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RHETORIC OF DOXASTIC SYSTEMS: METABOLY AND SYSTASIS AS VALIDITY-ORIENTED OPERATIONS

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Abstract

This article develops a rhetorical theory of doxastic systems organized along relations between validity claims (Geltungsansprüche), validity criteria (Geltungskriterien), and assignment rules (Zuordnungsregeln). Doxastic systems are maintained because human orientation and action depend on the ability to coordinate with others under conditions of uncertainty. The assignment of validity claims and validity criteria operates across at least six coordinates (evidence, authority, tradition, pragmatics, consensus, coherence), which are always doubly conditioned: materially through the coordinates, modally through the asymmetric relationship between probability (object-oriented support) and plausibility (addressee-oriented connectability). The dynamics of doxastic systems exhibit three directional movements – addition, subtraction, and transformation of relations between components – which are operationalized through two opposing rhetorical operations: metaboly (introduction or reinforcement of challenging relations) and systasis (introduction or reinforcement of supporting relations). Following on from this, the classical concept of the pithanon can be reconceived as the situative configuration of plausibility potentials within which these operations acquire concrete directionality. Using Lyotard's distinction between narrative and scientific knowledge as an application: narrative knowledge operates primarily systatically (re-actualization of supporting relations, preservation of a core set of validity presuppositions), while scientific knowledge operates primarily metabolically (addition of new challenging relations, displacement of established validity presuppositions). Yet neither type operates purely in one mode – the systatic circularity of scientific knowledge serves the controlled steering of its metabolic reflexivity. Despite their structural opposition, both types of knowledge exhibit a common doxastic-rhetorical basic structure.

Keywords: rhetoric, doxastic systems, metaboly, systasis, plausibility, pithanon, types of knowledge



I would hesitate to call [rhetoric] a “cunning of reason”; not only because it would then be in even more questionable company but also because I would like to hold to the idea of seeing in it a form of rationality itself – a rational way of coming to terms with the provisionality of reason.

Hans Blumenberg (2020, 203)

1. Point of Departure

Over the past three decades, a number of studies have contributed to the rehabilitation of the concept of *doxa* – its history, its philosophical implications, and its role in rhetorical theory (Bengtson 2024). Many of these contributions offer valuable reconstructions of historical positions, yet they rarely attempt to develop a systematic framework for understanding how *doxa* operates as a structural feature of human orientation. The present article undertakes such an attempt. Its central concept is that of “doxastic systems” – systems of validity claims, validity criteria, and assignment rules that organize the way individuals and groups establish, challenge, and maintain what they hold to be valid.

The transformations of the knowledge landscape in the second half of the 20th and the first quarter of the 21st century are well documented (Spinner 1997; Daston 2017; 2020). At the center of the following distinctions stands the question of how these transformations can be observed from the perspective of rhetoric at a fundamental conceptual level. At stake are the basic communicative operations by which validity claims are established and challenged – operations that are employed both in the domain of *episteme* and in the domain of *doxa* (Erhardt 2025).

2. Persuasive Fields of Tension

Before introducing these operations, three key concepts require clarification. Human orientation and cooperation under uncertainty depend on the ability to establish, challenge, and maintain what is held to be valid in a given context. Validity (*Geltung*) designates the status attributed to a claim, norm, or presupposition insofar as it is treated as binding, accurate, or connectable. It is not a property of statements, but a status that is communicatively ascribed and varies with context. A validity claim is the act by which a communicator claims that something is valid, thereby exposing themselves to the agreement or objection of others. It always operates in a field of presuppositions – epistemic, affective, social – that it does not itself generate but must presuppose. Validity criteria are the standards by which the legitimacy of such claims is assessed – what counts as a reason, as evidence, as a relevant authority in a given context.

Modern rhetorical research distinguishes between two operations that act directly on this status: metabolic and systatic operations (Knappe 2012). Metabolic operations aim at inducing a shift from the acknowledgment of one validity claim to the acknowledgment of another – a de-plausibilization of validity claim₀ and a (re-)plausibilization of validity claim₁. Systatic operations aim at intensifying commitment to an already acknowledged validity claim – a re-plausibilization of validity claim₀.

The Tübingen rhetorician Joachim Knappe defines these two modalities as follows and uses them to differentiate the concept of persuasion:

[...], one of my definitions of rhetoric is that it is the communicative method by which a change (*metabole*) of opinion in a society or group can be peacefully achieved. To this definition I would add the following paradox: rhetoric is also the method of re-establishing order and connections (*systasis*) once such change has taken place. (ibid.: 1)



Metabolically and systatically oriented operations are often intricately interconnected in concrete persuasion processes: to generate new commitments, established ones must be de-plausibilized; to achieve certain shifts, certain commitments are necessary; in many cases, a successful metabolic intervention directly implies a transition to a systatic goal (Knapé 1998; Knapé 2025). This dynamic of substitution and reinforcement affects all validity claims – those raised in everyday lifeworld contexts no less than those raised in the sciences or religions, where validity is reinforced through specialized procedures.

Knapé's use of "opinion" already points in the direction of the concept that forms the frame of reference for this validity-oriented dynamic: *doxa*. As developed in more detail elsewhere (Erhardt 2025), this refers to highly multifaceted fields of social probabilities that are mobilized in order to communicate and coordinate with others in an effect-oriented manner. However, the term "probability" requires qualification. Probability is object-oriented: it measures the degree to which a validity claim is supported by reasons, evidence, or experience. Plausibility, by contrast, is addressee-oriented: it measures the connectability of a validity claim to what specific addressees, under specific conditions, already presuppose as acceptable. Rhetoric is concerned with both, but gives primacy to plausibility: even the best-supported validity claim fails to persuade if it draws on resources of validity that are not shared by its addressees.

Consider a case in point: the assertion that a specific vaccine reduces infection rates by 70% may be excellently supported by clinical trials – its probability is high. Yet its capacity to orient action in a parliamentary debate, a village assembly, or a family conversation depends not on this support alone, but on whether the addressees share the presupposition that clinical trial data constitute a relevant basis for the decision at hand. Where this presupposition is not shared, high probability fails to generate plausibility. The two thus stand in an asymmetric relationship: probability presupposes that participants can agree on what counts as support – and this agreement is itself bound to plausibilities that cannot be equally in need of justification (*ibid.*). The distinctiveness of *doxa* consists in the fact that the socially shared plausibility potentials circulating within these fields do not merely provide the preconditions for individual language games or discourse genres, but rather the general preconditions for the very possibility of communicative follow-up.

Whenever validity claims are established, challenged, or confirmed, this takes place within doxastic fields. In scientific contexts, these fields are reshaped – not transcended – in an epistemically productive and reliable manner through methodological and organizational procedures; nevertheless, they remain part of a fundamental doxastic dynamic that must always be taken into account (Janich and Kalwa 2018). The central characteristic of this dynamic is that it performs its essential function unthematically: in a concrete situation where validity is communicatively at stake, it always provides more validity resources than it problematizes (Kopperschmidt 2018).

Whenever validity claims are problematized, this can only succeed if there exists a shared foundation of validity criteria – at least a partial overlap – on the basis of which the claim in question can be challenged or affirmed. This is the asymmetric structure identified above at work: the plausibilities on which a problematization draws must themselves be less problematic than the validity claim it targets. Peter Ptassek aptly writes: "Continuous action in the face of complex circumstances is only possible when perspectives and orientations are always already present and do not need to be specifically worked out" (Ptassek et al. 1992, 1). Even a simple case illustrates this: whether someone asserts "water is H₂O" or denies it, both can draw on highly heterogeneous

¹ All translations of German texts into English by the author.



criteria – scientific evidence, metaphorical recontextualization (“substance of life”), religious authority (“gift of a deity”). What these otherwise disparate strategies share is that each offers criteria to which others can connect. A justification such as “I say this because I am having a spontaneous epiphany” does not – and communication breaks down.

In what follows, it will be shown that the operations of *metaboly* and *systasis* are epistemologically productive concepts for analyzing how validity claims are established and challenged across different types of knowledge.

3. The Doxastic Infrastructure of Validity

The distinction between opinion and knowledge is central to what follows and requires brief clarification. Opinion (*doxa*) designates a communicative act that refers to something that could also be otherwise and that claims not correspondence with a state of affairs, but defensibility – the possibility of taking up a discursive position on justifiable grounds. Knowledge (*episteme*) designates a validity-enhanced form of opinion whose validity is secured through codified procedures and that claims addressee-independence. Yet knowledge rests on doxastic presuppositions that it does not itself generate. The two are not related as truth to untruth, but as different modes of claiming validity – a point already implicit in Aristotle’s definition of rhetoric:

Let rhetoric be [defined as] an ability, in each case, to see the available means of persuasion. This is the function of no other art; for each of the others is instructive and persuasive about its own subject: for example, medicine about health and disease and geometry about the properties of magnitudes and arithmetic about numbers and similarly in the case of the other arts and sciences. But rhetoric seems to be able to observe the persuasive about ‘the given,’ so to speak. (Aristotle 2007, 1355b)

From a rhetorical perspective, the persuasive is subject to a crucial requirement: it must connect to plausibilities that can be presupposed as shared among those whom it addresses (*endoxa*). Ptassek accordingly describes *doxa* as a “basis of social knowledge not present as knowledge” (Ptassek et al. 1992, 5) – a reservoir of plausibilities that becomes explicit only when validity is contested. Another example: A politician claims “We must lower taxes to stimulate the economy”. The statement is persuasive only for those who share the plausibility that lower taxes promote investment. For someone who considers state investment more effective, it connects to different *endoxai* – and remains unpersuasive not because it is factually incorrect, but because it draws on validity resources that are not shared.

A terminological distinction is needed here. The *doxic* level concerns concrete validity claims: S holds that p. The *doxastic* level concerns the criteria by which such claims are justified: S holds that p is valid *because of* criterion v (Erhardt 2025). Rhetoric is interested in both dimensions. The rationality at work in this interplay is, as Ptassek et al. put it, a “rationality immanent to opinions” (Ptassek et al. 1992, 11) – not unfounded, but diffuse and not methodologically grounded. Hans Blumenberg captures the implications:

One must be cautious with the accusation of irrationality where infinite, indeterminably extensive procedures must be excluded; in the domain of justification of life practice, the insufficient can be more rational than insisting on a ‘science-shaped’ procedure, and it is more rational than the disguising of decisions already made through science-typifying justifications. (Blumenberg 2020: 198)



The doxic-doxastic assignment operates along at least six coordinates:²

- *Evidence*: assignment through givenness – immediate perception supports the claim.
- *Authority*: assignment through competence – an expert supports the claim.
- *Tradition*: assignment through stability – the support has proven itself over an extended period.
- *Pragmatics*: assignment through practical success – the support functions sufficiently often in practice.
- *Consensus*: assignment through social convergence – many members of a group share the support.
- *Coherence*: assignment through heuristic integration – the claim is compatible with other accepted claims already successfully supported.

It is worth noting that the six coordinates operate on both levels of the distinction introduced above. Whether evidence supports a validity claim – whether clinical studies actually show an effect – is a question of probability. Whether the addressees accept evidence as a relevant criterion in the case at hand – whether they regard clinical studies as the kind of thing that should settle the matter – is a question of plausibility. The same holds for each of the other coordinates: whether an authority is competent is a question of probability; whether the addressees recognize the authority as applicable to the contested issue is a question of plausibility. The relational structure of doxastic systems is thus always doubly conditioned: materially through the coordinates, modally through the asymmetry of probability and plausibility.

As will become clear in the schematization below, the relations between components can be supporting, challenging, or indifferent – but the grounds on which they are so qualified are always drawn from one or more of these coordinates. Different language games weigh them differently: in the sciences, coherence and pragmatics dominate; in religions, authority and tradition; in politics, consensus and pragmatics; in law, coherence and authority; in everyday life, mostly evidence and pragmatics. Consider the claim “regular physical activity reduces the risk of cardiovascular disease”. In a medical context, this claim is primarily supported through coherence (compatibility with established physiological models) and pragmatics (clinical studies show consistent effects). In everyday conversation, by contrast, the same claim may draw its force primarily from evidence (“I feel better when I exercise”), authority (“my doctor says so”), or consensus (“everyone knows this”). The claim remains the same; what shifts is the configuration of coordinates through which it is rendered plausible.

4. Doxastic Systems

Doxastic systems play a pivotal role in this dynamic. In the human lifeworld – except in explicitly demarcated special domains – no universally binding standard is available for the identification and evaluation of validity claims, validity criteria, and assignment rules. Every individual maintains a doxastic system that mediates between subjective and intersubjective plausibilities, enabling the admittedly relative, but immanently justified assignment of validity claims and validity criteria.

Such systems are not merely private repositories of belief. They are maintained because human orientation and action depend on the ability to coordinate with others under conditions

² This list is not exhaustive, but it suffices for the development of the present line of thought.



of uncertainty – to establish shared expectations about what can count as valid in a given situation, even in the absence of definitive knowledge (Blumenberg 1981; Tomasello 2022). Doxastic systems are thus always both individual and social: they organize a single agent's orientation, but they do so by drawing on, and contributing to, collectively sustained plausibility potentials. Ptassek et al. write:

It contains everything that a subject holds to be true and believes at a given point in time. Each individual opinion receives its justification relative to the doxastic system, just as conversely the system itself is continually corrected through alignment with individual opinions. [...] A concrete opinion is therefore justified when it coheres with the doxastic system, which means when it is reasonable relative to the system to accept it. (Ptassek et al. 1992, 14)

It should be noted that the authors do not consistently distinguish between the doxic and doxastic levels of opinion. What matters here is that doxastic systems consist of at least three components: doxic validity claims, doxastic validity criteria, and assignment rules. Between these components, complex relationships are possible, which will now be examined more closely.

From a rhetorical-theoretical perspective, the six coordinates specify the material grounds of assignment, but do not yet capture the formal structure of doxastic systems at the highest level of abstraction. This requires a further step of schematization: every component of a doxastic system – whether validity claim, validity criterion, or assignment rule – stands in either a challenging, supporting, or indifferent relation to every other component (“indifferent” here means: no mutual implications). Which of the six coordinates qualifies a given relation as challenging or supporting is a material question; that every relation *must* be one of the three is a structural feature of doxastic systems as such.

At least three things can be said about the constitution of such systems: 1. A doxastic system is consistent when the challenging relations between its components are minimized. 2. A doxastic system is coherent when it has a sufficient number of supporting relations. 3. A doxastic system is fragmented when it exhibits too high a number of indifferent relations.³ An ideal doxastic system would accordingly be consistent and coherent; a consistent but fragmented system has “islands” without contradiction, but also without integration; an inconsistent and coherent system is characterized by many supporting, but also many challenging relations.

Doxastic systems form the irreducible horizon of human orientation. Even knowledge that claims general bindingness – scientific, religious, or legal – cannot “go back behind a certain doxastic foundation” (Ptassek et al. 1992, 13). The methodization, dogmatization, or codification of the production of validity claims, validity criteria, and assignment rules can reorganize doxastic systems under very strict conditions, without thereby transcending them. Scientific communities, for example, form specialized doxastic systems that are epistemologically reshaped through methodological, institutional, and normative procedures. Yet no entirely new type of orientation system emerges in the process: there are no thoroughly scientific systems opposed to doxastic systems, but only scientized doxastic systems. All knowledge has “doxastic roots” (ibid.).

The schematization developed so far provides the framework for specifying the operational logic of metaboly and systasis. Central to both operations is the dynamic of persuasion, which Knappe characterizes as follows:

³ What “minimized”, “sufficient number”, and “high number” mean cannot be determined independently of context. The standards vary depending on the orientation of the doxastic system (everyday, scientific, religious, etc.).



Accordingly, rhetorical action has the goal of transforming a state of consciousness of uncertainty or doubt (*dubium*) with regard to [...] [various] orientation aspects into a state of consciousness of certainty (*certum*). Applied to an extended period of time, this means that permanent persuasion has to contend with a chain of emerging doubts, which must repeatedly be transformed into new certainties and, at the same time, into renewed stable commitment. (Knappe 2003, 877)

Knappe formulates this in psychological terms – as shifts between mental states. In the framework of the present investigation, such states are reconceived as relational patterns in doxastic systems: concrete opinions or attitudes correspond to specific configurations of validity claims, validity criteria, and assignment rules.

Metaboly and systasis are relational operations on the components of doxastic systems. The dynamics of these systems exhibit three directional movements: addition of new relations, subtraction of existing relations, and transformation of relations between components. Metabolic operations generate the degree of *dubium* required for a given persuasion process – through the addition of challenging relations, the subtraction of supporting relations, or the transformation of supporting relations into challenging ones. Systatic operations establish the targeted *certum* – through the addition of supporting relations, the subtraction of challenging relations, or the intensification and re-actualization of existing supporting relations. Knappe calls the metabolic phases of a persuasion process *infestation*, the systatic phases *certification* (Knappe 2025).

This schematization operates at a high level of abstraction. It describes the relational structure of doxastic systems and the operations that reorganize them, but it does not yet address the question of how this structure becomes operative in concrete situations of orientation and action. The classical rhetorical concept for this situative concretization is the already introduced *pithanon* – that which is capable of generating assent in a given case. In the framework of the present investigation, the *pithanon* can be reconceived as follows: it designates the situative configuration of plausibility potentials that determines, in a concrete case, which validity claims can be established or challenged on the basis of which validity criteria and assignment rules. It is the point at which the abstract relational structure of a doxastic system becomes action-guiding – the moment at which metabolic and systatic operations are not merely possible, but acquire a concrete direction. What can be de-plausibilized or re-plausibilized, and through which coordinates, is never determined by the system alone, but always by the system *as it encounters a specific constellation of addressees, stakes, and circumstances*. In this sense, the *pithanon* marks the interface between the structural analysis of doxastic systems and the situative analysis of communicative practices.

5. Narrative and Scientific Knowledge in Lyotard

The framework developed so far can now be brought to bear on a concrete case. *The Postmodern Condition: A Report on Knowledge* is read in what follows as a contribution to the research on types of knowledge (Abel 2013). Lyotard examines two types of knowledge – narrative and scientific – and insists that one possesses “neither more nor less necessity” than the other (Lyotard 1984, 77). Neither can serve as the standard for the other: “Starting from the scientific, one could [...] judge neither the existence nor the value of the narrative, and vice versa, for the relevant criteria are not the same in each case” (ibid.). They coexist and are incommensurable – which also means that scientific knowledge is not a further development of narrative knowledge, as if the latter “contained the former in embryonic state” (ibid.). In the terminology of the present investigation: they exhibit significant differences in their respective doxastic dynamics.



5.1. Narrative Knowledge

Put quite simply, “narrative knowledge” in Lyotard designates a type of knowledge whose legitimation and transmission occur through narration. In contrast, scientific knowledge relies primarily on procedures of argumentation and proof. Both procedures can also be part of narratives, but do not perform the primary work. For example: utopian as well as dystopian narratives of progress typically make use of the scientific knowledge available in a given period. Its knowledge-theoretical status changes in its translation into a narrative register: its validity criteria, validity claims, and assignment rules are recontextualized through narrative operations.

An obvious objection is that “narration” is a poetological concept referring to a form of representation, not to a type of knowledge.⁴ Lyotard’s perspective becomes accessible when one considers that his primary interest is directed toward the social function of knowledge: How is it generated? How is it justified? How is it transmitted? Essential for him is the observation that among humans there exists at least one type of knowledge that temporally orders past, present, and future events; links orientation and action options; is context-bound in its contents; and is learned through performative, not methodological, training.

According to Lyotard, this type of knowledge is not restricted to a particular class of statements. Rather, its distinctive feature consists in the fact that it offers pragmatic rules for linking different classes of statements. He writes:

Denotative statements concerning, for example, the state of the sky and the flora and fauna easily slip in; so do deontic statements prescribing what should be done with respect to these same referents, or with respect to kinship, the difference between the sexes, children, neighbors, foreigners, etc. Interrogative statements are implied, for example, in episodes involving challenges (respond to a question, choose one from a number of things); evaluative statements also enter in, etc. (Lyotard 1984, 20)

Through the “interweaving of various networks of heteromorphous classes of utterances (denotative, prescriptive, performative, technical, evaluative, etc.)” (ibid. 1984, 65), narrative knowledge is significantly involved in establishing the social cohesion of a communication community. A narrative that accomplishes this demonstrates how the respective statements are used in a legitimate manner. Put differently: it contains schematizations of how one can denote, prescribe, evaluate, or question in socially accepted ways. As such, it brings together the “pragmatic rules” of symbolic interaction that “constitute the social bond” (ibid., 21). For Lyotard, the content of this knowledge cannot be separated from the practice of narrating it. Being able – and being permitted – to narrate the narrative in the appropriate manner is itself a form of knowledge, without which someone might reproduce a narrative but precisely not narrate it appropriately. Armin Nassehi pointedly remarks: “The legitimation of the narrative is the narration of the narrative” (Nassehi 1991, 197).

Nassehi’s formulation shows that narrative knowledge exhibits a self-referential dynamic of affirmation: “The narratives determine [...] criteria of competence and/or illustrate their application. Thus they determine what in the culture has the right to be said and done [...]” (Lyotard 1984, 23). In the terminology of the present investigation: authoritative narratives define validity criteria and assignment rules and articulate validity claims that correlate with these determinations. With

⁴ There are good reasons, in the sense that: scholars have pointed to similar issues. Historical knowledge is essentially narrative (Danto, White, Ricœur). Identity knowledge is narrative (Taylor, MacIntyre). Everyday knowledge is often narratively structured (Schütz).



some sharpening, one could speak here of a *systatic circularity* of narrative knowledge: since the narrative is itself part of the reality that is grounded through it, it legitimizes itself through successful performance. In formal terms, this amounts to a *petitio principii* – but one that is socially effective precisely because its circularity generates binding force: the narrative presupposes the validity of what it establishes and establishes the validity of what it presupposes.

Due to this structure, such knowledge necessarily exhibits a “persistence” and an “affinity [...] with habit” (Lyotard 1984, 18). It can be responsive and open to surprise, but only under the condition of not changing “at least in certain sectors” (ibid., 19) – that is, of problematizing its presuppositions only in such a way that an indispensable core set of doxastic relations is preserved.

The very idea of development presupposes a horizon of non-development, where the various competencies are thus assumed to be embedded in the unity of a tradition and do not dissolve into qualifications that are subject to innovations, discussions, and specific investigations. (ibid.)

This elementary form of performative self-legitimation – a systatic operation *par excellence* – is precisely the general doxastic principle identified above, now in its specific manifestation: it always provides more validity than it problematizes. In this sense, this type of knowledge is, according to Lyotard, “legitimizing from the outset” (ibid., 70).

In relation to the schema of doxastic dynamics introduced so far, this means that the actualization of already existing supporting relations through repetition is foregrounded. Addition, subtraction, and transformation of relations generally serve the preservation of those relations that constitute the core set of presuppositions of a given narrative. What is striking is that often only as much is added and transformed as necessary to neutralize any challenging relations with which the doxastic dynamics of narrative knowledge finds itself confronted.

An example: The narrative knowledge that families transmit about themselves can certainly vary – new anecdotes are added (addition), unpleasant episodes are omitted (subtraction), and interpretations shift (transformation). Yet the core set – “We are a family with these values, this history” – remains unproblematized and is precisely reinforced through the variations. The coordinates primarily at work here are tradition (the support has proven itself over generations), authority (certain family members – typically elders – are recognized as legitimate narrators), and consensus (the narrative holds because its core is shared). Notably, the question of whether the family narrative is *well-supported* in an object-oriented sense – whether the events actually occurred as told – rarely arises: probability and plausibility remain fused. Where the doxastic fabric of this narrative knowledge is not sufficiently irritated, it can be transmitted for decades without any variation that touches the core.

Narrative knowledge, then, operates primarily systatically: it generates consistency and coherence through reconnection to already established constellations in doxastic systems, legitimated not through methodological principles but through performative self-legitimation. Its *pithanon* is configured accordingly: it succeeds when the re-actualization of the narrative connects to the core set of shared presuppositions in a way that is recognized as appropriate by the addressees – told by the right person, on the right occasion, in the right manner. What counts as “right” is itself determined by the doxastic relations that the narrative preserves.



5.2. Scientific Knowledge

“Scientific knowledge” is, according to Lyotard, “in conflict with narratives from the outset” (Lyotard 1984, xxiii) Where narrative knowledge legitimizes itself through successful performance, scientific knowledge is decidedly configured differently: at the center stands not whether the narration succeeds, but whether the statements at issue are “true”. Lyotard writes:

Scientific knowledge requires that one language game, denotation, be retained and all others excluded. A statement’s truth-value is the criterion determining its acceptability. Of course, we find other classes of statements, such as interrogatives (“How can we explain that ... ?”) and prescriptives (“Take a finite series of elements ...”). But they are only present as turning points in the dialectical argumentation, which must end in a denotative statement. In this context, then, one is “learned” if one can produce a true statement about a referent, and one is a scientist if one can produce verifiable or falsifiable statements about referents accessible to the experts. (ibid.: 25)

The acceptability of a statement that belongs to this type of knowledge is thus subject to at least four conditions: 1. it is denotative; 2. it is true; 3. its truth is determined through procedures that must themselves be considered scientific; 4. social acceptance is granted not by the group in general, but by a special group of experts. Particular attention is paid to statements that exhibit differences from the already known that can be argued and proven (ibid., 26). It is this orientation toward innovation – “the search for new argumentations, the invention of ‘new’ moves and even new rules of language games” (ibid., 53) – that potentially brings scientific knowledge into conflict with narrative knowledge.⁵

To the extent that the need to provide proofs and develop verifiable arguments establishes itself in knowledge culture, the pressure on narrative knowledge increases. At the latest since the 19th century, the legitimacy of all statements that cannot be methodologically justified has been put to the test. In the terminology of the present investigation: human lifeworlds have since been characterized by the coexistence of the *systatic circularity* of narrative knowledge with the *metabolic reflexivity* of scientific knowledge. Through the mobilization of immense cognitive, practical, and material resources, presuppositions that have already established themselves as “valid” are systematically problematized. The pragmatics of scientific knowledge is organized in such a way that “the knowledge accumulated in previously accepted statements can always be rejected” – no statement is ever “protected from ‘falsification’” (ibid., 26).

In doing so, the current sender of a scientific statement is assumed to “have knowledge of earlier statements concerning his referent (bibliography) and to advance a statement about this object only insofar as it differs from earlier statements” (ibid.). What is at stake is precisely not the successful affirmation of existing relations between validity criteria, validity claims, and assignment rules, but rather systematically forcing the possibility that new, non-anticipatable moves may become necessary, which partially or fundamentally alter the “rules of the game” (ibid., 52). Yet even in the doxastic dynamics of scientific knowledge, certain presuppositions must remain exempt from problematization in order to undertake methodological problematization at all. Legitimacy itself inevitably becomes a “referent in the game of inquiry” (ibid., 23). Lyotard formulates the resulting difficulty: “What I say is true because I prove that it is – but what proof is there that my proof is true?” (ibid., 24).

⁵ This also applies to the long and still ongoing phases of the history of knowledge in which scientific knowledge seeks to legitimate itself through specifically configured narratives.



According to Lyotard, this leads to the coupling of systematic de-legitimation and systematic re-legitimation of doxastic relations. Even the rules governing admissible moves are subject to this dynamic. He designates them as “metaprescriptions”: “Rules are not denotative but prescriptive utterances, which we are better off calling metaprescriptive utterances to avoid confusion (they prescribe what the moves of language games must be in order to be admissible)” (ibid., 65). Yet here too, it is a “consensus of experts” (ibid., 29) that decides which procedures of validity generation are to prevail – and whether new moves must be introduced.

At the level of the schematizations introduced above: scientific knowledge is oriented toward forcing the addition of new challenging relations, with an explicit readiness for the subtraction and transformation of existing ones. All three directional movements are subordinated to enabling innovative differences from the already-known, not the adaptive preservation of a core set. In this dynamic, supporting relations are always the effect of a challenging relation that fails to prevail. This principle extends beyond scientific knowledge: it formulates, in the language of doxastic systems, a general condition under which validity is consolidated – not through positive confirmation, but through the failure of contestation. The difference between knowledge types lies in how systematically and deliberately this mechanism is employed: in scientific knowledge, it is methodologically institutionalized; in narrative knowledge, it operates implicitly and is rarely recognized as such.

An example: Nutritional science's understanding of fats underwent several revisions. The validity claim “fat is unhealthy”, once supported by the validity criterion “epidemiological correlation studies” and the assignment rule “authority of established nutrition research”, was challenged by later biochemical analyses (addition of new evidence). These refuted the generalization (subtraction of existing explanations) and led to the differentiated validity claim “trans fats are harmful, unsaturated fats are healthy” (transformation), supported by the validity criterion “molecular mechanisms of action” and new assignment rules (pragmatics: clinical studies show effects / coherence: fits with biochemical understanding).

Scientific knowledge, then, operates primarily metabolically: it generates consistency and coherence not through narrative sequencing but through methodological operations oriented toward the addition of new findings (operationalization, experimental testing), the subtraction of refuted assumptions (falsification), and the transformation of existing explanations (reproducibility enables revision, deductive systematization integrates anew) – a process of legitimation that, as Lyotard shows, leads to interminable meta-legitimation. Yet scientific knowledge also keeps numerous presuppositions stable. The systatic circularity that is characteristic of narrative knowledge is not absent here – it serves the controlled steering of metabolic reflexivity. The best-known manifestations of this finding are the concepts of “thought style” in Fleck, “paradigm” in Kuhn, and “discourse” in Foucault. The *pithanon* of scientific knowledge is accordingly configured metabolically: it succeeds when a new finding establishes a difference from the already known that the relevant expert community recognizes as argued and proven. Yet even here, what counts as “argued and proven” remains bound to the plausibilities that a given paradigm or thought style holds stable – the systatic circularity that steers metabolic reflexivity determines which challenging relations can acquire the force of a *pithanon*.

The distinction between probability and plausibility introduced above sharpens this contrast. Narrative knowledge operates primarily on the level of plausibility: its legitimation depends on whether the addressees recognize the performative re-actualization of the narrative as connectable – whether it is told in the right way, by the right person, at the right time. The question of whether the narrative's content is well-supported in an object-oriented sense does not arise as



a separate concern; plausibility and probability remain fused. Scientific knowledge, by contrast, systematically attempts to disentangle the two: a validity claim is to be accepted not because the addressees find it plausible, but because it is well-supported by methods that claim addressee-independence. Yet as the meta-legitimation problem shows – “what proof is there that my proof is true?” – this disentanglement can never fully succeed. The criteria that determine what counts as adequate support remain bound to plausibilities that scientific knowledge presupposes but cannot generate on its own.

6. Conclusion

Within the scope of this brief comparison, it has been shown that the concepts of metaboly and systasis enable numerous instructive observations. I would like to clearly summarize the many distinctions that have been introduced in the course of this train of thought:

Operation	Directed at	Through	Example
Metaboly	Change of relations between validity criteria/assignment rules/claims to validity	Addition of challenging relations	Introducing alternative validity criteria, assignment rules and/or claims to validity
		Subtraction of supporting relations	Introducing doubt
		Transforming supporting relations in challenging relations	Re-interpret established validity criteria, assignment rules and/or claims to validity
Systasis	Corroboration of relations between validity criteria/assignment rules/claims to validity	Addition of supporting relations	Introducing new validity criteria, assignment rules and/or claims to validity
		Subtraction of challenging relations	Exclude certain validity criteria, assignment rules and/or claims to validity
		Transforming challenging relations in supporting relations	Refute actual (and potential) objections

The framework developed here – doxastic systems organized along validity claims, validity criteria, and assignment rules; metaboly and systasis as opposing operations on the relations between them – provides a systematic vocabulary for analyzing how validity is established and challenged across different types of knowledge. The application to Lyotard’s distinction between narrative and scientific knowledge has shown that both types share a common doxastic-rhetorical structure while differing in their operational logic: narrative knowledge operates primarily systatically, scientific knowledge primarily metabolically.

Yet as the analysis has also shown, neither type operates purely in one mode – the systatic circularity of scientific knowledge serves the controlled steering of its metabolic reflexivity, just as narrative knowledge tolerates limited metabolic irritation in the service of preserving its core set. The Lyotard application has primarily drawn on the metaboly/systasis distinction and the three directional movements. Further dimensions of the framework – particularly the six coordinates and the double conditioning of doxastic relations through probability and plausibility – await application to concrete cases in which the material configuration of validity conflicts can be analyzed



in finer detail. The reconception of the *pithanon* as the situative interface between structural and communicative analysis points in the same direction. Developing this framework further – toward a rhetoric of knowledge that accounts for the doxastic foundations of different types of knowledge production – remains a task for future research.

References

- Aristotle. 2007. *On Rhetoric: A Theory of Civic Discourse*. 2nd ed. Translated by George A. Kennedy. New York: Oxford University Press.
- Bengtson, Erik. 2024. *The Epistemology of Rhetoric: Plato, Doxa and Post-Truth*. Windsor, ON: Windsor Studies in Argumentation.
- Blumenberg, Hans. 2020. "An Anthropological Approach to the Contemporary Significance of Rhetoric." In *History, Metaphors, Fables: A Hans Blumenberg Reader*, edited by Hannes Bajohr, Florian Fuchs, and Joe Paul Kroll, 177–208. Ithaca: Cornell University Press.
- Daston, Lorraine. 2017. "The History of Science and the History of Knowledge." *KNOW: A Journal on the Formation of Knowledge* 1 (1): 131–154.
- Erhardt, Fabian. 2025. "Assumable plausibilities: Rhetoric as a doxastic technique of probability." *Argumentation et Analyse du Discours* 35. Published online October 15, 2025.
- Janich, Nina, and Nadine Kalwa. 2018. "Rhetorik." [Rhetoric]. In *Handbuch Pragmatik* [Handbook of Pragmatics], edited by Frank Liedtke and Astrid Tuchen, 413–421. Stuttgart: J.B. Metzler.
- Knape, Joachim. 1998. "Zwangloser Zwang: Der Persuasions-Prozeß als Grundlage sozialer Bindung". [Forceless Force: The Persuasion Process as a Basis of Social Bonding]. In *Von der Kunst der Rede und Beredsamkeit* [On the Art of Speech and Eloquence], edited by Thomas Vogel and Gert Ueding, 54–69. Tübingen: Attempto.
- Knape, Joachim. 2003. "Persuasion." In *Historisches Wörterbuch der Rhetorik*, edited by Gert Ueding, vol. 6, cols. 874–907. Tübingen: Max Niemeyer.
- Knape, Joachim. 2012. *Modern Rhetoric in Culture, Arts, and Media: 13 Essays*. Translated by Alan Fortuna. Berlin: De Gruyter.
- Knape, Joachim. 2025. "Zertum and Dubium in Persuasion or the Othello Reaction." *Argumentation et Analyse du Discours* 35. Published online October 15, 2025.
- Kopperschmidt, Josef. 2018. *Wir sind nicht auf der Welt, um zu schweigen: Eine Einleitung in die Rhetorik*. [We Are Not in This World to Remain Silent: An Introduction to Rhetoric]. Berlin/Boston: De Gruyter Mouton.
- Lyotard, Jean-François. 1984. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press.
- Nassehi, Armin. 1991. "Habermas, Lyotard und die Suche nach dem ausgeschlossenen Dritten." [Habermas, Lyotard, and the Search for the Excluded Third]. In *Unübersichtliche Moderne? Zur Diagnose und Kritik der Gegenwartsgesellschaft* [Opaque Modernity? On the Diagnosis and Critique of Contemporary Society], edited by Rolf Eikelpasch, 175–234. Opladen: Westdeutscher Verlag.
- Ptasek, Peter, Birgit Sandkaulen, Jochen Wagner, and Georg Zenkert. 1992. *Macht und Meinung: Die rhetorische Konstitution der politischen Welt*. [Power and Opinion: The Rhetorical Constitution of the Political World]. Göttingen: Vandenhoeck & Ruprecht.
- Renn, Jürgen. 2020. *The Evolution of Knowledge: Rethinking Science for the Anthropocene*. Princeton: Princeton University Press.
- Spinner, Helmut F. 1997. "Differentielle Erkenntnistheorie zur Untersuchung von 'Wissen aller Arten, in jeder Menge und Güte'." [Differential Epistemology for the Investigation of 'Knowledge of All Kinds, in Any Quantity and Quality']. In *Cognitio humana: Dynamik des Wissens und der Werte* [Cognitio Humana: The Dynamics of Knowledge and Values], edited by Christoph Hubig, 505–528. Berlin: Akademie Verlag.
- Tomasello, Michael. 2022. *The Evolution of Agency: Behavioral Organization from Lizards to Humans*. Cambridge, MA: MIT Press.