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Without foundation or neutral standpoint: using immanent critique to guide a literature review

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ABSTRACT

Literature reviews have traditionally been a simple exercise in reporting the current relevant research, both to provide an overview of the current status of the field, and perhaps to draw attention to controversies. From the perspective of positivist research traditions, it was important to neutrally report all the relevant research, which was assumed to be foundational. In this article, written for the Applied Critical Realism special issue of *Journal of Critical Realism*, I use my own research to illustrate how a literature review might look if it were non-foundational and guided by the principles of immanent critique. Immanent critique is central to Bhaskar's philosophical methodology but has not been much applied in critical realist empirical research. Following a brief introduction to immanent critique, its history and relation to other ways of grounding knowledge, an excerpt from a literature review is used as backdrop for an extended discussion about various potential applications, and implications, of immanent critique in social research. Immanent critique as method can take the form of noting theory–theory, theory–practice, and/or theory–data inconsistencies. Immanent critique as grounds for knowledge provides the possibility for knowledge and rational theory choice despite a rejection of foundationalism and of neutral standpoints. As a method by which to structure a literature review, immanent critique provides an excellent way to better understand the relevant literature, to formulate justifiable opinions about it, and to guide research questions.

KEYWORDS

Immanent critique; critical realist research; methodology; standpoint; foundation; rational theory choice

Immanent critique

When Roy Bhaskar first introduced his philosophical methodology, it was as a form of transcendental argument (Bhaskar 1975a; Bhaskar [1975b] 2008). Later he came to situate this form of argument within the confines of an immanent critique (Bhaskar [1986] 2009; Laclau and Bhaskar 1998; Bhaskar and Callinicos 2003) and most recently immanent critique has taken stage front and centre as his methodology of choice (Bhaskar 2016). Immanent critique is seen as the most effective way to persuade someone of a competing perspective because you are arguing from their stated or implicit

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position or from their practice (Bhaskar 2007, 2016). Furthermore, immanent critique is seen as the only viable grounds for philosophical knowledge once foundationalism is rejected (Bhaskar [1986] 2009).

At the most basic and applied level, immanent critiques may note theory–practice inconsistencies, more commonly known as performative contradictions. It is also possible to note theory–theory inconsistencies. Both types of inconsistencies are relevant to Bhaskar, though theory–practice inconsistencies are used more often, probably because they relate more directly to reality than do inconsistencies within our theories about reality.[1] Immanent critique is here in either case conceived of as a *method of argumentation*, going back to Socrates, if not earlier (Finlayson 2014). It is possible to note contradictions in the positions of others and suggest, based on that, better conclusions.

Beyond seeing immanent critique as a method of argumentation, it is possible to explicitly propose immanent critique as providing *valid grounds for knowledge and values*. This is an epistemic claim about how to support knowledge and it becomes interesting when we accept that we can in principle question the premises that support our conclusions in an infinite regress and/or when we accept that we do not view reality from some neutral standpoint. Epistemic relativity has both these implications (Hartwig 2007a, 2007b). The solution immanent critique provides to these problems is to take premises and conclusions *that are presently available* and then develop them *on their own terms*. This differs from foundationalism which says that we have found some basic insight that cannot be questioned, because it is true, and that it is this basic and absolute truth that provides support for our further claims about reality (Hartwig 2007a).

Viewing immanent critique as providing grounds for knowledge (and values) goes back to at least Hegel (Antonio 1981) and Marx (e.g. [1844] 1978) and was later popularized by the Frankfurt School. Immanent critique in this epistemic sense is similar to pragmatist and neo-pragmatist understandings of the grounds of knowledge in that they both reject foundationalism. The difference, however, is that pragmatism in effect says, 'you can't reach some absolute foundational premise so choose a premise that *you* can accept' (James [1879] 2010; Rorty 1979), while immanent critique tends to say, 'you can't reach some foundational premise so choose a premise that is accepted, explicitly or implicitly, by *the other*'.

Bhaskar explains that the implications of immanent critique are that the insights developed via an immanent critique of one position cannot be generalized beyond this context to other contexts or generalized to truth-as-such,

> [I]t is important to note that the method of immanent critique prohibits any simple-minded or unmediated transfer of results from one context to another. There must always be an independent analysis of the new domain before the possibility of any transapplication can be considered. (Bhaskar 2016, 6)

Bhaskar is here not talking about the problems of generalizing results from one population to another, he is rather talking about the problem of generalizing conclusions from one epistemic community to another. This problem of generalization is based on an understanding that there is no neutral standpoint.

Though I have here distinguished between immanent critique as a *method of argumentation* and as *providing grounds for knowledge* it should be apparent that they are very closely related; it is difficult to think of immanent critique as actually providing epistemic grounds without also having immanent critique as a method.

Though immanent critique has been central to Bhaskar's philosophical methodology, it has not much been applied in critical realist social research (see Morton [2010]; Gerard [2015] for exceptions). How might research that explicitly seeks to apply immanent critique differ from 'normal research'? I here define 'normal research' as starting with a literature review that says something about reality or about our understanding of reality. Some basic claims and categories are asserted that provide support for the further study. Based on this literature review, an empirical study is carried out which provides evidence to reject some theories and accept other theories as correct or more tentatively to falsify some theories and not yet falsify other theories. Immanent critique as a method of argumentation, i.e. noting performative and theoretical contradictions, is not an approach that is rare to find in either philosophical argument or social research. There is nothing, that I can see, within conceptualizations of 'normal research' that clashes with the idea of noting such contradictions.

Conceiving of immanent critique as grounds for knowledge, however, has some implications for 'normal research'. Having rejected foundationalism and the neutral standpoint, there can be no basic claims, whether scientific or philosophic (including having critical realism as one's meta-theory), that can be counted as basically certain or true. Such certainty will need to be re-conceptualized as that which has greatest explanatory power as of yet (Isaksen 2016), and in some cases merely as what is currently available within some field, discipline, or other epistemic community. Furthermore, as per the above quote by Bhaskar, conclusions based on immanent critiques cannot simply be generalized beyond the theories to which a researcher has compared. Here the close relation between immanent critique and comparative explanatory power is evident. Just as immanent critiques are 'relativized to a premise' (Laclau and Bhaskar 1998, 12), so any conclusion which is demonstrated to have greater explanatory power is *only* superior to those theories the conclusion is compared with. Any conclusion would, therefore, need to include the epistemic scope of such conclusions; in the same way, Bhaskar came to situate the epistemic scope of his argument for transcendental realism in the postscript to the second edition of *A Realist Theory of Science* (e.g. Bhaskar 2008, 252).[2]

Thus, to summarize, immanent critique as method can be used without suggesting any particular change to 'normal research', while immanent critique as grounds for knowledge would require at least a re-conceptualization of the grounds of knowledge for the research as non-foundational as well as clearly situating the conclusions within the confines of the theories discussed. Re-conceptualizing the grounds and epistemically situating the conclusions could be done *after* a study has been completed and thus does not necessarily have substantial methodological implications for 'normal research'.

It is further possible to use immanent critique as an explicit methodology from the *start* of one's research. There are here potentially substantial differences between immanent critique and 'normal research' since immanent critique might affect the very way information is gathered and also how it is presented.[3] The following is an extract from the literature review of an ongoing research project. Here I seek to consistently and explicitly use immanent critique from the start as both method and grounds for knowledge. Bullet points signal a move from the literature review proper to discuss in what ways immanent critique is currently being applied in the study. My research question is 'To what extent may narratives be beneficial for novice researchers to learn critical realism?' Though this topic itself may be of interest to critical realists, it is the methodological approach to answer this question which is of greatest relevance here.

Though I by no means suggest my applications of immanent critique as a template, I do hope that the examples may spur ideas for other applications and, perhaps, that some of my applications could themselves be of use in other contexts.

Excerpt: potential benefits of using stories to teach critical realist concepts

There are many books explaining critical realism in ways which are easier for most social researchers to understand than the densely written philosophy and argumentation of founder Roy Bhaskar (e.g. Collier 1994; Sayer 2000; Danermark et al. 2002; Edwards, O'Mahoney, and Vincent 2014). There is, however, no book or written text, to my knowledge, explaining critical realism primarily through the use of stories to help explain the philosophy.[4] This is relevant because stories have been claimed to be 'psychologically privileged' over other modes of discourse such as exposition (see literature review below). There are three ways in which narratives are said to be psychologically privileged; story structure helps us to be more engaged in the text, understand the content better, as well as better remember the content later on. The purpose of my research is thus to consider to what extent narrative text can help novice researchers to better understand critical realism.

The idea of narrative as a form of discourse and/or thought has been discussed in a variety of fields such as psychology (e.g. Sarbin 1986; Bruner 1987; Polkinghorne 1988), neuroscience (e.g. Young and Saver 2005; Gazzaniga 2011; Gottschall 2012), philosophy (e.g. MacIntyre 1981; Lyotard 1984; Ricoeur 1984, 1985, 1988), sociology (e.g. Labov and Waletzky 1967; Riessmann 1993; Hyvärinen 2010), and communication studies (e.g. Bain 1866; Burke 1969; Fisher 1987). The effects of narrative have been much discussed in literary theory (e.g. Felski 2008) and the field of narratology (e.g. Fludernik 1996; Herman 2009). It is the field of psycholinguistics, however, which has most directly sought to answer the question, 'Is narrative more beneficial to learning than expository prose?'. Psycholinguistics is the psychological study, usually through experimentation, of language and discourse. As psycholinguists have both explicitly and extensively studied questions very similar to mine, it seems a natural place to start my own investigation into the relative usefulness of narratives for teaching critical realist concepts.

- Since I take psycholinguistics as my starting point, it is this field which is my most immediate context and thus the first one to be immanently critiqued and developed. Psycholinguists have assumptions (premises) about what narrative discourse is, what counts as acceptable research methods, what causality is, and so on. These assumptions may not be accepted, for good reasons, by people in other fields. Developments here proposed, though allowing for rational theory choice in this field, cannot simply be generalized to a truth-from-nowhere, i.e. the claims are still relative to a specific context because I am arguing from within that context.

Psycholinguistics and narrative

Daniel Willingham, a cognitive scientist, was a recurring contributor to *American Educator*, an educational magazine intended for teachers. Readers would send in questions to know what the current state of cognitive science might say about how teachers could increase

their effectiveness. In one article, he provides a review of the psycholinguistic literature as support for the role of narrative in teaching.

Question	I have read that the mind treats stories differently than other types of information. It seems obvious that people like listening to stories, but it's not obvious how to use that in the classroom. Is it really true that stories are somehow 'special' and, if so, how can teachers capitalize on that fact?
Answer [by Willingham]	Research from the last 30 years shows that stories are indeed special … Teachers can consider using the basic elements of story structure to organize lessons and introduce complicated material, even if they don't plan to tell a story in class … Even small children who have difficulty focusing in class will sit with rapt attention in the presence of a good storyteller. But stories are not just fun. There are important cognitive consequences of the story format. Psychologists have therefore referred to stories as 'psychologically privileged,' meaning that our minds treat stories differently than other types of material. People find stories interesting, easy to understand, and easy to remember. (Willingham 2004)

The claim here is quite extraordinary. If we use the story format, even when not telling stories, we can more effectively assist students to understand material, possibly even complicated material like critical realism. Story format helps students find the content more interesting, easier to understand, and easier to remember, and it does so for almost all people everywhere because it might be a psychological trait of human existence. If psycholinguists are correct, we can use the story format to help those seeking to understand critical realism to enjoy the reading process more, to better understand and remember the concepts than through any other form of discourse, and it might do so for all people everywhere.

This is such an interesting claim, because on the one hand many or most teachers would want their students to understand what is being taught, remember it, and feel a sense of enjoyment while learning. On the other hand, it seems like a 'grand narrative'; there is a set thing called 'story structure', that story structure is by far the best, and seemingly best in all situations. Just apply story structure in any context and the learning of the students will be better than it otherwise would have been. These two contradicting feelings and thoughts make the claim by Willingham and psycholinguists an interesting starting place for a piece of research.

There are many things which will be discussed in this research in order to come to some conclusions about the above claim, considering epistemic relativity. Does the research reviewed by Willingham say what he says it says? Are there counter-claims even within the psycholinguistic community? Who is right? And, if story is so powerful, why is this so? If there are competing explanations of why story is so powerful, who is right, and how would one know? What of definitions: do the different researchers cited by Willingham use the same definition of story? If the different researchers think they are talking of the same 'story', but in fact have different conceptions of what story means, how can Willingham, or I, bring together the insights from these different researchers? Is there one correct definition, or at least one which can bring together the other definitions so I can compare the claims of what it is story does so effectively?

- Taking account of all these potential issues will require a great deal of time and effort, perhaps more than what would seem necessary. However, if we accept that truth often *is* difficult to access, then it seems better to be epistemically cautious than unintentionally hasty. Following Paul Ricoeur's motto, we could say we are taking 'the long route to ontology'. Accepting epistemic relativity requires that all knowledge in principle can be questioned. This insight does make the research process somewhat messy as there is neither firm foundation nor sturdy walls. What immanent critique (and comparative explanatory power) provides is a border, or hedge, to such messiness such that it becomes workable. Here only answers to a few of the many questions raised are presented.
- Before any critique of some position is possible, it is first required that the position be presented as accurately as possible (Hartwig 2007c), and that is what I turn to now. It is important to note that the possibility of an immanent critique does not mean that the position to be critiqued has nothing to offer. It may rather be that the position to be critiqued has the best insights *as of yet*. That some theory or explanation can be critiqued immanently is not a sign that the theorists behind them are somehow less than intelligent, rather it is a sign of a mind-independent reality (ontological realism) that is by its very relation to human minds never grasped directly (epistemic relativity).

Willingham's review of narrative in psycholinguistics

The article by Willingham starts with a definition of story based on writings from Hollywood screenwriters, following which there is a succinct review and synthesis of previous research in psycholinguistic research. Willingham ends with his own practical recommendations for the classroom. In the following, I focus on his review of the empirical literature.

Narrative structure is more engaging and interesting

The references Willingham gives of research showing that stories are more interesting than expositions are by Bruce Britton et al. (1983) and Kim (1999). Willingham explains that Britton et al. (1983) conducted experiments to see how fast people would react to an external stimulus, such as a sound, when reading narratives as opposed to reading expositions. It was observed that people reacted more slowly when reading narratives. The researchers, and Willingham with them, concluded that this was because people were more absorbed in reading narratives (Britton et al. 1983). Willingham (2004) proposes that the reason stories are interesting is because 'Story structure naturally leads the listener (or reader) to make inferences that are neither terribly easy, nor impossibly difficult'. For this explanation, he cites Kim (1999). Kim ran experiments and observed that stories which were neither too obvious nor too obscure gained the greatest scores for interestingness among those who read them.

Narrative structure for comprehending the text

Haberlandt and Graesser (1985)[5] used 18 different variables to explore the question of what increases readers' comprehension. Faster reading time was used as the indicator for greater comprehension. If something is easier to understand, people usually read faster than when they do not understand. It therefore makes sense to assume that faster reading time equals easier comprehension. The researchers observed that the

variable that had the greatest impact on reading time was narrativity. When texts were rated as being more narrative, there was a much greater chance that these texts would be read faster and, therefore, presumably also better understood.

Narrative structure for remembering the text

The articles referenced that stories are easier to remember are by Graesser et al. (1980),[6] Keenan, Baillet, and Brown (1984) and Duffy, Shinjo, and Myers (1990). In the article by Graesser et al. (1980), the researchers observed that being familiar with a text and the use of introductory outlines had no significant impact on remembering the content. They did, however, observe that narrativity had a substantial impact on recall of the text.

Willingham cites Myers and Duffy (1990) when making the claim that 'most researchers believe that it is the causal connections that make stories easy to remember'. The research by Keenan, Baillet, and Brown (1984) are publicized by Myers and Duffy (1990) and by Willingham (2004) as evidence that causality is central to helping people remember content they have previously read. In the research by Keenan and her colleagues, people were asked to read one of four short stories where there were different endings. Each of the short stories was coherent in that they were referring to the same characters and incidents, but the causal relatedness differed. One story could be ambiguous regarding the causal connection between sentences such as 'Joey went to a neighbor's house to play. The next day his body was covered with bruises'. It is not clear from this story exactly what happened or even exactly how the two sentences are connected. Other short stories had obvious causal connections; 'Joey's big brother punched him again and again. The next day his body was covered with bruises'. In similar fashion to the results by Kim (1999), research participants better recalled the stories when the causal relationship was neither too obvious nor too ambiguous.

Willingham (2004) proposes that we remember better when the causal connections are not too obscure for if the connection is difficult to understand in the first place it will be more difficult to remember the content later. Also, if the connection is overly obvious then we read on without considering the sentence as much because reading it is automatic. Willingham supports this claim by citing Duffy, Shinjo, and Myers (1990) who analysed the stories of Keenan, Baillet, and Brown (1984) in a different way. As mentioned above, Keenan, Baillet and Brown (1984) had noticed that short stories that had causal connections which were neither obvious nor obscure (what they called 'mid-level inferences') produced the best recall. Duffy, Shinjo, and Myers (1990), however, observed that when people were asked to elaborate on the stories with either obvious or obscure causal connections they would remember the content just as well as with stories with mid-level inferences. From this research, it appeared to the researchers, and to Willingham, that mid-level inferences are so effective because it invites people naturally to think *more* deeply about what they are reading, and as they do so they are more likely to remember what they read.

It is the causality inherent in narrative text which supports the understanding and recall of content

Willingham argues that the reason story structure is so effective in helping us understand and remember content is because our minds naturally seek causal structures. He refers to

Bartlett (1932) who asked British teenage boys to read a North American folk tale about Indians going to war in a story called *War of the Ghosts*. Willingham explains that it was not clear to the boys how previous events lead to, or caused, later events. The boys were later asked to recollect the story. It was noticed that they either did not recall events for which there were no apparent causal explanations or they added causal explanations of their own where there had been none.

Willingham (2004) explains further, 'causality is so powerful a cue to recall that subjects will use it even in expository prose, if it's available'. He then cites the experimental research by Gentner (1976) who had people listen several times to portions from a book on American History. After each time the participants were asked to share what they remembered, they recalled the content according to the order of causation, or according to 'story grammar structure', rather than in the way that the text was presented to them.

Willingham makes a compelling case for using stories in education by backing up his claims with a review of the science. An important question arises however; 'which science?' Willingham (2004) makes it sound like there is a consensus on the educational power of narrative, for example, by stating 'Research from the last 30 years shows that stories are indeed special'.

- If we have accepted epistemic relativity as a basic quality of all human knowledge we will be aware that there is always the possibility of some other competing perspective, and, therefore, it can be useful to search for such competing voices. Just as Bhaskar ([1975b] 2008) immanently critiqued empirical realism as a relatively unitary position, so I am trying to immanently critique the field of psycholinguistics, via Willingham's review of the literature. As I am getting into the field via his review, I must also at some point see if *his* claims about the field hold up to scrutiny, again on immanent grounds. Furthermore, it is via comparison of competing claims (which arise because of the actuality of epistemic relativity) that the very possibility of a rational theory *choice* is possible (Bhaskar [1986] 2009, 91). Before I can rationally choose between Willingham's claim and some other claim, I must therefore first have some other claim to compare it with. One such competing perspective to that of Willingham, within the field of psycholinguistics, is that of Michael Wolfe. Moving from Willingham to Wolfe is an example of how applying immanent critique as methodology from the start affects the very process of the literature review and may, therefore, have some effect on what data I observe and what conclusions I arrive at. Following the insight of epistemic relativity, I look for competing voices, and following one potential methodological implication of immanent critique, I first look for such competing voices within psycholinguistics.
- Though I am arguing internally to psycholinguistics this is not to say that my own situatedness has no role to play. There are a multitude of directions that an immanent critique of Willingham and psycholinguistics could take, mine here being based on my interests and values. What immanent critique does provide for is the important connection between variously situated people from which theory can be discussed and improved upon.

Wolfe's attack

Whereas Willingham makes the claim that narrative is a psychologically privileged form of discourse in supporting learning, Wolfe and Mienko (2007) take the exact opposite stance. Wolfe and Mienko do not mention Willingham, but they do reference and critique Arthur Graesser (ibid). As has been shown, Willingham supports his own claims for the psychological benefit of narrative in large part to research done by Graesser and colleagues. Wolfe and Mienko's primary issue with psycholinguists who 'show' that narrative provides better recall than exposition is that their methodology is flawed (2007). Wolfe says that Graesser has used texts with very different content when comparing narrative to exposition. Examples of narratives used in the studies by Graesser are Princess and the Pea, Snow White, Noah, and Jonah. Examples of expositions are Earthquakes, Emotions, Armadillos, and Harvester Ants (these examples can be found in Haberlandt and Graesser 1985; Graesser, Singer, and Trabasso 1994; Graesser, Hoffman, and Clark 1980). Wolfe and Mienko question how we can say anything about the comparative benefit of the *structure* of forms of discourse when the *content* is so different. Though Wolfe and Mienko do not cite or take issue with any of the others Willingham cites, Wolfe and Mienko's critique would be just as relevant in relation to many of them as they have not controlled for content across forms of discourse either. Wolfe and Mienko point to research which shows that when content has been controlled for, either there is no clear benefit to using narratives or expositions, or expositions in fact fare better.

- A value held in psycholinguistics, as in all experimental disciplines, is that of experimental control of variables. Wolfe and Mienko are here merely seeking to apply such a value more rigorously than Graesser and his colleagues have done; they are not arguing for the addition of some external value. Thus, the argument made by Wolfe and Mienko has persuasive effects *within* psycholinguistics: control between variables is important and therefore studies that have greater control between variables should be preferred. I am for the moment following psycholinguistics internally, and therefore I follow the reasoning as well.

For this reason, Wolfe and Mienko created three texts about the same topic, in this case, the human circulatory system. The content in each of the three texts was as similar as possible, and the facts mentioned were identical. They created one narrative text where a boy is shrunk down to the size of a molecule and travels around a woman's circulatory system. There were two types of texts which were described as variants of expository prose; one text where the circulatory system is explained according to topical areas (which is the most common approach taken in textbooks according to the researchers) and another where the circulatory system is explained by following the flow of blood. They asked the research participants, who happened to be undergraduates, to take pre- and post-experiment tests to check their increase in knowledge.

They noted that when content was controlled for in this way, that learning of the circulatory system was greatest with the exposition which followed the flow of blood, not the narrative. This result was replicated in a later study (Wolfe and Woodwyk 2010). In both studies, it was proposed that the cause of exposition being better than narrative is that people are used to focusing on the entertainment effect of narrative structure rather than the content to be learned. Because we are so used to reading narratives for

entertainment we find it difficult to not focus on the story, even when we are told explicitly to focus on learning about the circulatory system (Wolfe and Woodwyk 2010). Wolfe and Mienko (2007) claim that, whereas we are used to reading narratives for entertainment, when we read expositions our minds prepare to gain new knowledge.

While the one exposition did produce the greatest effects in learning, in most of the cases, the authors also mention that it did not provide greater learning for *all* people. When people had limited prior knowledge of the circulatory system, the narrative text in fact produced the greatest amount of learning (2007). Wolfe and Mienko point out that this insight fits with previous research claiming that people who have limited prior knowledge on a particular topic are likely to find it difficult to incorporate new knowledge through expositions, because there is no previous knowledge with which to fuse it with. It could be for this reason that the story is more helpful to people with less prior knowledge by providing 'at least some type of mental structure to which the content can be connected' (558). The story provides a point of reference which we recognize and from which we can possibly build further knowledge in a way that expositions do not.

Surprisingly, Wolfe takes the results produced in the studies as evidence that expositions are better to use in educational settings than are narratives, but do not his results imply the opposite? His results say that narratives are better for people who know nothing or only a little about a topic, which is precisely the position in which students often find themselves. Based on the results of Wolfe, Mienko and Woodwyk, it seems that a better conclusion would be to say that narrative in fact is beneficial to students trying to learn a new topic with which they are not well acquainted, but also that – for people who know the topic somewhat better – expository prose may be more effective. Applying this data to the research question, we could say that narratives may be helpful to novices of critical realism. However, people who are well acquainted with critical realism may find narratives of less use and perhaps therefore also of less interest.

- Here is an example of how immanent critique can be applied not only as a conceptualization of the grounds and borders of knowledge development, but also as a method to provide some conclusions *within* such borders. Based on Wolfe's own data, narrative is more beneficial than expository prose for novices, thus contradicting his own claims. This is not the same as saying '*thus* narratives *are* more beneficial than expositions for novices'. There could be a multitude of issues with Wolfe's methodology, his experimental setup, even the very idea of experimentation in the human sciences can be seen as problematic. But *based on* his own data, narrative seems to be more helpful for novices than expositions, and pointing this out means that progress in theory has occurred *within this context*. This type of immanent critique is not based on theory–practice or theory–theory inconsistencies, but rather on what we could call theory–data inconsistencies where the data used to propose some conclusion in fact better supports another conclusion.

Story structure vs. lucidity of causal inferences

- Willingham presents the research he reviews as supporting the claim that narrative has a set structure and that it is this structure that makes narrative better than exposition in educational settings. But what happens if we look closer at his own references?

Willingham argues that there is a narrative structure which is beneficial in all cases. However, when looking at Willingham's references, it seems several of them disagree. Based on the research by Kim (1999), Myers and Duffy (1990) and Keenan, Baillet, and Brown (1984), there does not seem to be a set story structure as such, which is either always beneficial to education or only to novices.

As I understand it, Kim (1999) did not show that story structure is better than expository prose for creating inferences that are neither too obvious nor too obscure. Kim never mentions exposition in his paper. Rather Kim is interested in how different stories may be more or less interesting. He does not compare narrative with expository, only narrative with narrative. The educational suggestion based on Kim's research should rather be that it is necessary to create good narratives (narratives which produce mid-level inferences that are neither too obvious nor too obscure), not that narrative is always better than exposition. Myers and Duffy (1990) and Keenan, Baillet, and Brown (1984) reach similar conclusions to those of Kim, that not all narratives are necessarily created equal. These researchers showed that, depending on how well the author had crafted the story, people would remember it to a greater or lesser extent. It seems from this that structure by itself is not enough; the internal relations of the specific narrative also need to be considered before we can make the claim that narrative is beneficial to learning.

- The immanent critique of Willingham's review is apparent in that the research *he* cites as authority contradicts his own claim. The relevance of the research by Kim, Myers and Duffy, and Keenan, Baillet and Brown in relation to Wolfe is, at this point, only to note that his single narrative – meant to represent narrative structure generally – is at the least presumptive. It is conceivable that part of the reason people did not benefit as much from narrative in Wolfe's studies is that the narrative was not well crafted.

Demographics and audience

Going back to the very beginnings of psycholinguistics as a field we have the work of Bartlett (1932) cited above. According to Willingham (2004), Bartlett's research concluded that there is a way in which events can be added or subtracted to an unintelligible story, to make the story more intelligible, and thus easier to remember. This is, however, only one part of Bartlett's conclusions. Within this one process of adding or subtracting events, Bartlett noticed that the events being added and subtracted differed significantly from one research participant to the next, 'The fact of rationalisation [adding or subtracting events] was illustrated in practically every reproduction or series of reproductions, but, as would be expected, the way in which it was effected varied greatly from case to case'. (Bartlett 1932 quoted in Prentice, Gerrig, and Bailis 1997, 416). Graesser and the others cited by Willingham focus on how narrative affects all people *similarly*, whether such influence comes from narrative as a structure or from level of lucidity of inferences within narratives.

- It is worthwhile to note that Prentice and colleagues, in wanting to focus more on individual differences, do not find a need to critique the current state of psycholinguistics from without. Rather they cite a common theoretical ancestor to show that even though the field has tended to focus on seeking commonalities, following Bartlett,

they have in fact only followed half his advice. Prentice and colleagues here provide a valuable immanent critique. They use immanent critique as a method of argumentation only however, i.e. they do not view it as providing grounds for knowledge, because they hold a positivist conception of knowledge. This is an example of how immanent critiques by those who use it only as a method may yet fit very neatly within research which applies immanent critique as providing grounds for knowledge. Based on this immanent critique, I searched once more for competing and perhaps more nuanced voices from within the field which were not included in Willingham's review.

This lead me to research that suggested that two demographic features may influence familiarity and educational benefit of narratives: socio-economic background (Arya and Maul 2012) and age (Berman and Katzenberger 2004). If the demographics of the audience have an impact on how beneficial narratives are for education, then this will also have implications for the previous section where we discussed the need to create *good* story content. It seems that good story content (for example creating mid-level inferences) may not be the same for all people in all situations.

Socio-economic background

Arya and Maul (2012) were interested in the benefits of using narratives to explain scientific concepts. They created comparable narrative and expository texts, as Wolfe argues one should do. There were four texts: a narrative and an expository text about Marie Curie and her discovery of radium; and a narrative and an exposition about Galileo Galilei's observations of the moon via a telescope, which showed him that the moon was not perfectly uniform (as was previously believed). In addition to creating comparable texts as is recommended by Wolfe, they made sure, in a way that Wolfe did not, that the texts were in fact comparable. Wolfe sought to make his texts comparable quantitatively by analysing syllable, word, and sentence count, and a calculation of these known as a Flesch score. Arya and Maul explain that in addition to such quantitative control, they also conducted a comprehensive quality control by having input from a panel consisting of 'a chemist, two applied physicists, a professor of children's literature, a professor of psycholinguistics, a middle-school librarian, and four middle-school science teachers.' (1025). The panel analysed the different texts using a number of variables and gave suggestions for change which were then implemented.

- Here the value of experimental control in psycholinguistics is taken further, and following Wolfe's own argument we should prefer Arya and Maul's results over his own if there is a difference.

After having ensured that the texts were as comparable as possible, the researchers asked seventh- and eighth-grade students at two schools in California to read the texts and then to take several tests. The one school had predominantly non-Caucasian students from lower socio-economic backgrounds, and the other school had predominantly Caucasian students from higher socio-economic backgrounds. Arya and Maul observed that students in both schools better understood the educational content when it was presented to them in narrative format. As the authors explain, 'This appeared to be especially true for

the seventh grade students [who had not yet learned about the topics mentioned]' (1029). Arya and Maul seem to have obtained similar results to Wolfe, Mienko and Woodwyk, namely that it is especially people who do not yet know a topic who benefit most from reading educational content in narrative form. However, Arya and Maul add that narrative is beneficial to all. Because they put so much effort into making sure that their texts were comparable, their work is particularly compelling, when compared to the work by Wolfe and colleagues, who were less conscientious.

In my experience, the expositions of both Arya and Wolfe are relatively easy to follow, but, whereas the two narratives by Arya are easy to follow, the single narrative by Wolfe is comparatively unwieldy.[7] What seems to be lacking in Wolfe's narrative is a clear visual representation of the scene, and therefore also of the protagonist's actions and intentions. It is the protagonist's movement from the woman's lungs into the bloodstream that is meant to precipitate the action in the story, but there is no visual description, or even mention, of the capillaries (where oxygen moves from the lungs into the blood). A lack of description of the scene, including the location of the protagonist, makes it difficult to understand what is going on and therefore also difficult to understand the protagonist's motivations. One of the main problems with Wolfe's narrative, therefore, seems to be with an inference that is overly obscure, exactly what Kim (1999), Myers and Duffy (1990), and Keenan, Baillet, and Brown (1984) warned against.

If it is also the experience of Wolfe's research participants that the narrative text was comparatively difficult to understand, this could go some way to explain why the narrative text in his research did not produce as substantial results relative to expositions as Arya's narratives did.

However, it is not simply a case of saying that Arya and Maul's data are correct, and Wolfe's are wrong. Another difference between Arya and Wolfe is that they studied different groups of people; middle-school children and undergraduate university students, respectively. Most people who might be interested in critical realism are university students and/or aged 18 and up. This is relevant because it seems that as children grow into adulthood their ability to write and understand expositions increases (see next section on Children and Adults), and thus the benefit of using narratives – observed in middle-school children – may not be as strong in university students. Because of the potential impact of the age difference, the data in Wolfe's research cannot simply be said to be contradicted and replaced by Arya's results. Nor can Wolfe's data be said to be undermined simply by my personal experience of the relative difficulty of the narrative he produced. Based on the data available at present, we can say that the results of both Wolfe and Arya suggest that middle-school students and undergraduates benefit from narratives when they do not know the content, and it may be that narratives are beneficial to all learners or perhaps just all young learners.

Arya and Maul note further that, 'the students at the more economically disadvantaged, predominantly non-Caucasian school' (1029) seemed to particularly benefit from the narrative format. Narratives of critical realist concepts may, therefore, be useful to all students coming to the topic for the first time (Wolfe and Arya), and especially for those who come from a lower socio-economic level (Arya). It may, however, be the case that people will not particularly benefit from narratives if they are well versed in critical realism and its methodological application (Wolfe) or if they have a particularly high preference and ability for exposition (Wolfe), though Wolfe's results are on shakier ground than are Arya's because of

the lack of quality control in the creation of his texts and the lack of visual description of a central plot point.

Children and adults

Berman and Katzenberger (2004) studied the developmental differences between written narratives and expositions among people of different age groups. They asked children, teenagers, and young adults to watch a soundless 3-minute video clip about conflicts in school. The participants came from France, Iceland, Israel, the Netherlands, Spain, Sweden, and California in the United States. Based on this video clip, half the people were asked to first write an expository text discussing 'problems between people' and then to write a story from their personal experience about 'problems between people'. The other half were asked first to write the stories, and then the expositions. Berman and Katzenberger noted that people manage at an earlier age to create coherent narratives than coherent expositions. The important point to note here is that, as people grow older, they tend more often to *mix* narratives and expositions in their texts. As can be noted from the review of psycholinguistic methodology so far, it is common to have pre-created narrative and expository texts in the experiments. This is likely to be because most psycholinguists see expository prose and narrative as distinct with no overlap. When Berman and Katzenberger take another approach by asking lay persons to produce the texts, it invites us to question this clear-cut distinction between narrative and exposition.

- Up to this point, I have followed the convention in psycholinguistics and not taken issue with the distinction between narrative and exposition. The research by Berman and Katzenberger, however, provides the start of an immanent critique that moves beyond psycholinguistics. The further immanent critiques in my study are presented in summarized form below.

The continued literature review and immanent critique, summarized

Based on the questions raised in Berman and Katzenberger's research, I return to the historical roots of where the distinction between narrative and exposition occurred and find it in the work of Alexander Bain, an empiricist philosopher and psychologist from the nineteenth century (Connors 1981). Bain's classification has first been applied and then critiqued extensively in a field called composition studies. Psycholinguistics and composition studies therefore have a direct connection in Alexander Bain, and it is via this connection that I am able to move outside the borders of psycholinguistics, nevertheless still with immanent critique as the guiding methodology.

In the study, I argue that Bain's distinction of narrative and exposition lacks conceptual support. In short, the theory of mind that he proposes as the mental substrate for various forms of discourse cannot support his absolute distinction of narrative and exposition. Yet Bain's assumption of mutual exclusiveness has uncritically been imported into psycholinguistics and applied in empirical research. In composition studies, however, James Moffett has developed Bain's understanding of the relationship of narrative and exposition in a fashion that makes it more internally coherent and can better make sense of empirical observations in psycholinguistics.

Where Bain sees only a distinction between narrative and exposition, Moffett sees in addition a form of nestedness. Moffett argues that we can only provide general expository statements by abstracting similarities of some phenomena from one or more narratives. Moffett makes the argument that all and any expository statement is based on narratives told by oneself or heard from others about human experience of some sort, i.e. narratives are a necessary starting point for more abstract and generalized knowledge. It is this process that can explain why it is especially novices who are benefited by narratives, as observed in the work of Wolfe and Mienko (2007) and Arya and Maul (2012). Bain's distinction-only thesis cannot explain these data because, in his view, there is no relation between narrative form (knowledge of specific events in sequence) and expository prose (more general forms of knowledge).

Moffett relates the process of abstraction from stream of consciousness to narrative to exposition as central to scientific inquiry to show the ubiquity of the process. A researcher usually has a vast amount of conscious experience in the time it takes to carry out some research, for example, an experiment. Among this stream of consciousness, the researcher reports, to herself and others, events observed that seem particularly relevant and disregards a host of other events. She then abstracts from these individual events to produce a hypothesis or conclusion of what happens *generally*. This can then be presented in expository discourse. For example, the concept known as 'parabolic trajectory' arises from noticing similarities among, for example, a baseball flying through the air, the path of an artillery shell, and the course of a thrown rock (Moffett 1968, 21). Yet in the expository prose, when discussing parabolic trajectory, the researcher no longer needs to mention the baseball bat, the cannon, the rock, or even the researcher doing the observing.

If psycholinguists knew that the conceptual foundation upon which their understanding of narrative and exposition rests was based on unsupported assumptions about the absolute distinction that they take for granted – and that Moffett's conception is both more coherent and can explain more of the psycholinguists' own empirical data – they might better see the comparative progress of Moffett's approach. Progress, however, does not equal truth. I, therefore, consider thoughts on Moffett's work by others who have critiqued him in some way. James Britton and colleagues (1975) do not critique Moffett's basic concept of nestedness as much as they provide a scale with more gradations than he does, which I therefore accommodate within Moffett's conceptualization. I show that Kinneavy (1971, 1983) misunderstands Moffett and does not see how Moffett's position on narrative and exposition is necessary to make sense of some of his own comments.

The most potent immanent critique I can find of Moffett is not from within composition studies, but from the work on narrative by philosopher Paul Ricoeur. Moffett's understanding of science, as briefly described above, is purely observational. For Moffett, and the logical positivists he is influenced by, researchers observe phenomena, report on the phenomena and produce generalizations. These generalizations are then recounted in the expository mode. In the first volume of *Time and Narrative*, Ricoeur (1985) argues against the idea that science is not only about observation of events, but that intentionality and action play a central role in science by producing the events to be observed. This argument is carried out via an immanent critique of Carl Hempel and the many since who take a covering law approach to historiography. Ricoeur's critique of Hempel's positivism can be incorporated into a critique of Moffett's positivism. This is another example of how

immanent critiques developed by others for their purposes can be incorporated into one's own approach.

For Moffett, a narrative need not be about a being with intentionality or sentience. For him, a narrative only needs to be a report of experiences by a person, for example, a researcher. What Ricoeur adds to this is an understanding that even when a researcher tells a narrative of events that does not include humans, for example of purely physical processes in natural science, the narrator of the past experience, that is the researcher, could be included in a narrative of the research process. Such a narrative would then include a human agent. Thus, Moffett's position – that reports on past experience can be human-free – needs to be redefined in this fashion: Even narratives of non-human events could very well include the actions and intentions of the researcher producing and observing the events.

The argument that Ricoeur puts forward – that science includes intentionality and action – is similar to that of Bhaskar in *A Realist Theory of Science*. This is most likely because they both find valuable insights in the philosophy of action of Arthur Danto and Georg Henrik von Wright (Bhaskar [1975b] 2008, 240; Ricoeur 1985, 136–37). What Ricoeur could add to the understanding of action in science is that the process of doing research, found in the transitive dimension, is best represented in narrative form. What Bhaskar could add is that Ricoeur, just like Danto and von Wright, have not fully grasped what the necessity of human action in experimentation implies about the very concept of causality. Following these discussions, I apply Bhaskar's argument for a realist concept of causality from scientific experimentation generally to the specific case of experimentation in psycholinguistics. My aim is to show the psycholinguistic community, on their own terms (and in their own language), that their current conception of causality, which comes from Hume and Bain, should be replaced by a realist aetiology (which may in turn have implications for the very concept of narrative.)

Based on the work of Moffett and Ricoeur, I have developed a theory for teaching philosophy of science that could be beneficial to novice researchers. This can only be touched upon here and will have to wait for further elaboration. I suggest that to teach concepts in philosophy of science one can usefully start with some of the life story of the philosopher, so that the learner can understand their context and motivation, which in turn influenced their choice of argument. This is the insight from Ricoeur; though ideas cannot be reduced to biography, there is always a human story behind the production of an abstract idea. In the case of Bhaskar, it makes sense to narrate his desire to talk of the real world and its real problems, and how he learned at the start of his doctoral research that talk of the real world was 'not allowed', especially in Economics and at Oxford University in the 60s and 70s (Bhaskar and Hartwig 2010). Then when trying to teach the concept of a generative mechanism, for example, it could be beneficial to start with some basic moments of experience that can support the argument for this concept. This is the insight provided by Moffett; that highly abstract concepts are always developed from experience of more tangible events which can be narrated. One could for example start with a vivid image of an experiment where the descent of a feather in a vacuum is contrasted with that of a feather outside the vacuum. Such a narrative could be used as one example which supports Bhaskar's argument for the more general concepts of open and closed systems, generative mechanisms, causal powers, and tendencies.

Towards the end of my literature review, I consider a question that has perhaps been on the mind of the reader of this article: to what extent can a critical realist apply the positivist

conclusions provided by psycholinguists and their experimental procedure? I have argued immanently on their terms, and thus sought to provide progress in their field, but can such empirical insights be relevant to critical realists? To bring psycholinguistics and critical realism together, in relation to the current research question, I carry out immanent critiques of both fields. There are some recent internal critiques by Henrich, Heine, and Norenzayan (2010) about how the field as a whole is mistaken to generalize from western undergraduates (the most common source of research participants) to all of humanity, thus bringing the conclusions from the psycholinguistic research that I cite closer to a critical realist understanding by being more aware of contextual differences. The internal critique by the psychologists, with which most critical realists would agree, is relevant to a large amount of psychological research that over-generalizes conclusions. However, the undergraduates used in psychological experiments are similar in many respects to the graduates and post-graduates who might take an interest in critical realism. Additionally, the psycholinguistic experiments that the undergraduates take part in are not that different from their school activities (read texts and answer questions that test how well they understood them). I therefore argue that I can, in this case, apply conclusions from their populations to my own with relative safety.

Secondly, I seek to provide an immanent critique of some interpretations in critical realist circles that Bhaskar is anathema to experimentation in the human sciences. I seek to show that he does not say this, though he does claim that experimentation, at the very least, has less significance than in physics and chemistry. I agree with this, and I think psychologists would too. This is not the same as rejecting experiments altogether, especially in considering the contextual issues discussed above. I provide further arguments, based on the critical realist understanding of open systems and tendencies, as support for accepting *some* epistemic validity from experiments in psychology.

I wish here briefly to comment on my immanent critiques of the psycholinguistic conception of causality and of their unreasonable generalization from one population to all others, because these provide examples of how immanent critique as a methodology from the start may further differ from 'normal research'. I do not start with critical realist ontology and aetiology, by which I critique psycholinguistics for its positivism. Certainly, I have critical realist ontology as part of my portfolio. Although we come to research with various insights gained other places, this is a new context and therefore I seek to analyse the field from within. I do not see critical realist ontology as providing some neutral vantage point, and therefore I need to be epistemically humble. There is also the rhetorical element to such an immanent critique; I introduce the immanent critiques that support critical realism in a conceptual language and using examples that *they* (the psycholinguists) can understand. If they are critiqued with philosophical language that they do not understand, and with abstract arguments, it is less likely they will be persuaded by the arguments and find an interest in critical realism. Going back to the epistemic side of immanent critique: by taking the position that critical realism is not a certain foundation to critique psycholinguistics I was more open, in general, to critique my previous understanding that critical realism is anathema to experimentation in the human sciences.

It is important to understand in what sense I end with my claims about the usefulness of narratives in teaching philosophy of science: the claims are *only* in relation to the positions critiqued and developed. Much more has been written about narrative than I can possibly

read (consider the empirical vs. actual domains). There are likely other, perhaps many other, explanations of the educational power of narrative, but I can only choose between the ones that I have considered, and thus my knowledge is relativized to those claims only. Though my knowledge is epistemically relative I *have* developed knowledge within the fields analysed, or at least sought to, and thus I do not end with judgementally relative claims. It is this situatedness that makes it possible for immanent critique to be more than just a method of noting inconsistencies in the work of others. It is this situatedness which both provides an epistemic grounds for all my knowledge claims, as well as an epistemic hedge. The hedge, or border, implies that my conclusions cannot be generalized, without a new analysis.[8] The hedge also provides a set range for my research, which makes my research more manageable, since it prevents me from being overwhelmed by the assumption that everything can in principle be questioned in an infinite regress and from an infinite number of standpoints.

Whilst carrying out my literature review, I became aware that none of the relevant researchers or philosophers had asked research participants about their experience of narrative. I therefore plan to remedy this absence by using qualitative interviews in my empirical study. I will use what I have learned in my literature review both: to develop better questions than I would have otherwise considered; and as empirical knowledge in its own right, which will need to be synthesized with the results from my interviews, possibly via immanent critiques.

Notes

1. Bhaskar takes a broad understanding of immanent critique. Habermas, for example, has taken a much narrower view. Habermas critiqued Adorno and Horkheimer for their method of noting theory–theory inconsistencies and was therefore explicitly against the method of immanent critique, as he interpreted it. However, his very argument against Adorno and Horkheimer can itself be seen as a form of theory-practice critique and thus immanent critique (Callinicos 2007; Stahl 2013). There are clearly various ways to delineate what is meant by immanent critique. I am here following Bhaskar's broad usage, and in addition suggesting how immanent critique may be applied and understood in relation to empirical research.
2. There may be a certain practical adequacy or sufficiency of some theory, so we are content in keeping some belief for now without thinking too much about comparing it with other theories. I see no problem with this. However, it is important to note the difference between pragmatic adequacy and comparative explanatory power, the former suggesting that we may hold a theory without ever comparing it with any others and the latter that some kind of comparison will always be required.
3. To be internally consistent, I need to situate my own arguments and claims. I have previously argued that immanent critique is necessary in critical realist research if the rational choice of theory is to be a possibility, given epistemic relativity (Isaksen 2016). My purpose in this article is not to make this argument, only to provide an example of how immanent critique *may* be applied in critical realist inspired research *if* that is desired. My examples of what immanent critique may look like in social research are merely some among many possible.
4. There are a variety of texts that present methodological concepts that can be gathered from specific research cases, but these are presented mostly in expository prose, not in narrative format. For an exception, see chapter 14 in Bhaskar, Danermark, and Price (2018).
5. Willingham provides the incorrect reference in his article. He cites Graesser, Singer, and Trabasso (1994), an article summarising previous research including the article by Haberlandt and Graesser from 1985.

6. Willingham cites the Graesser, Singer, and Trabasso (1994) article once again. The correct article from 1980 is not mentioned in the 1994 article by Graesser et al.
7. Wolfe's three versions can be found in the appendix of both Wolfe and Mienko (2007) and Wolfe and Woodwyk (2010), and Arya's texts can be found in the appendix of her PhD dissertation (2010) available online.
8. Though others who may not accept any of the founding claims in psycholinguistics may still find some of the conclusions of interest. What I have *not* done, however, is sought to demonstrate that others should, based on their position, accept the conclusions I put forward.

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References

Antonio, R. J. 1981. "Immanent Critique as the Core of Critical Theory: Its Origins and Developments in Hegel, Marx and Contemporary Thought." *The British Journal of Sociology* 32 (3): 330–45.

Arya, D. J. 2010. "Discovery stories in the science classroom." PhD diss., University of California, Berkeley. Accessed April 11, 2017. http://escholarship.org/uc/item/616549z3.

Arya, D. J., and A. Maul. 2012. "The Role of the Scientific Discovery Narrative in Middle School Science Education: An Experimental Study." *Journal of Educational Psychology* 104 (4): 1022–32. doi:10.1037/a0028108.

Bain, A. 1866. *English Composition and Rhetoric: A Manual*. New York: D. Appleton & Company.

Bartlett, F. C. 1932. *Remembering: A Study in Experimental and Social Psychology*. Cambridge: Cambridge University Press.

Berman, R. A., and I. Katzenberger. 2004. "'Form and Function in Introducing Narrative and Expository Texts: A Developmental Perspective'." *Discourse Processes* 38 (1): 57–94. doi:10.1207/s15326950dp3801_3.

Bhaskar, R. 1975a. "Forms of Realism." *Philosophica* 15 (1): 99–127.

Bhaskar, R. (1975b) 2008. *A Realist Theory of Science*. 4th ed. Abingdon: Routledge.

Bhaskar, R. (1986) 2009. *Scientific Realism and Human Emancipation*. 2nd ed. Abingdon: Routledge.

Bhaskar, R. 2007. "Theorising Ontology." In *Contributions to Social Ontology*, edited by C. Lawson, J. Latsis, and N. Martins, 192–204. Abingdon: Routledge.

Bhaskar, R. 2016. *Enlightened Common Sense*. Abingdon: Routledge.

Bhaskar, R., and A. Callinicos. 2003. "Marxism and Critical Realism: A Debate." *Journal of Critical Realism* 1 (2): 89–114. doi:10.1558/jocr.v1i2.89.

Bhaskar, R., B. Danermark, and L. Price. 2018. *Interdisciplinarity and Wellbeing: A Critical Realist General Theory of Interdisciplinarity*. Abingdon: Routledge.

Bhaskar, R., and M. Hartwig. 2010. *The Formation of Critical Realism: A Personal Perspective*. Abingdon: Routledge.

Britton, J., T. Burgess, N. Martin, A. McLeod, and A. Rosen. 1975. *The Development of Writing Abilities (11–18)*. London: MacMillan Education.

Britton, B. K., A. C. Graesser, S. M. Glynn, T. Hamilton, and M. Penland. 1983. "Use of Cognitive Capacity in Reading: Effects of Some Content Features of Text." *Discourse Processes* 6 (1): 39–57. doi:10.1080/01638538309544553.

Bruner, J. 1987. *Actual Minds, Possible Worlds*. Cambridge, MA: Harvard University Press.

Burke, K. 1969. *A Rhetoric of Motives*. Berkeley: University of California Press.

Callinicos, A. 2007. *Social Theory – A Historical Introduction*. 2nd ed. Cambridge: Polity Press.

Collier, A. 1994. *Critical Realism – An Introduction to Roy Bhaskar's Philosophy*. London: Verso.

Connors, R. J. 1981. "The Rise and Fall of the Modes of Discourse." *College Composition and Communication* 32 (4): 444–55.

Danermark, B., M. Ekström, L. Jakobsen, and J. C. Karlsson. 2002. *Explaining Society: An Introduction to Critical Realism in the Social Sciences*. Abingdon: Routledge.

Duffy, S. A., M. Shinjo, and J. L. Myers. 1990. "'The Effect of Encoding Task on Memory for Sentence Pairs Varying in Causal Relatedness'." *Journal of Memory and Language* 29 (1): 27–42. doi:10.1016/0749-596X(90)90008-N.

Edwards, P. K., J. O'Mahoney, and S. Vincent. 2014. *Studying Organizations Using Critical Realism: A Practical Guide*. Oxford: Oxford University Press.

Felski, R. 2008. *Uses of Literature*. Malden, MA: Blackwell.

Finlayson, G. 2014. "Hegel, Adorno and Immanent Criticism." *British Journal for the History of Philosophy* 22 (6): 1142–66. doi:10.1080/09608788.2014.993918.

Fisher, W. 1987. *Human Communication as Narration – Toward a Philosophy of Reason, Value, and Action*. Columbia: University of South Carolina Press.

Fludernik, M. 1996. *Towards a Natural Narratology*. London: Routledge.

Gazzaniga, M. S. 2011. *Who's in Charge? Free Will and the Science of the Brain*. New York: HarperCollins.

Gentner, D. R. 1976. "The Structure and Recall of Narrative Prose." *Journal of Verbal Learning and Verbal Behavior* 15 (4): 411–8. doi:10.1016/S0022-5371(76)90036-0.

Gerard, O. C. 2015. "Mechanisms for Emergent Usage of Adaptive Information Systems: A Critical Realist Case of e-Financial Systems in South Africa." PhD diss., University of Cape Town.

Gottschall, J. 2012. *The Storytelling Animal: How Stories Make Us Human*. New York: Houghton Mifflin Harcourt.

Graesser, A. C., K. Hauft-Smith, A. D. Cohen, and L. D. Pyles. 1980. "Advanced Outlines, Familiarity, and Text Genre on Retention of Prose." *The Journal of Experimental Education* 48 (4): 281–290. doi:10.1080/00220973.1980.11011745.

Graesser, A. C., N. L. Hoffman, and L. F. Clark. 1980. "Structural Components of Reading Time." *Journal of Verbal Learning and Verbal Behavior* 19: 135–51. doi:10.1016/S0022-5371(80)90132-2.

Graesser, A. C., M. Singer, and T. Trabasso. 1994. "Constructing Inferences During Narrative Text Comprehension." *Psychological Review* 101 (3): 371–95.

Haberlandt, K. F., and A. C. Graesser. 1985. "Component Processes in Text Comprehension and Some of Their Interactions." *Journal of Experimental Psychology* 114 (3): 357–74.

Hartwig, M. 2007a. "Foundationalism and Fundementalism." In *Dictionary of Critical Realism*, edited by M. Hartwig, 211. Abingdon: Routledge.

Hartwig, M. 2007b. "Perspective." In *Dictionary of Critical Realism*, edited by M. Hartwig, 344–5. Abingdon: Routledge.

Hartwig, M. 2007c. "Critique." In *Dictionary of Critical Realism*, edited by M. Hartwig, 105–8. Abingdon: Routledge.

Henrich, J., S. J. Heine, and A. Norenzayan. 2010. "The Weirdest People in the World?" *Behavioral and Brain Sciences* 33: 61–83. doi:10.1017/S0140525X0999152X.

Herman, D. 2009. *Basic Elements of Narrative*. Chichester: Wiley-Blackwell.

Hyvärinen, M. 2010. "Revisiting the Narrative Turns." *Life Writing* 7 (1): 69–82. doi:10.1080/14484520903342957.

Isaksen, K. R. 2016. "Reclaiming Rational Theory Choice as Central: A Critique of Methodological Applications of Critical Realism." *Journal of Critical Realism* 15 (3): 245–62. doi:10.1080/14767430.2016.1169369.

James, W. (1879) 2010. *The Sentiment of Rationality*. Whitefish: Kessinger Publishing.

Keenan, J. M., S. D. Baillet, and P. Brown. 1984. "The Effects of Causal Cohesion on Comprehension and Memory." *Journal of Verbal Learning and Verbal Behavior* 23: 115–26. doi:10.1016/S0022-5371(84)90082-3.

Kim, S. 1999. "Causal Bridging Inference: A Cause of Story Interestingness." *British Journal of Psychology* 90: 57–71. doi:10.1348/000712699161260.

Kinneavy, J. L. 1971. *A Theory of Discourse: The Aims of Discourse*. Englewood Cliffs: Prentice-Hall.

Kinneavy, J. L. 1983. "A Pluralistic Synthesis of Four Contemporary Models for Teaching Composition." In *Learning to Write: First Language/Second Language*, edited by A. Freedman, I. Pringle, and J. Yalden, 121–39. Boston: Addison-Wesley.

Labov, W., and J. Waletzky. 1967. "Narrative Analysis." In *Essays on the Verbal and Visual Arts*, edited by J. Helm, 12–44. Seattle: University of Washington Press.

Laclau, E., and R. Bhaskar. 1998. "Discourse Theory vs. Critical Realism." *Alethia* 1 (2): 9–14. doi:10.1558/aleth.v1i2.9.

Lyotard, J. F. 1984. *The Postmodern Condition: A Report on Knowledge*. Manchester: Manchester University Press.

MacIntyre, A. 1981. *After Virtue: A Study in Moral Theory*. Notre Dame, IN: University of Notre Dame Press.

Marx, K. (1844) 1978. "For a Ruthless Criticism of Everything Existing." In *The Marx-Engels Reader*, 2nd ed., edited by R. C. Tucker, 12–15. New York: W. W. Norton and Company. Originally published in *Deutsch-Französische Jahrbücher*.

Moffett, J. 1968. *Teaching the Universe of Discourse: A Theory of Discourse*. Boston, MA: Houghton Mifflin.

Morton, F. P. 2010. "Explaining Outcomes of Strategic Information Systems Planning Using a Critical Realist Approach." Ph.D. thesis, RMIT University, Melbourne, Australia. Accessed September 7, 2016. Personal correspondence.

Myers, J. L., and S. A. Duffy. 1990. "Causal Inferences and Text Memory." *Psychology of Learning and Motivation* 25: 159–73. doi:10.1016/S0079-7421(08)60254-6.

Polkinghorne, D. E. 1988. *Narrative Knowing and the Human Sciences*. New York: State University Press of New York.

Prentice, D. A., R. J. Gerrig, and D. S. Bailis. 1997. "What Readers Bring to the Processing of Fictional Texts." *Psychonomic Bulletin & Review* 4 (3): 416–20.

Ricoeur, P. 1984. *Time and Narrative, vol. 1*. Chicago, IL: The University of Chicago Press.

Ricoeur, P. 1985. *Time and Narrative, vol. 2*. Chicago, IL: The University of Chicago Press.

Ricoeur, P. 1988. *Time and Narrative, vol. 3*. Chicago, IL: The University of Chicago Press.

Riessmann, C. K. 1993. *Narrative Analysis*. Thousand Oaks, CA: SAGE.

Rorty, R. 1979. *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press.

Sarbin, R. T., ed. 1986. *Narrative Psychology: the Storied Nature of Human Conduct*. Westport, CT: Praeger.

Sayer, A. 2000. *Method in Social Science: A Realist Approach*. 2nd ed. Abingdon: Routledge. .

Stahl, T. 2013. "Habermas and the Project of Immanent Critique." *Constellations (Oxford, England)* 20 (4): 533–52.

Willingham, D. T. 2004. "Ask the Cognitive Scientist: The Privileged Status of Story." *American Educator*. Accessed January 12, 2015. http://www.aft.org/periodical/american-educator/summer-2004/ask-cognitive-scientist.

Wolfe, M. B. W., and J. A. Mienko. 2007. "Learning and Memory of Factual Content From Narrative and Expository Text." *British Journal of Educational Psychology* 77: 541–64. doi:10.1348/000709906X143902.

Wolfe, M. B. W., and J. M. Woodwyk. 2010. "Processing and Memory of Information Presented in Narrative or Expository Texts." *British Journal of Educational Psychology* 80: 341–62. doi:10.1348/000709910X485700.

Young, K., and J. Saver. 2005. "Narrative Disorders." In *Routledge Encyclopedia of Narrative Theory*, edited by D. Herman, M. Jahn, and M. L. Ryan, 352–3. Abingdon: Routledge.