
Notes by the Editor

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First Note: Type Building and Mappings in Organisational and Cultural Studies

Abstract

This note is an extension of the introduction to the special issue on ‘Cultural variations and mappings’. It highlights some basic issues of type building. So called ‘ideal types’ are generated from empirical observation, while ‘normal types’ are generated through theory building. Maps usually have a sort of geographic dimension, i.e., distance measures are converted into figures on a paper. Mappings, on the other hand, project one set of data (very often ‘ideal types’) into another set of data, either ‘ideal types’ or ‘normal types’.

This is not a self-standing scientific paper but rather a collection of dispersed information on type building (sometimes called typification) and mapping.

Introduction

Reflecting on the inclinations of generating types and/or drawing map-like presentations of organisational or social data, we have to deal with two major categories – types/typologies and maps/mappings – which can be further differentiated: ideal and normal types; graphic and epistemic mappings. Type building (also called ‘typification’) and mappings are creating illusions of simplicity through leaving out large part of available information and directing the focus of attention of a reader to a few most impressive features. Thus, in social theories typifications abound, and the various classes of management, organisation and cultural theories are no exceptions.

Considering the fact that there are numerous typologies published and less numerous maps, but quite a few mappings, which are generating the illusion of being maps, and the experience that a large number of authors is submitting papers with the main goal of catching the eye and the sympathy of readers with yet another typology, with this paper we aim at reflecting about the major issues of type building and mapping and are aiming at providing some insights into which basic criteria should be borne in mind.

Before we continue with the respective chapters on typifying (type building) and mapping it is need to refer to a few core definitions. For sake of convenience we shall

start with a few quotes of definitions from Wikipedia, and after these definitions, we will enter into the two indicated fields.

Four definitions

Ideal type (http://en.wikipedia.org/wiki/Ideal_type)

[Max] Weber himself wrote “An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasised viewpoints into a unified analytical construct...” It is a useful tool for comparative sociology in analysing social or economic phenomena...

“Some sociologists argue that ideal type tends to focus on extreme phenomena and overlook the connections between them, and that it is difficult to show how the types and their elements fit into a theory of a total social system.”

Normal type (http://en.wikipedia.org/wiki/Normal_type)

In contrast to ‘ideal type’

“Tönnies’ normal type was thus a conceptual tool created on a logical basis, ... an almost mathematical concept always open to subsequent refinement from a confrontation with the empirical evidence.” ... “The normal type moved from abstract to concrete; the ideal type from concrete to abstract.”

Graphical mapping (<http://en.wikipedia.org/wiki/Mapping>)

Mapping is creating graphic representations of information using spatial relationships within the graphic to represent some relationships within the data. The common and original practice of mapping is the scaled drawing of geographical features, that is, cartography. In the contemporary sense of data visualisation, it includes ... innovative ways of visualising data not clearly related to the geographical archetype...

Contemporary maps of non-geographical datasets make use of and extend the familiar ways of organising information in geographical maps to other kinds of data not necessarily concerned with spatial relationships per se. The foundational notion is that an arrangement of elements in a synthetic space can help to organise or clarify... Spatial area can indicate magnitude or quantity. These kinds of parameters can be usefully applied in the visualising of data, revealing a variety of relationships at a glance.

Epistemic mapping

For comparison of two typologies with perhaps similar content, but different terminology, Maruyama (2008) has used a technique that Yolles and Fink (2013) call epistemic mapping. In this, a description of two entities (types) that need to be related for comparison are formulated in terms of a set of keywords or a set of items, which constitute the aggregate construct. These items are then qualitatively related to each other to determine the degree of commensurability. Incommensurability would mean that there

are some contradictions in the relationships. The central nature of epistemic mapping is that meanings represented by context sensitive conceptual labels are related to each other in order to identify some degree of similarity.

On typification (type building) and typologies

It is important to note that for a theory-based typology (a set of ‘normal types’) the number of types is larger than the number of explanatory variables. Yolles and Fink (2013) write:

“Normally, type theory is useful in personality assessment since they represent conditions of a personality that can be associated with a set of characteristics or properties that establish a penchant towards certain patterns of behavior. There are schemas (models that may or may not be developed into or be connected with full theories) that explore types, though sometimes as in the MBTI (Myers, 2000) schemata of the traits are inferred as existing virtually, and unspecified. While explicitly defined traits take on identifiable personality control functions, virtual traits also take on control functions, but in this case they would be implicit and unidentified (Gottfredson and Hirschi, 1990).

While traits constitute useful variables for the characterization of personality, there is some confusion in the literature in the way that types are defined. Some authors (e.g., Eysenck, 1957) find that simple distinguishing marks may qualify single traits as types, while Myers-Briggs when referring to types rather mean ‘meta-types’, i.e., a determinable collection of types (Myers, 2000). Following Eysenck, types can be defined through a trait that can characterize a system. If more than a single trait is needed to characterize a system, then types may occur as some composite of several traits with certain distinguishing marks. Thus for instance consider the case of the extreme poles of bi-polar traits. The number of types (z) to be generated from bi-polar traits depends on the number of traits (n) that constitute a system: $z = 2^n$. In a case where three states of a trait (e.g., the extremes and a range in the middle) constitute a system, then $z = 3^n$. We have already referred to MBTI as a ‘personality type’ approach with virtual traits, and which operates as a classificatory system that was created from Jung’s (1923) bi-polar temperament personality theory. From 4 bi-polar virtual traits, a system of 16 personality types was created by Myers-Briggs (Myers and McCaulley, 1985; Myers et al., 1998).”

As an example for an overwhelmingly large number of types to be created with a dataset we can refer to the work of Gittinger (1992). Gittinger’s original formulation defines three dimensions:

- 1 The intellectual dimension internaliser vs. externaliser, where the internaliser relies more on his own experience and is likely to be less active than externalisers.
- 2 The procedural dimension regulated vs. flexible, where the regulated person is more procedurally oriented and emotionally insulated. The flexible person is involved with relationships and whose attention is easily diverted from regulated procedures.
- 3 The social dimension role adaptable vs. role uniform refers to a person’s skill in meeting demands of others.

The role uniform individual may feel comfortable in familiar situations. The role adaptive may suffer from making good first impressions on others and later not understanding the

unrealistic expectations others have. For our purposes here it is worth noting that Gittinger generated 512 types from the three dimensions. He split each dimension into 8 levels and through combination he got 512 types [$512 = 8^3$].

Thus, there is apparently no theoretical limit for numbers of types to be generated. A limit may be given through the absorptive capacity of readers. Four are easily grasped, understood and remembered. Eight still may work if the scheme of type generation can be easily remembered. The number of 512 definitely is beyond my capacity to remember all types.

Knowing about the incapability of most individuals to grasp the meaning of a large number of types is an important reason why many scholars tend to collapse different dimensions into a few and then generate a typology from a smaller number of aggregate dimensions. E.g., Cameron and Quinn (1999) collapsed their competing value framework of 8 leadership roles with four bi-polar dimensions into two aggregate dimensions from which they generate four types. The framework consists of one dimension that differentiates a focus on flexibility, discretion, and dynamism from a focus on stability, order, and control; and the other differentiates between a focus on an internal orientation, integration, and unity from a focus on an external orientation, differentiation, and rivalry.

On maps and mappings

While the standard procedure of geographical maps is to put lines and points onto a map depending on geographic distance, procedures of putting non-geographic data into a map (or a mapping) are interpreting numerical distances between data vectors or data points as if these distances would be representative of geographical distances, at least in the framework of the geography of a sheet of paper.

In this volume of *EJCCM*, Minkov and Blagoev refer to quite a few publications, where cultural maps are deployed: “Such maps have been produced by Hofstede et al. (2010), Inglehart and Baker (2000), Kuppens et al. (2006), Schmitt (2005), Schmitt et al. (2007); McCrae (2002), Minkov (2011, 2013), Smith et al. (1996), Schwartz (2008), van de Vliert and Janssen (2002) and others. Not all of these authors use the term ‘cultural maps’, yet all of the above-mentioned publications feature at least one two-dimensional plot of a large number of countries from all or most of the world’s continents.”

Minkov and Blagoev (2014) use a set of related methods to convert data series into mappings:

- a *Multidimensional scaling* (MDS) analysis of the selected variables. Where the scores on the variables are transformed into z-scores (e.g., across nations and by variable). This operation is necessary when original variables were scored on different scales. Then, the z-scored variables can be plotted in a two dimensional space, using Euclidian distances.
- b *Primary factor analysis* (FA) with the principal components method and to retain only the first two factors, which could be graphically presented as if they were orthogonal. This method shows how cultural maps (rather than factor loadings) can be used to visually interpret the results of a cross-cultural analysis. However, mostly the unrotated factors are rather mathematical coordinates without any cultural meaning.

- c *Rotated factor analysis*: In order to generate dimensions with a cultural meaning, one may choose to further analysing data with factor rotation and providing some explanation based on epistemic mapping. E.g., in the Minkov and Blagoev (2014) article, the first dimension is the same as Minkov's (2011) universalism versus exclusionism, and the second is prudence versus hypometropia from the same study.

However, there is at least one more option available for creating cultural mappings, e.g., the co-plot algorithm developed by Raveh (2000) and the co-plot computer programme written by Talby and Raveh (2013).

Among others, this technique has been used by Sagiv and Schwartz (2007) and Schwartz (2008) to present mappings of the Schwartz value universe, consisting of individual values, of aggregations into organisational values and into global mappings. Among numerous other applications, the co-plot technique has been used for visualising data outliers (Mahlberg and Raveh, 2012), or by Weber (1996) for visualising cultural fit.

Epistemic mappings

Epistemic mapping is a method of investigation into differences and similarities between differently labelled constructs, which basically may have the same meaning, but authors may have preferred to address their core issues with different terms or were not aware of each other.

As an example we may quote an epistemic mapping undertaken by Magoroh Maruyama: After quite a few years of research, Maruyama (1988, 2001, 2008) had settled on four 'ideal' types of mindscapes characterising the major attitudes and behaviours of significant personality types emerging across numerous societies:

- H (hierarchical/bureaucrat)
- I (independent/prince)
- S (social/reformer)
- G (generative/revolutionary)

In course of his research Maruyama had found that there is some relation between his types and those of Harvey (1966), in short:

- Type 1: high absolutism and closeness of beliefs; high ethnocentrism
- Type 2: deep feelings of uncertainty; distrust of authority, avoidance of dependency on God, tradition
- Type 3: manipulating of people through dependency upon them; fairly high skills in effecting desired outcomes in his world through the techniques of having others do it for him; autonomous internal standards, especially in the social sphere
- Type 4: high perceived self-worth despite momentary frustrations and deviation from the normative; flexible, creative and relative in thought and action; internal standards that are independent of external criteria.

Through epistemic mapping, i.e., comparing the constructs on an item by item basis, Maruyama (2006, p.84) notes that Maruyama's Type H, I and G are almost identical with

Harvey's Types 1, 2 and 4 respectively, while Maruyama's Type S is quite different from Harvey's Type 3.

This difference in the list of ideal types and theoretical considerations, e.g., by Boje (2004) is at the core of developing a set of eight contrasting 'normal types' i.e., theory-based types through mindset agency theory (Yolles and Fink, 2013), which can embrace both, the Harvey system and the Maruyama system of types. These types are derived from combination of the poles of the three Sagiv and Schwartz (2007) traits: intellectual autonomy vs. embeddedness; mastery and affective autonomy vs. harmony, and hierarchy vs. egalitarianism. The eight types are:

- 1 HI – hierarchical individualism
- 2 EI – egalitarian individualism – corresponding to Maruyama: I (independent prince)
- 3 HS – hierarchical synergism
- 4 ES – egalitarian synergism – corresponding to Maruyama: G (generative revolutionary)
- 5 HP – hierarchical populism – corresponding to Maruyama: H (hierarchical bureaucrat)
- 6 EP – egalitarian populism
- 7 HC – hierarchical collectivism
- 8 EC – egalitarian collectivism – corresponding to Maruyama: S (social reformer)

Summary

The idea behind ideal typologies and mappings basically is the same: reducing the real world to a few major and important characteristics, which are helping to understand the world better. The problem with types is that the number of types is growing exponentially with the number of variables and variations of the states of variables, which one has to consider. Thus, many typologies are reducing the world to two dimensions, which can also be shown in graphical diagrams.

Epistemic mapping is a qualitative comparative method which aims at comparing different types of constructs with each other and creating 'common understanding' of differently labelled constructs.

Mappings can turn single observations, data series or vectors into a geographical representation across a sheet of paper. 'Geographic's on paper' employ more sophisticated data analysis techniques than simple typologies derived from two or more states of variables and can place empirical observations points (or aggregates of observation points) depending on the order of magnitude and the relations (or correlations) between the actual data vectors.

A conclusion of this note is that typologies soon are creating too large numbers of differentiated types if the underlying number of variables is growing beyond three. Thus, for systems based on more than three type-forming variables, mapping may be a better way of parsimony for presenting complex issues.

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Second Note: 'Publication bias' in the EJCCM Review Process during 2009–2013

Although in recent years numerous papers with interesting topics were submitted to EJCCM, quite a few papers were withdrawn by authors or rejected, because it was too difficult for authors, reviewers and editors to find common ground for a publication in EJCCM. We note some pattern of paper withdrawal by author or paper rejection, which may be worth reporting.

First a *set of major flaws* is worth mention:

- The title does not fit the paper.
- The context does not fit the title. Very often authors claim general validity, but research was undertaken in a single country or two country context.
- Keywords do not fit the paper: e.g., a keyword is hardly mentioned in a paper.

Second, in so called *quantitative papers and econometric studies* errors and mistakes abound. It is amazing that a pretty large group of authors have no adequate basic knowledge of econometrics. But let us begin with more simple major flaws:

- the numbering of variables is not consistent throughout a paper
- the chosen acronyms for variables are not self-explaining, and quite often acronyms are not consistently used throughout the paper
- the author does not offer any meaningful variable name, but only acronyms or variable numbers.

A widespread mistake is to take Cronbach alpha, factor loadings, or correlation coefficients as primary results. While these are important reliability or validity measures, authors forget to present a primary statistical description of data. In most questionnaires the items are constructs, which are believed to measure the importance or the degree of agreement with a construct, but in the majority of submissions authors do neither report nor analyse the degree of agreement, neither by items nor by aggregate constructs, often called factors or dimensions.

Many authors avoid developing their own set of items, but are collecting and combining different already tested sets of items from different authors. By doing that they tend to mix different scales, using e.g., 4-point, 5-point, 7-point Likert scales in the same questionnaire. By that they are creating significant size-effects and are getting biased estimates for beta-coefficients.

Many authors are creating undue discrete variables instead of appropriate binary variables, e.g., in yes-no cases using 1 for yes and 2 for no, or for gender variables using 1 for men and 2 for women. Such data sets are inappropriate and biased. In the first example it is implicitly assumed that 'no' has a double strong effect than 'yes'. In the second example it is assumed that the effect of women on a dependent variable is double the effect of men.

In all these cases binary variables would have to be created with 0 for no, and 1 for yes (e.g., man: no = 0, yes = 1; woman: no = 0, yes = 1] and appropriate panel estimation techniques have to be applied which can handle datasets consisting of normally distributed and not normally distributed vectors.

Third, a major issue is *fit of the paper with the EJCCM mission statement* and with the *cross-management and competence literature*. That applies most notably for submissions of qualitative and theoretical papers.

In recent years we had a few interesting paper submissions about *stereotyping*, but e.g., focussed on foreign stereotyping about a single country in an historical and mostly narrow foreign policy context, or focussed on stereotypes emerging in a small set of written text or cartoon. While reviewers urged the authors to pursue bilateral approaches or to deliver insights into stereotyping effects in team, management or business contexts, all authors did not feel in a position to deliver that.

We also had a submission with an interesting *linguistic theory* about the close links between practices, i.e., lived patterns of behaviour and contexts, and language development, delivering linguistic theoretical insights, why artificial languages like e.g., Esperanto, or old traditionally used languages, like e.g., Latin could not get anchored in a broader and more general community, but remain constrained to a small set of users or a specific community within which some link to day to day practice is maintained, as e.g., the use of Latin in the Catholic Church. While theoretically most interesting, they author withdrew the paper, because a link to the empirical and observation-based literature of linguistic issues in international management context could not be established, e.g., to inappropriate translation of management literature.

Another interesting set of issues came up with *comparative artefact analysis*, e.g., analysis of a specific set of business related texts, pictures, web-pages, or other visible signs, e.g., product advertisements, terms and types of pictures appearing on web-pages, job announcements etc.

In some cases there was even an adequate econometric analysis offered, e.g., Bayesian network analysis, however, a link to extant literature in the cross-cultural management or cross-cultural competence context could not be established by the authors.

For a little while we also got submissions about ‘missing values’ in specific theoretical or empirical settings, e.g., that a particular value from the Chinese context was not appropriately considered by Geert Hofstede, Shalom Schwartz, or the GLOBE project. A few authors were not aware of research into culturally determined patterns of behaviour (cultural standards) or research on artefacts, and based on Edgar Schein’s publications suggested that more research should be done on artefact analysis. To my mind the reviewers were kind enough to give a whole range of hints, indicating the problems with such kinds of submissions and offering guidance for future research.