

## Categorial Relations in (Re)constructing Topoi and in (Re)modeling Topology as a Methodology: Vertical, horizontal, heuristic and epistemological interdependencies

Maria Hinzmann <hinzmannm\_at\_uni-trier\_dot\_de>, University of Trier  <https://orcid.org/0000-0001-7199-1436>

### Abstract

The article reflects on the process of category development and category application that was relevant for the analysis of topoi in a specific corpus of travelogues. In this process, the investigation of the corpus and the (re)modeling of topology as a methodology were closely intertwined. This includes the interconnected modeling of the category topos and the (re)construction of concrete topos concepts. The paper proposes a methodological framework that represents categorial relations understood as relations between different types of categories, different concepts as instantiations of the same category as well as relations between categories and different heuristic levels. In addition to the definition and spatial representation of these relations, the iterative dimension of research processes in the digital humanities is discussed with regard to categorial interdependencies. Against the background of this (meta)model and the discussion of concrete examples from the study of travelogues, perspectives on possible follow-up differentiations and conceivable future work are touched upon.

### Introduction

In loose modification of Firth's famous dictum, one could claim: "You shall know a category by the company it keeps!"<sup>[1]</sup> Understanding categories implicitly in their relation to other categories is omnipresent in the digital humanities, but explicit and systematic reflections on the nature and implications of these relations are rare. The importance of relations between categories is particularly evident in knowledge organization systems such as ontologies and taxonomies. However, they also play an important role in many other contexts, because categories mediate between different levels intertwined in research processes. In view of such methodological entanglements, the article is concerned with the systematization of categorial relations. The related research and discussions involve the thematic field and practice of "annotation," for which the application and development of categories are central [Gius and Jacke 2017], the concept of "operationalization" [Moretti 2013] [Pichler and Reiter 2022] as well as different understandings or conceptualizations of "theory" [Kleymann 2023] and "modeling" [Flanders and Jannidis 2018]. These concepts and practices have in common that they all play a central role in bridging the gap between computational methods and the theoretic concepts of the humanities. According to Drucker, the motivation of humanities scholars is rather the "investigation of the cultural record," less "problem solving" [Drucker 2021, 81]. In the digital humanities, both are intertwined: problem solving with the aim of knowledge production about the cultural record. In this intermediate position, categories and the construction and reflection of their use in the context of modeling as a "process of identification and categorization" [Diehr 2021, 251] play an important role.

The reflections in this contribution are based on an underlying study that examined – in the frame of a PhD project rooted in literary studies, oriented towards cultural studies and digital humanities – patterns of knowledge and argumentation in a corpus of German-language travelogues about India published around 1900 [Hinzmann 2020a].<sup>[2]</sup> In the comparative reading and annotation process, these patterns were (re)constructed<sup>[3]</sup> and investigated as *topoi*. In

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this endeavor the operationalization and (re)modeling of topology as a methodology were merged. In doing so, I pursued a double objective: I linked the systematic exploration of the semantic-argumentative content of the study corpus with the development of a methodology to realize this analysis and interpretation based on it. A *topos* – the central category of the study – is particularly complex. The notion of “topos” has a multi-faceted conceptual history between different languages [Rubinelli 2009], so the definitional challenges are omnipresent. In the following, “topos” is used in the singular and “topoi” in the plural, which follows the origin in Greek and can be considered conventionalized.

[4] Following [Bornscheuer 1976] I define a topos as a pattern of argumentation that is not reducible to its particular (formal) logical dimension, but polyvalent. For the (re)construction of topoi, important aspects are the frequency of their occurrence on the surface of the text (quantitative dimension, recurrence) and the argumentative functionality (qualitative dimension, coherence). That is why I have modeled topoi as dynamic crystallization points of recurring argumentation patterns closely associated and inseparable from semantic and symbolic dimensions. The comparison of a large number of argumentative contexts is necessary in the (re)construction process. Topoi have an elementary character, yet are not stable “cores.” They do not lie on the surface of the text but are anchored in the *(en)doxa* – a historically and culturally situated, generally accepted and shared knowledge of experience, orientation and opinion that is referred to or expressed in argumentation [Amossy 2002] [Bornscheuer 1976].<sup>[5]</sup>

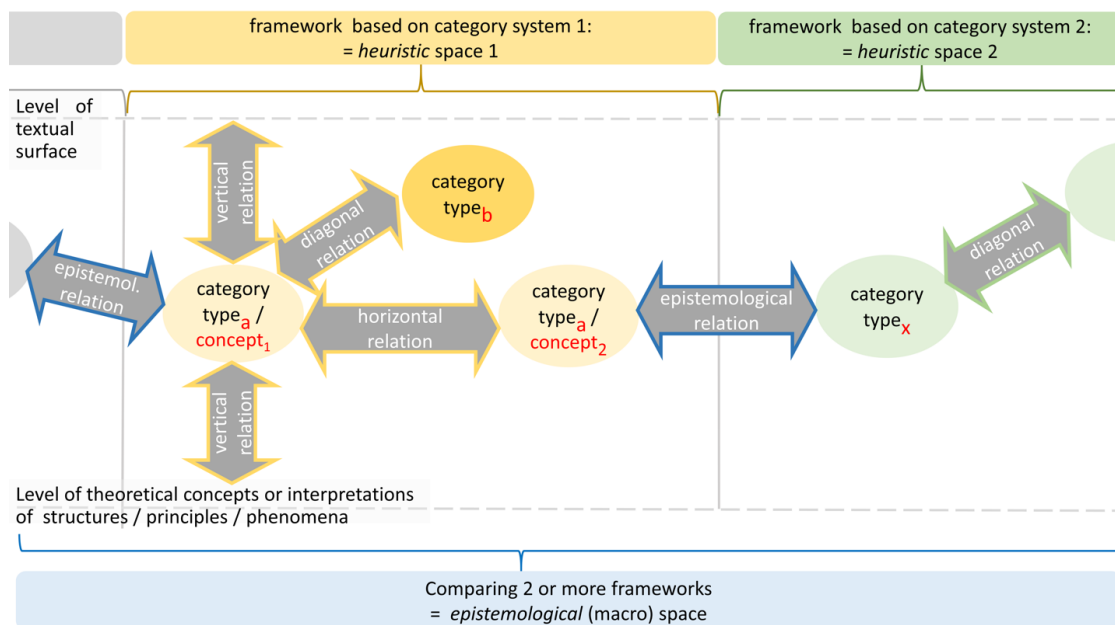
Considering the broader context of categorial relations in their relevance for digital humanities on the one hand and the concrete study in the field of topos research on the other, the question is what can be derived from the study, in other words, what is transferable to other categories and category systems. The complexity and multi-layered nature of “topos” as a category, historically going back to antiquity, provides an opportunity to systematize the interdependencies between categorial elements in the concrete research design. The starting point was the “relationality” of topoi – i.e. the assumptions that a topos needs to be (re)constructed in relation to other topos concepts and that the category “topos” should be defined in relation to other categories. The basic principles observable in this specific context of the development and application of categories are transferable to other contexts. The paper proposes a typology differentiating vertical, horizontal, heuristic and epistemological relations. After an overview of the conceptual model of the four relation types and an outline of the related framework, I will situate my understanding of topology as methodology within topos research and then illustrate the relations by explaining what each of them means in this context as well as by discussing concrete examples from the travelogue corpus. I will then focus on the iterative dimension of the research process. Finally, I will briefly reflect on limitations and open up perspectives on possible future work.

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## Overview, general characterization and reflection of categorial relations

A decision in designing the conceptual model is that categories and categorial relations can be organized within a heuristic space. Different heuristic spaces can be discussed in a comparative perspective – represented by the epistemological space which is conceived as a conceptual macro-space that encompasses several heuristic spaces (see Figure 1). While vertical and horizontal relations can be conceived as rather simple axes, heuristic and epistemological relations represent more complex spaces of categorial interdependencies (see Table 1). The heuristic space consists of three axes: In addition to the vertical and horizontal relations, there is the diagonal relation between categories that do not belong to the same class. The diagonal axis is important and will be considered in their interaction with the other two axes, but the focus is on the vertical and horizontal axes. Another important conceptual distinction of the spatial model are three different levels: The level of the textual surface refers directly to the object of investigation, e.g. a text corpus. On the opposite side lies a deep structure, which represents the level of theoretical concepts or interpretations of the realm of phenomena. In the middle or in the space in between, categories and concepts operate, building a bridge between the other two levels.

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**Figure 1.** Overview of categorial relation types.

**Vertical relations:** The vertical axis connects observable and measurable entities on the textual surface with a theoretic concept and a category which relates them. Starting from a central category, this axis thus builds a bridge in two directions: on the one side to the concrete measurable and describable units of investigation of the primary object and on the other side to theoretical concepts or interpretations of certain underlying principles or structures in the field of phenomena. There is a strong overlap with the concept of operationalization understood as a “method for tracing a (theoretical) term back to text-surface phenomena” [Pichler and Reiter 2021, 1]. [Moretti 2013, 1] already describes this with a bridge metaphor: “Operationalizing means building a bridge from concepts to measurement, and then to the world. In our case: from the concepts of literary theory, through some form of quantification, to literary texts.”

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**Horizontal relations:** The horizontal relation links different concepts that belong to the same category type. Concepts in this sense are instantiations of a category type. In the analysis of such concepts, the definition of the single concept arises in relation to the other concepts – in other words, within the system of all distinct concepts. The concepts belong to the same category type, thus they are in a non-hierarchical relation, like for instance elements of controlled vocabularies. Manifestations of concrete concepts can be located on the horizontal surface of the text.

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**Heuristic relations:** The heuristic relations comprise the interdependencies implied by all categorial relations within one framework, including besides the vertical and the horizontal also the diagonal axis, which concerns the relations between categories belonging to different types of categories. The heuristic space is a model of the interconnectedness of the vertical, the horizontal and the diagonal axis and represents how a category system works.

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**Epistemological relations:** Epistemological relations concern the theoretical reflection on the interdependence of categories between different frameworks, thus it is about a definition of categories in relation to other category systems. In this perspective, we compare categories at a high level of abstraction. That means a meta level of relating a category (= the conceptualization or definition of a category type) to categories belonging to other frameworks. The questions here are how a methodological framework can be related to other frameworks and maybe also larger paradigms or paradigm shifts. The exact epistemological distinction of a category from definitions of a comparable category not at least allows for new perspectives on possible synergies combining different methodologies.

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Vertical	Horizontal	Heuristic	Epistemological
Basic categorial relations: category between surface and deep structure.	Basic categorial relations: between (re)constructed concepts as instantiations of a category.	Composed categorial relations dependent on the intertwined vertical and horizontal axis as well as a diagonal axis between categories of different types.	Composed categorial relations dependent on the interplay of different heuristic spaces.
Axis of vertical relations.	Axis of horizontal relations.	Space involving diagonal relations additionally to vertical and horizontal relations.	Macro-space involving all relation types, including epistemological relations.
Relations between category, concept, their concrete measurable manifestations on the textual surface as well as underlying principles.	Different layers:  Relations between concepts <i>within one concept system</i> .  Relations between manifestations of a concept on the textual surface.	Relations between categories <i>within one framework</i> .  Space constituted by three axes, which are all interconnected.	Relations between categories and category systems <i>between different frameworks</i> .
Operationalization as a process of defining relations along the vertical axis.	Differentiation of distinct concepts and investigation of the combined or subsequent appearance of their manifestations on the textual surface.	Conceptualization of how a category system works and reflection on the role of categorial interdependencies.	Theoretical reflection about a category system and its categories in relation to other category systems.

**Table 1.** Overview of categorial relations.

## Categorial relations in the (re)construction of topoi and the (re)modeling of topology as a methodology

At the beginning of the study of the travelogue corpus, I identified striking patterns in both the argumentative and the semantic-imaginary dimension. I searched for a suitable set of instruments and a category system with which I could describe these varying repetitions. In a comparative reading and manual annotation process I investigated them as *topoi*. The process included two main aspects: (1) analyzing the corpus with topology as a methodology; (2) modeling the character and functioning of topoi as well as topology as a methodology by working with the concrete categories and concepts and applying them to the corpus. The category of topos seemed to capture the patterns of recurrence in their imaginary-argumentative complexity and interconnectedness. The fact that the concept of topos is particularly frequent in the research on travel literature and intercultural studies – but without a systematic methodology – encouraged this choice. The desideratum that I tried to address was a synthesis between the theory and practice of topos research. The elements of the category system were not defined at the beginning, except for the central category of *topos*, whose definition was, however, modified in the process of remodeling the topology. The iterative development of the category system during the annotation of the material lacks published documentation. More standardization for this kind of development of a category system would be helpful. Both the underlying study and the proposed framework of categorial relations aim to contribute to this effort.<sup>[6]</sup> In the (re)construction of topos concepts and subsequent analytical steps, it became increasingly clear how topoi can be characterized and defined in their polyfunctionality. After the following introductory remarks presenting the central reference points of my approach and briefly outlining the results of the work, the focus will then lie on illustrating and exemplifying the relations with reference to topos research in general and the underlying study in particular.

## Previous topos research and striving towards a transdisciplinary methodology

Topos research stands between the disciplines; it is not standardized and transverse to conventional paradigms (cf. [Knoblauch 2000] regarding sociology). In my understanding, this is primarily because its roots lie in antiquity and are embedded in a way of thinking that does not have disciplinary divisions and corresponding knowledge production practices, as we know them today. Within the “philological tradition,” topology has split into different areas, each of which emphasizes different qualities of topoi dependent on the specific (sub)discipline and related research interests. The versatility of the category has led to its fragmentation. In his discussion of ancient rhetoric [Barthes 1985, 138–141] already emphasized the complexity and threefold role of topoi / topology – as method, as storeroom (of possible argumentative elements), and as grid (for finding arguments).<sup>[7]</sup> However, he did not translate this into a concrete methodology. The most elaborated and important theoretical reference for my approach is Bornscheuer’s dynamic concept of topos. [Bornscheuer 1976, passim] emphasizes that topoi are both “sediment” and “instrument” (i.e. “storeroom” and “grid”). Although Bornscheuer derived and defined the polyvalence of the category of topos very precisely from a theoretical point of view, particularly with reference to the ancient rhetorical tradition, he did not realize nor conceive a transfer into analytical practice. [Knape 2000, 758] notes this lack of practice in the field of topos research as a desideratum and emphasizes the challenges of isolating and interpreting topical structures in a text. However, his approach of a two-axis model influenced by structuralism and rhetoric is linked to a problematic conception of conscious text production, in which he assumes that topoi always exist in a paradigm and are “implemented” during text production [Knape 2000, 756].<sup>[8]</sup> This entails, among other problems, a tendency to overemphasize the stability of topoi and to overlook their potential to dynamize discourses and systems of knowledge.<sup>[9]</sup> Following [Bornscheuer 1976, 177], however, topoi can be seen as the source and result of various historical-social forces; they are both influential and changeable, stabilizing and dynamizing. The stable tradition or conventionality of “topoi” is discussed within literary studies, particularly in the reception of Curtius’ influential and polarizing work *European Literature and the Latin Middle Ages*.<sup>[10]</sup>

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A splitting within topos research was subsequently reinforced in the contrasting of two different qualities of topoi already outlined above – namely that they are a (“material”) “storeroom” on the one hand and a (“formal”) “grid,” a kind of “template” for argumentation, on the other. Studying the travelogues, however, clearly demonstrated how closely these two qualities are intertwined, so that I pursued an integrative approach that would overcome (sub)disciplinary boundaries. The knowledge of experience, orientation and opinion that crystallizes in topoi regulates the “asystematic coherence” [Bornscheuer 1976, 43] of communication (in everyday language, but also more “aesthetic forms”). This encompasses a broad range of knowledge-related and argumentation practices. It spans from political contexts to constructions of imaginary spaces (such as “India”) to knowledge about genres (like “travelogues”). It is important to recognize that rationality in this context tends to be overemphasized: Argumentative coherence usually is not created purely in a rational or logical way, but based on the (historically and culturally situated) archive of topoi.<sup>[11]</sup> Thus, topoi generate both argumentative coherence as well as symbolically-imaginarily grounded semantic coherence.

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## Results of the (re)construction and the (re)modeling process

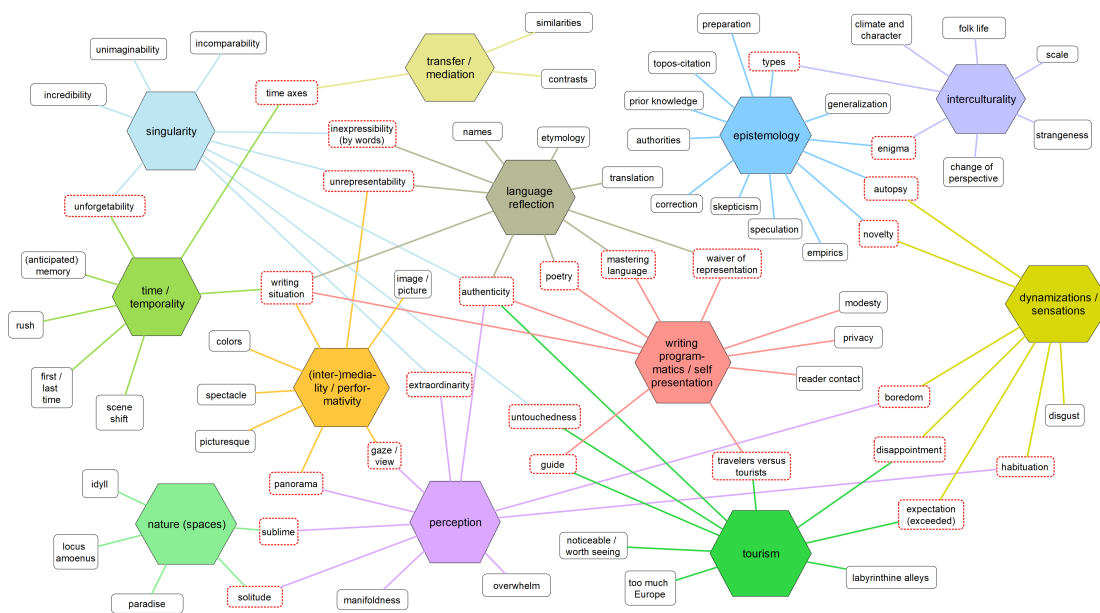
While topos research in its various lines of tradition represents a pool of ideas around topoi, a convincing set of tools to systematize the argumentative-semantic patterns in my study corpus was lacking. In view of this methodological vacuum in the “traditional humanities” and the abundance of material to be handled (40 travelogues, approx. 11,000 printed pages), I relied on ideas from the digital humanities (and corpus linguistics) for conceptual modeling and combined this line of thought with a discussion of topos research. I was concerned with integrating various relevant aspects of the category into a multi-layered conceptualization of “topos” that is connected to, but also distinct from, the rhetorical tradition, and could be translated into a concrete research design. The images contained in the corpus (e.g. photographs) were excluded for pragmatic reasons; all considerations relate to the annotation and analysis of texts.<sup>[12]</sup>

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The results lie on two closely interlinked levels: the (re)construction of topoi and the (re)modeling of topoi as a methodology. An important aspect is the assumption that topoi are defined in relation to other topoi, namely to other topos concepts that have been modeled as instantiations of the category topos. The topos concepts are modeled as

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elements of a topical constellation and thus lying on the same level. I refer to these constellations using the term *topology* (and distinguish it from topology as methodology by italicizing it).<sup>[13]</sup> Two *topologies* – the “India *topology*” and the “travelogue *topology*” – were considered relevant for the corpus of German-language India travelogues around 1900. The India *topology* is composed of 86 topoi that contribute to the topical stabilization and dynamization of an imaginary “India” around 1900 (see Figure 6). The travelogue *topology*, on the other hand, forms a constellation of 67 topoi that are considered characteristic of the textual genre “travelogue” around 1900 (see Figure 2).<sup>[14]</sup> This heuristic differentiation of two *topologies* allows for the specific characterization of each individual constellation as well as the precise description of the interdependencies between them. Their visualization in clusters opens new perspectives on the underlying principles of their interconnectedness.



**Figure 2.** Cluster of the travelogue *topology* highlighting bridge topoi.

Figure 2 shows the twelve cluster of the travelogue *topology*. These clusters are the result of conceptual modeling. Two topoi associated with the same cluster are distinct but functionally similar. Subsequent to the (re)construction of the topoi, the (conceptual) cluster analysis allows for their systematization in order to gain a better overview of the connections and characteristics of the specific *topology*. The clustering of the two different topologies revealed clear differences in the ways the respective topoi act.<sup>[15]</sup> In the clustering of the travelogue *topology*, the phenomenon emerged that some topoi belong to more than one cluster. This coincides with the increasingly clarified view of the polyfunctionality of topoi, i.e. the fact that topoi are argumentatively open. That means that their argumentative character can manifest in “different directions” (described in rhetoric as the “in utramque partem principle” [Bornscheuer 1976, 42]). However, these argumentative “directions” are not only “pro” or “contra,” but – in my combinatorial approach – depend on the other topoi with which they occur. This approach echoes earlier findings of topos research, but significantly expands and nuances them.

These forms of combination have been central to the investigation of the corpus and I have modeled them as “topical collocations.” The relevance of this category was clear relatively early on, as my aim was to operationalize the observed combinatorial character of topoi. The modeling of bridge topoi, in contrast, is a particularly striking example of how a new phenomenon and the associated category can become visible in the research process. Based on the finding that some of the topoi belong to several clusters, I defined the concept of bridge topoi and applied it as a category in the following. This is an important step in the process: An emergent phenomenon is conceptualized and the resulting concept is transformed into a category in the moment in which it is systematically applied. This application of the category consisted of systematically checking for each topos whether a multiple assignment to the clusters is plausible or not on the basis of the annotated examples (and their frequency). This resulted in a deeper knowledge of the

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travelogue *topology* and thus also a new understanding of the genre. The approach of (re)defining travelogues in its basic characteristic and genre principles via clusters and associated topoi could probably be transferred to other genres. The assumption is that a text-type-specific investigation of topoi and their clustering would also be informative for other corpora.

While the (re)construction of the topoi, the clustering and the collocation analysis concern the level of the realm of phenomena, I have (re)modeled topology as methodology step by step in parallel. The starting point was the topos research mentioned above and the aim of developing a systematic methodology. In addition to the more precise modeling of some general functional principles of topoi (reduction and amplification, distribution, combination), the study resulted in ten operationalization steps. This result is both a model of topology as a practiced methodology (“model of”) and hopefully a “model for” future research designs in (digital) topos research. The operationalization steps condense the methodological insights gained in the course of the process – in other words, they are an idealized and abstract representation of the research process. The modeling of these steps and their practical implementation simultaneously led to the application of the methodology that I developed and used in parallel. Their order does not necessarily correspond to this chronology but can also deviate depending e.g. on the hypotheses or the research question. The first five steps are particularly important with regard to category development and application. (1.) definition of the corpus, (2.) definition of the relevant *topologies*, (3.) (re)construction of topoi, (4.) cluster analysis, (5.) collocation analysis. The steps 6 to 9 are less relevant for understanding the main analysis results but concern their further interpretation.<sup>[16]</sup> The last operationalization step (10.) reflects the dynamics of remodeling topology as a methodology while applying it.

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In the following, I discuss the four relations already presented using concrete examples from the travelogue corpus of the underlying study. The principle behind their selection is that they are as representative as possible of the relation type to be shown and relatively easy to understand, also without deeper knowledge of travelogues or India.

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## Vertical relations

The *category* topos is closely related to the *concept* topos. Both lie on a mediating level, oriented upwards towards the textual surface and downwards towards the *endoxa*, an assumed discursive deep structure (see Figure 3). As already mentioned, topoi can be (re)constructed from their manifestations on the surface of the text. In this process, certain recurring patterns, which I have called “manifestation patterns,” can often be recognized among larger numbers of manifestations. Several of these manifestation patterns can be subsumed under one topos or, conversely, the manifestation patterns can be understood as forms of expression of the topos. The level of manifestation patterns is an intermediate level between the category topos and the surface of the text. As outlined above, the relevance of topoi is based on both recurrence and coherence – both together determine their relevance in a concrete discursive situation. In Figure 3, the *category* topos shows up on the axis linked to the form of a concrete *concept* anchored in an underlying structure.

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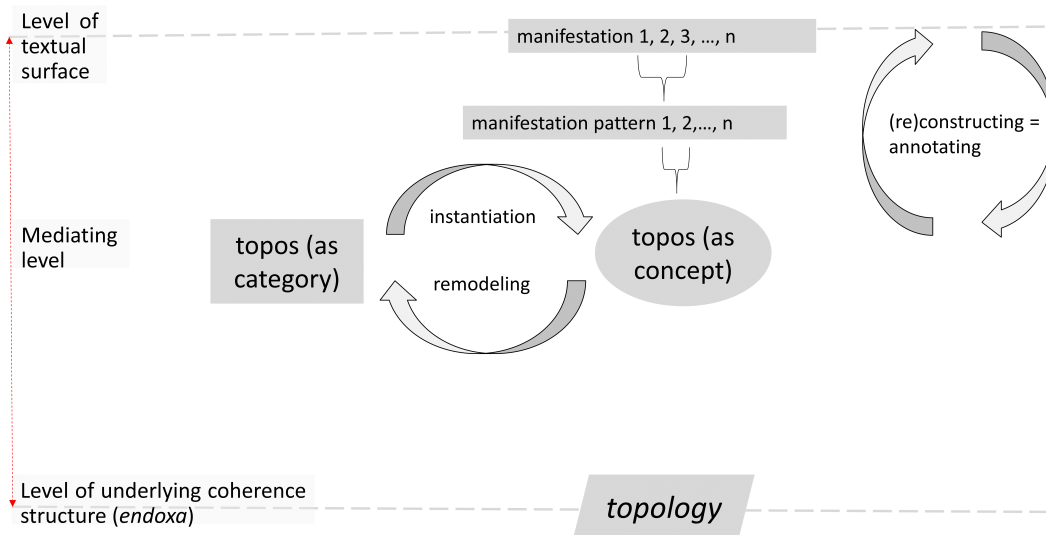


Figure 3. Vertical relations.

The *too much Europe* topos appears in different manifestation patterns such as “too much civilization,” “too much industry,” “bad European influence,” etc. In the naming of the topos, the *too much* was included because the topos is particularly frequently appearing in this line of argument (not just as “European influence”). In some cases, it is linked to the influence of British colonial domination.<sup>[17]</sup> In other cases, it is not explicitly related to Europe, but to “civilization” in general. Criticism of industrialization and modernity are closely linked in this manifestation pattern, which is, e.g., related to living and working conditions.<sup>[18]</sup> Certain major cities are perceived as particularly Europeanized, while others, such as Jeypur, do not yet seem to be affected by the process.<sup>[19]</sup> The topos thus appears on the text level in a wide range of forms in which it crystallizes and is at the same time anchored in various discursive contexts that inform the corpus (colonialism, tourism, etc.).

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## Horizontal relations

The axis of the horizontal relations can operate in different ways and thus be subdivided into two parts (see Figure 4). In the case of the (re)construction of topoi, the relation between the individual topos concept (as instantiation of the category) and the other elements in the respective concept system (the “India *topology*” and the “travelogue *topology*”) are important. The basic logic of horizontal relations is that the combination of concepts – modeled as topical collocations – can be described on the basis of a clear differentiation of the concepts. The combinations become visible by distinguishing the individual concepts. Furthermore, on the level of the text surface, the relations between manifestations of topoi can be described more precisely. In this context, I have proposed the concept of the “topos profile” of texts.<sup>[20]</sup> Many passages had to be analyzed to obtain an overview about the occurrence of topoi in order to systematize the collocations. During the (re)construction process, it is not immediately obvious whether a particular recurrence pattern is to be classified as a collocation (i.e. two topoi) or as one topos. The demarcation between two topoi or the subsuming of different manifestation patterns under one topos is a question of the granularity of the category and the understanding of the concept in relation to other concepts within the system.

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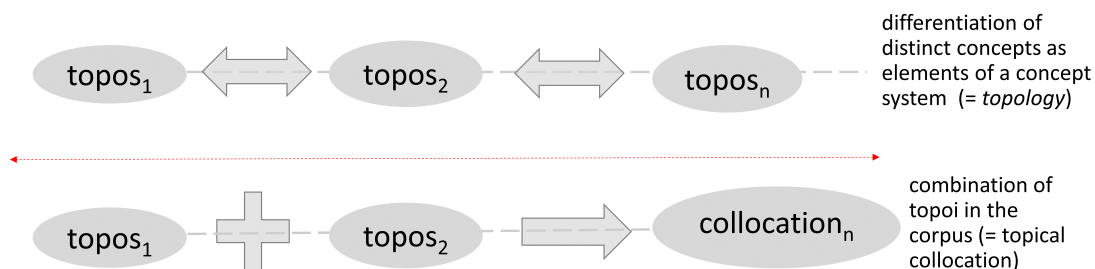


Figure 4. Horizontal relations.

An example illustrating the challenges in differentiating recurrence patterns and defining them as one distinctive topos concept is the topos of *inexpressibility* that is present in various genres and transhistorically widely spread. However, according to [Curtius 2013, 159] it is debatable whether we are dealing with one topos or whether several topoi should be differentiated. He states that the “root of the topoi [...] is ‘emphasis upon inability to cope with the subject.’ From the time of Homer onwards, there are examples in all ages. In panegyric, the orator ‘finds no words’ which can fitly praise the person celebrated.” In contrast, other studies, especially those dealing with travelogue corpora, have reconstructed only one topos, with slight nuances in the names (e.g. “indescrivability topos” in [Fischer 2004, 288]; “topos de l’indicible” in [Choné 2015, 251–257]). The topos or the topoi (depending on the perspective) revolve around the paradox that they express that something is inexpressible. In the travelogue corpus, different manifestation patterns (something is “indescrivable,” “untellable,” etc.) could be identified leading to the differentiation of two topoi: *inexpressibility by words* (“Unsagbarkeit”) and *unrepresentability* (“Undarstellbarkeit” = not representable in any medium). This differentiation is justified by their strong recurrence and argumentative differentiation in the corpus. In some cases, inexpressibility increases intermedially, in the sense that something cannot be expressed in any medium – a frequent manifestation pattern of this collocation is “neither brush nor pen.”<sup>[21]</sup> In other cases, *inexpressibility by words* can be overcome because visual media offer a way out of the dilemma of *unrepresentability*.<sup>[22]</sup> Regarding the horizontal layer of the text surface and the analysis of topos profiles the texts by [Halla 1914] and [Litzmann 1914] are for example very contrasting: While in Halla’s text manifestations of the *color* topos have a significant frequency and dominate the text, in the case of Litzmann it can be observed that almost the entire repertoire of topoi of the *two topologies* is distributed over the text.

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## Heuristic relations

The relation types of the vertical and horizontal axis are focused on one central category and concepts all belonging to this same type of category – namely “topos.” In the heuristic space, these two axes are closely interlinked. The heuristic space involves furthermore the diagonal axis, thus those relations between categories belonging to different classes. As described above, the conceptual clustering revealed various phenomena, which in turn led to the formation of new categories and the corresponding expansion of the toolkit: (a) Bridge topoi emerged, which belong to two or more clusters. By modeling this category, the argumentative polyfunctionality of topoi becomes visible. (b) Different cluster types appeared, which only become evident in the comparison of the two *topologies* and through which, in turn, the specifics of these can be captured more precisely.<sup>[23]</sup> Of course, the dynamics in category formation do not need to be so open. For example, one could think of a follow-up study that continues with the 150 topos concepts (or a part of

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them, for example individual clusters, etc.) and the methodology outlined in a selection of the 10 operationalization steps.<sup>[24]</sup>

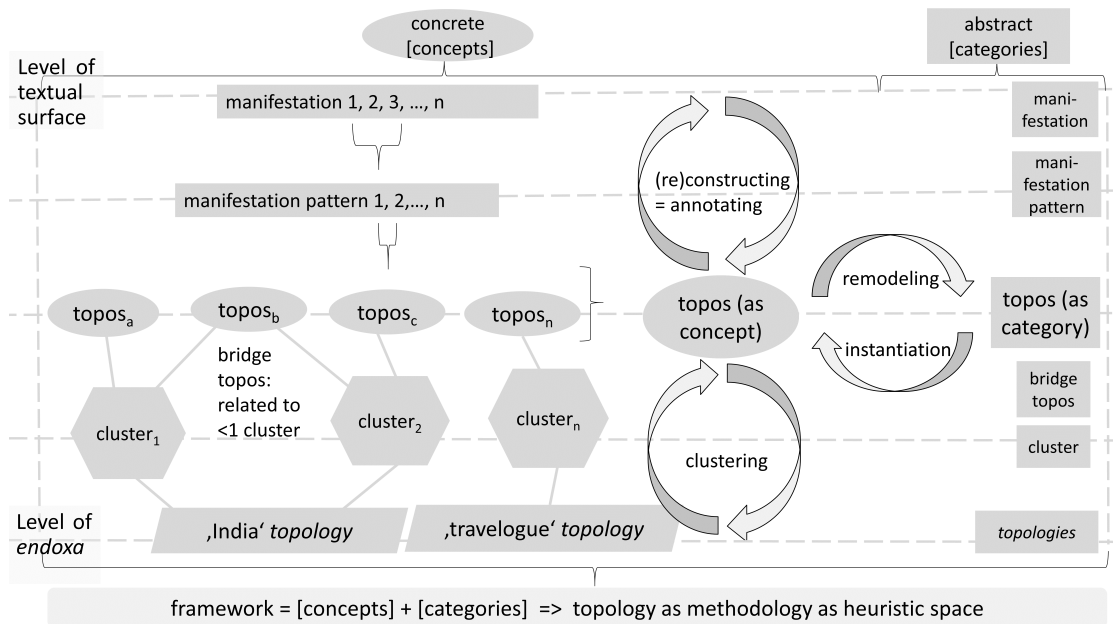


Figure 5. Heuristic relations.

Looking at the following concrete textual example, I want to illustrate the added value of this approach with respect to the categories of clusters, bridge topoi, and collocations. 23

“In the realm of the Maharajas and Rajahs, you get to know the truly Indian India, quite untouched by English civilization, the dreamland where you experience fairy tales at every turn, you only need to wander through the cities.” 24  
 [Litzmann 1914, 61]

In this highly condensed passage, a relatively large number of topoi appear in reduced form. According to the examples above, the collocation of the three topoi *too much Europe*, *untouchedness*, and *authenticity* can be considered as already familiar. According to Figure 2 showing the clusters of the travelogue *topology*, these topoi all belong to the tourism cluster. *Untouchedness* furthermore bridges to the singularity cluster. The *authenticity* topos (in the original *Echtheit*) is particularly polyfunctional – it belongs to five clusters (besides tourism and singularity also language reflection, recognition, writing programmatic / self-presentation). These topoi are all elements of the travelogue *topology*. At the same time, we can also observe manifestations of topoi of *India topology* in the passage cited above: The *dream* topos and the *fairy tale* topos, both belonging to the irreality cluster which also includes *1001 nights*, *magic*, *fantasy* and *miracles* (see Figure 6). Topoi of this cluster are often combined with topoi of the princes / wealth cluster. To illustrate the quantitative dimension of topoi, one case can be mentioned in which the recurrence of a pattern was not frequent enough to be considered as a topos: The pattern that the (*Maha*) *Rajas* were only “pseudo kings” or “puppets” of the British recurs in the corpus.<sup>[25]</sup> Thus, a potential collocation pattern between the princes / wealth cluster and the “puppet pattern” of the colonialism cluster seemed to emerge, but this could not be confirmed (due to relatively low frequency). 25

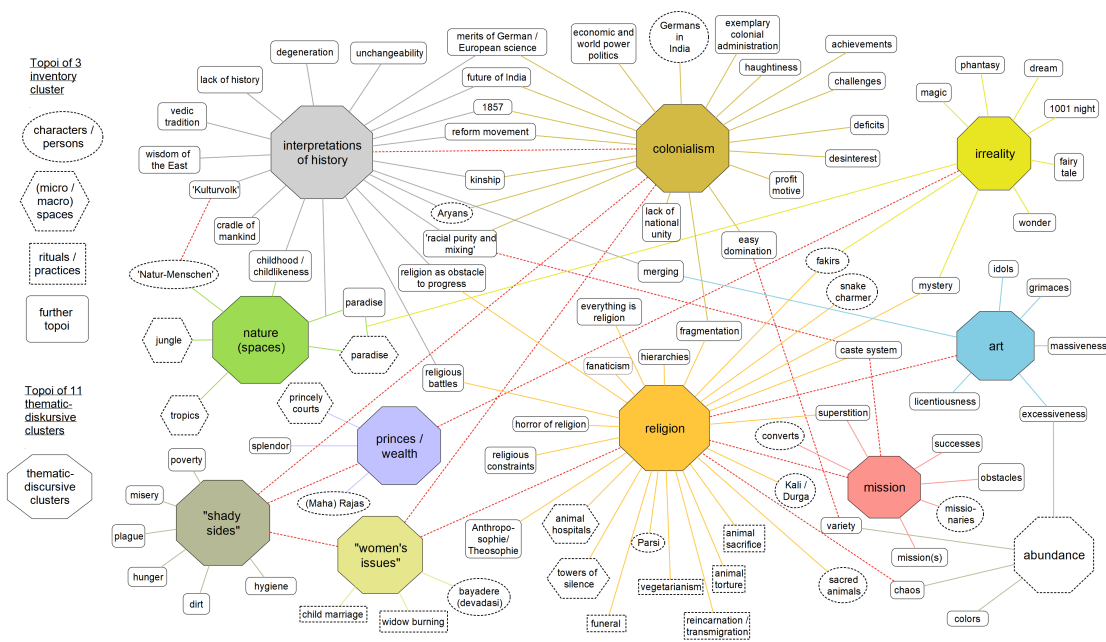


Figure 6. Cluster of the India topology highlighting collocation patterns.

### Epistemological relations

While the space of heuristic relations refers to topoi, *topologies* and associated categories within the topology as methodology, the space of epistemological relations is concerned with the relations between different category systems. Figure 7 depicts various categories of other frameworks to which the category “topos” is related. This kind of epistemological demarcation of a category can be thought of both synchronically and diachronically. In addition, the epistemological type of relations can be split up further: (a) There can be relations between two different conceptualizations of the category “topos.” Here the naming of the category coincides, but the conceptualizations are different. An example of such a different modeling approach working with the supposedly “same” category (identical label, i.e., “topos”), is the SAToRBase project. As part of the project and network, a database for topoi in French literature was set up, but with a significantly different understanding of topos than that of the underlying study. Anchored in “structural narratology,” the SAToRBase project aims to create a thesaurus of narrative recurrence patterns conceived as topoi [Sinclair 2003] [Dubost 2021]. In contrast, I argue that topoi are argumentative patterns rooted in a historically and culturally situated *doxa* and are not just “plot elements.”<sup>[26]</sup> (b) In the second case, the names of two supposedly different categories can differ, but the conceptualization of the content of the category can be (almost) congruent. This can be observed, for example, for the category of the “collective symbol,” which is strikingly similar to the understanding of “topos” represented here.<sup>[27]</sup> (c) In the third case, there are categories with distinct labels and different conceptual content. This is the most common case and the one outlined in Figure 7. Relating the conceptualizations in the sense of a demarcation of a category vis-à-vis the “categorical neighbors” has two advantages: on the one hand, it sharpens the categories of the different frameworks; on the other hand, it enables well-founded combinations of methodologies.

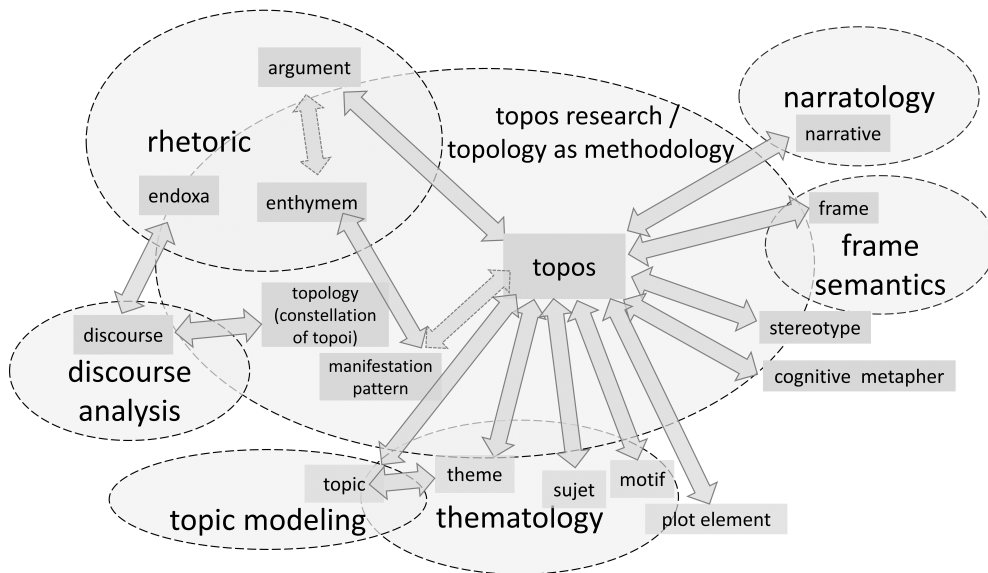


Figure 7. Epistemological relations.

In studying the history of the concept of topos, it became clear that some basic assumptions of ancient rhetoric are not compatible with the attempt of operationalization. This, above all, concerns the fact that topoi are situated at the level of *inventio* (the first production stage of a speech before *dispositio*, *elocutio*, *memoria*, and *actio*) and are conceptualized as an element of a repertoire or paradigm [Knappe 2000]. Within the (re)modeling process, topoi were taken out of this narrow assignment. Instead, it was emphasized that topoi are not exclusively situated in a paradigm, but (in the logic of rhetoric / reformulated in structuralist terms) lie at an intermediate level between a deep structure (*inventio* / paradigm) and a surface structure (*elocutio* / syntagma).<sup>[28]</sup> As already indicated, the conceptualization of its categorial neighbors and counterparts has an effect on the notion of “topos” itself. This concerns among others the intersections to “narrative” and “trope” [Nate 2013], to “conceptual metaphor” [Lakoff and Johnson 1980], or to “frame” as category within frame semantics [Ziem 2014]. The closer a related category is conceptually, the more precision potential an epistemological relationalization has. This concerns, in particular, the tradition of discourse-linguistic topos research [Wengeler 2015], which has close connections and similarities (analysis of argumentative recurrence patterns as topoi) but presupposes a clearly different concept of argument and chooses a different solution in dealing with the opposition of “formal” and “material” topoi.<sup>[29]</sup>

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The added value of the approach of topology as a methodology and of considering its epistemological relations is that a differentiated description of methodological contexts is possible. For example, [Buzard 2001, 4] defines the touristic pattern that travelers want to move “just off the beaten track” as a “master trope.”<sup>[30]</sup> In the corpus investigated, four different topoi of the “travelogue topology” are closely associated with this figure of argumentation (*too much Europe*, *labyrinthine alleys*, *authenticity*, *untouchedness*).<sup>[31]</sup> This (re)construction makes it possible to describe the recurrence pattern of the touristic discourse “just off the beaten track” much more precisely as a specific form of collocation that can manifest in different ways. Particularly frequent or popular topoi have been mentioned and discussed in studies about travelogues (*idyll*, *paradise*, *inexpressibility*, etc.), but so far, no attempt has been made to consistently apply topology as a methodology for investigation and to systematically (re)construct a conceptual system of topoi. In the perspective proposed here, a non-systematic (re)construction risks being subject to a “confirmation bias” and mainly recognizing those patterns of recurrence that have already been discussed in previous research.

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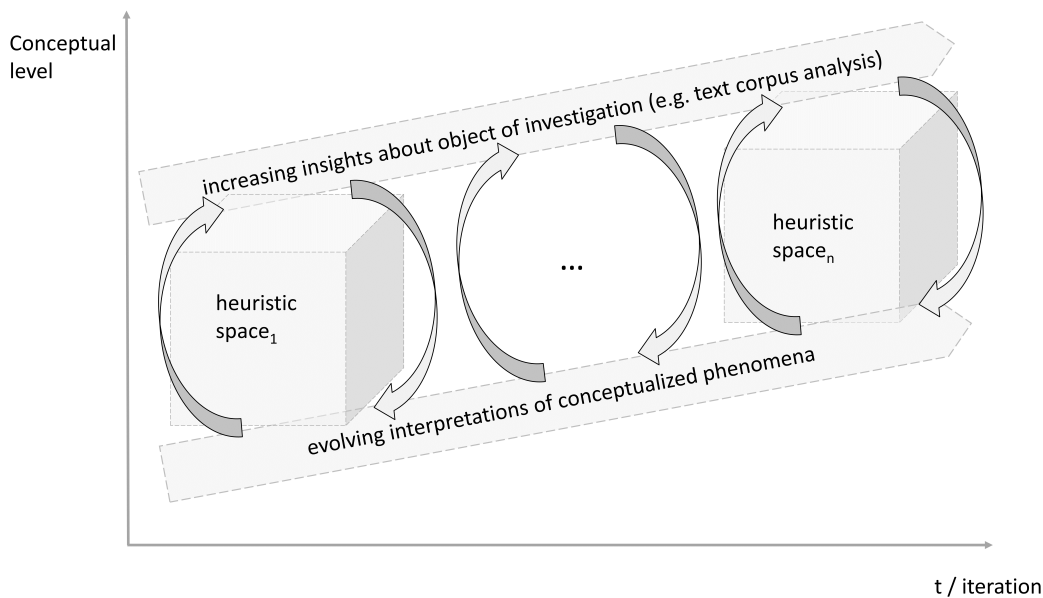
## Categorial interdependencies in the research process

In the digital humanities, research processes are influenced by different understandings and practices of knowledge production. On the one hand, there is the iterative character of the research process in the humanities – the

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omnipresent, but underspecified “hermeneutic circle.”<sup>[32]</sup> On the other hand, there are standards, formalization and a need for the explicit formulation of research designs and workflows resulting from the requirements of computational methods. The different disciplinary backgrounds with regard to the organization of the research process are defined by [Kuhn 2020, 69] as “scheduling dilemma, which affects the point in the course of the project when specifications of the core analysis task are fixed (as early as possible from the computational perspective, but as late as possible from the Humanities perspective).” Secondly, there is the “subjectivity problem, which concerns the degree of intersubjective stability of the target categories” [Kuhn 2020, 69]. When assuming a “given concept” [Pichler and Reiter 2022, 4], the “circularity” of the humanities tradition tends to be set aside in favor of the linearity of the computational workflow as well as quantitative approaches. Although manual annotation is theoretically taken into account [Pichler and Reiter 2022, 10, Figure 2], the specific nature of the respective research designs has not yet been differentiated clearly enough. The focus lies on top-down approaches and hypothesis testing, which is explicitly called for by [Underwood 2019, 17]: “Instead of measuring things, finding patterns, and then finally asking what they mean, we need to start with an interpretive hypothesis (a ‘meaning’ to investigate) and invent a way to test it.” An overly emphatic preference for “top-down” approaches could lead to an increasing distance from the humanities.

In contrast, computational methods in their adaptations for the digital humanities might benefit from a more explicit reflection on the “circularity” inherent in the iterative research process. In the qualitative social sciences, Grounded Theory Methodology (GTM) has led to such an explicit theoretical reflection. The potential of integrating methods derived from qualitative social research and especially GTM to reflect on workflows and “humans in the loop” [Liu 2020] in the digital humanities has so far been rarely addressed [Baker 2020] [Bischof and Freybe 2022] [Franken 2022]. What an integration or interweaving of DH practices with Grounded Theory Methodology (GTM) could entail has recently been explored in more detail by [Bischof and Freybe 2022]. They see GTM as a “reflective procedural framework to carefully inspect the entanglement between research practice, methods, and data” which “acknowledges that building models from data is a long, iterative journey” [Bischof and Freybe 2022, 2]. In order to better understand the opportunities and challenges of building bridges in and for the digital humanities, it is essential to recognize the different traditions, practices and objectives – not only between computational methods and humanities knowledge, but potentially also in the direction of social sciences and cultural studies. For example, in cultural studies approaches, research fields are only explored and identified step by step during the research process and, accordingly, the data to be analyzed are not fixed from the outset. They will be adapted to the specified research question [Franken 2022, 1]. Figure 8 is related to the understanding of the “abductive research attitude” as a way of “going through loops of inductive and deductive inference.” [Bischof and Freybe 2022, 22] The abductive research process implies that there are neither pure “bottom-up” approaches nor pure “top-down” approaches but that “it is clear that many assumptions are already embedded in a DH project before it has even begun” [Bischof and Freybe 2022, 22]. Making these assumptions and implicit hypotheses as well as the associated decisions transparent is an important conceptual extension of the reflections on interdependencies between categories. This plea can be linked to the statement by [Pichler and Reiter 2022, 16] that it is important to work on a shared “vocabulary on how such operationalization decisions can be made more transparent and thus intersubjectively (more) revisable.”

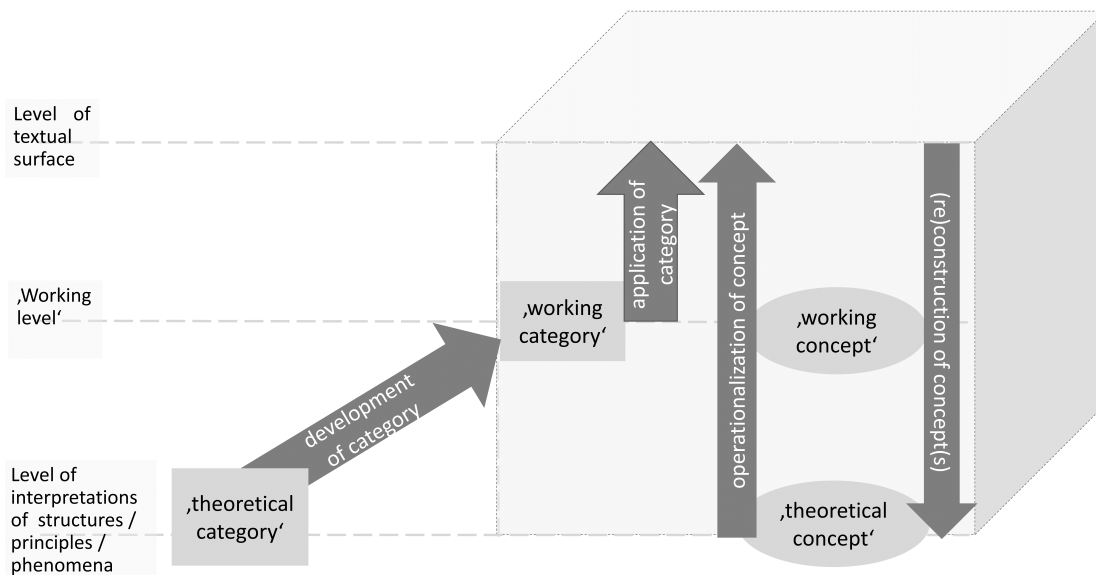


**Figure 8.** Heuristic spaces in the iterative research process (adapting [Bischof and Freybe 2022, 22]).

The approximation of “recursive modeling” is described by [McCarty 2008, 398] as process in which “the working model begins to converge on the theoretical model.” The description of this convergence remains rather open but can be intertwined with the proposed differentiation between category and concept systems. Table 2 shows the integration of the two differentiations. The sequence of “heuristic spaces” is conceivable as iterations within one project, but also as part of projects that build on one another. The resulting four different types of categories and concepts can be arranged spatially and be combined with a proposal to distinguish four different focus points of a project or various sub-phases: category development, category application, concept operationalization and concept (re)construction (see Figure 9). Reflecting possible assumptions in their relation to the three levels – the textual surface, the “working model” as well as the “theoretical model” – allows for distinguishing assumptions about the category from assumptions about the realm of phenomena as well as from hypotheses about the object of investigation.

	<b>Category system: part of methodological framework.</b>	<b>Concept system: representing the realm of phenomena.</b>
“Working model.”	Working category (system): <ul style="list-style-type: none"> <li>• category application,</li> <li>• structuring instrument of analysis and (re)construction.</li> </ul>	Working concept (system): <ul style="list-style-type: none"> <li>• representation of textual phenomena,</li> <li>• description of object of investigation,</li> <li>• structuring instrument of analysis and (re)construction.</li> </ul>
“Theoretical model.”	Theoretical category (system): <ul style="list-style-type: none"> <li>• definition, development and epistemological reflection of the category,</li> <li>• theoretical reflection of methodological questions.</li> </ul>	Theoretical concept (system): <ul style="list-style-type: none"> <li>• representation of realm of phenomena,</li> <li>• development of hypothesis,</li> <li>• interpretation of working concept (system)</li> <li>• reflection of discussions about realm of phenomena.</li> </ul>

**Table 2.** Integrating the differentiation of concept and categories with the juxtaposition of “working model” and “theoretical model.”



**Figure 9.** Representation of four possible focus points in working with categories and concepts.

## Future work

The following section will outline some future work that is conceivable based on the proposed framework. The obvious limitation so far is that the framework is related to one central category with a focus on one research process. It may seem tautological that the framework is developed referring to topos research, which is also used as an illustrative example context. Indeed, it remains an open question to what extent the framework will also be useful in reflecting on the interdependencies between the application and development of other categories. However, the design of the

framework was accompanied by an examination of overarching methodological debates and some initial approaches towards case studies. In the process, transfer possibilities within the digital humanities and especially computational literary studies were identified and integrated. Nevertheless, this work is in its early stages.

In general, an explicit reflection on assumptions in different phases of the research process could be particularly useful with regard to the application and development of annotation categories. These range between different forms of automatic, semi-automatic and manual annotation. Annotation processes stand between the different traditions, in a variety of different forms between human and machine [Rapp 2017] [Gius and Jacke 2017]. It would be helpful to reflect (annotation) categories more clearly as an “instrument of structuring” [Franken et al. 2020, 89]. The framework could also prove useful in the context of reflecting on different layers of annotation, which are often intertwined in a research process in the digital humanities. Furthermore, it could be examined to what extent the framework can be combined with other reflection instruments, such as the distinction between explorative, conceptualizing, explanatory and automation-oriented annotation [Pagel et al. 2020].

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The differentiation between the level of “category” and “concept” can be considered as relevant in other contexts, for example, related to “narratological event *concepts*” and “event *categories*” [Vauth et al. 2021, 333]. “Events” could also be an interesting case study because various conceptualizations exist as different aspects are emphasized in different disciplines and contexts depending on the objectives – for example, a narratological context with reference to literary texts raises other questions than event detection and classification in historical texts [Sprugnoli and Tonelli 2019]. The same can apply to the possible differentiation between “category” and “concept” of “genre.” It can sometimes stand alongside other categories, for example when “style can be associated with categories such as genre, epoch, author, and many more” [Herrmann et al. 2015, 46]. However, it can also be central and divided into several sub-categories and sub-concepts. Besides (theoretical) “target concepts” that form the starting point of operationalizations, there is also a type of “concepts” that emerge only in the course of the analysis process (and can become “categories”). In the study of [Calvo Tello 2021, 295–319], two “new” genres (distinct groups of texts behaving like genres) emerged, which he named “literary fiction” and “bucolic novel.” Even though all of the other sub-genres “existed” prior to this, these two new forms of genre-like textual coherence became visible during the research process. Whether such an insight resulting from the investigation is a “concept” or a “category” is a question of perspective: the term “concept” would imply a stronger link to the field of investigation from which the concept emerged. However, the “bucolic novel” could also become part of an analytical grid as a “genre” category, with which further corpora would be examined. While in this case, new categories emerged and the category system was refined, there are in contrast projects that start from already existing systems of categories like tagsets. For example, [Chihaia 2021] applied the protocol for event annotation in literary texts developed by [Vauth et al. 2021] to a new corpus of newspaper articles.

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With reference to the proposed framework, a clearer distinction of several conceptualizations and aspects of “theory” is possible (see Table 3). Similar attempts can be found in [Pichler and Reiter 2022, 16] and [Kleymann 2023]. A theory can be a) related to the category system and thus referring to methodological questions, e.g. explicating a framework. It can b) also be connected with reflections about the “realm of phenomena.” Concerning a) there will usually be a theoretical framework integrating different aspects of a theoretical context given by the humanities (e.g. narratology) and a theoretical reflection that is related to the computational models that are implemented. It seems useful to be aware of these different types or dimensions on which “theory” operates, especially as there is a variety of frames of reference and understanding of theory in the digital humanities. The theoretical reflection that the framework of the four relations strives for can increase transparency and intersubjective comprehensibility and thus potentially also reproducibility or repeatability (e.g. [Pichler and Reiter 2022, 17]; [Schöch 2023]).

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a) Theory about category system, referring to methodological aspects.	Theory about category system of humanities, especially literary studies (e.g. topology or narratology).
	Theory about category system of (applied) computer science.
b) Theory about realm of phenomena.	Theoretical concept as “starting point” or “target concept” of operationalization.
	Theoretical concept (system) as result of (re)construction process and following systematizing, interpretation etc.

**Table 3.** Different types of theory in research processes of digital humanities, especially computational literary studies.

In addition to the more general considerations, the article also aimed to address (digital) topos research as relevant field for the semantic-argumentative exploration and analysis of corpora. An interesting case of epistemological relations that arises between “topos,” “theme” and “topic” as a category in “topic modeling.” Within computational literary studies, the motif-historical tradition following [Curtius 2013] is emphasized when referring to the “topos” concept [Piper 2018] [Horstmann 2018]. However, the interpretation of “topics” in “topic modeling” is a complex case (e.g. [Schöch 2017], [Du and Schröter 2022], [Bischof and Freybe 2022]) and should not be confused with “topoi” as patterns of thematic-semantic as well argumentative coherence. In this context, topos research (with regard to argumentative, not only semantic coherence), the highly interdisciplinary field of thematology (or thematics, see e.g. [Hjørland 2001]; [Louwerse and Peer 2002]) and applications of “topic modeling” should be discussed more precisely in their epistemological relations in order to work out potential synergies and possible methodological integrations.

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Assuming that all language use is permeated by topoi implies that all use of language in research can also be investigated with regard to topoi. An awareness of the rhetoricity of academic language also raises awareness of pseudo-objectivities or sensitizes us to the implications, influences or constructiveness of a chosen metaphor. An interesting example is the result of the study by [Wilder and Wolfe 2009, 175], who examine the topoi of literary analysis in a didactic context and list “some special topoi of professional literary analysis,” including “Appearance/reality: The writer points out a perception of two entities; one more immediate, the other latent; one on the surface, the other deep.” It is not problematic per se, but there are striking parallels to the concept of “vertical relations” in this article as well as to the concept of operationalization. The concept of “research topos” may be a useful tool for reflection on scientific use of language.<sup>[33]</sup>

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## Conclusion

The proposed framework of categorial relations is conceived as a methodological (meta)model of and for working with categories and concepts and describing them in their interdependencies. Reflecting on these interdependencies is particularly important in the digital humanities because they are situated between different disciplinary traditions, each of which has a different focus and understanding of the role and functions of categories. The proposals associated with the framework for differentiating between “category” and “concept,” between different views of theory and between assumptions on three different levels aim to strengthen the dialog between the different research contexts. Explicit reflection on the role of categories and concepts could be important especially in computational literary studies and in the context of annotation practices but is not limited to this. The framework aims to mediate between different understandings of knowledge production and research processes. Its design is as simple as possible and capable of being connected and expanded, as was outlined in the reflection on the iterative research process and conceivable future work. If the article also contributes to illustrating the potential of (digital) topos research, a further goal would be achieved. Topoi as a category are multifaceted and could contribute to building inter- and transdisciplinary bridges between the currently rather disconnected fields of argumentation analysis and argument mining, topic modeling, discourse analysis and thematology. Combining the exploration of corpora regarding their thematic-semantic and argumentative forms of coherence, as well as entanglements between the two as they crystallize in topoi, would be a field of research in which the framework could prove useful and in which topology as methodology could be further developed.

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# Acknowledgements

I would like to express my sincere thanks to the anonymous reviewers and the editors for their careful review of my manuscript and their many insightful comments and valuable suggestions.

## Notes

[1] The original dictum is: “You shall know a word by the company it keeps!” [Firth 1962, 11]

[2] I thank deepL.com for help in translating both the quotations from the German-language travelogues as well as from some French or German research articles, and partly my own manuscript. All travelogues were originally published in German, which I will not mark in the following. Regarding the few translated quotations from research contributions, in contrast, I indicate the original language.

[3] The typographical solution of “(re)construction” is intended to represent the understanding that it is a combination of “construction” and “reconstruction”: It involves a constructivist approach that at the same time strives for the closest possible proximity to the historical recurrence phenomena to be reconstructed.

[4] For example, the translation of Curtius' standard work *European Literature and the Latin Middle Ages* (a study that shaped literary studies of topoi) uses the term “topic” to translate “topos.” This translation can lead to unfavorable and misleading implications especially within the digital humanities (including its proximity to “topics” in “topic modeling”). The terminological decision is meant to clarify that, in addition to the thematic-semantic dimension, it is also a category that has an argumentative dimension and is rooted in Greek rhetoric. I refer to a system of concrete topoi as *topology*. Although different practices can be observed, this use of topology can also be considered conventionalized [Meiner 2022] [Rubinelli 2017]. To ensure a distinction from topology as methodology, I italicize the term topology when referring to a constellation of topoi. The adjective “topical” refers to the concept of “topoi” (but not “topics”). To avoid confusion of terms and in the sense of demarcation, it should be further taken into account that “topology” as a term has experienced a remarkable boom in the last decade, which is not predominantly related to topoi. One reason for this is that the Greek prefix “topo-,” for example, is also contained in the term “topography,” to which “topology” refers in a different way in other research contexts and projects, where “topology” emphasizes some relational interdependencies, but it is otherwise a completely different use of the term (see e.g. [Rosol 2021]).

[5] Cf. [Bornscheuer 1976, 99–100]; although [Bornscheuer 1976] is an important reference for a dynamic topos concept (between instrument and sediment, innovation and tradition, etc.), his study remains partly abstract – he does not solve the problem of operationalizing the concept for text analysis.

[6] In the underlying study, manual annotation was conducted in different systems (with a changing set of keywords and concepts) and relevance was assessed taking into account frequency (via simple search functions). In comparison to standards of digital humanities, this procedure is not best practice. At the same time, the process had a dynamic openness which gave new insights about how development and application of categories within “recursive modeling” work.

[7] In the original, the terms are “méthode,” “réserve” and “grille” [Barthes 1985, 138–141].

[8] However, such a retrievable paradigm cannot be presupposed for the modern age (i.e. a time in which topology is no longer a widespread educational medium and therefore awareness of topoi in language use cannot be assumed), but must be (re)constructed by means of concrete manifestations of topoi at the surface level of the text.

[9] The inaccurate limitation of topos research to the static, conservative character of topoi is also recognized by [Hallacker and Schmidt-Biggemann 2007, 21], who address questions of innovation and transformation processes of knowledge (but do not pursue the development of a systematic methodology).

[10] In the reception of Ernst Robert Curtius, who has become (in reducing his work) paradigmatic for a motif-historical conception of topos research [Curtius 2013], different notions of topos became established in the different (sub)disciplines (simplified: literary studies – “material,” linguistics – “formal”), which ran unmediated and disconnected side by side.

[11] For the relatedness of the concept of archive with the approach of topology as methodology, see [Hinzmann 2020a, 448–450] discussing [Baßler 2005].

[12] My hypothesis regarding the intermediality of topoi (e.g. [Pfisterer et al. 2003]) would be that condensation processes are intensified through the interrelations or “echoes” of textual and visual manifestations of topoi.

[13] See further explanation regarding the terminological decision above in note 4.

[14] The underlying study not only looked for topoi in the primary text material, but also in research texts on comparable texts (research from the field of travel literature and intercultural studies). This step was intended to create a horizon for comparison. It became clear that there are some topoi that have already been discussed, but nowhere with the systematic objective of topology as methodology. Some topoi of the “India *topology*” are also relevant in other texts about “India” as [Dharampal-Frick 1994] for the early modern period and [Gokhale 2011] for the second half of the 20th century have shown. The topoi of the “travelogue *topology*” are also relevant in texts about other imaginary spaces (see for example [Fischer 2004] for “England” and [Schmidhofer 2010] for “Japan”).

[15] The clustering related to those topoi that constitute the imaginary India around 1900 shows specific forms of topical collocations, which become visible through the systematization in clusters, as well as different types of clusters. With regard to the bridge topoi in the India *topology*, it can be noted that these occur less frequently, but are particularly frequent between the two clusters of interpretations of history and colonialism. See the visualization of the India *topology* in Figure 6.

[16] After the (6.) interpretation of the (re)constructed and clustered topoi, (7.) previous research especially on travel literature was set in relation to the analysis results. In the (re)construction process, (8.) I encountered resistance (especially with regard to the recurrence pattern of “abundance,” which has neither the quality of a topos nor a cluster, but which I ultimately modeled as a “super topos”). Such resistances appear to be generalizable and constitute a separate operationalization step. (9.) Especially in literary studies, the singularity of the individual text is often overemphasized because no corpus is known or available as reference material. Against the background of the topoi of an entire corpus, it becomes clearer for each individual text what is specific and what are characteristics shared with other texts.

[17] Cf. [Fries 1912, 137]: “Apart from that, Bombay is too much of a Europeanized city to help our interest for long.” Cf. [Wechsler 1906, 112] regarding Calcutta: “This is where Europe is centralized. Here are the big banks, the big traders, and even though the city is two long day journeys by express train away from Bombay, life in the European quarter is still much more European, or more English to be precise, than in Bombay itself.”

[18] Cf. [Hengstenberg 1908, 165]: “Like a whirlwind, modern industry burst upon the minds of harmless people and affected their outer and inner lives.”

[19] Cf. [Garbe 1889, 55–56]: “If my readers should have gained the impression from the mention of the various European institutions that life in Jeypur is already drenched in Western culture to a remarkable degree, then I must assure them with great determination that the opposite is true. Only in Benares has Indian folk life preserved the character of the highest antiquity so pure and unadorned as in Jeypur [...].”

[20] However, such profiles could also be examined for groups of texts or shorter sections of texts, depending on the research interest. In all cases, the focus is on the manifestations of a topos or several topoi on the surface of the text, meaning on the characteristics of the distribution and frequency.

[21] For example, [Dahlmann 1908, vol. 2, 214] writes about the Taj Mahal, that it “is so perfect that no description can come close to doing justice to this work of art. No building in India has been drawn and photographed so many times, it has been described countless times; but neither pen nor brush can convey even a faint idea of the marvel [...].”

[22] Cf. [Tellemann 1900, 98–99]: “The detailed description of this remarkable building is extremely difficult and almost only possible with the aid of photography.”

[23] The conceptual clustering was done with the visualization and analysis software VUE (= Visual Understanding Environment is an open source project of Tufts University, <https://vue.tufts.edu/>), without which the process of “encircling” and clustering the approximately 150 topoi would not have been feasible. The software VUE was used for visualizations of the topoi (as well as the clusters and collocation patterns).

[24] In the underlying project of studying topoi in India travelogues, the circular process between category application and category development was terminated when a state was reached in which nothing new became visible through a refinement of the categories and, conversely, the application of the categories no longer entailed any definitional changes. In the context of Grounded Theory, this would correspond to “theoretical saturation” [Franken et al. 2020, 103].

[25] Cf. [Litzmann 1914, 62]: “The title Maharajah (king over princes) sounds even proud, and yet these rulers are only pseudo-kings, puppets in the hands of England.” Cf. [Meyer 1906, 21]: “One counts about 150 such Indian princes, of whom the small ones, however, possess only a shadow of power. The English government gives them a fairly free hand in administration, but supervises them through political agents sent to their courts.”

[26] Although the SATorBase project is informed by a significantly different understanding of “topos,” it has nevertheless also modeled a kind of methodological equivalent to “manifestation patterns” called “toposème” [Dubost 2021]. Both approaches thus share the idea to model an intermediate category between topos and text surface. The *toposème* are in contrast to the modeling of *manifestation patterns* in the underlying study thought of as the presence or absence of particular (types of) recurrences. Cf. [Dubost 2021, original in French]: “If the Satorians later find that one of these variants (for example, the color of the girl’s hair or the father’s widowhood) turns out to be recurrent and topical, a new topos, incorporating this variant as a *toposème*, will be created.”

[27] [Link 1988, 285, 290] discussed the close connection of his newly introduced category with topoi. In follow up research, this lack of selectivity respectively “reuse” means that the two categories “collective symbol” and “topos” are sometimes used quasi synonymously without reflecting their relation (see e.g. [Dürbeck 2007, 35]).

[28] Furthermore, the relatively specific debates in the reception of Curtius’ influential and polarizing work, in the course of which the discussions about “formal topoi” versus “material topoi” culminated, actually already run through the history of topos research and rhetoric since antiquity. Here, systematic insights and the historical perspective are entangled.

[29] Potential for synergies between topos research and discourse analysis in the sense of Foucault has already been addressed by [Bornscheuer 1987, 24–25, original in German]: “Nevertheless, today the transition no longer seems entirely speculative, that if topos research continued to consistently pursue historically overarching and interdisciplinarily bundled questions, it could develop into a completely different kind of ‘archaeology’ than Curtius had in mind, namely an ‘archaeology’ that asks for the ‘fundamental codes of a culture’ more in the sense of Michel Foucault.”

[30] “The master-trope for my investigation is named in my title. If there is one dominant and recurrent image in the annals of the modern tour, it is surely that of the beaten track, which succinctly designates the space of the ‘touristic’ as a region in which all experience is predictable and repetitive, all cultures and objects mere ‘touristy’ self-parodies.” [Buzard 2001, 4]. The search for authenticity or “realness” as a kind of coded escape from the code is described by [Culler 1988, 165]: “The authenticity the tourist seeks is at one level an escape from code, but this escape itself is coded in turn, for the authentic must be marked to be constituted as authentic.”

[31] Cf. [Halla 1914, 210]: “From the station, a well-kept park with beautiful palm trees leads to the dark red town hall, which with its Italian portico would fit in well in Naples; the Chandni Chowk also seems half-European after the cities of the Punjâb; so up and right into the middle of the jumble of narrow alleyways full of original character [...].”

[32] Although the vagueness of the “hermeneutic circle” and the associated practices in the humanities have been critically reflected upon [Danneberg 1995], the openness with regard to knowledge production and argumentation, i.e. the variance in the generation of intersubjective statements and the frequently discussed pluralism of methods continue to exist [Booth 1986] [Horstmann et al. 2023]. The resulting tension implies that the underdetermined but omnipresent “hermeneutic circle” in the humanities requires formalization and concretization in the digital humanities. This has led to several proposals, for example the “expanded hermeneutic circle of understanding” as a “formalization of the hermeneutic annotation process” in [Gius and Jacke 2017, 242, 250] and a proposal to differentiate four different “hermeneutic circles” [Hinzmann 2020b].

[33] The concept addresses the use of topoi in research contexts that are topically structured like other discursive contexts and that can be examined with regard to the use of topoi. Research topoi do not operate in a fundamentally different way from other topoi. Considering them can raise critical awareness on argumentative patterns of scientific language use [Hinzmann 2020a, 503].

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