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Preregistering qualitative research

Tamarinde L. Haven [a] and Dr. Leonie Van Grootel [b]

[a]Department of Philosophy, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands; [b]Department of Methodology & Statistics, Tilburg University, Tilburg, The Netherlands

ABSTRACT

The threat to reproducibility and awareness of current rates of research misbehavior sparked initiatives to better academic science. One initiative is preregistration of quantitative research. We investigate whether the preregistration format could also be used to boost the credibility of qualitative research. A crucial distinction underlying preregistration is that between *prediction* and *postdiction*. In qualitative research, data are used to decide which way interpretation should move forward, using data to generate hypotheses and new research questions. Qualitative research is thus a real-life example of postdiction research. Some may object to the idea of preregistering qualitative studies because qualitative research generally does not test hypotheses, and because qualitative research design is typically flexible and subjective. We rebut these objections, arguing that making hypotheses explicit is just one feature of preregistration, that flexibility can be tracked using preregistration, and that preregistration would provide a check on subjectivity. We then contextualize preregistrations alongside another initiative to enhance credibility in qualitative research: the confirmability audit. Besides, preregistering qualitative studies is practically useful to combating dissemination bias and could incentivize qualitative researchers to report constantly on their study's development. We conclude with suggested modifications to the Open Science Framework preregistration form to tailor it for qualitative studies.

KEYWORDS

Preregistration; qualitative research; transparency

Introduction

The credibility of academic science is under debate. This is due primarily to two recent findings. First, researchers don't always behave as they should; researchers even admit to engaging in research misbehaviours that range from fabrication of data to leaving out outliers without a valid reason to do so (Martinson, Anderson, and de Vries 2005; Fanelli 2009). Second, and related, scientific studies turned out to be less reproducible than desired (Bohannon 2015). Both of these trends find their origin, to some degree, in perverse incentives that determine that the "newer" and the "sexier" a study's results are, the more likely it is that the study gets published. The more articles published (preferably in high-impact journals), the higher the

CONTACT Tamarinde L. Haven t.l.haven@vu.nl Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands

likelihood the researcher will secure funding, a permanent position, or just a successful academic career. This means that when scientists find their results "boring" (though methodologically sound) or negative, they also find them hard to publish and ultimately hard to build a career on.

The threat to reproducibility, combined with the awareness that current rates of research misbehavior may only reflect the "tip of the iceberg" (Casadevall and Fang 2012), sparked initiatives to better academic science (Munafò et al. 2017). One such initiative is preregistration. Preregistration is a measure recently introduced to reduce research misbehavior and improve reproducibility in quantitative research. Preregistering your study, in a nutshell, entails carrying out your study exactly as one is taught in school by following the empirical cycle. This means that based on previous observations or literature a hypothesis is formed. Then a study design and analysis plan are crafted that can challenge the initial hypothesis (when data are gathered and analyzed in accordance with the study design and analysis plan). Preregistering is putting the study design and plan on an open platform for the (scientific) community to scrutinize. Preregistration has great value for improving transparency, rigor, and reproducibility in science (Nosek et al. 2018; Miguel et al. 2014). Its applicability stretches across various disciplines, including social psychology, behavioral neuroscience, clinical medicine, and so on. More and more journals and editors across fields encourage preregistration of quantitative studies (Nosek et al. 2015).

The arrows of preregistrations target potential research misbehavior and strengthen reproducibility in the quantitative field. For qualitative research, the applicability of preregistration is still relatively undiscovered terrain (Kern and Gleditsch 2017; Piñeiro and Rosenblatt 2016; Miguel et al. 2014). Some researchers have argued that preregistration is unhelpful, unnecessary, or undesirable for qualitative research (Coffman and Niederle 2015; Humphreys, Sanchez de la Sierra, and Van der Windt 2013). In this article, we attempt to look beyond the fact that preregistration might initially be created for quantitative research to see whether the preregistration format could also lend itself to boost the credibility of qualitative research. We aim to contribute to the debate opened by Piñeiro and Rosenblatt (2016) and Kern and Gleditsch (2017) by extending the discussion to the preregistration of qualitative research. We systematically list the advantages and disadvantages and provide a template for the preregistration of qualitative research in the Open Science Framework. This article is structured as follows. First, we spell out the key concepts relevant to our argument, such as prediction, postdiction, and qualitative research. Second, we consider three objections against qualitative preregistration: that the aims of qualitative research design interfere with the goals of preregistration, that the flexibility of qualitative research renders preregistration infeasible, and finally, that the subjectivity of qualitative research makes it questionable whether qualitative research should be preregistered. Third, we unpack the way in which preregistration can boost the credibility of qualitative

research. Fourth, we look at when and how preregistrations can be practically useful in qualitative research. Finally, for preregistrations to work optimally in qualitative research, we suggest a few modifications to the existing preregistration format on the Open Science Framework.

Key terms

We will introduce the philosophical underpinnings of preregistration[1] and qualitative research to ground our argument. We discuss the distinction between prediction and postdiction, and end with a brief elaboration on the merits of qualitative research design.

Prediction and postdiction

A crucial distinction underlying preregistration is that between *prediction* and *postdiction*. Nosek et al. (2018) summarize the overall purpose of preregistration as follows:

> Progress in science relies in part on generating hypotheses with existing observations and testing hypotheses with new observations. This distinction between postdiction and prediction is appreciated conceptually, but is not respected in practice. Mistaking generation of postdictions with testing of predictions reduces the credibility of research findings. An effective solution is to define the research questions and analysis plan prior to observing the research outcomes–a process called preregistration. Preregistration distinguishes analyses and outcomes that result from predictions from those that result from postdictions. (1)

Let us assess this quote a bit deeper to see how preregistration aids in keeping apart pre- and postdictions. Roughly, prediction and postdiction can be conceptualized as follows:

Prediction:
Presentation of hypothesis *A* at *t1* – Observation of event *B* at *t2* that confirms or disconfirms hypothesis *A*
Postdiction:
Observation of event *B* at *t1* – Presentation of hypothesis *A* for event *B* at *t2*

The crucial difference regards when the hypothesis is presented in relation to the event occurred (Fetzer 2017). Preregistration helps because it is a means to explicitly write up hypothesis *A* at *t*1, including a plan for how to test for hypothesis *A*. When the researcher has completed the preregistration, including the hypothesis *A*, the document is uploaded and "frozen" at *t*1. If strictly followed, the researcher is less likely to present a postdiction finding as a prediction, because only hypothesis *A* is listed (and the postdiction finding can never be exactly *A*). Preregistration is now merely used to reduce the possible threat to scientific integrity faced in research following prediction logic, that is: quantitative and prediction (instead of postdiction)

research. Preregistration thus serves as a means to control for scientists trying to alter their hypotheses post data analyses and for scientists who try to sell their postdictions as predictions.

Postdictions are neither wrong, nor forbidden. Postdiction is a useful way to generate hypotheses or to do what we call "explorative" research. To understand what postdiction can contribute to scientific research, let us review what postdiction science is about. Nosek et al. (2018) describe postdiction as follows: "In postdiction, analytic decisions are influenced by the observed data creating the forking paths. The researcher is exploring the data to discover what is possible. The data helps generate, not test, new questions and hypotheses." (5). What is most important is what the initial aim of the research was. If the postdiction research findings are presented as findings that have been hypothesized from the start, then science derails. If the postdiction research findings are presented as explorative analyses for further refined testing, or food for thought, then no harm is done. In other words, when the findings of a study are "cherry picked" from explorative analyses--despite the initial aim to test for a specific hypothesis--postdiction is abused and a shady form of postdiction is presented as predictions.

Here is an example of a practice in which "mistaking generation of postdictions with testing predictions": the incorrect use of a popular method in statistics called Null-Hypothesis-Significance-Testing (NHST). NHST can *only* be used to test predictions, but when the researcher uses NHST to sift a large data set, and reports the few statistically significant (often $p < 0.05$) findings as being hypothesized from the start, the NHST method is abused. Of course, the NHST method has its many downsides and is sometimes not the most appropriate technique to investigate a research question in the first place, but we will not go into that discussion here. Suffice it to say that following the preregistration format decreases the chances of abusing the NHST paradigm. Because of NHST's remaining popularity, preregistration can rescue a great deal of social, behavioral, and (bio)medical science (Perezgonzalez 2015).

Qualitative research

Qualitative research aims to answer the "how," "why," and "what" questions of a phenomenon (Green and Thorogood 2014). Qualitative research often uses language as its data, be it written or oral, although it may use photos, videos, or other types of behavioral recordings. The qualitative data are often collected via an interview, a focus group (structured group discussion), or via observation. Qualitative research tries to reveal the perspectives of the subjects or patients that the research question regards. It uses an "emergent design," referring to the iterative process of combining data analysis, preliminary data inspection, and data collection. The flexibility of this emergent

design can strengthen and deepen the rigor and validity of the qualitative study, instead of undermining it.

The use of data in qualitative research--in order to decide which way the interpretation should move forward, or using the data to generate hypotheses and new research questions--is precisely the strong asset of qualitative research. For example, thematic analysis, a general approach to data analysis in qualitative research, involves finding, interpreting, and reporting patterns of meaning within the data by systematically identifying topics that are progressively integrated into higher-order themes (Ritchie et al. 2013). Here the parallel between qualitative research and postdiction is easy to see: data are collected for the purpose of generating hypotheses instead of testing hypotheses. Although this example only points out specific features of the thematic analysis, postdictive nature of qualitative research is typical for most traditions in qualitative research. Qualitative research, in other words, is a real-life example of postdiction research.

It should be noted that qualitative research encompasses a variety of approaches and space does not permit us to elaborate on every approach in-depth (Creswell 2007). Yet, it seems useful to briefly describe five main approaches, following Creswell's excellent overview: narrative research, phenomenology, ethnography, case studies, and grounded theory, respectively (Creswell 2007). Narrative research is grounded in the humanities and social sciences and focuses, as its name suggests, on stories. The stories of (often one or two) individuals are analyzed in-depth and ordered chronologically, with great attention for the context in which the stories took place (Creswell 2007). Phenomenology is deeply rooted in continental philosophy and focuses on the meaning a particular phenomenon has for various individuals. It aims to get to the essence of that phenomenon (e.g., "What does it mean to be anorexic?") through enquiring individuals that have experienced the phenomenon in question (here: patients with anorexia). Ethnography stems from cultural anthropology and focuses on the behavior, language, value, and beliefs of a cultural group (Harris 1968). It investigates this group through extensive observation, often immersed in the cultural group (meaning that the researcher may actually participate with the group for some time). Case studies aim to understand a particular issue over time using various sources of information (i.e., interviews, photos, observations, reports, and so on). Grounded theory is rooted in sociology and aims to develop theories about a particular social phenomenon. It often relies on in-depth interviews and focus groups followed by building relationships between various categories to uncover a theory (Ritchie et al. 2013).

By mainly following postdiction logic, qualitative research also allows for some use of predictions in its design. In Grounded Theory, for example, a cyclic process is used to collect data, analyze it, and generate initial findings, and based on those initial findings, the process is repeated, trying

to make out an emerging theory, until no new themes are found during data collection (Green and Thorogood 2014). More specifically, the process of comparing found evidence with new cases is a typical feature of the Grounded Theory and is described as "constant comparison" (Glaser and Strauss 1967). Grounded theory uses confirming as well as deviant cases to revise its theoretical framework (Mills, Durepos, and Wiebe 2010). This interchange between emerging and confirming/disconfirming a theory could be seen as a prediction–postdiction interplay within a primary postdiction type of study.

In qualitative research following a postdiction logic, flexibility is an invaluable asset. The researcher has the freedom to engage in a cyclic process of data collection and data analysis. The number of participants in the sample is not fixed beforehand: if necessary, the researcher can choose to sample new participants and go back into the field when saturation has not been reached yet. In addition, the researcher needs room to adjust her data collection instruments during the process if the diversity in the sample requires this. All in all, to achieve the full potential of postdiction and qualitative research, the qualitative research design requires large yet careful flexibility on the part of the researcher.

Qualitative research embraces subjectivity. The qualitative researcher typically functions as part of the measurement instrument itself, and has a great say in generating findings from the data. During the data analysis procedure, the data are transformed into descriptions of themes, patterns, or theoretical models by means of the researchers going through several stages of data interpretation. Every result in a qualitative design is one that is an interpretation, subjective; it is influenced by the lens through which the researcher has interpreted the data. The assumption of the presence of this "lens" originates in the interpretivist paradigm from which qualitative researchers typically operate. According to interpretivism, the study of social phenomena requires and uses an understanding of the social world that people have *constructed* and which they reproduce through their continuing activities (Blaikie 2007). As a consequence, social reality is perceived differently by researchers; their interpretations are shaped by *a priori* values ("lens") and therefore cannot be portrayed "objectively" (where objectivity means "without being influenced by the lens of the researcher"). Subjectivity is crucial for the ability to transform the data and for interpreting the findings afterwards. It allows researchers to understand the meaning of social phenomena within the context of the material conditions in which people live (Ritchie et al. 2013)

Objections

The nature of qualitative research discussed above might be in itself reason to think that preregistering qualitative studies is unfeasible. To elaborate on the above description of the features of the qualitative research design, there are (at

least) three issues that may lead one to object to preregistering qualitative research: 1) the goal of qualitative research; 2) the flexibility required for conducting qualitative research; and 3) the subjectivity of the qualitative researcher.

Note that the idea of preregistering qualitative research is relatively novel (Piñeiro and Rosenblatt 2016; Kern and Gleditsch 2017), so the objections put forward here do not originate in the published literature directly. However, given a charitable review, most objections are related to the ongoing debates on either preregistration or the role of qualitative research in general. Where possible, we connect our objections to these debates.

Firstly, the goal of qualitative research, in most cases, is to generate theory instead of testing theory. As outlined above, preregistration was initially created to force quantitative researchers to report the results of the tests that they had formulated hypotheses about, instead of picking those results that might increase chances of acceptance for publication. Qualitative research is in essence not meant to test theory and, therefore, in most cases, will not make use of hypotheses that can be preregistered at all. A similar objection seems to be implicitly present in the proposal by Humphreys and colleagues, where they limit the scope of their proposal for study registration to "studies--or parts of studies--that claim to be engaging in hypothesis testing" (12) (Humphreys, Sanchez de la Sierra, and Van der Windt 2013). The authors acknowledge that this limit excludes a significant proportion of research that regards theory development, among which they mention qualitative research.

Secondly, and not unrelated, the flexibility of the qualitative research design allows the researcher to react to new unexpected findings that ask for further exploration. Therefore, parts of the study design may change under way and this being possible is crucial for achieving the full potential of qualitative research. If the researcher were to stop data collection because of a predetermined number, saturation will probably not be achieved, and the findings will not be fully developed. Or when the inclusion criteria for the sample would be fixed, a researcher could miss out on essential insights helping her to answer the research question, only because a newly met participant fails the criteria for the sample. All in all, if *even the design* is still subject to change, it seems impossible to preregister a qualitative study.

Thirdly, the high level of subjectivity in qualitative research also challenges the possibility to preregister qualitative research. A researcher rooted in a quantitative research method would perhaps feel that any subjectivity in scientific research would threaten the study's validity. Trying to get "rid" of subjectivity would however challenge the very foundations of the interpretivist logic, as scientific reality is, in this paradigm, viewed as the result of the interpretation of a particular individual; influenced by the lens of that individual, and not as "the truth." Yet, if all analyses are subject to individual values and interpretations, it seems unlikely that preregistering such a study

enables one to judge the appropriateness or credibility of the qualitative research analyses. This fear of subjectivity is still present among scientists (Labuschagne 2003). This may be related to the rise of evidence-based medicine and the debate about what counts as strong evidence. In this debate, qualitative research is grouped among the weaker forms of evidence, together with consensus and opinion (Grypdonck 2006; Evans 2003). Qualitative research is here even described as subjective, hard to replicate--if at all--and anecdotal evidence at best (Leys 2003). Since all qualitative findings are to some extent the results of the qualitative researcher's interpretation, hence subjective, fellow researchers are left in the dark as to whether reported findings indeed form the most warranted interpretation. Following this line of reasoning, preregistering qualitative research would not enhance its credibility, for qualitative research analyses are not controlled by objective standards.

Rebuttal

We defend the view that the nature of qualitative research does not render qualitative preregistration unfeasible. Below, we will rebut the three objections and argue instead that preregistering qualitative research could be useful, yet challenging, and ultimately seems a desirable step toward increasing transparency in qualitative research.

The absence of a predefined hypothesis (first objection) may indeed disqualify the use of preregistration for the mere purpose of fixing expectations for testing. However, it does not disqualify the use of preregistration for the purpose of *putting the study design and plan on an open platform for the (scientific) community to scrutinize*. Even if there are no hypotheses to test and thus to preregister, a study always has aims and there are always reasons to do the study which make sense to preregister it. Qualitative researchers always start the data collection with, based on theory, *some* idea of the topics that might be relevant to the field. Another useful point to spell out when preregistering a qualitative study would be the (initial) type of data collection, the tools you intend to use, and the data analysis approach (Kern and Gleditsch 2017). All in all, the fact that qualitative research is not bound by hypotheses and has by its nature a higher number of degrees of freedom than quantitative research does not exempt the researcher from the duty to maximize transparency.

The second objection, that the flexible nature of qualitative research makes it impossible to meaningfully preregister the design, does not hold either. It is perfectly possible to specify a qualitative study's design without disrespecting the flexibility of the qualitative research. It may be the case that the initial design is not exactly the same design the researcher ends up with when writing up the results. This is, to begin with, not unique for qualitative

research: quantitative research may also divert from its preregistered design as long as the motives for diverting are justified and transparently communicated to the reader. In addition, if the study design in the published manuscript is different from the design in the published preregistration, this should not be scored as a mistake in qualitative research. A qualitative preregistration needs to be a living document that is constantly accessible to the public, not its first version only. Hence, "freezing" the preregistration more than once could foster the transparency of qualitative research, as it allows the reviewer or interested reader to track the development of the study. Viewed this way, the demands of a preregistration are tougher for the qualitative researcher, but not unworkable and certainly not undesirable.

Finally, the third objection, that the inherent subjectivity of qualitative research would render a preregistration useless, is--we believe--mistaken; it actually makes a preregistration more useful. Objectivity is not an ideal to strive for in qualitative research practice[2], and every qualitative researcher has, and needs, her own philosophical paradigm and theoretical values that influence her interpretation of the data. Although we might not be able to preregister how the interpretative process will unfold in the qualitative study, we can register the framework and its presuppositions associated with the data collection and analysis procedure. This would motivate researchers to make explicit which tradition and theoretical lens they work from. It is exactly this reason why preregistration could possibly enhance the credibility of qualitative research: It encourages qualitative researchers to carefully reflect upon their own values prior to going into the field and prior to interpreting and reporting the findings within the context of these *a priori* values. Preregistration does not have to challenge the subjectivity crucial to qualitative research; on the contrary, it underlines the importance of subjectivity by encouraging qualitative researchers to reflect upon their *a priori* values by enabling the researcher to make these values transparent for other researchers from the start of the research.

Enhancing credibility

Having rebutted the objections above, let us briefly elaborate on how we see preregistration as a tool to strengthen credibility. In quantitative research, preregistration strengthens the credibility because fellows are enabled to judge whether the researchers carried out the right predictive analyses (Nosek et al. 2018). Furthermore, credibility is strengthened when the analyses form a solid basis for the conclusion he/she presents. Likewise, by preregistering qualitative research, it enables other researchers to assess whether the researcher used the right collection methods, the right data analysis methods, as well as whether the interpretation based on the data is convincing. If that is the case (right methods/convincing interpretation), the qualitative study is more credible. Credibility is not

an undebated term in qualitative research and here we follow Eisner's (1991) interpretation of credibility when he states, "We seek a confluence of evidence that breeds credibility, that allows us to feel confident about our observations, interpretations and conclusions" (110). Ideally, this would lead to "an agreement among competent others that the description, evaluation and thematic … are right" (112).

The idea of assessing whether conclusions seem trustworthy goes back to Lincoln and Guba and their presentation of a confirmability audit to assess confirmability and dependability (Lincoln and Guba 1985). Auditing qualitative research is thus a tool for peers assessing the study's quality by evaluating the outcomes with a set of criteria (Schwandt and Halpern 1988). In a nutshell: dependability regards whether the process of collecting the qualitative data was sound, while confirmability regards whether the analyses of the data was coherent and whether the interpretations based on that data were fair (Lincoln and Guba 1985). To assess the confirmability and dependability of a study, different questions are put forth that are highly similar to those asked in a preregistration. For assessing confirmability, one may ask "Are the study's general methods and procedures described explicitly and in detail: Do we feel that we have a complete picture, including 'backstage' information?" are pivotal (Miles and Huberman 1994, 278). For dependability, one could ask: "Are the research questions clear and are the features of the study design congruent with them?" (278).

Having stressed the importance of establishing credibility, it might seem any means of leaving an audit trail would be sufficient to meet this end. However, preregistration differs from an audit trail in a few notable ways. First, an audit would be carried out by a trusted auditor (a person with particular attributes, such as a solid understanding of the methodology and study topic), whereas preregistrations need not be inspected by one scientist but are open to be scrutinized by the scientific community at large. This may seem less valuable, but the scientific community could consist of various experts that together meet the attributes relevant to the auditor (e.g. one scientist may have methodological understanding of the approach, whereas another is an expert on the topic of interest). Second, the study's researchers and the auditor would set up a formal agreement so that the auditor cannot just "pull out" of his or her auditing task. No such formal agreement is made between the scientific community and the researcher preregistering a study. Third, Lincoln and Cuba warn that the auditor may only be called in when the study is almost finished, whereas a study should ideally be preregistered at the beginning[3] (Lincoln and Guba 1985). Finally, an audit trail can be very time-consuming and costly (Creswell 2007), whereas a preregistration is free. With the increasing popularity of preregistrations (Humphreys, Sanchez de la Sierra, and Van der Windt 2013; Nosek et al. 2018) and scarcity of time

among researchers to carry out a full audit, preregistration may thus seem a welcome addition to auditing qualitative research.

Practical usefulness of preregistrations in qualitative research

Preregistrations are said to be helpful to both the scientist and the scientific field (Nosek et al. 2018). We agree and argue preregistrations can be helpful for the qualitative scientist as well. Besides the methodological and philosophical desirability discussed above, the fact that detailed study preregistration is available on a platform open to everyone interested comes with practical benefits. Below, we list two.

First, it can help that scientists from across the world know about your study even when it is not published. To get the "truest" view out there, scientists should be able to access all types of studies in their field, even those not published. This relates to concerns that Ioannidis (2005) and Munafo et al. (2017) have expressed concerning publication bias in quantitative research: that negative results are less likely to be published (more likely to end up in the file-drawer), leading to literature contaminated with positive results which are most likely due to chance or just not true. This systematic distortion of the literature has major consequences for the practice of meta-analysis, a statistical technique often used in systematic reviews of quantitative evidence.

In qualitative research similar problems of "dissemination bias" occur. When findings from qualitative research are not spread and, consequently, are not accessible, bias may occur that could, in turn, threaten the quality of the qualitative counterpart of systematic reviewing: the qualitative evidence synthesis (Booth 2017). Dissemination bias in qualitative research has different causes than in quantitative research, but also negative consequences for scientific research and specifically, for the practice of systematic reviews (Toews et al. 2017). When your qualitative study is preregistered, interested researchers can nevertheless find your study and ask you to take it out of the file-drawer, which could in turn ensure that qualitative evidence syntheses are more reflective and up to date.

Second, it could offer an incentive to track the research process in a structured way. Similarly, Lincoln and Guba noted that users of the audit trail reported that the systematic ordering of their data for the audit trail in itself helped to better understand their data, regardless of whether they were actually audited (Lincoln and Guba 1985). The fact that the Open Science Framework (OSF) preregistrations are open to everyone, so also to reviewers, could be a great incentive for qualitative researchers to report the constant development of their study. Qualitative researchers should, in principle, make records of all changes in their research (for example, with methodological and theoretical memos). They should make changes explicit, register what type of interviews and what type of focus groups are planned, and write down how they felt while conducting the focus group, observation, or interview. Qualitative research is a methodology that requires great care, and

Table 1. The preregistration format of the OSF with headings, subheadings (column 1 and 2), and suggestions/extensions (column 3). If printed in **Bold**, we suggest a new subheading. If printed in ~~strikethrough~~, we consider that section or subsection irrelevant when preregistering qualitative research. *Italics* regard suggestions/examples.

OSF heading	Subsections	Possible modifications/extensions
Study information		
	Title	
	Authorship	
	Research aim	**Please specify the overall aim of the research.**
	Research questions	Research questions (subject to modifications at *n* moments). *Typical changes in exact phrasing of research questions may occur during the process; after the first instance(s) of data collection, etc.*
	Hypotheses	**Theoretical expectations** If you have any expectations (at the start of the study), please write them here.
	Use of literature	**Please specify the role of theory in your research design. Elaborate on how you used literature to formulate your research question and how you expect the theory to guide your data collection and data analysis (for example elaborate on your sensitizing concepts).**
	Use of literature rationale	**Please elaborate if your research is conducted from a certain theoretical perspective.**
Design Plan		
	Tradition	Please specify the type of tradition you work in: - grounded theory - phenomenology - narrative approach - ethnography - text-based approach (discourse analysis, conversation analysis) - generic - other
	Study type	Specify your study type (select multiple if appropriate): - case study - evaluation research - intervention research - participatory research - other
	Blinding (optional)	If you indicated participatory research, please elaborate on whether participation is overt or covert.
	Study design (describe)	Explain your study design freely (max. 500 words).
	~~Randomization (optional)~~	
Sampling plan		
	Existing data/non-existing data (choose)	Please choose existing/non-existing
	Explanation of existing data **(optional)**	Please explain if existing data was collected by current research or other research team and what the initial aim was during collection of the existing data.
	Data collection procedures	Please indicate the data collection procedure(s) you will use (select multiple if appropriate): - interviews (please select the most appropriate description: open interviews, semi-structured interviews, structured interviews) - enabling/elicitation techniques - self-reports (diaries etc.) - observational methods - focus groups - existing (internet) data - other

(*Continued*)

Table 1. (Continued).

OSF heading	Subsections	Possible modifications/extensions
	Data collection plan	Please describe your data collection plan freely. Be as explicit as possible. *For example, if you plan to use elicitation techniques in your interviews or you will make your focus group participants rank certain categories, describe this here.*
	Type of data collected	**Please select the type(s) of data you will collect**: **- Text (spoken/written)**, **- Visuals (photos/videos/other)** **- Other**
	~~Sample size~~	
	Sample size rationale	How many interviews/observations/focus groups do you expect to conduct? (Fill in number)
	Type of sampling rationale	**Please indicate the type of sampling you will rely on**: **- purposive** **- theoretical** **- convenience** **- snowball** **- random**
	Sort of sample	**Please indicate why you choose this particular type of sampling.**
	Stopping rule	**Please pick the ideal composition of your sample**: **- heterogenous** **- homogenous** **- extreme or deviant cases** **- typical cases**
~~**Variables**~~	~~Manipulated variables~~	Please indicate what will determine to stop data collection: - saturation - planning (limited time for project) - resources (e.g. money) - other
Script ~~**(Optional)**~~	**Data collection** scripts **(Required)**	Please upload your topic guide, observation script, focus group script, etc. (subject to modifications at *n* moments). *Typical changes in exact script may occur at start of the study, after the first instance(s) of data collection, etc.*
Analysis Plan		
	Statistical models	
	~~Transformations (optional)~~ Data analyses	Please specify what type of analysis are you planning on conducting: - narrative analysis - interpretative phenomenological analysis - line-by-line coding - thematic analysis - other
	~~Follow-up analyses~~ ~~Inference criteria~~ ~~Data exclusion~~ ~~Missing data~~ Exploratory analysis (optional)	
Other	Other	

both its proper documentation and analyses are time-consuming. Still, that is no reason to sidestep any of the time-consuming activities, because that would make qualitative research, just like its quantitative counterpart, sloppy.

Conclusion

The crucial difference between the use of preregistrations in qualitative and quantitative research is that preregistering is given more weight in the latter. The reason for that is simple: in quantitative research, preregistrations may ultimately decrease the chance of research misbehavior and boost the chances that findings can be replicated. There is no parallel ready-at-hand for *p*-hacking in qualitative research, but that does not mean that preregistrations are useless there. We have argued preregistrations can be useful in qualitative research, too, but have hinted several times that the preregistration format is subject to modifications to be suited for qualitative research. We list possible modifications or extensions to the preregistration format of the OSF; the list (see Table 1) is by no means exhaustive but could be a step toward opening the discussion on what optimal preregistration in qualitative research would look like.

Notes

1. Throughout this article, we refer to the preregistration format as can be found on the Open Science Framework, see https://osf.io/registries/.
2. We do not side with the postmodernist conceptualization of qualitative research (reality and truth do not exist outside and individual's perception). Whereas it is not our intention to mingle in this philosophical debate, if one follows the classification as presented in Denzin and Lincoln (1998), we would place our defense of qualitative preregistration somewhere between positivism and postpositivism.
3. There is some debate about this among preregistration proponents, but we hold the view preregistering at the start of the study is most beneficial.

Disclosure statement

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ORCID

Tamarinde L. Haven http://orcid.org/0000-0002-4702-2472
Dr. Leonie Van Grootel http://orcid.org/0000-0001-6675-9018

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