Forcing Vs. Emergent: Line by Line Analysis

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I’ve been asked here today to talk about line-by-line analysis. Though it is difficult to convey in a short time all of the methodological implications contained within that short phrase I’ll try. I’ll begin by presenting an overview of the process and end with a short demonstration of how line by line analysis is actually carried out.

Line by line analysis or microanalysis as it is sometimes called is an analytic process, not particular to, but often associated with Grounded Theory Methodology.

I would describe it as a way of thinking about data, a tool for opening up qualitative text. It is used to break text down into discrete parts, then to put it back together in new ways. In this way discoveries are made. In fact, most scientific discoveries are not made through »hard« science but by someone noting something significant in a piece of data then realizing the implications of what is observed. That is what we are trying to do when we do line-by-line analysis.

Line by line analysis is not limited to looking at data line by line. Rather it refers to examining a particular piece of a larger set of data. That piece could be a word, a phrase, a sentence, or paragraph. Since interviews and observations are often very lengthy, it doesn’t make sense to scrutinize every word on the page line by line, though one could. Usually, the word or phrase chosen for closer inspection is something that catches the analyst attention. Of course, one could say that all data is significant but not all of it strikes the analyst consciousness in the same way. That data which catches attention is something that makes the analyst say, hmm, »there appears to be something significant going on here. Let me see if I can uncover what that is«.

Line by line analysis is an analytic technique perfected by Anselm Strauss. For him it was the heart of analysis, everything else stemming from there. The logic behind microanalysis is quite simple. Its purpose is to discover and develop concepts, their properties and dimensions. Concepts provide the foundation for theory and properties and dimensions give a theory its specificity, explanatory power, and density. But the benefits of doing line-by-line analysis go beyond that. It enables the analyst to break through assumptions and conventional thought to see other possibilities in the data. It allows the researcher to dig beneath the surface of data in order to determine what is really going on.

Without entering into what I believe is a nonproductive controversy, I want to mention something about Forcing versus Emergent. Naturally, those of us who utilize Strauss’ approach to data analysis do not believe that we are forcing data. Just as we don’t believe that data just emerges. We take the position that analysis is an interaction between the analyst and the data. As such the analyst brings his or her own set of analytic eyeglasses to the data, which not only colors interpretation but also one’s vision, the ability to see what is there. To date, I have never sat down with a group of colleagues or students to do analysis without all of the prejudices, assumptions, attitudes, and interests coming through. The worst part is that for the most part, we are unaware of how our perspectives influence what we see and how we interpret what is on the pages in front of us. That is why I have such a difficult time with the term »emerge«. How can something emerge without it emerging through an analytic lens. What emerges is what the analyst allows to emerge. Furthermore, how can an analyst look at data and not have some sort of mental response to it and with it. Data doesn’t wave red flags and say: »Hey, I’m important
and this is what I mean. «There is always some degree of interpretation involved. What is more important than either the notion of »forcing« or »emerging« is being aware of what mental processes we are engaged in when doing our analyses and what is going through our minds when making those interpretations.

That said, yes we »work« with data. But we don’t force anything. We use techniques that assist us is understanding what is being said or done, that increase our sensitivity to what is in data, and that enable us to recognize and move beyond our prejudices and assumptions. I was recently working with a young doctoral student, who was studying identity issues related to juvenile diabetes. In perusing the manuscript I was struck by the comments made by a respondent who stated that he preferred to think of himself as »a diabetic« rather than »as having diabetes« because the latter implied something abnormal, a defect of his body. I thought this comment was very significant in terms of identity issues and wanted to work with this piece of data. The student, who was also a diabetic, jumped all over me. She said she had diabetes and did not want to be thought of as a diabetic, which for her had all sorts of negative connotations because of ongoing interactions with health professionals. Though I tried to get her to look at the data in front of us and to use her experience as comparative data, she would have none of it. She had too many emotions surrounding this issue and could not get past these to do an analysis. She wasn’t letting anything emerge but was blocking – the opposite of emergence. But as I stated earlier the student’s reaction was not unique, I see this kind of response all the time.

Doing line-by-line analysis involves creativity but it doesn’t mean creating data. When doing line-by-line analysis one is interacting with data and always the analyst stays true to or grounded in data. Any comparisons that are made are made at a conceptual level and any ideas that emerge from those comparisons are brought back to the data for scrutiny. That which doesn’t fit is discarded. Creativity comes into analysis when naming concepts, by being able to see in data what others have not, in the ability to bring out something new. We work with data, play analytic games with it, and give free reign to creativity – that is brainstorm, thereby allowing ourselves to emerge from the narrow mental boxes most of us live in.

Doing line by line or microanalysis is something that Anselm Strauss excelled at. But I must say that »being analytic« as he would describe the ability to work with data was an essential part of his being. He didn’t just turn on being analytic when doing research. It was part of his every day life. For him, everything was data, what he read in the newspapers, in books, and journals. I could never pick up a book or paper after him without finding his notes in the margins. Just as important to him were his own life experiences and the stories told by others about their lives. He would file away that information in the recesses of his mind to be used later as a basis for making comparisons. Always he thought in terms of concepts. An incident for him was descriptive, but descriptive of something larger, something that went beyond this one incident. That’s why any one incident was taken from the descriptive to the conceptual level. Also important were a concept’s particular properties and dimensions because these give meaning to the concept and differentiate it from other concepts. Properties and dimensions also bring out the complexity and variations that can be found in all situations and help to identify
context. Nothing according to Anselm’s way of thinking was simply black and white. Life to him was complex and it was important to him that analysts capture as much of that complexity as possible in their research. Since line by line analysis involves examining details through a multicolored lens is there any wonder why it was so important to Anselm’s way of thinking?

It was a joy to watch Anselm at work, to work with him. He had such a seminal mind and would draw upon his stored knowledge to gain insight and understanding into new situations. It was amazing to see what he could do analytically with one little phrase or paragraph. From a few words he would generate so many questions and thoughts, ideas to be followed up on through theoretical sampling or that gave new insight into data. For example we were doing a study on head nurses and the articulation of work in hospitals. We had been analyzing data for months but somehow the concept of power had never surfaced. It may have been there but we were too insensitive to notice. Then one day, we coded an incident as power. Then we went to work on the concept of power, what does it mean here, who has power, how does it manifest itself, and so on. We were exploring power as one would a brilliant cut diamond, examining its many facets and manifestations. In this way we were increasing our sensitivity so that when we went back to the data, incidents that we never before coded as power jumped off the page. But they didn’t jump out at us until we had developed this sensitivity by thinking about and playing with the concept of power. Is this process of working with data something that one would consider »forcing«? I think not, but like everything else that has to do with analysis, it is all a matter of definition and interpretation.

What were the analytic techniques that Anselm used to dig beneath the surface of data? Mine it like gold, as he would say. I’d like to explain some of those techniques.

1. The first is the making of comparisons, meaning that an incident is compared against another incident in order to determine if these are conceptually the same. Those that are similar are grouped together.

2. The second is the asking of generative questions. To name a few, questions such as what is going on here; also who, what, where, when, how come, how, with what consequences. Anselm always said »Any question that helps to identify or understand a concept is a good question.«

3. The making of theoretical comparisons. This is where Anselm excelled. Doing theoretical comparisons involves working with concepts, not descriptive material. I would describe making theoretical comparisons something akin to brainstorming. Once there is a concept, such as »making arrangements« one draws upon life experience or the literature in order to try to uncover the meaning of this concept and discover possible properties and dimensions. For example if one were studying nurses working in an intensive care unit and one came upon the phrase »she was experienced nurse« the analyst might want to know what is meant by »an experienced nurse«. Suppose the information is not forthcoming in the data. It may be there but somehow the analyst is blocked and not seeing it. So the analyst starts...
thinking about something he or she knows something about, like being an experienced driver and beings to brainstorm coming up with the following ideas. Being experienced may mean knowing quickly how to respond to emergency situations, being able to do one’s work without much thought, feeling comfortable doing the tasks, and so on. The analyst would then go back to the data and look to see if there is any mention of an experienced nurse being able to respond quickly to emergencies, or that she has routinized the work, or that she is at ease when carrying out her tasks. The difference between looking at the data now from when one looked at it previously is that there is a degree of sensitivity that wasn’t there before. One has some idea what to look for in the data. In making theoretical comparisons one might use examples that are «close in» such as comparing an experienced nurse to an experience driver, the common element being the experience. One might also use a «far out» comparison such as comparing a counselor in couples’ therapy to a referee. When one thinks about this, the comparison is not so oppositional, both counselor and referee are trying to keep a potentially negative situation from flaring out of control. Making theoretical comparisons in addition to increasing theoretical sensitivity gives direction for theoretical sampling and helps the analyst discover properties and dimensions.

4. Another technique is the »what if game«. Here tries to determine what would happen if the conditions changed. This does not mean that one artificially alters conditions as one would in an experimental design. Rather one turns to theoretical sampling looking for data collection sites that might maximize or highlight differences in what one is seeing. For example, to continue with the example above of the experienced nurse, one might ask for the names of inexperienced nurses so that one could observe and interview them to see what differences experience might make, if any. The what if game helps to elaborate and locate concepts in context as well as directing theoretical sampling.

5. Turning a concept upside down is still another technique. This involves looking at opposites, again to stimulate thinking. Suppose one noticed that some persons in a program that we were studying could be described as being »fully engaged«. One might then turn this upside down and say what about those who »opt out« of the program, what might they look like, or how might they differ from those fully engaged, then through theoretical sampling go out and look for them. Or return to the data, to see if one might have come across such persons but missed them before because one lacked sensitivity.

6. There is also the technique of asking oneself »what are the range of possible meanings of this word?« Instead of the analyst assigning the first meaning or interpretation that pops into his or her head, the analysts lists all the possible meanings that he or she can come up with. Then, the analyst returns to the data to see if there are any clues about what the informant had in mind. The idea is to open the mind. It’s too easy to assume the speakers intent and not be open to other possibilities when reading data.
7. Waving the red flag in another analytic technique. Whenever a respondent says something like always, sometimes, never, the analyst should stop and question the data because implied in that piece of data are the informant’s beliefs and assumptions. This is the time to ask a lot of questions of the data, such as how come always, could there be any exceptions, and so on.

8. Then there is looking for specific words such as “when” and “if” because they point to conditions that help the analyst locate a concept in context.

In summary, as you can see, doing line by line analysis is a very generative and dynamic process. It encompasses both what we refer to open and axial coding. Out of the microanalysis come memos, theoretical sampling, and eventual saturation. When done with diligence it enables the research to build complete and detailed explanations about some facet of life.