
Article

The Argumentative Quality of the Qualitative Research Report

Adri Smaling
University for Humanistics
Utrecht, The Netherlands

© 2002 Smaling. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

The author argues that, to be convincing, the claims of a qualitative research report must be logically and clearly supported. Eight rules for good argumentative dialogue are presented. The author then presents the process of analogical reasoning to support cross-case generalization.

Keywords: writing, argument, logic, defensibility, dialogue, generalization, analogy

Introduction

The scientific character of a research report, including a qualitative research report, implies argumentative persuasiveness. After all, a research report that is claimed to be scientific must have argumentative defensibility, which requires argumentative quality in the eyes of the reading public. It must be admitted that other aspects of persuasion may be at stake: persuasion by ethos (e.g. accentuation of the excellence or authority of the researcher) and persuasion by pathos (e.g. appeal to emotions such as aesthetic feelings). Nowadays, the rhetorical character of science has been widely acknowledged (see, for instance, Billig, 1987; Gross, 1990; McCloskey, 1985; Myerson, 1994; Roberts & Good, 1993; Simons, 1989). However, a text which claims to be scientific must ultimately persuade by logos — or, in other words, by reason or argumentation. In the rhetoric of science, persuasion by logos may not be sufficient but it is nevertheless necessary. As a scientist the writer of a research report says something that he or she claims to be supported by arguments such as observations, intersubjectively acceptable assumptions, interpretations, principles, rules, regularities, and theories. In other words, the claim of a scientific writer must be based on acceptable or plausible argumentation.

I wish to draw attention to at least three aspects of ‘writing up qualitative research’ which are quite unsatisfactorily discussed in the relevant methodological literature (for instance Wolcott, 1990; Richardson, 1990; Golden-Biddle & Locke, 1997): (1) alternative forms of presentation, especially alternative usages of language; (2) reporting the nature of the dialogue on methodological discussions, especially in participative or responsive types of qualitative research; and (3) reporting methods to reach some degree or type of external validity, especially case-to-case generalization. In this article, I will suggest some ways to remedy these weaknesses from the perspective of argumentative quality.

Alternative forms of presentation

Some authors on writing a qualitative research report criticize conventional conceptions of scientific writing, which is said to be distant, neutral, value free, unequivocal, parsimonious, and boring (see, for example, Richardson, 1990, 1992, 1998; Norris, 1997). Their criticism is mainly twofold. First, this ideal of scientific writing cannot be reached and is too often a camouflage for subjective and ideological elements of the reported research, elements which are nevertheless at stake. For example, Richardson (1990, p. 18), referring to Lakoff and Johnson (1980), says that, in conventional writing, the metaphor 'a theory is a building' is implicitly present. That would be the reason why we ask for the foundation of a theory. This kind of foundationalism or justificationalism could probably be avoided by using another metaphor, such as 'a theory is a feather'. Her criticism on conventional scientific writing is supported by constructivism and postmodern philosophy (such as Derrida, 1982). Second, this endeavor may lead to disregarding of important aspects of human reality, for instance experiential knowledge. In other words, this striving for scientific writing, which may be characterized as 'positivistic', implies a regrettable reductionism. Instead, these writers plead for alternative forms of evocative presentation such as poetics, metaphors, drawings, pictures, narratives, music, photographs, and novels. Norris (1997) is of the opinion that a novel could be a doctoral thesis provided that an epilogue is added in which the relevant insights are analyzed.

My question is whether this alternative writing is still scientific writing. Norris (1997) holds the view that new quality criteria are needed and that these should be developed in public dialogues. However, she does not indicate what type of dialogue would be relevant. I am of the opinion that alternative forms of presentation may be adequate and fruitful, but that the persuasive power of scientific writing must ultimately be of an argumentative nature. The writer of a scientific text has the duty to make the argumentative structure of his or her text explicit and clear. I agree with Seale (1999) in this respect. Richardson (1990), Norris (1997), Wolcott (1990), and Golden-Biddle and Locke (1997) ignore this issue. As a scientific text, a novel should include, or at least be accompanied by, a clear indication of the claim for which the writer takes responsibility as well as an enunciation of the argumentation supporting that claim.

In the following sections, I will suggest how the argumentative nature of scientific texts can be made explicit with regard to methodological dialogues and case-to-case generalization.

The argumentative dialogue

As has already been said, Norris (1997) delegates methodological issues such as new quality criteria to a dialogue. In their book on responsive evaluation research, Guba and Lincoln (1989) also refer to the crucial role of dialogues between researchers and stakeholders. The research report is said to be a joint construction as a result of these dialogues. However, it is not at all clear what kind of dialogues are intended. In my view, these dialogues should be argumentative dialogues (or, if desired, critical discussions). In addition, this report should state whether and how argumentative dialogues are realized or striven for, because of the required argumentative quality of the research report.

I propose the following eight rules (or, if preferred, eight points of interest) to realize an argumentative dialogue. These eight rules are more or less interdependent.

Rule 1: *Prearrange having an argumentative dialogue.*

This means that you agree with each other that you will try to avoid other types of dialogue (see Walton, 1989), such as:

- a personal quarrel, characterized by aggressive personal attack, heightened appeal to emotions, and a desire to win the argument at all costs
- a debate, which is far more regulated; however, the basic purpose of the debate is to win a verbal victory against your opponent by impressing the audience (or referee) of the debate
- an educational dialogue, in which one party has the goal of imparting knowledge to the other party
- an information-seeking dialogue or interview, in which one party has the goal of finding information that the other party is believed to possess.

Hence, I use the concept of an argumentative dialogue in a rather strict sense.

Rule 2: Strive for dialogical relationships.

This means that you will strive for communicative symmetry, open-mindedness and open-heartedness, responsivity, mutual trust and respect. Communicative symmetry refers to equal opportunities for all participants to start, to continue or to stop a communicative act. This rule does not apply to the chairperson. A dialogical relationship facilitates the quality of a critical discussion.

Rule 3: Prearrange the course of the dialogue.

Possible stages are (see Van Eemeren, Grootendorst & Snoeck Henkemans, 1995):

- A confrontation stage, during which the participants should agree to engage an argumentative dialogue, to accept the subject as well as the goal of the dialogue, and to consider the different opinions which are at stake and which should be explicitly listed. Unlicensed attempts to change the agenda or to shift from one type of dialogue to another are not allowed because these attempts prohibit continuation; the fallacy of building a strawman and shoot is an example of a possible threat.
- An opening stage, during which the participants should agree to follow certain rules and procedures and they should especially agree to observe their obligations (rule 6) and to be cooperative (rule 7). The participants start presenting their own arguments and listening to the arguments of others.
- An argumentation stage, during which the participants should agree on a way of taking turns. The fallacy of irrelevant conclusion (also called the fallacy of ignoring the issue) is a possible threat.
- A closing stage, during which the participants should agree to accept a certain form of closure. A participant must not try to force the premature closure of a dialogue until it is properly closed, either by mutual agreement or by fulfillment of the goal of the dialogue.

Rule 4: If a chairperson is needed, choose a good one.

This person has to safeguard that the rules are followed. He or she has to stimulate the sphere of cooperativeness, to sanction the use of fallacies, and so on.

Rule 5: If a decision has to be made, determine beforehand how an ultimate decision will be taken.

Some possibilities are: decision by unanimity, by assent, by majority of votes, by an agreement to postpone the decision to a next meeting.

Rule 6: *Each participant has to fulfill his or her obligations.*

Think of the following three obligations: each participant has the obligation to make a serious effort to fulfill his or her own goal in the dialogue; each participant has the ‘burden of proof’; and each participant has the ‘burden of rebuttal’. The last two obligations stress the argumentative nature of an argumentative dialogue in a more strict sense.

Rule 7: *Be cooperative!*

To be cooperative means more than a minimal observance of the principles of benevolence, beneficence and charity. Rather, to be cooperative means an optimal observance of these principles. In ordinary life, we do not have the patience or the concentration to follow the steps of a full deductive argument. We resort to a simplified form of deductive reasoning in an enthymeme - a truncated form of the syllogism. To be cooperative means that you do not attack a person who uses an enthymeme. The listener has to take the trouble to finish incomplete reasoning before criticizing it. All other types of minor mistakes, imperfections and inaccuracies should not be held against your discussion partner. Do not assume too quickly that the other person is speaking nonsense. Chances are that you did not understand him or her correctly. If you do not reconstruct and interpret the other’s argumentation optimally, your own criticism does not have much argumentative quality.

Rule 8: *Avoid fallacies!*

To list a few: the fallacy of shifting the burden of proof, the fallacy of irrelevant conclusion (or, ignoring the issue at stake; a special case is the fallacy of the red herring), the fallacy of building a straw man and shoot, the fallacy of the ad hominem argument (the abusive, the circumstantial, and the ‘poisoning the well’ variants), the fallacy of appealing to authority, the fallacy of the ad populum argument, the fallacy of begging the question at issue (also called *petitio principii* or circular argument), the fallacy of post hoc ergo propter hoc, the fallacy of hasty conclusions, the fallacy of faulty analogy, and so on (see, for example, Hamblin, 1970; Walton, 1989).

External validity: case-to-case generalization

If you want to transfer the conclusions of a case study — for instance, apply theory derived from a study on a hospital in Manhattan to a hospital in Brooklyn which has not been studied — the question may arise whether this case-to-case generalization is justifiable. Mitchell (1983), Bryman (1988), Firestone (1993), Silverman (1993), Yin (1994), and Seale (1999) do discuss case-to-case transfer, but they do not discuss measures or criteria for good case-to-case generalization, which is obviously a type of analogical reasoning. In this section, I will formulate some quality criteria for good analogical reasoning.

Analogical reasoning is neither deductive nor statistical reasoning, but can be seen as a special sort of inductive argumentation, as Copi (1982) does, or as a separate form of argumentation which must be distinguished from inductive argumentation, as, for example, Walton (1989) does. Walton restricts inductive argumentation to situations in which the researcher, based on a particular sample, generalizes to a population (or scope) of which that sample is a part. Analogical reasoning, however, is more concerned with the apparent similarities between a case that has been researched and another case that has not. In this article, I shall follow Walton’s view, as the main purpose of this paper is to show that good analogical argumentation is of special importance for diverse forms of generalization. Whether or not analogical reasoning is seen as a sort of inductive argumentation, analogical reasoning nevertheless has its own character. In the present discussion, it is important to know how analogical reasoning can become an acceptable argumentation or even a powerful argumentation.

Analogical reasoning is often mistrusted. People say: 'Yes, but this comparison doesn't hold', or, 'That's comparing apples and oranges', or 'That's a horse of a different color'. Another critical remark may be: 'How can you generalize from only one case?' In other words, analogical reasoning is often regarded as fallacious. But that is not always correct, hence the question is what makes analogical reasoning argumentatively acceptable. How can the fallacy of faulty analogy, as well as the fallacy of hasty conclusions, be avoided? This section and the following one are concerned with answering this question.

Case-to-case generalization is based on analogical reasoning. Such reasoning is only plausible when there are solid arguments that, when a particular researched case has characteristics which are relevant for the research conclusions, another case that has not been researched also has these relevant characteristics. The knowledge about the relevant similarities can be based on present experience, on existing literature, or on the judgement of a group of experiential experts based on argumentative dialogues. There may possibly be an accepted or well founded theory as a support or a separate empirical study of the relevant similarities between two or more cases.

As part of external validity of the results and conclusions in an empirical study, analogical reasoning is concerned with the plausibility and acceptability with which these results and conclusions could hold for phenomena, cases, or situations that have not been studied and that display similarities with phenomena, cases, or situations that have been studied. As already suggested, the plausibility of analogical reasoning cannot be derived from deductive logic or inductive statistics. Analogical reasoning is not deductively valid reasoning nor does it lead to quantitative statements of probabilities. Hence, the question is: what makes analogical reasoning plausible? When do two situations compare with each other sufficiently to make it plausible that research results in one situation will also hold in another? On this score, it does not matter whether the analogy is demonstrated by the researcher himself, by a group of stakeholders, or by the reader of the research report. I shall discuss six rules or criteria that will make analogical reasoning as I have discussed more acceptable. These six rules or criteria are a compilation of what can be found in the literature by authors such as Copi (1982), Freely (1976), Govier (1985), Kennedy (1979), Rescher (1964), and Walton (1989).

Six quality criteria for analogical reasoning

The analogy between case (or phenomenon, or situation) *P* and case (or phenomenon, or situation) *Q* will be considered. Analogical argumentation could then be as follows:

- the cases *P* and *Q* have the characteristics *a*, *b*, *c*, *d* and *e* in common;
- *P* also has characteristic *k* (e.g. that the organizational form *Q* has proven to be a success with *P*);
- the (plausible but not certain) conclusion is, that case *Q* also has characteristic *k* (e.g. that the organizational form *Q* also will prove to be successful with *Q*).

This analogical reasoning is plausible when the following rules are applied. (Presupposed, in connection with the following formulations, is that, all other things being equal, it is assumed that the comparable cases remain the same with regard to the characteristics that are not mentioned; in other words, the *ceteris paribus* condition applies).

1. The relative degree of similarity.

Analogical reasoning is argumentatively stronger insofar as there are many similarities and the number of differences is not larger. Analogical reasoning is also stronger insofar as there are few differences between the cases and the number of similarities is not smaller. Hence, the number of similarities has to

be related to the number of differences. For example, when the cases *P* and *Q* are found to differ on ten points, the analogical reasoning is weaker than when they would differ on one point (all other things being equal); likewise, when cases *P* and *Q* are similar on ten points, the analogical reasoning is stronger than if they were similar on only one point (all other things being equal).

2. The relevance for the conclusion.

Insofar as the similarities between *P* and *Q* are more relevant for the conclusion, the analogical reasoning is more plausible. Similarly, insofar as the differences between *P* and *Q* are more relevant for the conclusion, the analogical reasoning is less plausible. For example, analogical reasoning is more plausible when the common characteristic *a* is the willingness to work together by those who have to do so in the organization form *Q*, than when characteristic *a* is the color of the wallpaper.

3. Support by other, similar cases.

The analogical reasoning for *P* and *Q* is stronger insofar as there are more cases, *A*, *B*, *C*, and so on, that compare with case *P* and in which the organizational form *Q* is also successful. The conclusion that *Q* will probably also work in *Q* is in that case more plausible compared to the case where *P* is the only example. In other words, examples of other cases like *P* in which *Q* is successful support the analogical reasoning.

4. Support by means of variation.

When the other cases, *A*, *B*, *C*, and so on, compare with case *P* and *Q*, and *A*, *B*, *C*, and so on, have characteristic *k*, just as *P*, the analogical reasoning for *P* and *Q* is more plausible insofar as *P*, *A*, *B*, *C*, and so on, differ more on their points of difference. For example, suppose that case *A* has characteristics *a*, *b*, *c*, *d* and *e*, just like *P*, and that in both cases organizational form *Q* is successful. Suppose further that *A* and *P* display large differences on the points of difference. In that case, the possibility that the organizational form *Q* will work well also in case *Q*, is more likely than in the case that *A* and *P* displayed smaller differences. Large differences between *A* and *P* make it more plausible that the differences between *P* and *Q* do not matter either.

5. The relative plausibility of the conclusion on its own.

The more plausible or probable the conclusion is on its own, apart from the analogy, the more acceptable the analogical reasoning is. For example, when the organizational form *Q* is vulnerable, the analogical reasoning is weaker than when *Q* is a more solid form of organization. There is obviously a greater risk that a vulnerable form of organization does not work in a new and different situation.

6. Empirical and theoretical support.

The analogical reasoning is more plausible insofar as the knowledge about the similarities and differences between the cases and their relevance has been supported more firmly empirically and theoretically.

When all these demands of quality have been fulfilled, analogical reasoning can be stronger than inductive reasoning based on a statistical representative sample or theory-carried generalization. After all, coincidence, unfamiliarity with relevant variables and too little specificity for one separate other case can thoroughly weaken inductive reasoning, if it must serve to generalize from a case that has been studied to one that has not been studied. Apart from this, it will not always be possible to fulfill the demands of each of these six criteria. A criterion may also function as a point of interest, as reminder of an evaluative

dimension. The fewer criteria fulfilled, the weaker the claim that one can generalize from one case to another.

If a case-to-case generalization is claimed, the research report should state to what degree the criteria are fulfilled and in which way they are checked. If the research report does not claim a case-to-case generalization, the report should deliver information to the reader to enable him or her to decide whether the researched case is sufficiently analogical to another case which is of interest to the reader.

References

- Billig, M. (1987). *Arguing and thinking: A rhetorical approach to social psychology*. Cambridge: Cambridge University Press.
- Bryman, A. (1988). *Quantity and quality in social research*. London: Unwin Hyman.
- Copi, I. M. (1982). *Introduction to logic*. New York: Macmillan.
- Derrida, J. (1982). *Margins of philosophy*. Chicago: University of Chicago Press.
- Eemeren, F. H. van, Grootendorst, R., & Snoeck Henkemans, A. F. (1995). *Argumentatie*. Groningen, Netherlands: Wolters-Noordhoff.
- Firestone, W. A. (1993). Alternative arguments for generalizing from data as applied to qualitative research. *Educational Researcher*, 22 (4), 16-23.
- Freeley, A.J. (1976). *Argumentation and debate: rational decision making*. Belmont: Wadsworth.
- Golden-Biddle, K. & Locke, K. D. (1997). *Composing qualitative research*. Thousand Oaks, CA: Sage.
- Govier, T. (1985). *A practical study of argument*. Belmont, CA: Wadsworth.
- Gross, A. G. (1990). *The rhetoric of science*. Cambridge, MA: Harvard University Press.
- Guba, E. G. & Lincoln, Y. S. (1989). *Fourth generation evaluation*. London: Sage.
- Hamblin, C. L. (1970). *Fallacies*. Newport News, VA: Vale Press.
- Kennedy, M. M. (1979). Generalizing from single case studies. *Evaluation Quarterly*, 3 (4), 661-678.
- Lakoff, G. & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- McCloskey, D. (1985). *The rhetoric of economics*. Madison, WI: University of Wisconsin Press.
- Mitchell, J. C. (1983). Case and situational analysis. *The Sociological Review*, 31 (2), 187-211.
- Myerson, G. (1994). *Rhetoric, reason and society: Rationality as dialogue*. London: Sage.
- Norris, J. R. (1997). Meaning through form: Alternative modes of knowledge representation. In J.M. Morse (Ed.). *Completing a qualitative project: Details and dialogue* (pp. 87-116). London: Sage.

- Rescher, N. (1964). *Introduction to logic*. New York: St. Martin's Press.
- Richardson, L. (1990). *Writing strategies: Reaching diverse audiences*. London: Sage.
- Richardson, L. (1992). The consequences of poetic representation. In C. Ellis & M. Flaherty (Eds.). *Investigating subjectivity* (pp. 125-137). London: Sage.
- Richardson, L. (1998). Writing: a method of inquiry. In: N.K. Denzin & Y.S. Lincoln (eds.) *Collecting and interpreting qualitative materials* (pp. 345-371). London: Sage.
- Roberts, R.H., & Good, J. M. N. (Eds.). (1993). *The recovery of rhetoric: Persuasive discourse and disciplinarity in the human sciences*. London: Bristol Classical Press.
- Seale, C. (1999). *The quality of qualitative research*. London: Sage.
- Silverman, D. (1993). *Interpreting qualitative data*. London: Sage.
- Simons. H. W. (Ed.). (1989). *Rhetoric in the human sciences*. London: Sage.
- Walton, D. N. (1989). *Informal logic: A handbook for critical argumentation*. Cambridge, MA: Cambridge University Press.
- Wolcott, H. F. (1990). *Writing up qualitative research*. London: Sage.
- Yin, R. K. (1994). *Case study research: Design and methods*. London: Sage.