The questions of observation in systemic inquiry and intervention. Expanding the dimensions of meaning in Niklas Luhmann's theory programme

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Abstract: This article revisits the concept of meaning in Niklas Luhmann's theory programme and addresses the unresolved question of why meaning should have precisely three dimensions. It proposes a systematic expansion of the triadic model to a six-dimensional architecture grounded in the concept of basic questions and their capacity to orient the observation in systemic inquiry and intervention. The article reconstructs Luhmann's three dimensions of meaning—factual, temporal, and social—in terms of the basic questions *what, when,* and *who*. Building on this reconstruction, it develops an extended framework that incorporates three additional dimensions—spatial, modal, and motivational—linked to the questions *where, how,* and *why*. Each dimension is associated with a characteristic code and a specific focus of observation. The added value of the framework is demonstrated through its application to systemic inquiry and intervention. The analysis shows that the dimensionality of meaning can be systematically derived from the basic questions of observation. This allows Luhmann's triad to be understood not as an arbitrary choice but as a reduced form of a broader schema. The proposed sixfold architecture makes it possible to distinguish questions concerning where inquiry

and intervention are situated, how they are conducted, and why they are justified from questions concerning what is observed or addressed, when, and by or for whom. The framework therefore increases the diagnostic resolution of systemic inquiry and intervention while also pointing towards theoretical sub-programmes beyond differentiation, evolution, and communication theory. The framework is a conceptual proposition rather than an empirically validated model. Future research may compare three- and six-dimensional analyses across different inquire and intervention settings and examine the relations and possible interdependencies among the dimensions. The six-dimensional framework offers researchers and systemic practitioners a reflexive diagnostic questioning device for identifying neglected, conflicting, or insufficiently specified assumptions in problem framings, inquiries, and interventions. By linking the architecture of meaning to the logic of questioning, this article offers a systematic rationale for Luhmann's established triad and a disciplined basis for its expansion. It thereby connects the further development of social systems theory with reflective systemic inquiry and intervention in organisational and social contexts.

Keywords: social systems theory, systemic inquiry, meaning, observation, basic questions, theory development.

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1 Introduction

Complex organisational and social situations become available to observation and communication through distinctions concerning what is at issue, when events or processes occur, and who participates in or observes them. Systemic inquiry and intervention therefore depend not only on the situations with which they engage, but also on different horizons or dimensions

through which these situations are made meaningful. Yet the theoretical architecture underlying these dimensions has received comparatively little attention in research and practice concerned with systemic inquiry and intervention.

Niklas Luhmann's social systems theory offers a particularly relevant starting point for addressing this issue. Meaning is the medium in which both psychic and social systems operate, enabling selections while preserving horizons of further possibilities. Luhmann (1995, 2012, 2013) distinguishes three dimensions of meaning—the factual, temporal, and social dimensions—which organise observations in terms of objects, time, and participating observers.

These dimensions are also closely associated with central components of his theory programme: differentiation theory, evolution theory, and communication theory. They consequently shape how social systems theory observes organisations and organisational change.

The status of this triadic architecture nevertheless remains unresolved. Although Luhmann elaborated the three dimensions extensively, he acknowledged that he could not provide a rational justification for why meaning should have precisely three dimensions (Luhmann, 1995, p. 173). This is more than a classificatory problem. If the dimensions of meaning define the principal horizons through which observations are structured, then limiting meaning to three dimensions also limits what social systems theory is prepared to distinguish and investigate. Conversely, a systematic extension of this architecture could enlarge both the theory programme and the analytical vocabulary available for observing organisational change.

The problem is particularly relevant in contexts of organisational transformation. Existing research has examined change in terms of processes, actors, communication, temporal dynamics, decision premises, and digital transformation (Jedynak et al., 2021; Sales et al., 2023; Thygesen, 2022). Such research demonstrates that organisational change is multidimensional, but it generally takes the relevant dimensions of observation for granted. Change may be described in terms of what is transformed, when transformation occurs, and who is involved, while

questions concerning where change is localised, how it is performed, and why it is justified remain conceptually less differentiated. The issue is therefore not simply whether change research addresses these questions in practice, but whether social systems theory possesses a systematic conceptual architecture through which their distinct contributions to meaning can be observed.

Luhmann (1995, 2012, 2013) developed the factual, temporal, and social dimensions without deriving them from a more general principle. Subsequent systems-theoretical work has largely retained this triad. More recent contributions have suggested that its internal logic can be reconstructed by linking the three dimensions to the basic questions what, when, and who (Roth, 2021). This reconstruction provides a rationale for the established architecture, but it also raises a further question. If three basic questions correspond to three dimensions of meaning, then the remaining basic questions—where, how, and why—may indicate further dimensions that have not yet been systematically elaborated (Roth et al., 2025).

This article therefore asks: *How can Luhmann's three dimensions of meaning be systematically reconstructed and extended through the basic questions of observation, and what additional analytical possibilities does the resulting framework offer for systemic inquiry and intervention?*

The article addresses this question through an immanent reconstruction and systematic conceptual extension of Luhmann's theory of meaning. It first reconstructs the factual, temporal, and social dimensions in relation to the questions what, when, and who. It then examines where, how, and why as candidates for additional spatial, modal, and motivational dimensions. The proposed dimensions are distinguished in terms of their respective basic questions, characteristic codes, observational foci, and conceptual non-redundancy. Their added value is subsequently demonstrated by comparing the analytical possibilities of three- and six-dimensional observations of organisational change.

The article makes three contributions. First, it provides a systematic rationale for Luhmann's established triad by relating the dimensions of meaning to the basic questions of observation. Second, it expands this three- to a six-dimensional architecture of meaning that adds spatial, modal, and motivational dimensions to the factual, temporal, and social dimensions. Third, it shows how this expanded framework can increase the diagnostic resolution of organisational change analysis by distinguishing questions concerning the locus of systemic inquiry and intervention as well as the modes of their performance and justification.

The article is structured as follows. Section 2 positions the argument within social systems theory and neighbouring approaches to meaning, observation, and organisation, before outlining Luhmann's established dimensions of meaning. Section 3 explains the article's conceptual approach and reconstructs the original triad through the basic questions of observation. Section 4 develops the proposed six-dimensional architecture and examines the spatial, modal, and motivational dimensions in detail. Section 5 compares the analytical possibilities of three- and six-dimensional observations of organisational change and discusses the framework's practical use. Section 6 concludes by considering the theoretical contribution, practical implications, limitations, and directions for future research.

2 Meaning in the work of Luhmann

As is well-known, Niklas Luhmann (1995; 2012) places the concept of meaning at the centre of his theory of social systems. Meaning is the medium in which both psychic and social systems operate, the condition that allows selections to be made and stabilised. Every psychic or social operation—every thought and every communication—presupposes meaning as its horizon. This horizon is inexhaustible in the sense that it always offers further possibilities of reference, but it is also inescapable because meaning-processing systems cannot process anything

outside horizons of meaning. As Luhmann (1995, p. 62) emphasises, even the concept of meaninglessness has meaning, because even the negation of sense can only be processed as meaningful event. Meaning thus provides the fundamental condition for the autopoiesis of both psychic and social systems, serving as their shared medium: while psychic systems think and social systems communicate, both operate by reducing complexity within horizons of meaning.

The general code of meaning is the distinction between actuality and potentiality (Luhmann, 1995, p. 74). Any act of thinking or communication actualises one possibility while simultaneously holding open further possibilities that remain unselected. Meaning therefore never exhausts itself in what is presently actualised but always contains a reference to potential alternatives. In this sense, the code of actual/potential constitutes the "source code" of meaning, which is then further differentiated into distinct dimensions.

Within this framework, Luhmann identifies three different dimensions of meaning: the factual, the temporal, and the social. Each dimension specifies a distinct horizon against which selections can be made, and each can be associated with a characteristic code.

- The factual dimension answers the question of *what* is thematised. It is oriented by the code this/that (Luhmann, 1995, p. 74), distinguishing one object, issue, or theme from others.
- The temporal dimension concerns *when* something occurs. Its basic code is before/after, with every present moment constituted as the difference between past and future or before and after, respectively (Luhmann, 1995, p. 77; Luhmann 2012, p. 23, p. 86).
- The social dimension structures meaning in relation to *who* participates. It is oriented by the code ego/alter (Luhmann, 1995, p. 91), presupposing at least two observers and thus the possibility of communication.

These three dimensions are not merely descriptive; each has been elaborated by Luhmann into a distinct theoretical sub-programme. The factual dimension provides the foundation for his theory of social differentiation, which explains how society is differentiated through functional, stratified, or segmented distinctions. The temporal dimension underlies his theory of evolution, which accounts for the emergence, reproduction, and transformation of social forms. The social dimension grounds his theory of communication, which analyses how double contingency and reciprocal expectations structure communicative processes.

Taken together, the three dimensions and their associated theoretical subprogrammes can be represented as a triangular architecture that can be applied to any form of observation, including the observation of observation (Figure 1).

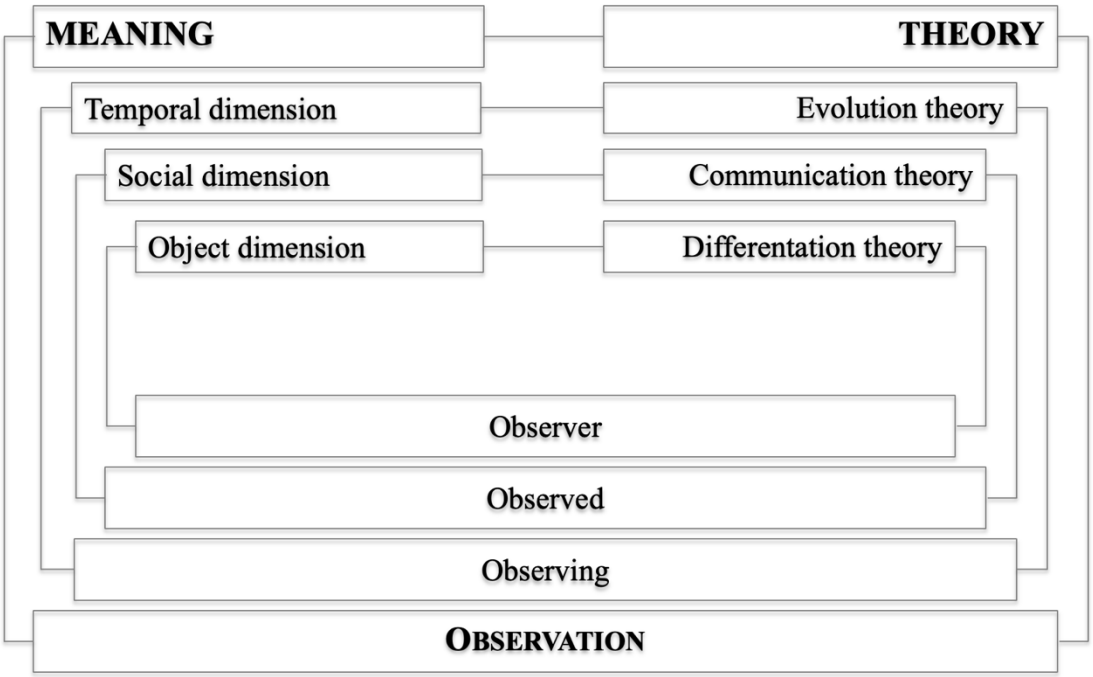


Figure 1: The three dimensions of meaning and respective sub-theories as applied to the observation of observation (authors provided).

As illustrated in Figure 1, any observation can be differentiated with regard to its observer, its object of observation, and the process of observing.

For systemic inquiry and intervention, this architecture implies that change may be observed through factual, temporal, and social selections concerning what is inquired on or intervened in, when the inquiry or intervention occurs, and who participates in or observes it. The question developed in the following sections is whether these three dimensions exhaust the horizons through which systemic inquiry and intervention can be made meaningful.

3 Conceptual approach: Questioning the dimension of meaning

While Luhmann confidently distinguished three dimensions of meaning—factual, temporal, and social—he admitted that he remained unable to provide a rational justification for why there should be precisely three (Luhmann, 1995, p. 173). Subsequent systems theorists have attempted to reconstruct the logic of this triad. One such reconstruction is to see the three dimensions as corresponding to the basic questions of observation: *what, when, who* (Roth, 2021). From this perspective, the threefold structure of meaning can be seen not as an arbitrary choice, but as grounded in the very logic of questioning that underlies all observation.

Luhmann (1995, p. 91; 2013, p. 174) also describes the factual dimension through the distinction internal/external, consistently with his claim that "space cannot be separated from the object dimension" (Luhmann, 1995, p. 173). Yet this argument does not by itself establish that space is reducible to factual meaning. A similar claim could be made about time, since objects and events are always temporally situated, without this preventing Luhmann from treating temporality as a distinct dimension. The dependence of observations on objects therefore does not

exclude the possibility that their spatial location constitutes a conceptually independent horizon of meaning.

These considerations establish a correspondence between the three recognised dimensions and three members of the broader set of basic questions: what (factual), when (temporal), and who (social). The existence of further basic questions does not by itself prove the existence of further dimensions. It does, however, provide a systematic basis for examining whether where, how, and why satisfy the criteria outlined above. Roth (2021) suggested that Luhmann's triad can be reconstructed in terms of basic questions and thus provided a rationale for considering additional dimensions. Roth et al. (2025) extended this reasoning by pointing explicitly to the possibility of expanding the architecture of meaning in line with the broader set of questions. From this perspective, Luhmann's threefold schema may be understood not as a final architecture but as an initial form of a potentially broader framework. The following section examines the three additional candidates and develops the proposed expansion from three to six dimensions of meaning.

4 Expanding the dimensions of meaning

The argument developed here is not intended as a universal theory of meaning, nor as a claim that meaning possesses six ontologically fixed dimensions. It offers a systems-theoretical reconstruction of meaning as observed through basic questions. The proposed dimensions make the horizons of observation more explicit. The resulting framework remains open rather than closed: the sixfold schema is systematic because it follows the conventional set of basic questions, but it does not exclude the possibility that further questions may disclose additional dimensions of meaning.

The correspondence between the established dimensions and the questions what, when, and who does not, by itself, prove that every basic question constitutes a distinct dimension. It does, however, identify where candidates for an extension may be found. In accordance with the conceptual approach outlined above, a candidate qualifies as an additional dimension only if it corresponds to a distinct question of observation, can be associated with a characteristic distinction, cannot be reduced to one of the established dimensions, and generates additional observational possibilities.

On this basis, the article proposes a six-dimensional architecture of meaning. Luhmann's factual, temporal, and social dimensions are retained and associated with the questions *what, when*, and *who*. They are supplemented by spatial, modal, and motivational dimensions associated with *where*, *how*, and *why*. Table 1 summarises the resulting architecture.

Meaning Dimension	**Basic Question**	**Code**	**Focus**
Spatial	*Where?*	here/there	The locus of observation
Temporal	*When?*	before/after	The process of observation
Factual	*What?*	this/that	The object of observation
Social	*Who?*	ego/alter	The observer
Modal	*How?*	thus/otherwise	The manner of observation
Motivational	*Why?*	intent/accident	The purpose of observation

Table 1: Six dimensions of meaning as oriented by basic questions, codes, and observational foci

The dimensions are conceptually distinct but not empirically isolated. Any concrete observation may activate several or all of them simultaneously. Conceptual non-redundancy therefore does not mean that the dimensions occur independently. It means that one dimension may vary

while relevant selections in the others remain unchanged. The same object may be observed in different places; the same participants may perform the same change in different ways; and the same activity may be attributed to different reasons. The capacity for such variation provides an initial test of whether the additional questions disclose independent horizons of meaning.

The established dimensions

The factual, temporal, and social dimensions retain the meanings outlined in Section 2 and serve as the established reference points for the proposed extension. The conceptual task is therefore not to redefine Luhmann's triad, but to determine whether the questions where, how, and why disclose additional horizons that cannot be reduced to what, when, and who. The following subsections assess the spatial, modal, and motivational dimensions against the criteria of distinct questioning, characteristic distinction, analytical non-redundancy, and additional observational value.

The spatial dimension

The spatial dimension is oriented by the question where? and provisionally coded through the distinction here/there. It concerns the localisation, distribution, proximity, and distance of objects, observers, and operations. Alternative spatial distinctions—including internal/external, centre/periphery, local/global, and near/distant—may be understood as specifications of this more general horizon.

Luhmann occasionally incorporates spatial distinctions into the factual dimension, most notably through the distinction internal/external, and argues that space cannot be separated from objects (Luhmann, 1995, p. 173; 2013, p. 174). Yet inseparability does not establish

reducibility. Objects are equally inseparable from time, but this does not prevent temporal meaning from constituting an independent dimension. The relevant question is whether localisation can vary without changing the object being observed. The same organisational practice, technology, or decision may be located in one department rather than another, concentrated at headquarters rather than distributed across sites, or positioned inside rather than outside an organisational boundary. In each case, what is observed may remain constant while where it is observed changes.

The spatial dimension therefore makes visible forms of localisation that are easily concealed when location is treated merely as an attribute of an object. In organisational change, this includes questions of whether change is confined to one unit, distributed unevenly across an organisation, transferred between sites, or situated at the boundary between an organisation and its environment. Spatial meaning is consequently not identical with factual meaning: the former concerns where a selection is located, while the latter concerns what has been selected.

The modal dimension

The modal dimension is oriented by the question *how?* and coded through the distinction thus/otherwise. It concerns the manner, form, procedure, or mode through which an observation or operation is performed. Every selection can be made in one way rather than another, and the modal dimension keeps these alternative manners available as a horizon of possibility.

Modal meaning must be distinguished from factual meaning. The factual dimension identifies what is selected; the modal dimension specifies how the same object or issue is observed, communicated, or processed. An organisation may, for example, pursue the same restructuring through hierarchical instruction, participatory consultation, experimental piloting, or gradual

adaptation. The object of change may remain constant even though its mode of implementation varies considerably.

The distinction thus/otherwise expresses this contingency. It indicates that the actual manner of observation or performance is neither necessary nor exhaustive, but stands against alternative ways in which the same operation might have occurred. The modal dimension therefore gives prominence to methods, procedures, styles, instruments, and decision premises. In organisational change research, it directs attention not only to what changes, but also to how change is communicated, implemented, resisted, revised, or evaluated.

The motivational dimension

The motivational dimension is oriented by the question *why?* and coded through the distinction intent/accident. It concerns the attribution of reasons, motives, or purposes. This formulation does not assume that intentions exist as objectively accessible psychic causes. From a systems-theoretical perspective, purposes and motives become socially relevant when they are communicated, attributed, accepted, contested, or retrospectively reconstructed.

The distinction intent/accident separates events observed as purposefully produced from events observed as unintended, incidental, or unforeseen. Other distinctions—such as purpose/side effect, reason/no reason, or motive/consequence—may be treated as specifications of this broader motivational horizon. The central point is that observations do not merely identify what happened, when, where, by whom, and how; they also attribute reasons for why it happened or why it should happen.

Motivational meaning cannot be reduced to the social dimension because identical actors may communicate different reasons for the same decision. Nor can it be reduced to factual or modal meaning, since the same object and mode of change may be justified through different

rationales. A digital transformation may be described as necessary for efficiency, innovation, regulatory compliance, legitimacy, or crisis response without changing the technology itself or the means through which it is implemented. These rationales constitute distinct selections that shape how change is interpreted and contested.

The motivational dimension is particularly important for organisational change because change programmes are typically accompanied by accounts of necessity, urgency, benefit, and responsibility. Different organisational participants may accept the same proposed change while attributing it to different purposes, or they may contest a programme because they reject its communicated rationale rather than its substantive content. The question why? therefore opens a horizon that remains analytically distinct from questions concerning objects, timing, participants, location, and procedure.

A six-dimensional architecture

The six-dimensional architecture does not replace Luhmann's triad. It retains the factual, temporal, and social dimensions while reconstructing them as part of a broader architecture organised through the basic questions of observation. The spatial, modal, and motivational dimensions qualify as additional candidates because each introduces a distinctive question, guiding distinction, observational focus, and range of possible variations.

The resulting framework is neither arbitrary nor necessarily exhaustive. It is not arbitrary because the proposed dimensions are derived through a common conceptual procedure and assessed against explicit criteria. It is not exhaustive because further questions may generate additional horizons, and because the proposed codes may require refinement through subsequent theoretical and empirical research. Its immediate contribution lies in showing that the

established threefold structure can be systematically expanded without abandoning the conceptual premises of Luhmann's theory of meaning.

5 From three to six dimensions: Implications for systemic inquiry and intervention

The added analytical value of the six-dimensional framework becomes visible when the same organisational situation is observed first through Luhmann's established triad and then through the expanded architecture. Consider, as a heuristic example, a programme of digital transformation. Digital transformation has been described as an organisational process involving technologies, strategies, structures, practices, and patterns of communication rather than the simple introduction of new technical tools (Jedynak et al., 2021). Recent studies have further illustrated the significance of such processes in contexts including healthcare and education (Fritzsche and Bohnert, 2026; Stingl de Vasconcelos Guedes et al., 2026).

A triadic analysis distinguishes three central aspects of such a situation. The factual dimension asks *what* is at issue: for example, information systems, decision premises, organisational structures, work practices, or services. The temporal dimension asks *when* relevant processes occur. This question is particularly relevant because organisational processes do not unfold in uniform chronological time; deadlines, periods of acceleration, delays, and competing temporal horizons may be compressed or stretched in strategy work (Thygesen, 2022).

The social dimension asks *who* observes, decides, communicates, participates in, supports, or contests the transformation.

These questions provide an important conceptual foundation. They identify the object of inquiry, its temporal organisation, and the observers or participants involved. Yet they do not exhaust the distinctions through which a complex organisational situation may become meaningful. The six-dimensional framework adds spatial, modal, and motivational questions

concerning where the situation and associated interventions are located, how they are approached, and why particular interpretations or courses of action are justified.

The spatial dimension asks *where* digital transformation is located or bounded. It may be concentrated in a particular department, extend across the entire organisation, be distributed unevenly between sites, or take place at the boundary between the organisation and external technology providers. A programme may be described organisationally as comprehensive while remaining spatially concentrated in selected units. Conversely, practices developed locally may later be transferred, scaled, or resisted elsewhere. Spatial analysis therefore makes visible how locality and boundary drawing shape what becomes available to inquiry and intervention rather than treating the organisation as a homogeneous setting.

The modal dimension asks *how* transformation is approached or performed. The same factual objective may be pursued through the acquisition of new software, the redesign of workflows, employee training, the alteration of decision premises, the creation of specialist units, or the gradual adaptation of existing practices. These alternatives are not merely different objects of inquiry. They are different manners of addressing what may otherwise be presented as the same organisational situation. Modal analysis therefore distinguishes the object of concern from the procedures, instruments, and forms through which inquiry and intervention are conducted.

The motivational dimension asks *why* the transformation, and particular responses to it, are considered necessary or desirable. Digitalisation may be attributed to efficiency, innovation, competitive pressure, regulatory compliance, legitimacy, service quality, or crisis response. These rationales should not be treated as direct access to underlying psychological intentions. They are communicative attributions through which organisational decisions and interventions are justified, contested, or retrospectively explained. Different participants may support the

same programme for different reasons, or disagree about it because they attribute different purposes to it.

Table 2 summarises the comparison.

Dimension	**Question**	**Illustration in digital transformation**	**What may remain obscure if neglected**
Factual	What?	Technologies, structures, practices, services, or decision premises constructed as relevant to the transformation	What is being observed, problematised, or addressed
Temporal	When?	Starting points, phases, deadlines, delays, and projected futures	Competing sequences and temporal expectations
Social	Who?	Decision-makers, employees, consultants, users, and external partners as observers or participants	Differences among observational and communicative perspectives
Spatial	Where?	Departments, sites, organisational boundaries, or interorganisational settings	Boundary choices and uneven localisation
Modal	How?	Training, restructuring, experimentation, software implementation, or revised communication channels	Alternative modes of addressing the same situation
Motivational	Why?	Efficiency, legitimacy, compliance, innovation, or crisis response	Divergent or contested rationales for inquiry and intervention

Table 2. Three- and six-dimensional observations of digital transformation in systemic inquiry and intervention

The comparison demonstrates that the expanded framework does not simply add more descriptive categories. It increases analytical resolution by separating questions that may otherwise be combined within broad descriptions of complex organisational situations. What appears as disagreement about a transformation may, for example, concern its timing rather than its content, its localisation rather than its general desirability, the manner in which it is approached rather than its purpose, or its justification rather than the participating actors. The framework does not predetermine which interpretation is correct, but assists observers in identifying the dimension in which disagreement is being communicated.

This distinction is relevant to systemic inquiry because descriptions of complex situations frequently contain answers to several questions at once. An inquiry may specify *what* is considered problematic while leaving unclear *where* the boundaries of the problem are drawn. It may identify *how* a situation is to be addressed without establishing *why* a particular intervention is considered appropriate. Alternatively, participants may give incompatible answers to the same dimensional question. The six-dimensional framework therefore provides a diagnostic grid for identifying omissions, ambiguities, conflations, and contradictions in the observation of complex organisational and social situations.

Importantly, the framework can be applied not only to the situation being observed but also reflexively to the inquiry or intervention itself. Systemic practitioners may ask *what* their inquiry constructs as relevant, *when* its temporal horizons are established, *who* is included as observer or participant, *where* its boundaries are drawn, *how* the inquiry or intervention is conducted, and *why* particular purposes or rationales are privileged. The framework thus makes it possible to observe not only a problem situation but also the selectivity of the practices through which that situation is investigated and addressed.

For research on systemic inquiry and intervention, the framework can support more differentiated analyses of problem formulations, organisational self-descriptions, inquiry designs,

interviews, stakeholder communications, workshops, and intervention processes. It may also provide an analytical coding scheme for empirical research. Researchers might compare *how* different participants answer the six questions, examine which dimensions receive the greatest communicative attention, or investigate whether recurrent patterns of dimensional disagreement occur across inquiries and interventions.

For practitioners, the framework can be used as a questioning device in workshops, interviews, project reviews, intervention design, and reflective evaluation. Rather than asking only whether a situation has been adequately understood or communicated, practitioners may examine whether its factual, temporal, social, spatial, modal, and motivational assumptions have been made explicit. The framework may thereby reveal, for example, that participants agree on *what* is at issue but not on *when* action should occur; that an approach considered appropriate in one setting is regarded as unsuitable in another; or that a shared course of action conceals conflicting rationales.

Thus, the framework does not claim that attention to all six dimensions guarantees effective systemic inquiry or successful intervention, nor does it replace established approaches to participation, implementation, or evaluation. Its practical contribution is observational and reflexive rather than prescriptive. It provides a structured means of identifying which dimensions of a situation or intervention are specified, neglected, conflated, or contested before particular interpretations or solutions are privileged. Its value therefore lies less in prescribing how complex situations should be addressed than in improving the distinctions through which they, and the interventions directed towards them, can be observed and communicated.

6 Conclusions

This article has revisited the concept of meaning in Luhmann's theory of social systems and proposed its expansion from three to six dimensions. While Luhmann identified the factual, temporal, and social dimensions of meaning, each associated with a specific code and theoretical sub-programme, we have argued that these can be systematically related to the basic questions *what, when,* and *who*. Extending this logic to the broader set of basic questions yields three further dimensions—spatial (*where?*), modal (*how?*), and motivational (*why?*)—each likewise grounded in a characteristic code and focus of observation. Together, these six dimensions outline a more comprehensive architecture of meaning and a promising framework for further systems-theoretical development.

Still, the principal theoretical contribution lies not simply in increasing the number of dimensions from three to six. Rather, it lies in proposing a common generative principle through which both the established and the additional dimensions can be reconstructed. The basic questions provide such a principle because they orient observation towards different horizons of selection. On this basis, the original triad no longer appears as an unexplained enumeration, while the proposed extension is more than the addition of further descriptive categories. At the same time, the argument also does not establish that the sixfold framework is exhaustive. Its purpose is to demonstrate that the dimensionality of meaning can be reconstructed and extended systematically, not to close the question of how many dimensions meaning ultimately permits.

For systemic inquiry and intervention, this theoretical result matters because it reframes complex organisational and social situations not as unitary objects, but as multidimensional accomplishments of observation and communication. The sixfold architecture provides a basis for analysing how such situations are constituted through selections concerning objects, times, observers, locations, modes, and rationales, as well as how selections in one dimension condition those made in others. It thereby opens a path towards more differentiated theories of how

complex situations are observed, interpreted, and addressed, while also making the selectivity of inquiry and intervention itself available to reflexive observation.

Several lines of future research follow from this proposal.

First, there is a need for a more in-depth analysis of the intricate relationship between questions and meaning, and in particular the remarkable power of questions to reveal unexplored dimensions of meaning by opening new dimensions of observation.

Second, the inter-reducibility of the dimensions requires further inquiry. Future work could explore whether there exist hierarchies of questions, or whether the codes of one or several dimensions are capable of generating those of another, as suggested in earlier explorations of the generative power of distinctions to produce distinctions (Roth, 2023).

Third, the proposed expansion is also significant because it transforms the abstract opposition of actual/potential into a concrete, operational research programme. Each additional dimension introduces a distinct conceptual axis for mapping the landscape of the unchosen. The modal dimension (how?; thus/otherwise), for example, provides a direct tool for counterfactual inquiry, prompting us to investigate systematically in what other way a given process could have unfolded. The motivational dimension (why?; intent/accident) opens up the horizon of alternative purposes, allowing us to distinguish between unrealised intentions and unforeseen possibilities. Finally, the spatial dimension (where?; here/there) highlights how context structures possibilities, raising the question of why an event was actualised here rather than elsewhere.

Fourth, in addition to these three additional basic questions, reference to yet other questions might open up still more horizons of meaning. If the sixfold schema presented here is not exhaustive, then future inquiry may discover additional dimensions, each linked to questions that have not yet been systematically considered. Such an extension would deepen the connection between questioning and meaning, and it would broaden the space for theorising beyond even the expanded architecture outlined in this article.

Finally, if the original three dimensions can indeed be associated with Luhmann's theoretical substreams—evolution theory (temporal), communication theory (social), and differentiation theory (factual)—then the additional dimensions may point toward the need for further sub-theories of social systems still to be discovered and elaborated.

The discovery and development of such additional sub-theories would be a worthy challenge for contemporary social systems theorists— and a major step forward in advancing the programme of systems theory while expanding the dimensions through which complex organisational and social situations, as well as the inquiries and interventions directed towards them, can be observed.

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