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ORIGINAL ARTICLE

Introduction: Special Issue 'Complexity and Truth'

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Post-truth

"Relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief." (Oxford Living Dictionary)

If not even earlier, then at the latest when Oxford Dictionaries selected 'post-truth' as Word of the Year 2016, did the global public become aware that 'truth' is not an uncontested and finite concept but a social construct. Are we, then, standing on the threshold of a new 'post-truth age' as – for instance – *The Independent* has claimed? (Norman 2016)

Certainly, the Word of the Year 2016 has cast a bright light onto the case that there is not 'one truth only' but that there are facts that can be interpreted – or rejected – in different ways. This means that truth is 'produced', but is it produced as scientific or religious truth or as political truth? Just think of 'fake news' and its strategic use in influencing elections, as in the case of the latest presidential elections in the US or Brazil, or the leave campaign in the case of the Brexit referendum. Thus, the production of truth is undertaken by society, at least on the level of concrete actions. This situation becomes more complicated if we consider modern complex society. The increasing globalization of economies and societies has made the world more complex than it has ever before been. Consequentially, the world is facing unprecedented challenges. Dimitri Bondarenko and Ken Baskin argue that "cultures have become so complex that the world has become a fully globalized community, the nation-state is no longer sufficient for governing the world effectively. The critical challenges people throughout our world face today – global warming and terrorism, nuclear proliferation and ecological despoliation, migration crises and controlling weapons of mass destruction - cannot be addressed by nations acting separately. Without some supranational government, those problems may be impossible to address effectively." (2016, 199)

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Truth as a social construct

A complex society does not accommodate one truth for everybody. Complexity, understood as the product of selections based on selections, leads to a diversification of social logics and modes of communication. Truth is a product of this complex differentiation of society. Different functional systems, different organizations, and different individuals perceive different things to be true. Truth is not regarded – or at least was not during the last few centuries – to be an absolute, but rather a socially produced construct. This perception is increasing the complexity of society – another person really is 'other' if even her or his concept of truth is a different one from that of oneself. As a result of the multiplicity of truth, there are constant negotiations and power struggles over how one specific truth can become binding for several people or even for one (national? global?) society. The social production of truth occurs within complex social situations characterized by bargaining, fighting, forging of alliances, etc.

Science - fabricator of truth?

In the orthodox version of Luhmannian systems theory (Luhmann 1990), the system of *science* would be the sphere of society where truth is produced as a medium for communication and as a code that can be applied in different ways. However, the exact ways in which truth is produced by science, for instance as an empty code applied through changing programs, as Luhmann claims, or in other ways, are open to discussion. Entering the functioning of science itself, it is worthwhile taking a look at how the different academic disciplines are united or divided by their respective conceptions of truth (Stichweh 1992) and whether there are different truth regimes depending on geographic regions of the world, organizations, or institutions (Altmann 2017). Finally, considering the societal role of science (Burawoy 2005), it is relevant to discuss how scientists can convey the complexity of their particular domain to the public at large.

Addressing science as a functional system of society, the contribution by **Philipp Altmann** explores the mechanism of truth production and complexity reduction by analyzing the case of Marxist critical sociology in Ecuador between the 1960s and 2010. His article focuses on the institutional and organizational development within the discipline and on the effects of institutionalization on the longitudinal development of truth production and complexity reduction.

Also, the contribution by **Eyal Bar-Haim** addresses the field of complexity and science, examining the disciplinary representation and interrelations of sociology, anthropology, economics, political science, and psychology in a free online encyclopaedia. By using the Hebrew Wikipedia as an example, the article applies network analysis and explores the potential emergence of 'inequality' as a potential new discipline between the social scientific fields.

Beyond truth?

However, more open understandings of truth can also provide fruitful insights. For instance, while *politics* is all about power, the definition of what is true can itself be a form of power. Political disputes are often disputes over what is true – only a mutual first agreement on its definition can make other types of argumentation possible later on. In recent times, 'post-truth', that is, the open delegitimization of things generally held to be true, has become an important political strategy. Therefore, research on the position of truth in politics under conditions of complexity promises interesting insights.

The article by **Maximilian Roßmann** addresses the challenging of common grounds during the current post-truth crisis. The contribution stresses the idea of exploiting narrative self-reference to

complement the theory of self-referential systems. The theoretical essay discusses whether narrative self-reference can help to sharpen the analytical perspective on linguistic structures.

Organizations and truth

All of the above aspects apply also to *organizations*, such as institutions and enterprises, and the different ways of understanding them. They are defined by decision-making, so they can also decide to produce their own truth. This may be the importance of their own actions or products, the idea of their being special, or their having hidden knowledge that could change the situation of the organization in future – and therefore is in danger of being leaked to outside actors. The internal treatment of truth can be part of an organizational culture or institution, which pre-defines what can be understood as 'truth' in the future.

The contribution by **Julia Welbers** focus on an intra-organizational production of truth. Focusing on the case of investment clubs in Germany, the article analyzes the decision making process of these groups of amateur investors. Based on an ethnography of investment clubs in Germany, the article studies two particular cases to analyze how these groups of amateurs make their decisions on investment strategy under hyper-complex circumstances of financial markets.

Media under fire

Mass media and the press have always held a central role in the definition and diffusion of truth. Now, the classic mass media are in crisis and are being increasingly replaced by social networks, such as Facebook, and new channels which are open to propaganda and disinformation. At the same time, the old media are being accused of producing 'fake news'. A discussion is needed on how the old media as well as the new media have produced truth over time, whether and how this production has changed, and how to understand the - apparently recent - trend of producing 'alternative facts'. One of these questions could be to which extent established theoretical concepts can serve to answer the issues mentioned above. Is it still expedient to adhere to concepts such as 'the public sphere'?

Following Luhmann's reasoning of truths constructed by the media (Luhmann 2000), the article by **Volker Daniel** and **Robert Peters** investigates the causal nexus between the public debt market and mass media by using the case of the Greek debt crisis as an example. Based on a study which has applied the method of topic models in order to process a database of more than 430,000 articles from the *International New York Times* and the *Financial Times*, the article discusses the potential of integrating quantitative and qualitative text analysis.

The next contribution also addresses the role of the media by introducing a unique case. **José Javier Blanco Rivero** exploits the ancient case of the Moche culture dating back to the first millennium. The article defines Moche material culture as communication media. By doing so, the author is able to re-interpret archaeological findings on the Moche culture with regard to the evolutionary dynamics of complexity and truth.

Objective and scope

Tackling the question of complexity and truth is not limited to scholars of the social sciences. That is why we aim to initiate an interdisciplinary discussion of how truth is produced in and accepted by different parts of society, different regions of the world, and different historical time periods, which includes functional systems, organizations, and interactions. Thus, we bring together an international group of scholars from the fields of Sociology, Intellectual History, Economic History, and Philosophy, who present their individual views of the concept of complexity and truth.

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