Multimodal Discourse Analysis

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Over the course of its history, Poland has disappeared from the map of Europe three times—not least because of its geopolitical location between Germany and Russia. Territorial claims between nations led to partitions, wars, and territorial conflicts until well into the 20th century, with borders shifting and borders being redrawn as a result. According to Foucault, maps can be seen as materializations of power in discourses about (border) spaces (see also Harley 2001), and so these disappearances can also be seen as discursive disappearances.

From a discourse analytical perspective, access to reality is always a reconstruction of the representation of knowledge about this reality. Knowledge about (border) spaces can be described as a discursive construct consisting of both symbolic and material elements. Assuming a relational understanding of space (Löw 2001)—in other words, a relational arrangement of living beings and social goods within locations—the creation of space depends on material and symbolic factors and on constructive, synthesizing action in a reciprocal, meaningful relationship with others. Combining this definition of space and a discursive definition of knowledge (and its constitution by discursive practices), it is possible to analyze the process of creation and legitimization of spatial knowledge, with a focus on the *"how"*: How is knowledge about the German-Polish border constituted and legitimized? Discursive practices (re-)constitute, legitimize, and materialize systems of knowledge. Discursive practices can be defined as regular practices of statement, meaning individual statements following the same models (Foucault 1981: 156). In a space-related discourse analysis, we focus on how knowledge about space is constituted through discursive practices based on the understanding that material reality of these practices can be observed and analyzed. The historically situated existence of models, which Foucault defines as part of discursive practices and does not limit to acts of speech, is important to our understanding of knowledge about space. Thus, spatial knowledge is constituted not only by linguistic communication practices but also by visual forms such as designs or even completed buildings.

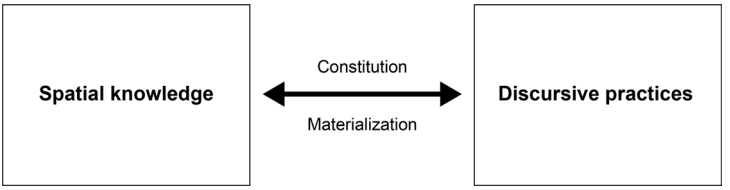

Fig. 1: Discursive spatial knowledge. | *© Author's own diagram*

To incorporate these materialized objectifications of knowledge into the analysis, it is useful to conceptualize discursive practices as multimodal. Space and spatial knowledge can be reconstructed and materialized in different ways. A purely textual analysis is no doubt the most frequently used dimension. But only by analyzing the textual *and* the visual in these materialized knowledge objectifications can space—which always becomes haptic/perceptible through the experience of seeing—be fully considered. "Multimodal" means subject to a social semiotic understanding that not just language but all available symbols are endowed with meaning (Kress 2012: 38).[1] Based on the understanding of discourses as multimodal discursive practices (Sommer 2018a: 80), an analysis of spatial dimensions can succeed by considering not only (written) language but also artifacts, technologies, and images as fully valid elements of discourse (Meier 2014).

In our article, we will first describe the methodological linking of discourse and space in order to then present our multimodal research program. This will then be illustrated in a third section using an empirical example analysis of German-Polish border regions.

1 Space and discourse

Foucault himself dealt with the spatial dimension of discourses in several studies, but without developing a clear understanding of space as part of discourse theory. In his study *The Will to Knowledge* (1978), Foucault describes different kinds of silence in the discourse about child sexuality in the 18th century. Using the example of a school education, he illustrates how this apparent silence is nevertheless materialized in various spaces: for example, in the architectural design of dormitories as with or without separating walls, with or without curtains, and with various rules for monitoring the sleeping times of children (Foucault 1978: 28). When we study space from the perspective of discourse analysis, we therefore also seek to make this *silence* speak through our analysis.

When we assume a relational and dynamic understanding of space (Löw 2001), we can study the symbolic and material organization of space (Keller 2016) as spaces and places do not present themselves but are represented by power relationships expressed in

1 Unlike in semiotics (de Saussure 2001), in social semiotics symbols are not considered to be arbitrary, that is to say, with no meaningful relation to the objects, because they are based purely on convention. Symbolic processes are not conceptualized as isolated but are always considered and studied in a cultural and situational context (Kress/Van Leeuwen 2001: 8).

discourses (Richardson/Benson 2003: 18). Spaces can be seen as both an effect and an impetus for discursive contestations. In our empirical example, borders are drawn through discursive practices, namely through categorizations, identities, affiliations, and the lack thereof, as well as through the construction of legalities. Border discourses involve not only "classic" territorial and political borders but also various forms of social borders (see Gerst et al. 2018). In more abstract terms, discourse analysis visualizes the spatial dimension within the powerful arrangements of knowledge. Conversely, an understanding of discourse analysis as an analysis of the social production of meaning in terms of specific truths results in the methodological potential to reconstruct the constitution of spatial realities in interdisciplinary spatial research (Richard/Benson 2003: 18).

Discourse research itself does not offer a coherent research program; rather, it is characterized by a broad inter- and transdisciplinary program of different approaches. In particular, the social-scientific version—the sociological approach to discourse (SKAD)—offers fruitful methodological links for interdisciplinary spatial research (Keller 2016) as it is not understood as merely textual research but rather examines the social interrelation of sign use and meaning production as a basis for the objectification of discursive stocks of knowledge (Keller 2011: 99). Analytical heuristics are a particularly important part of the analytical toolbox for the multimodal discourse analysis of space. Keller (2008: 240) fundamentally distinguishes between two dimensions of analysis in SKAD: first, the structure of the content of a discourse in the form of a typical *interpretative repertoire*, and second, the *materiality* of a discourse in the form of social actors and their actions within concrete practices.

Research approach	Dimension: Interpretative repertoire	Dimension: Materiality
Sociology of knowledge approach to discourse	Patterns of interpretation Narrative structure/storyline	Actors Practices

Tab. 1: Analytical categories of SKAD. | © Author's own diagram

The interpretative repertoire forms the basic structure in the sense of a typified core set of basic statements and basic premises of a discourse (Keller 2009: 46). It consists of the analytical units of the *patterns of interpretation* and the *narrative structure* or *storyline*. Keller understands patterns of interpretation as fundamental, meaning-producing schemata that can be considered a standardized sociocultural framework (Keller 2008: 192). Their function is both to make the world perceivable and to create a foundation for mutual understanding (Keller 2009: 48). Keller defines narrative structure as a storyline that links the different discourse elements in one through line. The second dimension of analysis consists of the discursive materiality in the form of social actors and the discourse coalitions they enter into, as well as the discursive practices performed by these actors.

Space, especially physical space and knowledge about it, is revealed in the specific analysis—for example, of the German-Polish border—through its concrete materiality;[2] in other words, not solely as spoken or written text, but also through visualizations in maps, photographs, videos, etc. in particular. Discourse is constituted from the combination of different sign systems (Fraas et al. 2012: 69). If we understand discursive practices as multimodal, not only does our analytical perspective expand from language to other forms of sign systems such as images, but the interaction of these different sign modes in their multimodal combination, meaning in their concrete interplay, can be captured. Semiotic modes are always embedded in their sociocultural contexts (Jewitt 2011: 16). Signs only become meaningful within communication processes, which does not imply that this occurs without structure or rules.

2 Multimodal discourse analysis in spatial research

A research design based on discourse analysis opens up the perspective on spatial representations within the framework of interpretative patterns that co-determine the process of how spatial reality comes into being. This means that spatial knowledge is (re)formulated by means of these patterns, with the possibility of representing space through interpretative schemes that co-determine the emergence of space. In concrete terms, the analysis involves reconstructing patterns of interpretation that, as discursive constructs, also co-determine the spatial reality of space (see Felgenhauer 2009: 261).

The concrete empirical process cannot be limited to the analysis of language. Only analyzing (moving) images would likewise be insufficient. It is instead the interplay between different symbolic systems that must be targeted. As explained above, our procedure is a variation of the sociology of knowledge approach to discourse.

We combine SKAD with the research program of grounded theory (GT), which, with its regularity in data collection and analysis, helps to structure the research process and, ultimately, with social semiotic discourse analysis (SDA), whose approach of multimodality and, in particular, image analysis, helps to analyze not only the language-based text but also the multimodal combination. Keller (2011: 83) describes the research process in SKAD as a circular process similar to that in GT, where different levels of analytical depth alternate with one another. The corpus formation and detailed analysis in SKAD also follow GT (Glaser/Strauss 2008), as do the specific procedural steps of theoretical sampling and coding. By means of the coding procedure, the interpretation of the data should lead to a conceptualization of the studied phenomenon. For this purpose, data sequences are compared with each other to form codes and categories (Strauss 2003: 25). In this way, the specific coding steps in GT can reconstruct the interpretative repertoire of a discourse. However, the specific multimodality of space-related discourses cannot be fully analyzed by triangulating SKAD with GT, and so SDA functions as an expansion

2 The corpus in our study consisted of (regional) print media in the most recent edition within the radius of the expanded border region from Berlin to Poznań, as well as regions in which surveys of actors took place: Tagesspiegel for Berlin, Märkische Oderzeitung for Frankfurt (Oder), Lausitzer Rundschau for Grießen, Gazeta Lubuska for Słubice, and Głos Wielkopolski for Poznań and Pózna.

of the discourse analysis process. SDA finally makes it possible to explore the visuality of the discursive practice and to make the materialization of the space visible through interpretation of the multimodal interplay between text and image.

Research Design	Methodical Elements for the Research Process
Grounded theory	· Circular research process · Theoretical sampling · Coding program
Sociology of knowledge approach to discourse	· Interpretative repertoire – Patterns of interpretation and storyline · Discursive materiality – Actors and practices
Social semiotic discourse analysis	· Metafunctions as "borrowed codes"

Tab. 2: Elements of a multimodal discourse analysis. | © Author's own diagram

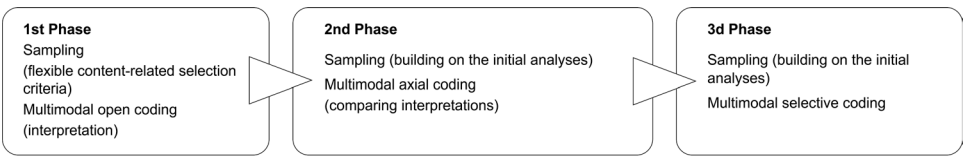

Fig. 2: Stages of collection and analysis | © Author's own diagram

We divided the combination and application of this research process into three stages. In accordance with GT, we pursue a logic of repeated sampling and interpretation that build on each other. The first step in the research program comprises the initial data collection and initial interpretation in the form of the first coding, which means nothing more than that we divide the discourse fragments into sequences and assign codes to them. We focus on the question: *What is being said and shown?* In the second step, we collect further data based on the first interpretation process. In the analysis step, we apply what is called axial coding, meaning we link the codes we have determined in the first step with each other. The focus of our analysis shifts somewhat in the second step: We are no longer working out only what is being said and shown but also how. In the third step, we collect data again based on the three research steps and interpret our data. Our aim is to order the discourse in the form of a story line,

that is to say, to analyze which patterns of interpretation, which speakers, and which practices are used to narrate the discourse. SDA is an important extension of the coding process and offers concepts and categories with which to analytically grasp multimodal, discursive communication about spaces. In particular, Kress and Van Leeuwen (2001, 2010) developed a method that can be appended to the coding process in GT. It is based on Halliday's (1993) functional grammar, which understands semiotic symbols as realizations of three types of functions related to meaning. These are the basic functions fulfilled by speech as an action (Halliday 1993: 112). The first function is the *ideational function*. It addresses the fact that language always expresses something about cultural experiences. The *interpersonal function* refers to the function of the language by which its speakers assume a position with respect to others and negotiate relationships. The *textual function* comprises the structure and internal logic of the language. Building on this, Kress and Van Leeuwen (2010) expanded Halliday's functional grammar to other semiotic modalities (Van Leeuwen 2006). For a multimodal analysis, this expansion of the metafunctions to visual forms of representation makes it possible to derive specific questions for the coding of visual data (see also Meier/Sommer 2013; Sommer 2018b).

Starting with the *ideational metafunction*, meaning the representation of content and concepts, we can derive the following questions and translate them into codes:

- Actors: Who is being represented?
- Social role: What are the social roles for the actors based on their appearance?
- Topic, event, object, situation: What is being represented?

The *interpersonal metafunction* refers to the relationship between the consumers of the image and the visually represented content, especially staging practices. To reconstruct the interpersonal metafunctions for visual communication, the questions mainly circle around production practices, such as camera settings, perspective, and section. The following questions for analysis and associated codes can be derived from this function:

- Camera placement/perspective: What camera placement or perspective has been chosen and what (spatial) relationship does this create to the scenarios being shown (full shot, medium full shot, close-up, extreme close-up and straight-on, low angle, or high angle shot and the associated role of the observer as a remote non-participating viewer, closely involved witness, participant, etc.)?
- Field of view: What view of image objects and contexts is permitted by the field of view and what relationship does this build with them?

The *textual metafunction* refers to the composition of the image elements. The following questions for analysis can be derived and translated into codes:

- Movements: Which movements or dynamics can be determined by lines (vectors) in the picture?
- Relationships between actors: How is the presumed relationship between actors established by body language, size differences, and positioning within the space?

- Closeness or distance: How is the distribution of objects in the image organized, and how does this organization constitute closeness and distance of the elements to each other?
- Dominances: What kind dominance, emphasis, and attention are constituted through the use of contrast (light–dark, big–small, blurry–sharp, gloss–matt, monochrome–colored, foreground–middle ground–background)?
- Affiliations and boundaries: What is the relationship between objects and context? (this includes questions about long shot, knee shot, close-up and extreme close-up, normal view, view from below, and what meanings can be gained from it?

The multimodal *metafunctions* play an equally significant role in the research steps of axial and selective sampling and coding as they expand and complement the analysis in a fruitful way.

3 Multimodal analysis: Empirical example

This section focuses on the actual process of coding. Below, we illustrate the methodological and practical use of the analytical categories of a multimodal discourse analysis in a process of interpretation by means of our empirical example.

3.1 First analytical step: Open coding together with a social semiotic image analysis

Our focus in the first phase of the analysis is oriented toward open coding in accordance with GT. We aim to obtain a general overview of the discourses and find an entry point into the debate. Open coding "breaks down" the collected data by comparing the data points to find differences and similarities. The W and H questions (Who? When? Where? What? How? How many? Why?) are used to code the data in an initial step. The codes themselves then describe the various concepts. These labels are initially provisional (Strauss 2003: 28). The labels can either be in vivo codes, meaning word usages that occur in the data, or "borrowed" codes from the researcher's prior knowledge (Mey/Mruck 2009: 115; cf. also Strauss 2003: 30, 125 et seqq.). In the excerpt below (see Tab. 3), we give an example of a few sections of text from our data to which we have assigned certain codes. A crucial point in multimodal analysis is that the codes can be contextualized not only linguistically but also visually. To do this, we apply a social semiotic discourse analysis by posing specific questions relating to the images. As a rule, it is necessary to look more closely at visual communication as it is impossible to determine the *what* without the *how* when it comes to images.

Text excerpts	Codes
"According to the BBC, ten thousand people crossed the borders to Germany and Austria over the weekend. The immigrants are already in the West." (Source: Głos Wielkopolski, author's translation)	THREAT_BEHIND_BORDER
 ▶ W ostatnich dniach na Węgrzech miało miejsce kilka protestów imigrantów, którym odmawiano podróży do Austrii i Niemiec ©Głos Wielkopolski	THREATENING_GROUP
"Friendly takeover. More and more Polish people are discovering the Uckermark for themselves, refurbishing vacant houses and restaurants." (Source: Tagesspiegel)	TAKEOVER_WORDPLAY_NS
 ©Tagesspiegel	IN-THE-CROSSHAIRS

Fig. 3: Example of open coding. | © Author's own diagram

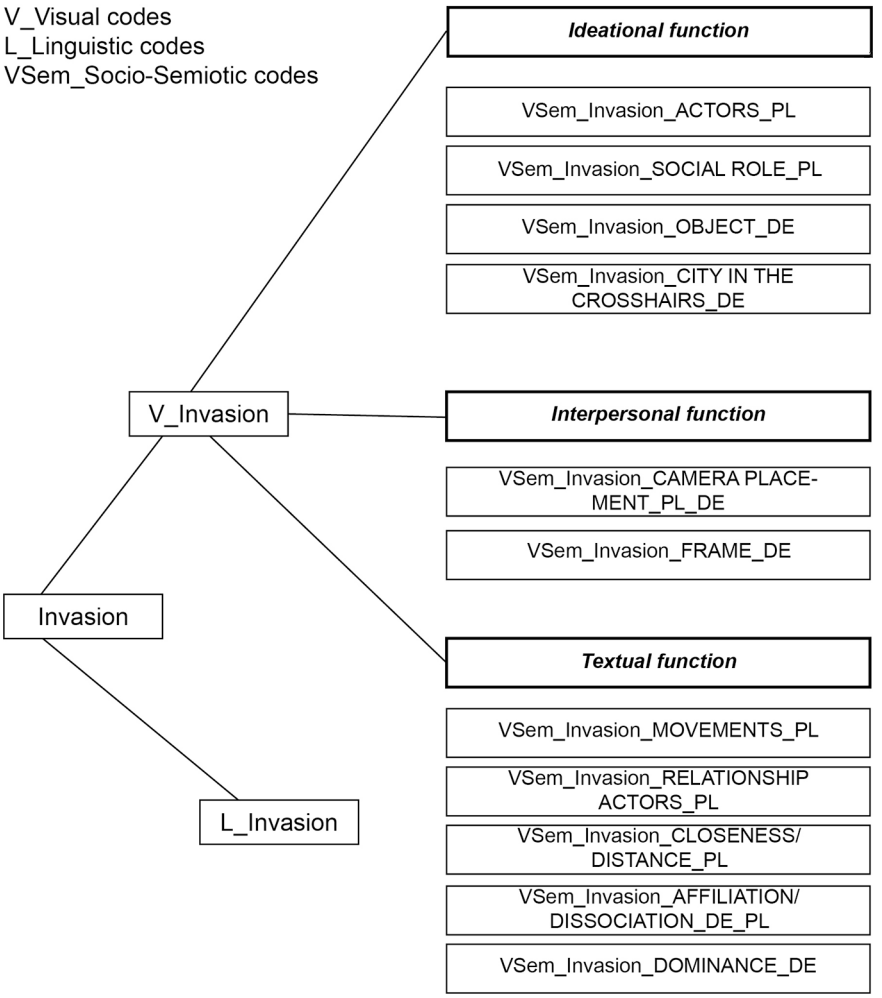

Fig. 4: Open multimodal coding. | © Author's own diagram

In our empirical example, both the German-language and the Polish-language discourse discuss the border by referring to an invasion in the sense of an invasive border violation. The coding excerpt shows that in the Polish-language discourse the topic of a threatening invasion by a specific group is pushed not only on the linguistic level but also on the visual level. This means visual representations can also be added to the code *Threatening_Group* in the Polish- language space. Their meaning is revealed at the organization level we have reconstructed using social semiotic coding. Specifically, we use the questions for analysis derived from the metafunctions (see previous section). Hence the analysis acts at different sign levels. In the open coding stage, these are "broken down" into their monomodal elements. From the perspective of research practice, this means that we generate monomodal categories and concepts from the visual and linguistic sequences.

In the example, young men [actors] are shown who create a threatening atmosphere because of their lowered eyebrows, wide-open mouths, muscular upper bodies, and a skull on one of their T-shirts (*ideational metafunction*). The staging is also conspicuous (*interpersonal metafunction*): The actors are shown in a medium full shot, so that the viewer experiences a feeling of being in the middle of the tumult of protesting actors [camera placement]. A slightly low angle creates the impression that one is being overrun by the crowd [frame]. For the third social semiotic metafunction (*textual metafunction*), the body language, such as the balled fists and tense bodies [movements], and the gaze and arms outstretched in the direction of the camera also suggest a threatening and invasive gesture [relationship actors].

Similar to the visualization in the Polish-language discourse, the German-language discourse also contains images illustrating border crossings. These include the field of view showing a city (see Tab. 3): At the level of *ideational metafunction*, there are no human actors [object] in the center, but—as the image caption explains—a part of the city of Prenzlau, which is close to the German-Polish border. The image shows the façade of a historic building on a street corner surrounded by the outline of an underpass [city in the crosshairs]. With respect to the *interpersonal metafunction*, the full shot camera positioning suggests a view of a chosen part of Prenzlau from the perspective of someone on the outside. The focus is clearly directed at the city as a (target) object and not at the inhabitants, whose presence/significance appears diminished by the cut-off torsos [field of view]. This example ultimately contains the key to interpreting the arrangement in the image (*textual metafunction*): The foreground contains the (slightly blurry) curved arch of the underpass framing the historic building façade [closeness/distance]. The curve is dark, like the edge of a gun sight, and the historic building façade shines in the sunlight as the object of desire [dominance]. The image arrangement in the context of Polish residents moving in and upgrading the cityscape suggests the martial act of placing something *into-the-crosshairs*. The playful treatment in this composition informs readers that something is heading toward the city and its inhabitants [affiliation/dissociation].

As the example illustrates, the different symbolic levels are coded separately, at the image level and at the text level. This analytical step is the foundation for reconstructing the multimodal interaction of the different symbolic levels in the next coding step.

3.2 Second analytical step: Multimodal discourse analysis – axial coding

In the second step of the analysis, we follow the axial coding process of GT. The goal of this step is to explore the multimodal relationships between the concepts and categories we have previously treated as monomodal.

3.2.1 The multimodal axial coding paradigm

In this stage, we adapt the axial coding paradigm of Strauss and Corbin (1996: 75 et seqq.). This coding paradigm makes it possible to specify the relationships between categories, key categories, and sub-categories by relating these to each other as phenomena, consequences, contexts, causal conditions, intervening conditions, and strategies. In our analysis, this coding paradigm helps compress the categories generated into interpretative schemes.[3] To break down and investigate the multimodal correspondences and relationships—for example, between text and image—we supplement axial coding from GT with social semiotic metafunctions. The aim of this stage is to reconstruct the interpretative schemes given the combination of these sign resources. The "borrowed codes" of SDA allow us to study the *how* (how is something expressed/represented?) for the combination of image and speech in the interpretative schemes: in other words, patterns of interpretation can be reconstructed from the multimodal elements.

For the components (phenomenon, context, etc.) of the coding paradigm, the key is determining how the different symbolic levels correspond to each other in ways that generate meaning. Patterns of interpretation can then be reconstructed from the multimodal elements and correspondences. From the perspective of research practice, we therefore interpret how the different semiotic modalities in the multimodal interaction realize the *ideational*, the *interpersonal*, and the *textual metafunction*.

3.2.2 Empirical example: Patterns of interpretation of invasion

We present multimodal axial coding using the example of the interpretative scheme of invasion. The interpretative scheme of invasion generally describes a threat caused by a spatial practice. The scheme arises from the interplay between what is viewed as the *intervening condition* for the potentially *threatening* and *ironically meant* invasion over the border and what ultimately corresponds to the *phenomenon* in this scheme (see Fig. 3). The intervening condition is stated to be the open border, which is not so much the underlying motivation as a prerequisite for migration. The causes of invasive border crossings are identified as problems involving demographic change in eastern Germany, which is expressed at the level of imagery through depopulated/empty streets. Of the social semiotic metafunctions, these elements of the interpretative scheme belong to the *interpersonal metafunction*.

3 Strauss and Corbin focus primarily on actions and interactions in various social situations. Accordingly, their axial coding paradigm is rooted in action theory (Strauss/Corbin 1996: 75 et seqq.; Strauss 2003: 56 et seqq.). For reconstructing the patterns of interpretation, however, the discursive interpretations stand at the heart of the coding. Hence, the phenomenon is itself the core of the interpretative scheme. Strauss and Corbin relate causal conditions to events or incidents that trigger the occurrence of a phenomenon. For the analysis in this study, we reconstruct what the particular patterns of interpretation identifies as the cause of a phenomenon. The same is true for the context and consequences.

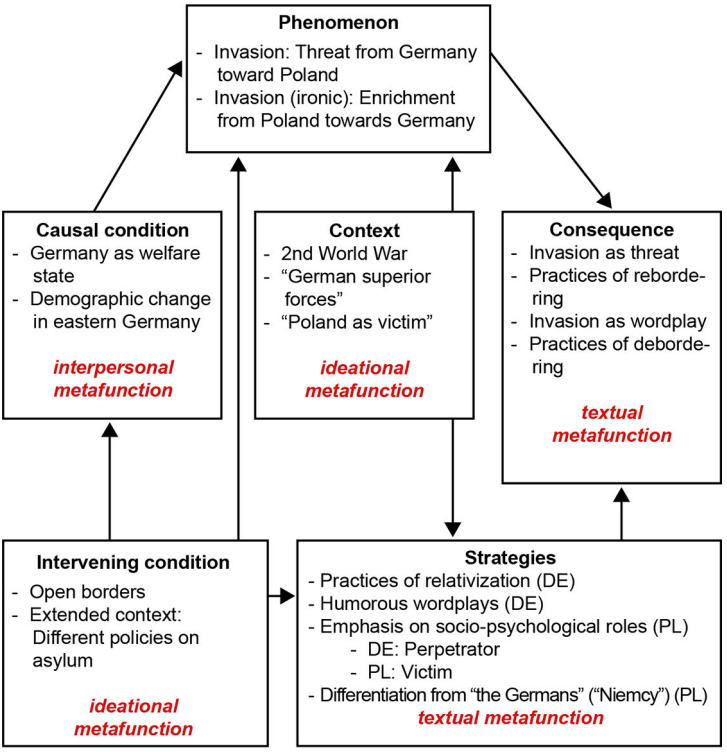

Fig. 5: Empirical example: Multimodal interpretative scheme of INVASION | © Author's own diagram

This is because the speakers suggest positions and causes to the readers that are practically a response to the open borders. As *strategies of action and interaction*, the German-language discourse engages in practices of relativization of the invasive character of the phenomenon, often based on humorous wordplay such as "friendly takeover" or "Poland is finally invading back." These boundaries are made clear at the visual level by the use of "peaceful" cityscapes to neutralize the implication of a threatening invasion. In the Polish-language discourse, in contrast, practices of separation are expressed by always formulating references to the neighboring country as an image of the Other (the Germans or *Niemcy* in Polish) and by attributing clear roles to Germans (perpetrators) and Poles (victims). From a social semiotic perspective, this fulfills the *textual metafunction* through mechanisms of inclusion and exclusion. The assignment of the roles of perpetrator and victim is reinforced by evoking specific *contexts*, such as the power imbalance between Germany and Poland during the Second World War, though only at the linguistic and not at the visual level. From the perspective of social semiotic metafunctions, these elements of the interpretative scheme fulfill the *ideational metafunction*: The social roles of the Poles as victims and the Germans as superior force is implied, relying on a culturally rooted foundation of experience. The elements of the interpretative scheme that imply the phe-

nomenon of invasive border crossing can therefore be interpreted in two ways within the axial coding paradigm. On the one hand, the interpretative scheme of invasion can portray a threat hidden behind the border, implying the border should be reinforced. On the other hand, the supposed threat of an invasive border crossing has an ironic connotation, implying the border should be dissolved. From a social semiotic perspective, the specific, structurally contingent use of language here fulfills the *textual metafunction*.

3.3 Third analytical step: Selective coding

In the third step, we also use the described analytical tools of axial coding to interpret the data at a higher level of abstraction. The aim of this phase is to reconstruct the narrative structure of the discourse and to fully map out the discursive practices and actors involved. To define the narrative structure, we relate the previously reconstructed patterns of interpretation to each other in order to describe the basic narrative, storyline, and pattern of the discourse. The multimodal patterns of interpretation are then the smallest elements at the level of the interpretive repertoire: One interpretive pattern can serve as a context for another or be a consequence of a phenomenal structure in the basic narrative.

In the selective coding process, we maintain an overview of all the interpretative schemes during coding. The advantage is that the code assigned to a pattern of interpretation can also form the context for coding another interpretative scheme. In this way, a *storyline* gives rise to the *interpretative repertoire*. In our example, let us assume that in addition to the interpretative scheme of *invasion* described above, we also discovered the interpretative schemes of *German superiority*, *Polish claim to sovereignty*, and *insecurity due to criminality* in our axial coding. It is already becoming clear that the interpretative schemes are characterized by unequal power relationships, the existence of aggressors, and vulnerability. Even though the interpretative schemes are identical, different internal relationships between the schemes result in two storylines, one in the Polish and one in the German discourse. In the German discourse, the interpretative schemes can be joined up into the German storyline *un/grateful neighborhood*, which alludes to the constant efforts and fears on the German side and the lukewarm and sometimes aggressive attitude toward a German-Polish relationship. An example of a speaker representing this storyline is an editor of the *Märkische Oderzeitung* newspaper referring to a "bridge without links." The storyline on the Polish side is *vulnerable at the border* and alludes to the historic and discursive graves belonging to the two countries, which manifest above all in the border region and thus represent a threat.

4 Potential of a multimodal discourse analysis

The multimodal discourse analysis research program we have presented focuses on patterns of meaning. In reconstructing multimodal pattern of interpretation in the Polish- and German-language discourse about the border, we focus on discursively negotiated knowledge about space. The combination of the sociology of knowledge approach to discourse analysis, grounded theory, and social semiotics also offers the potential of studying the material level of a discourse about space. In the SKAD, analytical categories are

created for both the interpretative repertoire and the material dimension, relating to actors and their discursive practices. The social semiotic concepts then make it possible to not only determine what statements are being made but also by whom and how. In this way, the issue of materiality—underexplored in discourse research—could become a fruitful approach in qualitative spatial research.

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