From ‘Glass Ceilings’ to ‘Firewalls’ — Different Metaphors for Describing Discrimination

Regine Bendl* and Angelika Schmidt

The glass ceiling metaphor, a framework of the 1980s, constructs discrimination processes in a particular way in particular organizational frameworks. Using a procedure of metaphor evaluation, we examine the glass ceiling metaphor to determine whether it continues to be useful in contemporary social and economic contexts. We analyse the recently introduced firewall metaphor for its usefulness for constructing discriminatory processes in organizations, which remain hidden in the glass ceiling metaphor. Our analysis suggests that both metaphors are useful for constructing diverse aspects of discrimination. In the contemporary context, however, firewalls may have greater utility due to their complexity, fluidity, heterogeneity and possibilities for permeability.

Keywords: gender, career, organizational paradigm, metaphor evaluation, heuristic value

Introduction

The metaphor of the glass ceiling (Federal Glass Ceiling Commission, 1987) has been applied for more than two decades to explore organizational discriminative processes inhibiting the advancement of women and other discriminated groups into higher management jobs. According to Murrell and Hayes James (2001, p. 244):

most well-known illustrations of discrimination in the workplace are captured by the concept of glass ceiling, which defines the invisible barrier that prevents many women and minorities from advancing into senior and executive management positions within organizations.
In other words, the glass ceiling metaphor is considered to be a device for capturing and explaining the symbolic dimensions of discrimination against women and other groups in organizations (for example, Altman et al., 2005; Belle et al., 2001; Cortina, 2008; Davidson and Cooper, 1992; Dreher, 2003; Insch et al., 2008; Morrison et al., 1987; Ryan and Haslam, 2005; Stroh et al., 2004). However, Meyerson and Fletcher (2000, p. 136) believe that it is time for new metaphors to capture the subtle, systemic forms of discrimination that still linger. It’s not the ceiling that’s holding women back; it’s the whole structure of the organizations in which we work: the foundation, the beams, the walls, the very air. The barriers to advancement are not just above women, they are all around them.

Also Altman et al. (2005, p. 76) state that current conceptualizations of the glass ceiling as an invisible, single barrier fail to capture the complexity of the situation.

In fact, the social, demographic, legal and economic contexts have changed since the 1980s. Drivers of change like globalization, virtualization, demographic developments and value changes have led to new forms of organizations and organizing as well as to new forms of private and occupational life concepts of individuals (e.g., Hooker et al., 2007; Ruigrok et al., 1999; Sennett, 1998). Also shifts in the meaning and understanding of career and advancement have occurred. The upcoming forms of career have been given partly flashy labels such as boundaryless (Arthur and Rousseau, 1996; Ellig and Thatchenkery, 1996; Nicholson, 1996), protean (Hall, 1996), nomad (Cadin et al., 2000), chaotic (Peterson and Anand, 2002; see also Gunz et al., 2002), spiral (Brousseau et al., 1996), post-corporate (Peiperl and Baruch, 1997) or chronically flexible (Iellatchitch et al., 2003). These forms have occurred, since stable career structures, which represent a modern understanding of organizations (specialization, bureaucracy, hierarchy, inflexibility, see, Clegg, 1992; Willmott, 1993) and produce and stabilize hierarchies, fit into neither today’s rapidly spreading horizontal and co-operation-oriented organizational relationships, nor the current trend for extremely fast job rotation. Flexibility prevails in a neoliberal and postmodern way of arranging organizations (Alvesson and Billing, 1997; Clegg, 1992; Cummings, 1996; Knights, 1997). Although both perspectives are present in today’s organizations, the trend towards postmodern organizations has triggered a redefinition of career and advancement and professional careers have become more diverse. The traditional model of a lifetime career starting with specific training in the early stages of one’s career and leading to a quite stable career path in the same profession or area of expertise, sometimes even in the same (kind of) organization for the rest of one’s life is currently being replaced by more flexible types of careers that may lead individuals to different professions in or outside different organizations in different places all over the world.
Protean or patchwork careers are just two of many examples (Hall and Mirvis, 1996).

Despite all these changes, women are still disadvantaged in the workplace and underrepresented in leadership positions (e.g., Adler, 1993; Catalyst, 2009; Davidson and Bruke, 2000; Ryan and Haslam, 2005, 2007), whereas men continue to advance into management positions. Even though recent research reveals that women are beginning to break through the glass ceiling (e.g. Dreher, 2003; Ryan and Haslam, 2005; Van Vianen and Fischer, 2002), evidence suggests that, once women attain these leadership roles, their performance is often placed under close scrutiny (Ryan and Haslam, 2005).

However, apart from all these changes, the glass ceiling has been reinforced as a metaphor for describing discrimination in organizations over the years, but its heuristic value as a metaphor for describing discrimination has been explored only marginally (see Belle et al., 2001; Catalyst, 1994, 2000; Morrison et al., 1987). Research has only indirectly referred to the metaphorical value of the glass ceiling and has not been a comprehensive account of the mechanisms and validity of the concept as a metaphor for the subject that it supposedly illuminates. Adhering to the perspective that metaphors represent ‘conceptual windows which help the organizational analyst gain better access to rich avenues of meaning’ (Chia, 1996, p. 128) and as we assume that the glass ceiling metaphor also constructs discrimination processes against women and other groups in a particular way within particular modern organizational frameworks, in this article we examine to what extent and in what respect the glass ceiling metaphor still offers useful insights for describing and explaining discriminatory processes against women and other groups in contemporary postmodern organizations (e.g. organizations as networks or virtual organizations: Daft, 2001; Sydow, 1999). We therefore pose the question: what additional perspectives does the recently introduced firewall metaphor offer for understanding the discriminatory processes in organizations that remain hidden by the glass ceiling metaphor?

At this point, readers might ask ‘what problem does an evaluation of a metaphor solve?’ or ‘how does the introduction of a new metaphor help to overcome actual discrimination against women in organizations, since the figures have not changed considerably over the years even though women are better educated?’ (for example, Davidson and Cooper, 1992; Dreher, 2003; Morrison et al., 1987; Ryan and Haslam, 2005). We want to answer those critics by referring to Morgan (1996) and Weick (1997), who pointed out that certain metaphors play a heuristic role in organization theory by opening up new ways and perspectives for understanding and enquiry. By drawing on a poststructuralist perspective that considers reality to be reproduced through language, we argue that our linguistic-oriented examination of the value of a well-established and a comparatively new metaphor offers a new impetus to
the discussion on the (re)production of discrimination in organizations by revealing as yet undiscovered features and dynamics of such discrimination. Inkson (2006, p. 50) pointed out that metaphors are a powerful tool of rhetoric and we need, in evaluating metaphors, to go beyond consideration of concrete testable propositions. This is especially true if we consider that metaphors used in science work by evoking associations among ‘specially constructed systems of implications’ and the metaphor’s suitability for scientific purposes comes precisely from this ‘ability to be suggestive of new sets of implications, new hypotheses, and therefore new observations’ (Cornelissen, 2002, p. 260).

In order to demonstrate whether the glass ceiling metaphor captures the recent shifts in organizational and career paradigms and what additional perspectives the firewall metaphor captures, we apply Cornelissen’s (2004, 2005, 2006a, 2006b) model of domain interaction for evaluating the heuristic status of the two metaphors. To begin with, we describe his model of metaphor evaluation. Next, we apply this domain-interaction model to the glass ceiling metaphor and then we proceed to the firewall metaphor in order to examine its heuristic value. Finally, we discuss implications of our metaphor evaluation on research and practice.

Metaphor and organization theory: models of metaphor application

Since the ground-breaking publication of Gereth Morgan’s Images of Organization (1996), the debate in organization studies has focused on the value and potential of metaphor for explaining organizational phenomena (for example, Black, 1962, 1979; Bono, 1990; Cornelissen, 2002, 2004, 2005; Davidson, 1978; Hesse, 1995; Hunt and Menon, 1995; Inns, 2002; Montuschi, 1995; Morgan, 1980; Oswick et al., 2002; Tourangeau and Sternberg, 1981; Tsoukas, 1991, 1993 and many others). Metaphor is often merely regarded as a device for embellishing discourse but its significance is much greater. The use of a metaphor implies a way of thinking and a way of seeing that determines how we basically understand our world (Morgan, 1996, p. 4). A metaphor uses implicit and explicit assertions that A is (or is like) B. In other words, ‘metaphor is principally a way of conceiving of one thing in terms of another, and its primary function is understanding’ (Lakoff and Johnson, 1980, p. 36). Therefore, a metaphor provides fresh and previously non-existent insights into reality of organizational life (Weick, 1997).

There have been several models for examining the heuristic value of metaphors. In contrast to those models of metaphor evaluation, which refer only to the similarities between the domains of the metaphor (the similarity model [Schön, 1965], the transformational model [Tsoukas 1991, 1993], the comparison model [Katz, 1992; Shen, 1997] and the interaction model [Black, 1962,
1979], Cornelissen (2004, 2005) has introduced the domain-interaction model, which embraces the analogies as well as the differences between the two terms or domains in question. As an ‘informed, disciplined, and guided process’ (Cornelissen, 2004, p. 706), two stages focus on assessing whether a metaphor has any heuristic value for the concept that it is supposed to capture. In the first place, the ‘aspectual similarity’ between the two domains has to be set up by applying three constitutive principles (the development of a generic structure, the development and elaboration of the blend and the emergent meaning structure). Then, a matrix of governing rules, which refers to the degree of similarity and dissimilarity between the transferred words, determines the heuristic potential of the metaphor.

The domain-interaction model: constitutive principles of metaphor

Cornelissen (2004) assumes that there is an initial inherent structure between the domains conjoined in a metaphor:

In metaphor, concepts in different domains are seen as occupying analogous positions (that is having analogous features) within their respective domains, which, being often specific to a domain, must be transformed (that is seen as a new way) if we are to find correspondences across domains. In other words, the correspondence or similarity that is effectively constructed involves the aspectual shape of the concepts within their domains. (Cornelissen, 2004, p. 710)

This aspectual similarity refers to the fact that the target domain and the source domain are both characterized by a specific notion. In both domains activities are carried out and statements are made that rely on the same notions that represent the basis for the evaluation of the metaphor. Table 1 presents Cornelissen’s three constitutive principles that are the basis for this evaluation. After the development of a generic structure (step 1) and the elaboration of a blend (step 2) a new emergent structure (step 3) has to be set up that is translated back to the original concepts.

If this new perspective is indeed insightful or whether the metaphor has the heuristic value of providing theorists, researchers and practitioners with a fresh and previously non-existent understanding is based on the following rules governing metaphors (Cornelissen, 2004, p. 713).

Domain-interaction model: the governing rules of the metaphor

As a metaphor consists of a similarity and a difference between the target and the vehicle, Alvesson (1993, p. 116) points out that a good metaphor has the right mix of similarity and difference between the transferred word and the focal one. Too much or too little similarity means that the point may not be understood and a successful metaphor will not have been created. The fit,
aptness or heuristic value of a metaphor depends on the conceived similarity and dissimilarity between concepts and their respective domains. As Table 2 demonstrates, two dimensions (the exactness of the aspectual similarity between tenor and vehicle and the distance between the domains from which the concepts are drawn) are the basis for the governing rules that finally determine the heuristic value of the metaphor (Cornelissen, 2004, p. 717).

The first dimension refers to the exactness of the aspectual similarity between the conjoined concepts (or the aptness or meaningfulness of a metaphor) and the second dimension represents the heuristic value of a metaphor indicated by the distance between the domains to which the conjoined concepts refer. Based on these two dimensions for evaluating the value of a metaphor the following two governing rules have to be applied (Cornelissen, 2004, p. 710, 2005, p. 758).

### Table 1: Three constitutive principles of metaphor

<table>
<thead>
<tr>
<th>Development of a generic structure</th>
</tr>
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<tbody>
<tr>
<td>The terms of the metaphor are encoded, the relevant domains are inferred, the parallel structures are found and the correspondences between these structures are first mapped in a generic space. Metaphor processing works by considering the vehicle and topic on their (constructed) structural similarities, then making an inference about instance-specific relationships from this. Therefore, metaphor goes beyond analogy, which is about transferring only that information which is associated with the common structure of the domains conjoined. In fact, the structure of the concepts in their respective domains and their aspectual shape and similarity provide the organizing frame for the further transfer and projection of specific information from the input domain to the metaphoric domain.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Development and elaboration of the blend</th>
</tr>
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<tbody>
<tr>
<td>The constructed generic structure is transferred to a virtual ‘blended space’ or ‘blend’. In this blend there is a new meaning which is neither the tenor nor the vehicle. Thus, the emergent meaning cannot be reduced (and therefore explained) by referring to its constituent parts. Yet it is conceptually connected to them and as such enables us to consider the way in which the meaning and image of the blend translate back to them and provide an insightful perspective on the target subject.</td>
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<table>
<thead>
<tr>
<th>Emergent meaning structure</th>
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</thead>
<tbody>
<tr>
<td>The emergent meaning structure that emerges from the blend and is linked to the input concepts forces us to see a particular target subject and its respective domain in a new light. This means the image and meaning that in turn come from the blend that makes relations available that do not exist in the separate tenor and vehicle concepts. The emergent meaning structure contains a more specific structure not provided by the tenor or vehicle.</td>
</tr>
</tbody>
</table>

2004, p. 719): (a) it is a necessary, though not sufficient, condition that in a metaphor the concepts are related by domains that are in the first instance seen to be distant from one another; and (b) it is a necessary, though not sufficient, condition that a correspondence can be constructed between the two concepts conjoined in the metaphor.

However, Cornelissen (2004, p. 720) also points out that the notions of exactness and distance are not only somewhat contextual and functional but are also discretionary because they depend on the relative perceptions of the comprehenders and their prior knowledge background and cognitive abilities.

In this article, we apply the domain-interaction model since it offers a more extensive evaluation of a metaphor than the aforementioned models that focus solely on the similarity between the domains. Thus, for our purposes the domain-interaction model is the best suited model for shedding light on the similarities and dissimilarities (distance) of the domains. This is important because the glass ceiling metaphor has gained a prominent status in the literature on women in or into management and the introduction of a new metaphor represents a far-reaching step.

Table 2: Types of metaphor in organization theory

<table>
<thead>
<tr>
<th>Dimension 1: Exactness of correspondence concepts</th>
<th>Dimension 2: Distance of domains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High/exact</strong></td>
<td><strong>Low/inexact</strong></td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Type 1</td>
<td>Type 2</td>
</tr>
<tr>
<td>Exact correspondence between the concepts</td>
<td>Concepts from domains that are</td>
</tr>
<tr>
<td>Low distance</td>
<td>close</td>
</tr>
<tr>
<td>Low heuristic value due to the</td>
<td>No or less aspectual relationship</td>
</tr>
<tr>
<td>its inability to offer any new</td>
<td>or correspondence between them</td>
</tr>
<tr>
<td>and truly revealing insights</td>
<td>Produces weak and nonsensical</td>
</tr>
<tr>
<td>High</td>
<td>Imagery</td>
</tr>
<tr>
<td>Type 3</td>
<td>Type 4</td>
</tr>
<tr>
<td>Distance of the domains</td>
<td>Distance domains — hardly any</td>
</tr>
<tr>
<td>Provides conceptual advances</td>
<td>aspectual similarity between the</td>
</tr>
<tr>
<td>and clarifications</td>
<td>concepts and the figure in them</td>
</tr>
<tr>
<td>New insights and hence a high heuristic value</td>
<td>Inexact concepts</td>
</tr>
<tr>
<td></td>
<td>Nonsensical</td>
</tr>
</tbody>
</table>

Structural aspects: the evaluation of the ‘glass ceiling’ metaphor

Applying Cornelissen’s (2004, 2005) domain-interaction model we find two metaphorical domains in the glass ceiling metaphor: the term, discrimination, as the tenor or target concept and the term, glass ceiling, as vehicle or source concept. Table 3 presents the meaning of these terms given in the New Oxford Dictionary, and the suggested generic space that can be derived from the respective domains.

As the aspectual similarity, which combines the tenor and vehicle and shapes the generic structure of the metaphor, we suggest the term, structure (step 1: the development of a generic structure), since we can find analogies in both domains that refer to structure. The term, structure, is defined as

the arrangement of and relations between the parts or elements of something complex; the organization of society or other group and the relations between its members, determining its working; a building or other object constructed from several parts; the quality of being organized. (New Oxford Dictionary, 1998, p. 1844)

The term, discrimination, on the one hand, pinpoints the ‘relation between parts’ by ‘the unjust or prejudicial treatment of different categories’ and ‘the difference between one thing and another: discrimination between right and wrong’ and ‘to distinguish between different stimuli’ — all notions that implicitly denote structure. The term, glass ceiling, on the other hand, refers to structure (‘building or other object constructed from several parts’) by ‘hard brittle substance’ in the definition of the term, glass, and by ‘the upper interior surface or a room or other similar compartment’ in the definition of the term, ceiling. In other words, the communality of the two domains ‘discrimination’ and ‘glass ceiling’, or the generic space of the metaphor, draws attention to the fact that individuals, groups or elements are constructed or arranged according to a given, in this case, discriminatory structure. This goes beyond the analogy of each domain, since neither discrimination nor glass ceiling mention the term, structure, directly in their definition.

This form of arrangement or structure is specified in the blend (step 2: development and elaboration of the blend), which comprises elements of the input spaces. The organizing structure which the metaphor evokes can be described as ‘static, transparent and, thus, invisible, but firm and touchable spaces’, with, however, no reference to time. As this blend represents a new meaning, which is not a composition of meanings that can be found in either the tenor or vehicle concept, it describes discrimination as a static phenomenon taking place in transparent but firm and tangible spaces. The Oxford Dictionary (1998, p. 778) defines the term, glass ceiling, as an ‘unacknowledged barrier to advancement’ while our blend denotes this barrier to
Table 3: Glass ceiling metaphor

<table>
<thead>
<tr>
<th>Discrimination</th>
<th>Glass Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary subject (old)</td>
<td>Secondary subject (new)</td>
</tr>
<tr>
<td>Tenor</td>
<td>Vehicle</td>
</tr>
<tr>
<td>DISCRIMINATION is noun:</td>
<td>GLASS CEILING (noun) (usu. in sing.):</td>
</tr>
<tr>
<td>The unjust or prejudicial treatment of different categories of people or things, especially on the grounds of race, age, sex, victims of racial discrimination/discrimination against homosexuals.</td>
<td>an unacknowledged barrier to advancement in a profession, especially affecting women and members of minorities (Oxford Dictionary, 1998, p. 778).</td>
</tr>
<tr>
<td>1 recognition and understanding of the difference between one thing and another: discrimination between right and wrong (count noun) young children have difficulties with making fine discriminations the ability to discern what is of high quality; good judgement or taste; those who could afford to buy showed little taste or discrimination psychology the ability to distinguish between different stimuli (as modifier) discrimination learning</td>
<td>GLASS: (noun) (mass noun) a hard brittle substance, typically transparent or translucent, made by fusing sand with soda, lime and sometimes other ingredients and cooling rapidly. It is used to make windows, drinking containers and other articles any similar substance which has solidified from a molten state without crystallizing</td>
</tr>
<tr>
<td>2 recognition and understanding of the difference between one thing and another: discrimination between right and wrong (count noun) young children have difficulties with making fine discriminations the ability to discern what is of high quality; good judgement or taste; those who could afford to buy showed little taste or discrimination psychology the ability to distinguish between different stimuli (as modifier) discrimination learning</td>
<td>a thing made from, or partly from glass, in particular a container to drink from: a beer glass (mass noun) glassware (mass noun) green houses or cold frames considered chiefly Br. a mirror dated short for a weather glass archaic an hourglass</td>
</tr>
<tr>
<td>3 recognition and understanding of the difference between one thing and another: discrimination between right and wrong (count noun) young children have difficulties with making fine discriminations the ability to discern what is of high quality; good judgement or taste; those who could afford to buy showed little taste or discrimination psychology the ability to distinguish between different stimuli (as modifier) discrimination learning</td>
<td>a lens, or an optical instrument containing a lens or lenses, in particular a monocle or a magnifying lens</td>
</tr>
<tr>
<td>Origin: Old English glaes, of German Origin; related to Dutch glas and German Glas.</td>
<td>Origin: Old English glaes, of German Origin; related to Dutch glas and German Glas.</td>
</tr>
<tr>
<td>1 the upper interior surface of a room or other similar compartment, figurative: an upper limit, typically one set on prices, wages, or expenditure, the maximum altitude that a particular aircraft can reach the altitude of a base of a cloud layer</td>
<td>the inside planking of a ship’s bottom and sides</td>
</tr>
<tr>
<td>2 the inside planking of a ship’s bottom and sides</td>
<td>Origin: Middle English (denoting the action of lining the interior of a room with plaster or panelling): from CEIL+ING.</td>
</tr>
</tbody>
</table>

Aspectual similarity: structure

Blend:
- invisible spaces, but not virtual
- stable boundaries — static (container, wall, ceiling)
- transparent (Eyring and Stead, 1998)
- firm (Jackson, 2001)
- touchable
- no reference to gender at all
- gender neutral (glass as a material) (Ellison, 2001)
- connection to real bodies, since focus on materiality (glass) — representation depending on contexts which are quite stable
- no reference to the person who build it
- violent act to crack it (Wilson, 2002)
- upper limit
- boundaries on all sides (glass walls) (Ohlendieck, 2003)
- no reference to time, but basically only slowly changeable in terms of time

Emergent meaning Structure:
- no reference to the person who built it
- violent act to crack it (Wilson, 2002)
- upper limit
- boundaries on all sides (glass walls) (Ohlendieck, 2003)
- no reference to time, but basically only slowly changeable in terms of time
advancement as a transparent boundary which seems to be firm or static and in terms of metaphorical space also touchable. If we relate it to the term, glass, the boundary is also tangible, but mostly invisible. Glass, as a hard but also a fragile medium, provides an invisible barrier (Gabriel, 2005, p. 22). Although it allows the insider to see outside and the outsider to see inside, the space is limited by glass walls and a glass ceiling. In other words, a ‘glass box’ (Ohlendieck, 2003) hinders different groups from organizational advancement. Since these boundaries are transparent, the individuals are able to see the next management level but the invisible hurdles prevent access to it. Many researchers have already referred to this blend (see, for example, Ellison, 2001; Ohlendieck, 2003; Wilson, 2002).

As the emergent meaning structure (step 3: emergent meaning structure) is very efficient for the purpose of transferring the intended inferences back to the target input. It forces us to see the target concept in a new light if the elaborated blend is not merely compositional. In other words, the glass ceiling metaphor cannot be reduced to or explained by referring to its initial domains (‘discrimination’ and ‘glass ceiling’). Since the metaphor works with materiality (glass), we assume that it refers to material bodies (sex, race — see the definition of discrimination) that can be considered as being able to be changed only with immense effort, as some examples have shown (e.g., transgender individuals, changing skin colour — e.g. the singer Michael Jackson, the French performance artist Orlan in the ‘Reincarnation of St Orlan’ (see Thanem, 2006).

Interestingly, the glass ceiling metaphor, however, does not refer to the individuals who built these glass ceilings or glass walls. There is no indication of the builders or maintainers either in the target concept nor in the vehicle concept, thus implying that people were not responsible for creating boundaries in order to define and defend their interests and the boundaries came to be on their own.

Furthermore, the glass ceiling metaphor fits with Schein’s (1971) ‘space of career’, since it focuses on the person in a special limited ‘career space’. The dark shaded areas in Figure 1 represent the glass ceiling and the glass walls, which construct a glass box and must be transgressed in order advance a career up the hierarchy.

However, since neither aspectual similarity, the blend nor the emergent meaning structure refer to time or process, this metaphor triggers the understanding of discrimination as a static or stable notion which cannot be changed but only displaced.

If the glass ceiling metaphor is indeed meaningful and insightful this is only indicated by its heuristic value which, according to Cornelissen (2004, 2005, 2006a, 2006b), is based upon the governing rules mentioned earlier. The application of the two governing rules, which refer to the exactness of the aspectual similarity between the tenor and vehicle concepts as well as to the distance between the domains from which the concepts are drawn,
provides the following results. As far as the aptness or, in other words, relevance, fitness and suitability of metaphor is concerned, which is indicated by the conceptual similarity between the two domains, we conclude there is a high degree of similarity between ‘discrimination’ as the target concept and ‘glass ceiling’ as the source concept. In this respect, we are in line with the manifold literature on the glass ceiling phenomenon (e.g., Altman et al., 2005; Dreher, 2003; Stroh et al., 2004). Accordingly, the metaphor has a high level of aptness. The distance between the domains, which correlates with the heuristic value of the metaphor, can also be concluded to be very high: the definition of discrimination refers to behavioural, psychological and electronic aspects, whereas the term, glass ceiling, indicates substance, materiality, architecture and physical notions (see Table 3). With respect to the four types of metaphor in Table 2 we can therefore conclude that the glass ceiling metaphor refers to Type 3. This means that the glass ceiling metaphor has a high heuristic value and offers deep insights into discrimination. It also provides conceptual advances and clarifications, as has already been demonstrated in the literature on the glass ceiling metaphor; (for example, Davidson and Cooper, 1992; Dreher, 2003; Morrison et al., 1987; Stroh et al., 2004; Ryan and Haslam, 2005).

However, our process of metaphor evaluation raises two questions. In what (organizational) contexts does the glass ceiling metaphor offer insights, if ‘structure’ is the generic space that forms the basis for this metaphor? Where are the boundaries or limits of this metaphor? Firstly, as far as the generic space, structure, is concerned, we can see that the metaphor corresponds with a hierarchical orientation and highly static notions of career in traditional modern organizations as previously described (e.g. Ellig and Thatchenkery, 1996). Secondly, in terms of boundaries, we also want to point out that neither of the two definitions, discrimination or glass ceiling, refer to

Figure 1: The glass ceiling metaphor according to Schein
Source: derived from Schein, 1971
time. As the static glass box (Ohlendieck, 2003) suggests, discrimination is constructed as a given as well as an unchangeable fact. This, however, would imply that any attempts to overcome discriminatory situations do not make any sense, since, as the metaphor indicates, discrimination is linked to static, invisible and unmovable frontiers.

As far as processual aspects are concerned, they occur only in the definition of the term, discrimination (e.g., ‘treatment’, ‘recognition and understanding’ as well as ‘discrimination learning’). The definition of the term, glass ceiling, however, lacks dynamic or process aspects. Thus, if we had chosen the term, process, as aspectual similarity for the examination of the heuristic value of the glass ceiling metaphor the result would have been that the metaphor is not apt. According to the governing rules, even though there would have been a high distance between the domains, the level of exactness of the correspondence would have been low. Therefore, the glass ceiling metaphor with a generic space in terms of process would produce weak and nonsensical imagery (see Type 2 in Table 2). Consequently, we deduce that the glass ceiling metaphor does not provide a reference to processual aspects of discrimination but offers the possibility of describing discrimination from a structural perspective.

Next, we want to draw attention to states of being (stable reality) and becoming (fluid reality) (see e.g., Bakken and Hernes, 2005; Chia, 1996). In this respect, the glass ceiling metaphor refers to ‘being’, which emphasizes the primacy of fact over the process. Therefore, the glass ceiling metaphor provides a picture of discrimination as static and discrete but also as to some extent unidentifiable. With no reference to processes of discrimination and change, the glass ceiling metaphor blanks out contemporary developments in organizational research and practice as well as neglects discrimination as process that fluctuates contextually and is based on fluid phenomena and images (e.g., Linstead and Brewis, 2004).

Processual aspects: evaluation of the ‘firewall’ metaphor

Recent texts (Bendl and Schmidt, 2003, 2004a and 2004b; Franke and Simöl, 2002) have proposed the metaphor of the ‘firewall’ for describing discrimination against women and other minority groups. The term, firewall, does not only have a literal meaning, as presented in Table 4, but in computer science it is also used as a technical term for preventing outsiders from entering the system. The term, firewall, as considered from the technological point of view, was originally defined as

software that sits between you and the outside world. A firewall is configured on a need to know basis, i.e., all incoming connections are refused unless you explicitly enable them. Firewall software is usually also small
### Table 4: Glass ceiling metaphor

<table>
<thead>
<tr>
<th>Primary subject</th>
<th>Secondary subject</th>
<th>Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DISCRIMINATION</strong> is noun:</td>
<td><strong>FIREWALL</strong> The term, firewall, refers to noun:</td>
<td><strong>virtual spaces</strong> (Franke and Simöl, 2002)</td>
</tr>
<tr>
<td>1 the unjust or prejudicial treatment of different categories of people or things, especially on the grounds of race, age sex; victims of racial discrimination/</td>
<td>(New Oxford Dictionary, 1998, p. 690):</td>
<td><strong>dynamic in terms of space</strong></td>
</tr>
<tr>
<td>discrimination against homosexuals</td>
<td>1 a wall or partition designed to inhibit or prevent from spread of fire</td>
<td><strong>invisible</strong> (Franke and Simöl, 2002)</td>
</tr>
<tr>
<td>2 recognition and understanding of the difference between one thing and another: discrimination between right and wrong</td>
<td>count noun</td>
<td><strong>untouchable</strong></td>
</tr>
<tr>
<td>(count noun)</td>
<td>count noun a collection of fuel, especially coal or wood, burnt in a controlled way to provide heat or a means for cooking: we had a bath in a tin tub by the fire</td>
<td><strong>flexible</strong></td>
</tr>
<tr>
<td>young children have difficulties with making fine discriminations the ability to discern what is of high quality; good judgement or taste; those who could afford to buy</td>
<td>count noun Brit short for ELECTRIC FIRE OR GAS FIRE</td>
<td><strong>no reference to time, but basically quickly to be changed in term of time</strong></td>
</tr>
<tr>
<td>showed little taste or discrimination</td>
<td>count noun a burning sensation in the body: the whisky lit a fire in the back of his throat</td>
<td>unclear boundaries because of flexibility (Bendl and Schmidt, 2004a)</td>
</tr>
<tr>
<td>psychology the ability to distinguish between different stimuli; (as modifier) discrimination learning</td>
<td>count noun</td>
<td><strong>not gender neutral (codes are not applied gender neutral)</strong></td>
</tr>
<tr>
<td>3 Electronics: the selection of a signal having a required characteristic, such as frequency or amplitude, by means of a discriminator which rejects all unwanted signals (New Oxford Dictionary, 1998, p. 528)</td>
<td>Learning</td>
<td>connection to real bodies, because focus on materiality (fire), however disembodied through codes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>virtual spaces representation depending on contexts which change quickly reference to the person who built it, (gatekeeper, administer of the firewall (Bendl and Schmidt, 2003)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-physical violent act to crack it open and closed at the same time moving</td>
</tr>
</tbody>
</table>

![Diagram of Generic Space = Process](image-url)

- **Blend**
- **Emergent meaning structure**

**aspectual similarity: process**
and carefully written, so that the incidence of security loopholes in the software is vastly lower than a complex computer operating system that has to do many other things as well as guard the door. [BT Net E1 lines, n.d.]

Like the glass ceiling metaphor, the firewall metaphor refers to a wall. The *New Oxford Dictionary* (1998, p. 690) defines a wall as ‘a continuous vertical brick or stone structure that encloses and divides an area of land, a side of a building or room, typically forming a part of the building’s structure’, ‘a thing perceived as a protective or restrictive barrier’. However, there is one main difference: in information technology the term, firewall, represents a virtual wall, whereas the glass ceiling, even if it is transparent, can, literally speaking, be touched. The firewall protects a ‘virtual intangible space from inside’ and denies access to the outsiders, whom the insiders regard as not belonging to the system. Here, in terms of access, the question immediately arises: who defines, in whose interests, who may be considered to belong to the system or not. Or, in other words, which space is safeguarded by whom for whose interests?

The term, firewall, is a ‘part of a computer system or network which is designed to block unauthorized access while permitting outward communication’ (*New Oxford Dictionary*, 1998, p. 690). Who is allowed to enter the system is defined by those who manage or administer the firewall (e.g., the ‘gatekeepers’, ‘firewall administrators’). In order to apply Cornelissen’s domain-interaction model in the same way as for the glass ceiling metaphor, Table 4 presents the original meaning of the term, discrimination as tenor or target concept and the term, firewall, as vehicle or source concept according to the *New Oxford Dictionary*. Table 4 also suggests the aspectual similarity between tenor and target and it shows the generic space of the firewall metaphor.

By following Cornelissen’s model again, we suggest the term, process, for describing aspectual similarity between the terms, discrimination and firewall, (step 1: development of a generic structure): as this term is defined among others as

a series of actions or steps taken in order to achieve a particular end; a natural or involuntary series of changes; a systematic series of mechanized or chemical operations that are performed in order to produce or manufacture something. (*New Oxford Dictionary*, 1998, p. 1477)

we find processual aspects in both the tenor and the vehicle. In the tenor the processual notions can be considered as being represented on the one hand by the terms, race, age and sex. Obviously, there is no doubt that age changes over time but, as already pointed out, sex and skin colour can be changed as well, although it takes greater effort. On the other hand, discrimination is linked with ‘recognition and understanding’, ‘stimuli’ and ‘learning’ — terms that signal progression, evolution and the capacity to change. The vehicle
‘firewall’ conveys operation and thus, process in different settings, which implies a course of action and movement with different effects: ‘spread of fire’, ‘combustion or burning’, ‘a destructive burning’, ‘to light a fire’, ‘the shooting of projectiles from weapons’ and ‘a line of defenders forming a barrier’. Altogether, these notions show that process-orientation as action represents the generic structure of the firewall metaphor.

As far as the elaboration of the blend is concerned (step 2), it involves an image of discrimination as ‘virtual flexible spaces’ that cannot be touched. The blend of virtual flexible spaces refers to the tenor and the target, since both terms also cover technical aspects (discrimination: ‘the selection of a signal has a required characteristic, such as frequency of amplitude, by means of a discriminator which rejects all unwanted signals’; firewall: ‘a part of a computer system or network which is designed to block unauthorized access while permitting outward communication’). Both concepts, discrimination and firewall, also hint at a discriminator who administers this ‘intangible seemingly borderless virtual space’ (‘creator’, ‘gatekeeper’, ‘firewall developers’ [Frantzen et al., 2001] and ‘a discriminator which rejects unwanted signals’ [New Oxford Dictionary, 1998, p. 528]). Since by definition this metaphor allows a reference to a gatekeeper or discriminator, the boundaries can be considered as being made up intentionally based on (personal and organizational) interests managed through structural characteristics.

Regarding the established meaning structure (step 3), the source concept (firewall) sheds new light on the target concept (discrimination) in six ways:

Firstly, a firewall imports the notion of individuals exerting discrimination by referring to ‘firewall developers’ and so on. More precisely, it hints at creators and administrators of discrimination who decide who is allowed to enter their system. It is a decision between ‘yes’ and ‘no’.

Secondly, by referring to gatekeepers, an intentional modus operandi of preventing unwanted people from entering the system comes into the picture and allows us to imagine login codes applied for selection and the processes and results of their being shifted around. In order to enter the system one has to know and decipher the meaning of those codes (e.g., sex, age, religion, ethnic background, education, wealth, language, social capital and many other notions of diversity) which are contextually performed differently in organizations all the time.

Thirdly, we claim that cracking codes is not just a violent act, as is largely understood in terms of information technology, since there are different definitions of the term, hacker.¹ We exclusively refer to the non-criminal definition. We assume that in order to receive social benefits as a basic human right, individuals use their skills to employ them in a non-criminal but perhaps unconventional manner, which could be considered hostile by those who are within the system. If we considered the transgression and change of societal conventions, which per se discriminate against women and other groups (as constituted by the term, not-A), as a hostile or even criminal act
then this metaphor would not make sense for the possibility of emancipation. Rather, the argument of hostility serves to maintain the closedness of the particular system or organization, which, according to the firewall metaphor, preserves its ‘exclusiveness’ by applying selected codes (compare the dark circles in Figure 2). The solution or key for overcoming discrimination in this metaphor is to decipher the right passwords. In fact, there is hardly any firewall that cannot be passed through with the appropriate knowledge, creativity, persistence and network connections. In contrast to the glass ceiling, which suggests the need to violently crack the glass to progress, the process of overcoming discrimination by finding codes only appears to be less violent or physical, but, in fact, it is not less difficult.

Fourthly, in contrast to the glass ceiling metaphor, the firewall metaphor represents invisible boundaries that can be changed quickly by altering the codes of the firewall. However, as a consequence of this flexibility of the system, the codes and the boundaries remain quite obscure for those who are outside the system.

Fifthly, the firewall metaphor shows more clearly the importance of participating in networks and mirrors the discursive reproduction of organizations, such as gender and knowledge through codes. In fact, codes\(^2\) or keys\(^3\) cannot be applied gender neutrally as gender represents a basic structuring principle of society (for example, Harding, 1986, 1987).

Sixthly, by referring to networking, the firewall metaphor symbolizes more relational and flexible rather than hierarchical and stable phenomena. Thus, as Figure 2 demonstrates, the centripetal aspect of Schein’s model is significant in the firewall metaphor.

The firewall metaphor highlights several points of discrimination missed by the glass ceiling metaphor. However, according to Cornelissen (2004), this

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*Figure 2: The firewall metaphor according to Schein*

Source: derived from Schein, 1971
fact does not determine the firewall’s heuristic value. In order to evaluate its value the governing rules have to be applied again (see Table 2). In terms of aptness, which is indicated by the aspectual similarity (‘process’) between the two concepts of discrimination and firewall, their exactness is high. The distance between the two concepts can also be rated as high. Thus, according to the governing rules the firewall metaphor, like the glass ceiling metaphor, is of high value.

As in the glass ceiling metaphor, contextual conditions must also be considered for the firewall metaphor. Process organization was one of the more popular topics in organization studies between 1992 and 2002 and network and process organizations were among the most prominent forms (Zaugg, 2003, p. 11). In contrast to the glass ceiling metaphor, the firewall’s focus is on the process of discrimination and not on structures; therefore, it corresponds better with postmodern organizations and careers, which are characterized not only by diffusion, democracy and empowerment but also by flexibility (for example, Ellig and Thatchenkery, 1996; Gunz et al., 2002; Iellatchitch et al., 2003; Nicholson, 1996). Like the concept of business re-engineering, which revolutionized organization theory (e.g., Hammer and Champy, 1993; Hammer and Stanton, 1994) and focuses on business processes, the firewall metaphor refers to ‘doing’ more than ‘being’. Thus, business re-engineering and the firewall metaphor have three central aspects in common (Osterloh and Frost, 1996, p. 87): Firstly, the idea of process stresses the dominance of processes over structure; secondly, the idea of triage takes into account different processes (functional segment, a problem-oriented perspective and a customer perspective) and third, the idea of informal networks points to boundaries which are kept up intentionally. Particularly the trends towards networks, fast moving openness to change and co-operation as well as adaptability seem to be mirrored more precisely in the firewall metaphor than in the glass ceiling metaphor, which focuses on structure. Also, as we have pointed out, considering ‘process’ as aspectual similarity between ‘discrimination’ and ‘glass ceiling’ would only produce a weak or even nonsensical imagery. But, if we choose ‘structure’ as generic space for the firewall metaphor it provides different results (Table 4). We find structural aspects in the primary subject as well as in the secondary subject (firewall — a wall: typically forming part of the building structure). In this case, when applying the governing rules, the aptness of the two concepts and the distance of the domains are high. Hence, also with the generic space of ‘structure’, the firewall metaphor provides insights due to its high heuristic value (type 3). In this regard, the firewall metaphor seems to have an even higher heuristic value than the glass ceiling metaphor for pointing at discrimination in organizations because it reflects the complementarity of structure and process in discrimination, whereas the glass ceiling metaphor offers insights only into structural aspects of discrimination.
Discussion: from ‘having discrimination’ to ‘doing discrimination’

While both metaphors have a high heuristic value, they convey metaphorical differences. The glass ceiling serves as an appropriate means for describing the status quo of discrimination in organizations by pointing to its structural aspects, which refers to ‘having discrimination’. The firewall metaphor, however, stresses a processual view of discrimination as ‘doing discrimination’. Here the metaphorical value is that discriminatory processes are considered to be contextually performed and reproduced as well as creating structure. As we pointed out, a shift from structure to process has already occurred in both organizational theory and organizational practice (from a traditional to a boundaryless career paradigm, from modern to postmodern organizations). In this sense, the firewall metaphor corresponds better than the glass ceiling metaphor to developments in these fields. The former offers more elaborate insights into the reproduction of discrimination in contemporary organizations. However, we do not advocate abandoning the glass ceiling metaphor. Rather, we propose that greater care should be given to choosing between these metaphors and in using them in ways best suited to different kinds and settings of discrimination in order to unveil and reduce discrimination.

Whereas the firewall portrays discrimination as complex, fluid, incoherent and heterogeneous, the glass ceiling reflects an image of space as a geometric structure but transparent. However, both metaphors convey the notion that discrimination is an intentional and long-term phenomenon (either through stable glass walls or codes that can be changed more quickly). In contrast to the glass ceiling metaphor, the firewall metaphor points directly to the decision-making domain with the potential to reinforce or eliminate discrimination.

In conclusion, we propose both a deeper analysis of the reigning frames of the two metaphors which we have examined as well as other metaphors which represent gender topics in organizations (such as gender mainstreaming as a metaphor for gender equality). Lastly, from a practical perspective, firewalls offer human resource professionals and diversity managers a new metaphor, a tool perhaps, to work with in conducting workshops to identify catalysts and sources of discrimination and strategies for addressing or solving them. Moreover, the firewall has the advantage of elasticity and permeability. It is applicable for many places and manifestations of discrimination, from hiring processes to the appointment of members to work teams and boards, and it offers the possibility of organizational reprogramming for anti-discrimination.

Notes

1. A hacker: 1. Someone who uses a high degree of computer skill to carry out unauthorized acts within a network: for example, a hacker might have no access
rights to a network, yet might bypass all the access controls and carry out some act such as leaving a file in a public directory which describes what they have done. The action of hackers can range from relatively harmless ones to malicious acts where system resources are incapacitated. 2. Someone who is possessed of a high degree of computer skills and who employs them in a conventional, non-criminal way. Because of this duality of meaning, hackers who are in the second category use the word **Cracker** to describe those in the first category. The second meaning predates the first (Ince, 2001).

2. **Code** (Pearsall, 1998, p. 354): a system of words, letters, figures, or symbols used to represent others, especially for the purposes of secrecy; a word, phrase, or concept used to represent another in a euphemistic or indirect way; a series of letters, numbers or symbols assigned to something for the purpose of classification or identification; a sequence of numbers dialled to connect a telephone with the exchange of the telephone being called; program instructions (computing).

3. **Key** (Pearsall, 1998, p. 1004): basically to solve something. A word or system for solving a cipher or code.

**References**


