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Valentinov, Vladislav; Verschraegen, Gert; van Assche, Kristof

Article — Published Version

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Systems Research and Behavioral Science

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Suggested Citation: Valentinov, Vladislav; Verschraegen, Gert; van Assche, Kristof (2020) : On complexity and transparency: The limits of taxonomic ordering, Systems Research and Behavioral Science, ISSN 1099-1743, Wiley, Hoboken, Vol. 37, Iss. 1, pp. 174-177, https://doi.org/10.1002/sres.2652

This Version is available at:
https://hdl.handle.net/10419/225224

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Received: 23 October 2019 | Accepted: 25 October 2019
DOI: 10.1002/sres.2652

RESEARCH NOTE

WILEY SYSTEMS and BEHAVIORAL RESEARCH SCIENCE

On complexity and transparency: The limits of taxonomic ordering

Vladislav Valentinov[1] | **Gert Verschraegen**[2] | **Kristof van Assche**[3]

[1] Department of Structural Change in Farms and Rural Areas, Leibniz Institute of Agricultural Development in Transition Economies, Halle (Saale), Germany

[2] Department of Sociology, University of Antwerp, Antwerp, Belgium

[3] Faculty of Science, Department of Earth and Atmospheric Sciences, Senior Fellow Development at Bonn University (ZEF), University of Alberta, Edmonton, Alberta, Canada

Correspondence
Vladislav Valentinov, Leibniz Institute of Agricultural Development in Transition Economies, Department of Structural Change in Farms and Rural Areas, Halle (Saale), Germany.
Email: valentinov@iamo.de

This research note is a rejoinder to Steve Wallis' commentary on our paper "The limits of transparency: a systems theory view" (Valentinov, Verschraegen, van Assche, 2019)

KEYWORDS
complexity, transparency, opacity, metabolism

Professor Wallis concurs with our assessment of the calls for ever greater transparency in the modern society as ultimately self-defeating. He seems to agree that both transparency and opacity come with risk; that both can be used and abused; and that both are needed by modern organizations and governance systems. He seems to further acknowledge that the need for opacity emerges as an adaptation to growing complexity; yet an adaptation informed by incoherent and divergent rules and expectations. As a result, the calls for transparency cannot justify moral or functional superiority but do justify the necessity for the management of both transparency and opacity (see Van Assche, Shtaltovna, & Hornidge, 2013 for detailed arguments for such management). As a practical approach to this type of management, Professor Wallis (2019; cf. Wright & Wallis, 2019) offers a "science of conceptual systems" perspective on how the quality of mental models and conceptual systems can be improved through the use of the "integrative propositional analysis." Central to this methodology is an explicit presentation and development of pieces of individual or collective knowledge that vary along the dimensions of "complexity" and "systemicity" (Wright & Wallis, 2019).

The explicit nature of such presentations probably gives a boost to transparency, yet it is not without limitations of its own. First, there are reasons to believe that a variety of aspects of organizational life will never entirely yield to their transformation to concepts or variables to be used for evaluation. Those tacit, hidden, relational, or informal aspects of organizational life that resist clear-cut representation will come to represent the blind spot of a balanced representative model and the ultimate limit to its capacity to ensure more transparent evaluation. Second, all our attempts "to improve our sense-making capacity" (Wallis, 2019) will have to take into consideration the temporal, contextual, and contingent nature of all sense making. Intention can get lost. Even when starting meaningfully, as responses to current organizational needs and complexities, all representational models can, sooner or later, become caught up in broader organizational or political dynamics, that transform or drive them away from the objectives, which may have initially motivated them. The entangled nature of

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understanding/representing and organizing, and concomitant limitations of both, can in fact be seen as the grounding premise of the whole field of critical management studies (see Alvesson, Bridgman, & Willmott, H. (Eds.)., 2009)

Both limitations come prominently to the fore in Robert Chia's (1998) distinction between taxonomic and dynamic complexity. The former type of complexity pertains to fairly stable "essences," "which can be faithfully located, classified, and represented through adequate systems of ordering" (Chia, 1998, p. 346). While many of the categories of the taxonomic complexity originate from the multiple varieties of combinations of basic elements, the dynamic complexity arises out of "the immanent in-one-anotherness of moments of experience and hence their intrinsic non-locatable and interpenetrative nature" (Chia, 1998, p. 349). From the perspective of the process philosophy, the former complexity reflects the provisional stabilizations or reifications of the latter, propelled by the ordering impulses of the human mind (cf. Rescher, 1996). From a Luhmannian systems-theoretic perspective, these stabilizations present forms of complexity reduction that allow humans to disengage from the concrete lived experience of the processual "in-one-anotherness." However, complexity reduction is always risky and may cause disregard for the intricate webs of relationships linking humans and organizations with their outer environments (Valentinov, 2014).

What type of complexity is most amenable to the analysis and improvement in terms of the integrative propositional analysis advanced by Professor Wallis? It can be conjectured that the process of the development of explicit models of conceptual systems stimulates a more precise understanding of the taxonomic complexity, whereas the mental effort involved in this process reflects human intuitions about "the inherent fluidity of life situations, and the acute sense of transience and temporality accompanying the profusion of events encountered in the moment-to-moment heterogeneous becoming of our lives" (Chia, 1998, p. 348). It might be that a unique advantage of the integrative propositional analysis is in mobilizing the subliminal awareness of the dynamic complexity with an eye to harnessing more taxonomic complexity. Yet the emerging balance between the two types of complexity appears to be precarious, not least because of what the integrative propositional analysis ultimately claims to be: an analysis and hence, reduction. While the process of generating novel conceptual systems may be driven by the intuitive grasps of the dynamic complexity, the outcomes of this process, stable conceptual systems, even those with a high systemicity, inevitably present provisional reifications. Accordingly, the integrative propositional analysis may confront a new challenge of how to come to grips with process on its own terms, that is, without privileging being over becoming.

Two exemplary contexts may help to illustrate the significance of the matter, those of organizational learning and organizational culture. In a recent paper, Chia (2017, p. 107) advanced "a process-philosophical understanding of organizational learning as 'wayfinding'". According to this understanding, "in complex, turbulent environments, robust organizations recur more to cultivated sensitivities and predispositions rather than rely on elaborate plans and strategies to guide their action" (Chia, 2017). In other words, managerial intentionality does not exhaust the scope of organizational strategic action, which may take the form of "wayfinding" rather than explicit rational calculation of costs and benefits. Evidently, the development of explicit conceptual models through the integrative propositional analysis may be an instrument of wayfinding, yet the finalized models, taken apart from their processual context, may become fully taken up within the managerial intentionality and the attendant reductionist and manipulative approach to strategic action. If this conjecture is correct, the integrative propositional analysis has yet to develop "the understanding of organizational learning as a process of everyday practical coping guided by internalized sensitivities and predispositions" (Chia, 2017).

The role of Chia's "dynamic complexity" in the organizational culture context is highlighted by Painter-Morland's (2008) work on the dissociation of business ethics from business practice. Documenting the increasing interest of corporate decision makers to the institutionalization of business ethics, Painter-Morland (2008) raises concerns about the proliferation of "check-the-box mentality," which envisions business ethics as a sort of business insurance policy and the fulfilment of mandatory compliance requirements. Needless to say, this mentality closes the door on the true meaning of business ethics, which is essentially "about the capacity to respond appropriately to the many competing pressures and expectations that push and pull individuals in the course of their daily participation in complex organizational and business networks. It requires an intuitive and continuous balancing act, in which an individual's character, values, and relationships all register in significant ways" (Painter-Morland, 2008; p. 3). If business ethics operates according to the latter meaning, organizational culture can be understood as an emergent congruence of normative expectations of employees in the course of their ongoing interactions. Contrary to the intentions of the voluminous scholarly research on organizational culture, the most crucial aspects of this understanding are too subliminal, tacit, and relational

to be adequately expressed by rational explicit models (Painter-Morland, 2008).

Professor Wallis comes quite close to the latter insight by acknowledging the ambivalent relationship of transparency to trust. The attempt to increase trust by improving transparency may indeed backfire and reduce trust in corporate and governmental organizations. This scenario seems to be supported by recent research. Christina Boswell (2018), for instance, has recently analysed how tools of quantitative performance measurement and evaluation —because of their association with rationality, objectivity, and precision—possess a broad appeal as a mode of producing trust yet at same time are not very successful in bringing about such trust. There are different mechanisms at work here. First, while quantitative evaluation techniques such as performance goals or targets promise a robust and precise mode of verifying performance, the organizational adoption of outward-facing targets can be risky because it renders more visible the divergences between organizational objectives, the policies that are actually implemented and the outcomes that result from it. Second, as targets tend to prescribe tangible and relatively fixed policy outcomes, this places organizational leaders under heightened scrutiny and pressure. This pressure is consequently passed on within the chain of command, which can stimulate means-end decoupling, that is, separating formal compliance with the letter of targets, from adjusting practices to meet the underlying objectives of such targets. Taking on precise and binding performance targets can lead to goal displacement, where organizations focus on the indicators rather than the underlying objective that the indicators are supposed to measure. The official targets are communicated by all organizational actors, but "their deployment coexists with cynicism about their utility and with constant attempts to evade, reinterpret or subvert them" (Boswell, 2018; p. 5). In fact, there are many examples of how performance indicators and targets can create perverse incentives and encourage manipulation of data. For instance, hospitals will schedule fewer follow-up meetings to cut down waiting lists, creating an illusion of efficiency (Radin, 2006). Third, investing in increased transparency and targets can expose divergent beliefs and values operating in different sections of an organization. If targets are not being met, this can lead to intrusive, top-down intervention, which can erode morale in the organization, and further undermine trust within the organization (see also Valentinov et.al. 2019, 293).

These and other examples, in line with our earlier theoretical arguments, might bring us back to the idea that what needs to be optimized is neither transparency, nor conceptualization, nor trust, but the management of the relation between opacity and transparency (Van Assche et al., 2013). Organizations and societies alike require a level of trust and (perceived) transparency in order to communicate, interpret, function, and adapt. Yet for reasons presented above, "more" trust or "more transparency" are often neither clear nor functionally superior. Some of the reasons we summarized under the concept of "dynamic complexity," others emanate more generally from a Luhmannian understanding of system, always surrounded by other systems it is dependent on yet competing with (Valentinov, 2014). Managing an existing relation between opacity and transparency is possible without fully grasping the natures and functions of both, rather by assessing the result of the existing configuration.

In conclusion, it seems worth to return to Bertalanffy's concept of metabolism as theorized in our original paper (Valentinov, Verschraegen, & Van Assche, 2019), where we note metabolism's metaphorical ambivalence. Understood as information exchange, this concept might mean transparency, but Bertalanffy's work seems to go far beyond that interpretation (Valentinov et al., 2019). In the light of Professor Wallis' commentary, and of Chia's (1998) notion of dynamic complexity, it becomes evident that metabolism may be usefully thought of as "immersive engagement with the world" (Chia, 1998), which goes beyond the limits of rational explicit analytical thinking. "Immersive engagement with the world" remains true to Bertalanffy and his novel insights into functions and limits of transparency, while "metabolism" in our view retains a value as a descriptor of a basic feature of system dynamics he revealed very early on, and which led him in large measure to the development of his general argument that systems function and rebuild themselves continuously using elements in the environment as resources. Furthermore, understood as "immersive engagement with the world," metabolism is grounded in a processual understanding of organization and thus illuminates anew the folding of internal and external realities in organizing (cf. Czarniawska, 2014).

ORCID

Vladislav Valentinov https://orcid.org/0000-0002-4247-0364

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How to cite this article: Valentinov V, Verschraegen G, van Assche K. On complexity and transparency: The limits of taxonomic ordering. *Syst Res Behav Sci*. 2020;37:174–177. https://doi.org/10.1002/sres.2652