Reviewer’s report

Title: Understanding contexts: how explanatory theories can help

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Reviewer: Carl May

Reviewer’s report:

Thank you for inviting me to review this stimulating and well written paper. I enjoyed reading it. The paper is set out as a narrative review and critical analysis of the nature and role of 'context', and aims to help improvers and researchers implement interventions to improve health care quality.

I did not review the original submission and have been invited to comment on the R1 resubmission. This complicates both the business of reviewing and of responding to reviews, but I do think there are some important critical points that need to be made about this paper.

A stated purpose of the paper is to 'rethink the nature and role of context', and this is developed through the provocative assertion that 'deep understanding of context has baffled serious thinkers for many years'. If this is true (and I think I'd like to see some evidence that it is), then I think the reader needs several kinds of help.

1. The reader needs a clear sense of what is meant by the term context as it is used in this paper. This is important because you have characterised context in several different ways - as 'events', 'situations', 'environments - that to this reader's mind could have very different connotations. (I particularly liked Weick et al's., idea of stabilizing the 'streaming of experience' [1].) It is also because there are whole research fields (e.g. policy studies, organisation studies, medical sociology and anthropology; health psychology and economics) that have important things to say about 'context', I think you need to show how you have selected these out.

2. Given that this is a narrative review, it seems to me vital to actually explore in detail some of the very diverse ways in which ideas about context have actually been employed in implementation and improvement science. For example, Damschroder et al's., [2] Consolidated Framework for Implementation Research mobilised ideas about inner and out settings and their interactions with implementation processes, and Greenhalgh et al's., [3] famous review of diffusion and adoption of service innovations does something similar. The more recent review and discussion of ideas about context by Pfadenhauer et al., [4] could be a useful resource here, (Tracy Finch, Mark Johnson and I are amongst many others who have also recently published in this area). That 'contexts' have dynamic properties is a very longstanding basic assumption in sociology and organisation studies [5, 6].
3. Although the stated aim of the paper is to rethink context, much of the paper is devoted to another problem - which is what theories are and how they work. I can see what the author is trying to do here, but I'm not sure that it helps advance the argument. In fact, I think it does the opposite. The excursuses can undermine the argument too by providing counterfactuals. For example, the challenge of sending a rocket to the moon certainly was complicated (many moving parts, bound together by the theory of Newtonian mechanics), but in the case of Apollo 13, it became complex (very dynamic and dangerously emergent) awfully, awfully, quickly.

4. My final major point is that the ways in which theories themselves are categorised and characterised needs to have a closer concordance with the actual theories that are used in implementation research and the ways that they are used to explain human behaviour and predict outcomes. At the moment there is no clear rationale for the selection of theory types or processes of theory building. There is a huge amount of relevant work in health psychology, for example, that can be used to make up mechanistic models of interactions between cognitive processes, individual behaviours, and environmental factors. I'm thinking particularly of Susan Michie's work leading to the Theoretical Domains Framework [7], and of Bryan J Wiener's hugely popular theory of organisational readiness for change [8].

5. A minor point: the Tables don't seem well connected with the main body of the paper.

6. A minor point: the author's very impressive and illustrious contributions to the development of improvement science probably needs to be described in the 'Contributions' section rather than the main body of the paper. As it stands this statement could give the uninformed reader the impression that the author was relying on personal authority rather than dispassionate scientific endeavour.

In summary, this is a really stimulating and interesting paper - I found something to disagree with in almost every paragraph, which is no bad thing! However, it needs further work. If it is a narrative review about context, then it needs to say more about how context is defined, conceptualised, and treated in implementation science and cognate disciplines. If it is about theorising context, then it needs to engage more with theories that are actually used in implementation science to do this. I do appreciate, however, that what I am recommending here will make this a much less provocative paper. If the aim is to stimulate thinking about these two very complex problems, I wonder whether it would not be better presented as an editorial 'think-piece' either for this journal or for BMJ Quality and Safety? That would enable the author to focus on his argument without having to do more reviewing.


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