patients.

2.2. Problems with 'narrative persuasion' and possible alternatives

Explanations like these, which postulate essentially irrational changes in readers' beliefs, may be questioned in at least two ways. On the one hand, it can be questioned that those changes are changes in belief. On the other hand, even granting that they are changes in belief, it can be questioned that they are irrational in the way suggested.

As to the first point, the conclusion that the effects of transportation concern readers' *beliefs* is not fully supported by the evidence on which transportation theorists rely. That evidence consists of self-reports of agreement/disagreement expressed by the readers immediately after having undergone their transportation experiences. But people's introspective reports of their own views are often mistaken or inaccurate.[18] And some circumstances seem to make mistakes and inaccuracies even more likely:

[17] Green – Brock 2000, p. 703.

[18] Actually, some philosophers reject altogether the idea that we have introspective access to our own beliefs and deliberations, insisting that we understand them by interpreting our behaviour in much the same way we come to know of other people's beliefs and deliberations (Carruthers 2010). And anyway, even granting some form of introspective access, few would now argue that mistakes about our own beliefs are impossible, or even very rare.

for example, affectively charged circumstances, where a powerful mental state such as a desire or an emotion becomes so intense that it blurs our view of our own mind, leading us to believe that we believe what in fact we just desire or feel.

This may be precisely what happens in our case: subjects who have just read *Murder at the Mall* may be misled by the strong emotions that accompany their transportation experiences, and their avowals concerning justice or violence may be (not necessarily conscious) expressions of states and attitudes other than beliefs, like pessimistic moods or emotions. This would be consistent with the basic assumptions of the theory of cognitive dissonance (FESTINGER 1957). Readers might have continued feeling anxious for a while after reading the story, and then tried to make sense of their no longer justified feelings by self-*mis*attributing some beliefs on real-world violence and dangers.

Of course, it is possible that such self-misattributions of belief end up producing or favouring a real change in the readers' beliefs. This would be one of the outcomes that the theory of cognitive dissonance predicts, indeed. But here it must be noted that currently there is little evidence that the readers' tendencies to avow 'new' attitudes survive beyond the period immediately after reading; though Green and Brock did not measure the persistence of readers' attitudinal changes, other studies point out that avowals of changed attitudes are substantially reduced even only after one week (HAKEMUELDER 2000, MARSH – MEADE – ROEDIGER 2003), and this seems to support the idea that what such avowals express are fleeting emotional changes – only mistakenly identified as changes in belief.[19]

This looks as a quite plausible explanation, though one might be suspicious about the idea that subjects in the experiments were systematically mistaken on their own attitudes towards story-related issues, and that there always was a discrepancy between what they consciously avowed (a belief) and what their avowals actually expressed, beyond their intentions (an emotion).

Even rejecting this suggestion, though, we are not compelled to interpret subjects' avowals in terms of belief change as Green and Brock suggest.

A reader who, after reading *Murder at the mall*, agrees with the statement: «The world is violent and unjust», would probably also agree with a statement like: «The murder happened in a shopping mall». In this latter case, we certainly wouldn't conclude that the she is expressing a belief about a murder that she takes to have really happened; we would think that she is expressing either what she believes to be true in the story, or of what she makes-believe in her imaginative engagement with it. Similarly, we can then think that, being asked questions on story-related items like violence and injustice immediately after having read the story, some of the participants answered by giving voice to what they had just been, and perhaps still were, imagining about those items.

[19] Of course, this is not in itself a decisive argument to rule out the possibility that the changes in question concern readers' beliefs; in principle, there can be temporary belief changes as well as temporary emotional changes. However, beliefs on general matters like those here in question are supposed to have some kind of stability over time.

Note that both the previous explanations would account for the fact that more transported readers – being more emotionally and imaginatively involved into the story – displayed stronger attitudinal changes.

Finally, an explanation is available which accepts the reality of belief change but denies its irrationality. This explanation – which is discussed more extensively in Ichino – Currie 2017 – is based on the idea that fictional stories are often treated as 'parables' which the authors use to teach us some general lessons. In the case of *Murder at the Mall,* it would be reasonable to think that the author used that story to teach us the lesson according to which unrestrained psychiatric patients are dangerous. The question then arises as to the rationality of placing one's trust in the author of this story. No doubt there are better decisions about trust which people could make.

However, the irrationality at stake here would be of a different kind from that hypothesized by Green and Brock. While there seems to be something intrinsically irrational in a process of belief formation such as narrative persuasion – based on the inhibition of our epistemic vigilance, there are arguments to support the rationality of a general tendency to form beliefs on the basis of trusted testimony. On this latter view, the irrationality of being persuaded by *Murder at the Mall* would not concern the very process of belief formation on the basis of trust, but some contingent factor about that process – such as the choice of the person to trust.

Again, the hypothesis that readers were trusting the author could also explain why more transported readers tended to change their beliefs more than less transported ones: there is independent evidence from studies in the psychology of testimony showing that we tend to trust people more, the more we are engaged by what they do; and the "halo effect" might translate our admiration of the author's capacity to affect us emotionally into the idea that she is trustworthy.[20]

On the other hand, note also that the decision to endorse the author's beliefs might be based not just upon trust in the author herself, but also upon the independent consideration that her story provides a plausible (though fictional) illustration of how psychiatric patients might be dangerous. While admittedly less than exemplarily rational, one would not write off such reasoning as just irrational.

These are some of the ways in which one might explain the data presented in Green and Brock's and other similar experiments, shedding light on the effects of fiction on our mental lives.

Conclusion

Empirical studies on so-called *transportation* show that fictions have a significant power to influence us in various ways, affecting both our emotions and our beliefs. I have brought forward reasons to think that fiction's influences are made possible by some basic features of our cognitive architecture, such as the capacity that imagination

[20] Cf. Harris 2012, Ch. 5 and 6; Nisbett – Wilson 1977.

has to interact with our emotional system, on the one hand, and some standard mechanisms of belief formation and revision, on the other hand. Hopefully my discussion has also highlighted how fruitful the interaction between philosophy and psychology is when it comes to addressing these and related questions.

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