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The philosophical and psychological status of facet theory’s mapping sentence as illustrated in a case study of workplace discrimination

Facet Theory Association
16th International Facet Theory Conference

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Purposes of the research

1. Explicate a mapping sentence within a purely philosophical understanding.

2. Discuss the differences between the philosophical (declarative mapping sentence) and the psychological (standard mapping sentence).

3. Demonstrate mapping sentence through application to the concept of discrimination in the workplace.
Basic definitions

• **Facet theory** is a method by which the components of a problem or the issue under investigation can be defined formally (Guttman, 1957).

• The definitional framework for formally defining a content universe is called a ‘**mapping sentence**’. The mapping sentence serves as a guide for formulating hypotheses, to create structured assumptions, to plan and collect observations, and to analyze data (Levy, 2005).
Philosophically, the mapping sentence is a structural ontology.

**Ontology** – “Ontology is the study and formal explication of a domain of content in terms of its more fundamental or basic categorial components as these may be understood at this fundamental level and as their meaning may be further revealed through consideration of more sub-ordinate, particular, or evident categorial entities” (Hackett, 2016, p. 2).
Philosophical understanding of mapping sentence

In application to any substantive area of research, a mapping sentence may also be seen as a mereological statement.

**Mereology** - “Mereology is the systematic and explicit investigation, analysis and resulting understanding of the relationships within a structured ontology, in terms of the part to part, part to whole, part to context, part to background, and part to observation range, relationships” (Hackett, 2016, p. 3).

A mapping sentence embodies the logical inter-relationship between its components (Hackett, 2016).
Mapping sentence of the theoretical content of Philosophical understanding of the mapping sentence

The content of this paper, when read by person (x) understands facet theory to

ontology
(facets)

embody a mapping sentence with: ([elements]) and with the structure
(background facets)
(range)

between these ontological components being in terms of the:

mereology
(part-to-part)
(part-to-whole)

range
(more)

relationships, and judges this to have: (to) hermeneutic consistency in relation
(less)

to the ontological domain.

From: Paul Hackett, 2016, p. 4.
Hermeneutic consistency refers to the ability to achieve a coherent explanation of an informational source.
The declarative mapping sentence was developed in Paul’s research over the last decade.

A declarative mapping is a comprehensive philosophical, qualitative and/or quantitative, depiction of a content universe. Qualitative means non-numerical, i.e., narrative, impressionistic, conceptual.

A declarative mapping may be transformed into a (standard) mapping sentence when a set of pertinent facets are specified, an element is selected from each facet and these elements are brought together in the form of a propositional sentence (Hackett, the declarative mapping sentence ...)
Why a declarative mapping sentence?

Provides a structure for qualitative and philosophical enquiries, mitigates against imprecise thinking:

- Enabling a clear research design that thoroughly and comprehensively addresses the research domain
- Allows research findings to be interpreted within the theoretical framework of their design
- Facilitates comparison with other qualitative/philosophical research that uses this approach
- Offers cumulative findings
- Provides greater possibility of hermeneutic consistency
# Comparison of attributes of the Declarative Mapping Sentence and the General Mapping Sentence

<table>
<thead>
<tr>
<th>Declarative Mapping Sentence</th>
<th>Standard Mapping Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerned with variables and concepts from a single content universe</td>
<td>Concerned with variables and concepts from a single content universe</td>
</tr>
<tr>
<td>Concerned with <strong>all possible variables</strong> in a content universe</td>
<td>Concerned with <strong>variables sampled</strong> from a content universe</td>
</tr>
<tr>
<td>Guides the <strong>categorization of all content</strong> and other variables from a multivariate content universe</td>
<td>Guides the <strong>stratified sampling of content</strong> variables from a multivariate content universe</td>
</tr>
<tr>
<td>May address <strong>any form of information</strong> that possesses a categorial structure</td>
<td>Is concerned with <strong>multivariate human experiences</strong> responses</td>
</tr>
<tr>
<td><strong>Mainly</strong> involves the <strong>analysis of qualitative and theoretical data</strong> but may involve quantitative data</td>
<td>Is concerned with the <strong>analysis of quantitative data</strong></td>
</tr>
<tr>
<td><strong>Facilitates the generation and analysis of primary data</strong> and the analysis of secondary data</td>
<td>Concerned mainly with the generation and analysis of primary data</td>
</tr>
</tbody>
</table>

From Paul M.W. Hackett *The Declarative Mapping Sentence*
Workplace discrimination

Discrimination in labor market involves the concept that personal characteristics of the worker (such as race, ethnic background and sex) that are unrelated to productivity, are also valued in market. (Arrow, 1973).
In the present demonstration we attempted to develop a framework of **Workplace discrimination**. Based on the literature we distinguished six basic facets to define the Workplace discrimination domain:

A - status
B - mode
C - source
D - focus
E - awareness
F - referent
Facet a- status

- Discrimination occurs “toward social minorities on the basis of their minority status membership” (Lindsey et al., p. 5). Specifically, discrimination could essentially take place against individuals who are a social minority in a certain organization but are not included in populations protected by law, for instance “stars” (a subgroup of high performers who contribute disproportionately to an organization’s output) (Rabenu & Chernyak-Hai, 2016). Therefore, we defined the first element: \textbf{a1: minority in organization}.

- Employee that works in a state or municipality covered by legislation that prohibits workplace discrimination (e.g. for gay employees), is an important factor whether he/she perceives and reports workplace discrimination (Ragins, & Cornwell, 2001). However, although 50 years have passed since the Civil Rights Act, employment discrimination still persists (Lindsey, King, McCausland, Jones, & Dunleavy, 2013) such as gender discrimination in wages and access to organizational power (Hultin, & Szulkin, 1999). Accordingly, we defined the second element: \textbf{a2: protected groups}.

- The classification of blue or white-collar discriminate between those two types of workers. Also older workers are discriminated (for example, differential rates of training incidence amongst older and younger workers, Urwin, 2006). Thus, we defined the third element: \textbf{a3: groups with limited power}.
Facet b- mode

- **Overt** discrimination, can be defined as “a clearly exercised form of unfair treatment with visible structural outcomes” (Van Laer & Janssens, 2011, p. 1205). Therefore, we defined the first element: \(b_1\): overt

- **Subtle discrimination** is defined as “negative or ambivalent demeanor or treatment enacted toward social minorities on the basis of their minority status membership that is not necessarily conscious and likely conveys ambiguous intent” (Jones, Peddie, Gilrane, King, & Gray, 2016, p. 1591). Accordingly, we defined the second element: \(b_2\): subtle
everyone plays a part in the process of subtle discrimination at work and, as a result, bears some responsibility in addressing and remediating it” (Jones, 2017, p.1). Thus, we defined the elements: c1: employees; c2: colleagues; c3: employers
Facet d-focus

Intentionality means the extent to which the discrimination is intentional. “…there are various constructs in the literature... that reflect ...intentional, and unintentional manifestations of discrimination“ (Jones, 2017, p.7)

Therefore we defined the elements:

d1-intentionaly- d2-unintentionaly
Facet e- awareness

Since the discrimination is sometimes subtle, it is difficult to be attributed as discrimination. The target is not always aware that he/she has been discriminated. For example, Afro-Americans were not primed to attribute everyday mistreatment to their race (Deitch, Barsky, Butz, Chan, Brief, & Bradley, 2003). Therefore we defined the elements:

e1-aware; e2-unaware
Facet f- referent

The discrimination exists throughout the employment cycle (attraction, selection, inclusion, and retention phases) (Lindsey et al., 2013). Also, there is considerable evidence that supervisors discriminate against some employees by giving them undeservedly low performance appraisals (Cappelli, & Tavis, 2016). For instance, the evaluator tends to give higher scores to those perceived as similar to him, such as race (see: Kraiger & Ford, 1985; Landy & Farr, 1980). Therefore, we defined the first element: **f1: Job related resources**

Damage to the worker's resources (budget, information, etc.) may ultimately harm functioning. For example, stars are targets of behaviors such as avoidance (Exline, Zell, & Lobel, 2013) and “out-of-the-loop” experiences (e.g., intentionally excluded from information known to other coworkers; Jones, Carter-Sowell, Kelly, & Williams, 2009) which impact star’s task performance over a period of time (Garg, 2016). Accordingly, we defined the second element: **f2: actual performance**

Discrimination stems from people’s natural need to belong and, on one hand, to prefer those who are similar to them and, on the other hand, to be separate from those unlike them (Rabenu & Chernyac-Hai, 2016). Those employees who are perceived as “out-group” members, are targets of unfavorable bias, and are generally discriminated against. Out-groups members’ discrimination is said to be part of social identity processes (so called “in-group favoritism”) (Rabenu & Chernyac-Hai, 2016). Thus, we defined the third element: **f3: interpersonal relationship**

There are negative intrapersonal consequences of subtle discrimination (Jones, Peddie, et al., 2016), for example impaired well-being (Deitch, et al., 2003). Therefore, we defined the last element: **f4: intrapersonal**
Mapping sentence- workplace discrimination

Person (x), associated with their being a member of a,

A-Status
a1 minority in the organization
a2 protected group
a3 Groups with limited power that are not protected by law (e.g. blue-collar workers)

B-Mode
has experienced unjustified negative behavior by their
b1 overt to
b2 subtle

C-Source
enacted

D-focus

d1 intentionally

d2 unintentionally

E-awareness
of which they are

e1 aware to

e2 unaware

F-referent
that may harm their

opportunities, to an extent that is

R-Range

Severely detrimental
To
Negligibly detrimental