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Why include phenomenological analysis in a Research Methods course?

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Abstract

Background: Guidelines for Spanish university curricula include the descriptor Quantitative and Qualitative Methods, but the latter are still poorly represented. **Method:** To inform the argument for phenomenological methods, the last 20-year interval of ISI databases has been content-analyzed with the following codes: discourse analysis, grounded theory, narrative analysis, phenomenological analysis and confirmatory factor analysis, that is, four qualitative methods and a prototypical quantitative one. **Results:** In absolute terms, the most frequent qualitative method is grounded theory, followed by discourse analysis, phenomenological analysis and narrative analysis. However, taking into account content categories, only phenomenological analysis shows a clear psychological profile, similar to confirmatory factor analysis. **Conclusions:** We recommend starting qualitative training with a method that does not require either big groups, or big funding, and that has a procedural core that is simple, relatively well-delimited and "secularizable," a variety of thematic analysis. Historical reasons and the clear psychological profile evidenced by our results enhance our argument to foster the inclusion of phenomenological analysis in research method courses in psychology.

Keywords: Confirmatory factor analysis, discourse analysis, grounded theory, methodological criticism, narrative analysis, phenomenological analysis.

Resumen

***Por qué incluir el análisis fenomenológico en un curso de métodos de investigación*. Antecedentes:** las líneas orientadoras de los planes de estudio de Psicología incluyen el descriptor métodos cuantitativos y cualitativos, pero estos últimos aún se encuentran mal representados. **Método:** para informar una parte del argumento a favor del método fenomenológico, se ha analizado el contenido del último intervalo de 20 años de bases de datos ISI con los códigos correspondientes a cuatro métodos cualitativos –análisis del discurso, teoría enraizada, análisis narrativo y análisis fenomenológico– y uno cuantitativo prototípico, el análisis factorial confirmatorio. **Resultados:** en términos absolutos, el método cualitativo más empleado es la teoría enraizada, seguida del análisis del discurso, el fenomenológico y el narrativo. Sin embargo, considerando los campos de aplicación, solo el análisis fenomenológico muestra un perfil claramente psicológico, muy similar al del análisis factorial confirmatorio. **Conclusiones:** se propone comenzar la formación cualitativa de los futuros psicólogos por un método que no requiere grandes grupos, ni recursos, y que cuenta con un núcleo procedimental sencillo, relativamente bien delimitado y "secularizable", una variante de análisis temático. Al perfil de metodología especial que se hace evidente en los resultados del estudio anterior, se añade la procedencia histórica para favorecer la inclusión del análisis fenomenológico en los cursos de métodos de investigación psicológica.

Palabras clave: análisis del discurso, análisis factorial confirmatorio, análisis fenomenológico, análisis narrativo, metodología crítica, teoría enraizada.

Could William James Get a Job? is the subtitle that Marchel and Owens (2007) chose for their review of qualitative research in U.S. psychology. Considering that the corpus they analyzed consists of American Psychological Association journal abstracts, mission statements and editor opinions, it seems that their results could also be of interest for psychologists in some other countries; from our *foreign* point of view, the most relevant conclusion is that new research topics, in particular those related to culture, facilitate methodological openness. Let us remember that James' study *The Varieties of Religious Experience*, published in 1902, is the first one to apply phenomenology as a psychological method (although the Spanish reference usually omits the book's subtitle, *A Study in Human Nature,* which indicates how important subjectivity was for James).

We shall continue to focus on titles and address some attention to that of this paper. Considering the academic landscape of the last century, we could ask why future psychologists should be taught *any* qualitative method. Michell (2012) attributes the contempt psychometricians feel for qualitative methods to the *horror* caused by the plausibility of the existence of non-quantitative psychological attributes, as if it were reality itself that excluded this possibility. Even though the best-selling status of the mixed (or hybrid) methods book by Teddlie and Tashakkori (2009) seems to indicate that its combination with quantitative research makes qualitative methods more palatable, less threatening for the prefabricated image of what a proper scientist should be, the main problem, according to Michell (2011), remains unresolved: the quantitative structure of certain psychological attributes is *also* taken for granted by mixed methods: the imposition of quantitative concepts on qualitative

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phenomena means that the latter can be misrepresented. There is no doubt that mixed methods are being really helpful in spreading qualitative research among psychological scientists, but in the end, as with hybrid cars, each engine must do its own work.

The thing is that even though guidelines for Spanish university curricula include the descriptor Quantitative and Qualitative Methods, it is evident that the latter are still poorly represented, just from looking at the course titles and topics. Many will say that there is reason enough for this state of affairs, such as the lack of qualitative research papers in publications with a high impact index which, by the way, is not the case, as we will later see; but even if it were the case, we could allege that the difficulty of publishing the results of qualitative investigations in "good" journals makes it difficult to obtain resources to fund new research, giving rise to a vicious circle. Thus, tabulating the What and Where of papers is not enough: we need to construct an argument.

To begin with, let us take into consideration the classification of research methods into observational, inferential and critical. Negating the interaction between the scientist and the system that is investigated goes against a realist philosophy of science and, given that the only way to know of natural systems is to investigate specific instances in spatiotemporal coordinates, then quantity and number are ubiquitous features of any situation. This is not the same, however, as saying that all real situations possess quantitative structure (Michell, 2011). Various methods of observation serve to provide evidence of phenomena, be they quantitative (e.g., speed of light, atomic weight) or qualitative (e.g., mammal species, depression types). If we want to go further from the scientific description of attributes and of the relationships between them, then the validity of conclusions will depend on the methods of inference, which, in their statistical variety, make up the bulk of the methodological curriculum of biologists, physicians, psychologists, sociologists and economists. Statistical inference for the case of qualitative attributes (e.g., the Chi-squared test) is one of the topics usually covered, but some smart students ask themselves why, given that it is taken for granted that scientific psychology deals with quantitative attributes.

Criticism directed towards methodological assumptions and practices is not customary among researchers, probably due to the fact that their knowledge of methods is merely instrumental. But it should be recalled that many techniques usually applied by psychologists come from other fields and carry with them assumptions related to their origins, although we hardly notice them: they are now part of the general methodology of psychology. For instance, Fisher's Analysis of Variance was the result of the work carried out at an agricultural center in order to learn the effectiveness of various fertilizers. However, experimentalists do not usually stop to think that, while it is easy to find a terrain that is equal to its neighbor for research purposes, it is not so easy to find a person of whom that can be said, or at least it is not easy in certain areas: for instance, it is plausible when studying sensoperceptive processing in toddlers, but not so much when investigating emotional development in aging populations. And that is why the study of certain theoretical concepts is essential to the student of psychology, but irrelevant for the agricultural engineer.

Some specifically psychological methods, the most successful ones, have spread to other fields, notoriously Confirmatory Factor Analysis (Bentler, 1986). In this sense, it would be difficult to find a better instance of methodological criticism than the closing sentence of *Latent variable models and factor analysis* by Bartholomew and Knott (1999, p. 190): "When we come to models for relationships between latent variables we have reached a point where so much has to be assumed that one might justly conclude that the limits of scientific usefulness have been reached if not exceeded".

As to qualitative methods, they are usually employed in the context of psychological science for classification tasks, for discovery, and for the study of the individual interpretation of meaning. However, there are many different qualitative techniques that can be useful in classification—each one carrying its ontological and epistemological burden—and the same could be said concerning discovery, even though grounded theory approaches are usually recommended (perhaps due to the existence of commercial packages implementing it). Finally, the individual interpretation of meaning is best done with phenomenological tactics, be they descriptive or interpretative (Delgado, 2010; Hein & Austin, 2001).

It is important to call the readers' attention to the fact that qualitative research implies a *fuzzy set* of data collection and analyses (Madill & Gough, 2008). Qualitative methods do not form a unified field, nor is every qualitative procedure of interest for scientific psychology. Many of them are actually indefensible because of poor articulation and/or unrealistic epistemological pretensions. It is high time for psychologists to discriminate in order to be able to choose. Thus, the objective of this paper is to argue in favor of including the phenomenological method as an initiation to qualitative research in the context of scientific psychology.

Method

Sample

The working corpus is composed of the last 20 years (1992-2011) of SCIENCE CITATION INDEX EXPANDED (SCI-EXPANDED), SOCIAL SCIENCES CITATION INDEX (SSCI), ARTS HUMANITIES CITATION INDEX (A&HCI), Conference Proceedings Citation Index- Science (CPCI-S), Conference Proceedings Citation Index- Social Science & Humanities (CPCI-SSH), from the ISI *Web of Knowledge* (Thomson Reuters), the database usually consulted to assess the quality of psychological investigation.

Searching codes corresponded to five analysis types, four of which were qualitative –Discourse Analysis (DA), Grounded Theory (GT), Narrative Analysis (NA) and Phenomenological Analysis (PA)– and one quantitative (Confirmatory Factor Analysis, CFA). In the case of PA, the search had to be refined in order to erase references to a homonymous physical method that spuriously increased its frequency.

Procedure

Four well-known qualitative methods were selected—discourse analysis, grounded theory, narrative analysis and phenomenological analysis—that are usually described in research methods texts (e.g., Camic, Rodes & Yardley, 2003, APA edited), and have been recently included in a methodological review (Madill & Gough, 2008, p. 258), and in a clinical and theoretical comparison project (Wertz et al., 2011; the fifth method in this book, "intuitive search", was excluded given that it is not a usual one). Some of the differential characteristics of these four methods can be seen

in Table 1 (adapted with modifications from Smith, Flowers & Larkin, 2009). Confirmatory factor analysis, a prototype for successful psychological quantitative methods, was selected as a backdrop against which to make the comparison.

Data analysis

The five methods were quantitatively described and then ordered by frequency of use in scientific fields with the categories provided by the ISI *Web of Knowledge*.

Results

Annual frequency for the five codes in the last twenty-year interval (1992-2011) can be seen in Table 2. It is evident at first glance that references to the five analysis methods have consistently increased over the years, and that, in absolute terms –without taking into account scientific fields– the one most employed is CFA, followed, in descending order, by GT, DA, PA, and NA.

In order to describe the growth pattern of frequency over time, linear and exponential regression functions can be estimated with publication year as the predictor variable, resulting in a very good fit for the ten models although exponential functions explain more variance, over 90% in every case (all $p<.01$). However, considering that the number of indexed publications *in the world* has grown exponentially in these years, the only non-trivial information that can be extracted from that kind of quantification to support our argument is that the presence of qualitative analysis in indexed publications is growing at the same rhythm as the presence of a prototypical quantitative method. This similarity, in ordinal terms, can be grasped from Table 3, which shows the Spearman correlation matrix among the five variables. They all are large-sized and statistically significant.

Ordering the codes by frequency of use in scientific fields through the categories of the ISI *Web of Knowledge* offers information that is more discriminative. As can be seen in Table 4, which displays the first three content categories for each method in decreasing order, PA is the method showing a clear psychological profile, very close to that of CFA: Clinical Psychology is predominant in both of them, followed by Multidisciplinary Psychology; the third place is taken by Public Health in one case, and Psychiatry in the other.

As to GT, its similarity to NA is clear: Nursing is their first field of application, followed by Public Health. The preferential use of DA is in the context of Linguistics and allied disciplines.

Table 1
Comparison of objectives for different qualitative methods

Question	Focus	Method
How do we talk in the family about "feeling indignation"?	Interaction is more important than content, on which inferences are not made	Discourse psychology
What factors influence how people manage "feeling indignation"?	Construction of explanations (factors, influences)	Grounded theory
What kind of story structures do people use to describe events which made them feel indignation?	Relationship between narratives and sense-making	Narrative psychology
What are the experiential features of indignation?	Structure of indignation as an experience	Phenomenology

Table 2
Annual frequency of codes

Year	CFA	DA	GT	NA	PA
2011	969	491	721	110	134
2010	885	478	721	99	131
2009	758	426	663	85	109
2008	687	380	581	84	104
2007	500	298	472	55	67
2006	441	261	340	59	44
2005	381	214	282	44	40
2004	372	190	243	40	37
2003	309	155	221	39	35
2002	269	122	196	28	33
2001	257	161	151	33	16
2000	222	114	195	25	23
1999	192	131	145	27	14
1998	198	104	121	23	10
1997	208	87	94	20	9
1996	157	58	88	18	4
1995	142	71	81	16	14
1994	127	50	57	14	8
1993	96	32	36	8	7
1992	87	31	26	8	8
Sum	7774	3854	5434	835	847

Table 3
Spearman correlation matrix

	fCFA	fDA	fGT	fNA
fDA	.98			
fGT	.99	.98		
fNA	.99	.99	.99	
fPA	.96	.96	.97	.96

Note: All $p<.01$

Table 4
ISI content categories (ordered by decreasing frequency)

CFA	DA	GT	NA	PA
Clinical	Linguistics	Nursing	Nursing	Clinical
Multidisciplinary	Communication	PEOH[2]	PEOH[2]	Multidisciplinary
Psychiatry	EER[1]	Management	Communication	PEOH[2]

[1] Education Educational Research
[2] Public Environmental Occupational Health

Discussion

One undeniable reason in favor of phenomenological methods is historical: it is the main qualitative method arising from psychological tradition (Tesch, 1990), that is, its emergence responds to the needs of our field. Thus, *ceteris paribus*, we could expect that this method were better adapted to our object of study than methods developed in fields such as Sociology or Linguistics. In that sense, the phenomenological methods have a head start.

A second reason in support of the use of phenomenological techniques could be the exponential growth of its presence in ISI journals in the last twenty years. However, if we take into account that the use of every one of the five methods has increased similarly in ISI journals, and that some of them are more frequently found in the scientific databases, this does not seem to be a particularly favorable point. Frequencies, in absolute terms, are necessary but imperfect indicators because they do not take into account the scientific areas in which methods predominate. For instance, the number of publications in medical fields is much higher than it is in Psychology, which is why we need *to qualify* this information. As can be seen, the qualitative analysis carried out with the ISI content categories makes evident that phenomenology, apart from its psychological heritage, shows a profile that is characteristic of special methods in psychology, very close to that of confirmatory factor analysis, which cannot be said of the three remaining qualitative methods.

The third reason comes from critically reflecting on how qualitative data are analyzed in everyday scientific practice. Research methods books such as the one by Breakwell, Hammond, Fife-Schaw & Smith (2006), one of the most employed, use the term *thematic analysis* as a method of information extraction in investigations whose data collection phase has been carried out by means of narrative techniques, interview or focus group, but also for the case of phenomenological analysis or grounded theory. What is more, a comparison of procedures involved in the last two reveals the porosity of their limits in actual practice: for instance, line-by-line analysis is carried out in both of them, but, whereas phenomenologists *give names to themes* for each unit of meaning, grounded theorists *code* them; the memos that account for the reflexivity in order to construct well grounded theories are phenomenological in kind when the object is subjective experience, which is quite usual (Wertz et al., 2011). We could say that phenomenological procedures can be *secularized*, i.e., that psychologists do not need to share the whole belief system surrounding them to be able to use them fruitfully. That we give the name *thematic analysis* (Braun & Clarke, 2006) to the essentials of the procedure is not the same as saying that we start from zero concerning theoretical assumptions. Rather, we can count on a flexible core that, if we wish, can be applied in innovative ways to future work whose objective is no longer to study subjective experience. Learning methods with more heterogeneous objectives, such as grounded theory, will be easier once the first steps have been automatized, steps that, apart from the vocabulary, are not that different.

Beginning a research methods course by doing some phenomenological analyses, no matter how rudimentary, will make the experience meaningful, something that is not so easy if the starting point is a collection of exemplars of techniques with imprecise limits and contexts so often tangential to Psychology. General Research Methods instructors devote a lot of effort to adapting the curricular contents to problems typical of the fields, but less effort will be needed if phenomenological methods are included, because historical and current examples, as well as working problems refer to the structure of subjective experience, that is, they are *already* psychological.

When trying to make sense of the History of Science, Kuhnians attribute a star role to social factors. Without going to that extreme, it is certainly undeniable that extra-scientific aspects have some influence on the development of scientific fields. In the case of phenomenological research, usually the fruit of individual work, collateral damage has been caused by an extended *slogan* in the scientific policy sphere: that psychology will prosper by funding groups, not individuals. The internal validity of a conclusion depends on the quality of the causal inference and it is well-known that *correlation does not imply causation;* it is therefore logically invalid to conclude that because high impact index journals publish papers coauthored by many, working in groups will foster publication in "good" journals. As to external validity, even if it were true that the best genetics or particle physics research demands large groups (although not *any* large group), we should not infer that this is also true of other fields such as ours. These two assumptions, joined to a third (also groundless), *that the attributes of interest are always quantitative,* are contributing to preserve the prejudice against qualitative methods in general.

Perhaps in an effort to avoid this prejudice, a *marketing* strategy of qualitative methods is emerging that consists of imitation and assimilation of quantitative ones, something that it is not always desirable. For instance, the development of computerized programs favors and promotes certain types of procedures, very formalized ones that may not be the best ones for answering certain scientific questions. And the same can be said about the imitation of external traits of the quantitative method (or of its stereotype), such as teamwork in cases in which it would not be needed. In any case, it is a question of time: the qualitative procedures that cannot survive on their own merits will not do so through mixture or camouflage either.

Coming back to the initial question, *Could William James Get a Job?,* everything seems to point to a *yes* answer. The omens are auspicious, as indicated by the fact that, in the April 2011 number of *The Score,* the bulletin of the fifth APA division, *Evaluation, Measurement, & Statistics*, qualitative methods are welcomed and incorporated. Now we face the moment of choice and not everything goes. We favor –and not at random– starting the qualitative instruction of future researchers with a method that does not require either big groups or big funding, whose procedural core is simple, well-delimited and "secularizable", and which, owing to tradition and content, is already part of the special methodology of psychology.

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