

European Populism: A Communicative Aspect*

Gennadiy Chernov

Correspondence: Gennadiy Chernov, Ph.D., University of Regina, Canada. E-mail: gennadiy.chernov@uregina.ca

Received: April 8, 2019

Accepted: June 18, 2019

Online Published: June 26, 2019

doi:10.11114/smc.v7i1.4346

URL: <https://doi.org/10.11114/smc.v7i1.4346>

Abstract

This paper deals with the growing populism movement in Europe. This movement is critical of the European Union and its certain economic and immigration policies. The studies dominant in the field look at different communicative aspects of these phenomena. They point at styles and rhetoric related to populism and failures of the pro-EU forces to communicate effectively why these policies are right and populist citizens are wrong.

This paper argues that the problem is not in successes or failures of communication per se, but in shutting out many European citizens from the debate in the public sphere. Not finding reflections of the concerns in the media and policies, and having fewer options to relay their messages to elites perceived to be in power in the EU, these citizens become 'populist citizens', and they start voting for populist parties in growing numbers.

The article concludes that studies of a communicative aspect of populism need not only discuss mediation, but the policies related to this mediation. Policies may be successful only when people accept them after a free debate. That is what was in the heart of the communicative acts in European history.

Keywords: populism, communication aspects, media, public sphere

1. Introduction

Over the last decade new developments led to the signs of crisis in the EU that are often ascribed to a rise of populism and Eurosceptic movements. These two phenomena have certain similarities, but they are not identical. Some efforts to analyze them were made (Alvarez & Dahlgren, 2016; Wodak R, Khosravinik M & Mral, 2013; Bos & Brants, 2014). The rise of populism contributed heavily to the rejection and criticism of some policies of the EU. According to the above-mentioned authors, populism can be right and left and the former focuses more on immigration while the latter emphasizes globalized economy.

These works pointed at the host of social and economic reasons for these developments and they explored the forms of expressions in populist ideology. However, the problem is that communicative aspects of the rise of populism are not clearly defined and when these aspects are addressed, they are considered mainly from the point of view of academics, the media, and key political players. These studies do not consider real-life indicators that make some people accept this political movement. The current paper is an entry point into the communicative component as a reason for the rise of populism. It offers a short review of populism and how it is studied. Different fields study populism applying different methodologies such as discourse analysis, textual analysis, and so on, but this study employs phenomenological analysis as an initial step in approaching the problem. A short discussion of what constitutes a communicative aspect of populism will be discussed alongside methodological approaches. Media and populism, and the public sphere both represent the way a communicative aspect unfolds and will be discussed in separate sections.

Euroscepticism will be discussed among other aspects of the populism wave. This study will also reflect on the state of the public sphere in Europe in regards to populism, and raises the question: What a potential does populism have for its further spread in Europe from a communicative standpoint? The paper only sketches the approaches that can predict communicative and voting behaviors of populist citizens, but these approaches may supplement the studies of rhetorical and ideological aspects of populism dominant in the current literature.

Despite its modest goals, this study is novel in its focus on what populism studies miss conceptually and methodologically, and on what makes populism message so attractive to many people. It is also important because ignoring or overlooking certain trends in populism and its communicative aspect may lead to a misunderstanding of this complex phenomenon, and it may result in poor predictability of social consequences.

*This publication is supported by the Faculty of Arts and President's Publication Funds, University of Regina.

2. Methodological Approach to Communicative Aspects

This study emphasizes two concepts related to the communicative aspects of populism: media and populism, and the public sphere. First, it is important to define what constitutes a communicative aspect. This communicative aspect is comprised of two components: The way the general media cover populism, and how people themselves use the media (mostly the internet) on populism. The first aspect is covered in the media and populism section. Research on this aspect is abundant, but it is not always linked to other dimensions of the populism phenomenon. For example, potential triggers of populist sentiments could be real-life indicators, such as economic situation, crime and so on, and clarity on what actually people say about their sentiments. How people themselves use (or not use) the media in relation to populism is part of the discourse about the public sphere. This component will be discussed in the public sphere section.

The use of the phenomenological approach is not new in communication (Langsdorf, 1994). This approach argues in favor of obtaining knowledge of a certain phenomenon as experience of such a phenomenon. This approach also links distinct understandings in studying something as a whole. "Phenomenology does not argue; it describes, or at the very least its descriptions become vehicles for arguments about how experience is interpreted" (Sturgess, 2018, p.2) Philosophical in its roots, the phenomenological approach allows to converge the perspective of those who explore it with those who are studied and who experience what is studied. This approach is applied to communicative aspects by reviewing studies on both media and populism, the public sphere and populism and demonstrating what their findings mean to understand populism as a whole.

3. Populism and Media

Populism became a buzzword over the past decade. The number of scholarly articles and books dedicated to this phenomenon is increasing (Aalberg, T., Esser, F., Reinemann, C., Stromback, J., De Vreese, C, 2017). Its definitions vary, and many researchers disagree about how broadly this term may apply. Jagers and Walgrave (2007) gave a description of the populism types that are often used in literature:

- 1) Complete populism appeals to the people, it is directed against elites and excludes out-groups.
- 2) Excluding populism appeals to the people and excludes out-groups.
- 3) Anti-elitism populism appeals to the people and anti-elitism, and 4) Empty populism appeals to the people only.

Most of the researchers refer to the right-wing parties and their supporters as populist, but the others also point at the left-wing populism like SYRIZA in Greece (Papathanassopoulos, S., Giannouli, I., & Andreadis, I. (2017)., and non-right populism in general like the 5 Star movement in Italy (Bobba, G., & Legnante, G., 2017). There is a general agreement that populists in Europe are against their national establishment, the European Union and immigration. Research on populism often takes the form of critique, but the phenomenon under study may need a less ideological and a more scientific turn in order to understand it. "A more neutral and comprehensive understanding that takes populism seriously as an expression of democratic malaise may be more productive" (Aalber, De Vreese, 2017, p.4).

Most of the studies of populism point more at the perception of threats highlighted by the populist movements than whether there are any real-life indicators supporting these perceptions. The concept of "people" is declared to be a construct and those who appeal to it are said to create a new social identity at the expense of those "legitimate differences" existing in society (Reinemann et al., 2017). Whether or not populist discourse has real-life indicators supporting populist perceptions, communicative aspects can be studied without considering this relationship. However, there is no agreement among researchers on what constitutes populism's communicative aspects either. It seems to be reasonable to include actors, their messages, and the target audience of these messages into the subject matter of studying populist communicative aspects, but this approach is far from universal. For example, Rooduijn (2014) treats populism as "a characteristic of a specific message rather than a characteristic of an actor sending that message." (p. 3).

There are two communicative aspects of research on populism relevant to this paper:

The way the general media cover it, and how people themselves use the media (mostly the internet) on populism.

Many studies reflect the tendency that media coverage of populism and its proponents is mostly negative, but populism movements still gain from any kind of coverage whatever the tone. Such coverage cannot avoid mentioning the issues populists capitalize on: "...it appears that the media, by using conflict framing, gives way to populist parties, allowing them to express their views."(Bachler & Hopmann, 2017, p. 36). Some researchers admit that "The positive effect of increased visibility thus appears to have trumped the negative effect of the tone of the coverage." (Stromback, Jungar, & Dahlberg, 2017, p. 74). This tendency is noticeable across the board.

Here is a short overview of how populism is reflected upon in media discourse.

In Belgium, researchers note that the Flemish populist party VB receives more negative coverage than other parties, but the media involuntarily support the VB "...by paying attention to the party's issues" (De Cleen & van Alsten, 2017,

p.102). Hamleers, Bos, and de Vreese,(2017) also indicated that “newspaper coverage of right-wing populist parties is predominantly negative” (p. 144). Populist movements do not shun negative coverage of the general media, but they are becoming more active in utilising the Web. For example, The Austrian freedom Party keeps its presence through different channels including such popular social sites as Youtube and Facebook (Schmuck, Matthes, & Boomgarden, 2017). The populist movement in Germany, Alternative for Germany, even capitalize on the media criticism and uses this critical coverage to its advantage. This way it tries to demonstrate that the media is part of the ruling elite (Fawzi, Obermeier, & Reinemann, 2017).

In Netherlands, where right populism has deep roots, its media coverage is predominantly negative, but the populist parties are systematically covered and are not ignored (Schafraad, Scheeper, & Wester, 2010). The pattern of active coverage of right populists, mostly the Swiss People’s Party, holds in Switzerland as well. The party is often described “...as a powerful the

Italy represents a slightly different picture because the leading populist parties, Lega and the 5Star Movement are right and left off the political center respectively. Both movements use the fact that mainstream media support mostly traditional parties as “... a rhetorical tool by which to assess whether politicians and journalists (“the establishment”) are organized against the people (Bobba, & Legnante, 2017, p. 229).

In France, authors and media take a critical tone of right wing populism, but are reluctant to sue the term “populism” itself (Hube & Truant, 2017). Some worry that using the term may add to the unintended legitimization of certain movements in society (Mammone, 2009).

Populism is about contrasting the elite and “clever” media, and the less educated population. That is why Collovald (2004) equates the idea to discredit certain right-wing movements as populist to the position that only more advanced elitist representatives of society know how to vote and correctly understand public life.

Greece represents a classic case when both left-wing and right-wing populist parties play an important role in political life. Moreover, Coalition of the Radical Left, SYRIZA, is a ruling party. Both the Right and the Left claim that they hold an anti-elitist position (Papathanassopoulos et al. 2017).

The trends for populism in Eastern Europe are of a special importance as the parties who claimed to be populist are in power in Poland and Hungary. However, these trends will be considered in relations to the following: what happens if populist parties come to power? Are they still ‘populist’ in an anti-elitism sense? It is also important to understand whether the EU’s actions themselves fuel what leads to growing support for populism, especially if there is no room for expressing views that contradict to the dominant narrative of the EU actions as only possible and acceptable. It is also worth exploring whether limiting opportunities for those who are sympathetic to populism views to participate in public sphere debate leads to both radicalizing and the further spread of these views.

4. How to Study and Predict Populism?

It’s difficult to cover all of the classifications in studying the phenomenon of populism, but Engesser, Fawzi, and Larsson (2017) offered a popular and concise one. They contend that it has three dimensions: ideology, style, and strategy. The style belongs to one of the key components with focus on simplification, negativity, and emotionalization (Engesser, Fawzi, & Larsson, 2017, p. 1285). Many articles dealing with populism discuss communicative styles and rhetoric used by populist leaders. These devices could add efficiency to populist messages, but two important aspects of studying any social phenomena – real life indicators and their relations to actual populist messages – are often missing in the analysis. Alvares and Dahlgren (2016) identified two core explanations as to why populism gains such a traction with Europeans: blue-collar workers were hit by the globalization which led to their strong support of populism, and immigration from areas outside the EU creates fears of insecurity and loss of cultural identity for broader segments of Europeans. These sentiments are strengthened by the strong perception of hostile attitudes against these segments on behalf of political elites and mainstream media. “In the prevailing neoliberal order, where the major political parties are clustered at the centre, there are no real alternatives offered, and the necessary distinction between ‘us’ and ‘them’ as a political dynamic for democratic political parties becomes undercut. Major issues such as immigration and multiculturalism are offered no alternatives, leaving many citizens feeling frustrated, abandoned and powerless. Their ensuing resentment fits well with the subject positions of ‘the people’ offered by the extreme right” (Alvares & Dahlgren, 2016, p.52).

Shutting out these large segments of the meaningful participation in democratic debate does not weaken populism, but radicalizes some of its proponents. “A condemnatory attitude that belittles individuals who are not mobilised by traditional party politics appears to ground itself on a distancing between citizens and the sphere of governance which is counter-productive to the functioning of democracy.

Being shut out of politics is a very real sentiment on the part of many individuals who, confronted with lack of clout

over political decisions, find themselves increasingly disengaged from traditional party politics” (Alvares & Dahlgren, 2016, p.53).

Another study explored how real-life indicators, growing immigration and voting patterns, correlate with each other. Podobnik, B., Jusup, M., Kovac, D., & Stanley, H. E. (2017) demonstrated that anti-globalism sentiments and voting for the right wing parties in Europe are fueled by one issue, namely, the high level of immigration, especially by illegal immigration. They stated that “... the increase in the percentage of RW voters substantially surpasses the percentage of immigration inflow implying that if this process continues, ongoing democratic processes will cause RW populism to prevail and globalization to rapidly decrease.” (p.1). The authors applied a complex network approach which showed a non-linear relation between the increase in immigration and voting patterns, and it showed that when immigration approaches 30% of the population, right wing parties win the majority of votes. They conclude that “Our model emphasizes the need for controlled globalization in which immigration inflows into a society are balanced with the ability of the society to integrate the immigrants.” (p.10) Podobnik, B., Kirbis, I. S., Koprcina, M., & Stanley, H. E. (2019) also explored how populism of all stripes may converge in case of reducing public interest to two most important issues: economy and immigration. Both the right and left wings may find they have more in common than what divides them. “during non-prosperous and gloomy societal periods, the same multi-dimensional space of human concerns and interests starts to shrink, and a single issue starts dominating over all others. As the societal condition is getting worse a society gradually approaches a tipping point, characterized by radical societal changes and a sudden shift from one phase to another, considerably different, where radical political and societal changes are likely to happen.” (p.472). Moreover, the authors suggest that populists of both stripes may switch sides more easily than it happened in the past.

Another study investigated whether populist citizens avoid mainstream media as elitist and hostile (Schulz, A 2018). Contrary to what could be expected, populist citizens attend both mainstream commercial and public media. There may be different explanations, a lack of alternative sources and a desire to know what ‘enemies’ think about them.

These studies, cited above, extend studying populism and its communicative components beyond analysis of styles, rhetoric devices and ideological stances to exploring attitudes and actual behaviors of populist citizens. This turn may allow for predictions in regards to what political and social change, European societies can expect in the future.

Another question relates to whether or not populist citizens become populists because their worries are not reflected in the media and their participation in the public sphere debate is limited.

5. Public Sphere and Populism in Europe

Public sphere is the concept that adds the public to the intersection of media and politics influences on democracy. It was coined by Habermas (1989), “...it points to a more or less autonomous and open arena for public debate in civil society and one that involves the use of various forms of media including the pamphlets, the mass media and the internet” (Wessels, 2013, p.153). The idea of the use of public reason is the key tool of participating in the public sphere debates. This use has to be free from coercion or manipulation (Wessels, 2013). Another notion put forward by Habermas, deliberative democracy, implies that any societal decisions, including political, should be the result of sophisticated debates in the public sphere (Bee & Bello, 2009). As, potentially, everybody may have a say in the process of deliberation. The public sphere becomes ‘... a precondition for realizing popular sovereignty” (Eriksen & Fossum, 2002, p.403).

There is an agreement among scholars that the media became the main channel where the public sphere finds its expression (Os, Jankowski & Wester, 2009). The European public sphere, specifically, is characterized by the media covering certain European issues simultaneously in several European countries (Eder & Kantner, 2000). The EU, its institutions and activities are covered by the media of the countries comprising the Union, and the mainstream media of those countries are supportive of it. It is explainable why these media do not reflect the views of those who oppose further integration and consolidation of power at the hands of supranational institutions. The media also criticize those who oppose immigration as the latter is considered to be a sign of further globalization, especially in the economic sphere. Having such a strong communicative support, the EU governing bodies try to downplay the fears of further globalization expressed by some segments of the European population. It creates a situation allowing some researchers to contend that the EU “...is biased against public involvement.” (Perez, 2013, p.3) Perez reminds us that it is not the media, general or social, to blame for disconnect between growing numbers of the EU citizens and its governing bodies, but the EU governing bodies themselves. The EU key components, diplomacy, technocracy and corporatism, “...are biased against the development of a European public sphere” (Perez, 2013, p.6). The public discontent is not against the EU, but a few policies. Before becoming ‘populist citizens’ citizens try to relay their concern about these policies, but being shut out of the debate, of the public sphere, they become populist. In other words, the EU policies themselves may contribute to creating populism. Studies of populist communication are valuable, but “...are affected by a common syndrome: a focus on mediation, with few critical evaluations of what is being communicated” (Perez, 2013, p.7)

6. Conclusion

This study is an initial and modest effort to define and explore the communicative aspects of populism phenomenon. The phenomenological approach was applied to conceptually grasp populism in such communication areas as media and populism, the public sphere and populism as a whole. The lack of empirical research is balanced with a novel theoretical proposal. This paper argues that communicative aspects of populism combine the way the media cover it, and how people use the media on populism. It also contends that exploring the latter is insufficient and fails to probe the reasons why people in the developed world became prone to populist messages.

This paper also stresses the importance of further studies that analyze how citizens see and evaluate their options to take part in the public sphere debate. The lack of such options may be a strong factor as to why people turn to populism.

Further studies of the communicative aspects of populism must also include those policy aspects that are in focus of communication. Such policy aspects may include investigating how policies and media may in fact contribute to the rise of populism.

References

- Aalberg, T. (Ed.), Esser, F. (Ed.), Reinemann, C. (Ed.), Stromback, J. (Ed.), De Vreese, C. (Ed.). (2017). *Populist Political Communication in Europe*. New York: Routledge.
- Aalberg, T., & de Vreese, C. (2017). Introduction: Comprehending populist political communication. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe*. New York: Routledge.
- Alvares, C., & Dahlgren, P. (2016). Populism, extremism and media: Mapping an uncertain terrain. *European Journal of Communication*, 31(1), 46-57. <https://doi.org/10.1177/0267323115614485>
- Bachler, C., & Hopmann, D. (2017). The rise of the Danish People's party. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 29-41)
- Bee, C., & Bello, V. (2009). A European Model of the Public Sphere: Towards a Networked Governance Model. In J. Harrison & B. Wessels (Eds.), *Mediating Europe: new media, mass communications and the European public sphere* (pp. 128-149). Oxford: Berghahn Books.
- Bobba, G., & Legnante, G. (2017) A Breeding Ground for Populist Political Communication. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese(Eds.), *Populist political communication in Europe* (pp. 221–234). Routledge.
- Bos, L., & Brants, K. (2014). Populist rhetoric in politics and media: A longitudinal study of the Netherlands. *European Journal of Communication*, 29(6), 703-719. <https://doi.org/10.1177/0267323114545709>
- Collovald, A. (2004). *Le populisme du FN: un dangereux contresens*. Éditions du Croquant.
- De Clean, B., & van Aelst, P. (2017). Belgium: The Rise and fall of Populism Research. . In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese(Eds.), *Populist political communication in Europe* (pp. 99–110). Routledge.
- Eder, K., & Kantner, C. (2000). Transnationale Resonanzstrukturen in Europa. Eine Kritik der Rede vom Öffentlichkeitsdefizit. *Die Europäisierung nationaler Gesellschaften. Sonderheft*, 40(2000), 306-331. https://doi.org/10.1007/978-3-322-80390-0_13
- Engesser, S., Fawzi, N., & Larsson, A. O. (2017). Populist online communication: introduction to the special issue *Information, Communication & Society*, Vol. 20., 9, 1279–1292
- Eriksen, E. O., & Fossum, J. E. (Eds.). (2002). *Democracy in the European Union: integration through deliberation?*. Routledge. <https://doi.org/10.4324/9780203465127>
- Ernst, E., Engesser, S., & Esser, (2017). Switzerland: Favourable Conditions for Growing Populism In T.Aalberg, F.Esser, C.Reinemann, J.Stromback,& C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 85-99). Routledge.
- Fawzi, O., Obermaier, M., & Reinemann, (2017). Germany: Is the Populism Laggard Catching Up? In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 85-99). Routledge
- Habermas, J., & Habermas, J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*. MIT press.
- Hameleers, M., Bos, L., & de Vreese (2017). The Netherlands: A heartland full of insights into populist communication. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback,& C.DeVreese (Eds.), *Populist political communication in*

Europe (pp. 140-153). Routledge.

- Hube, N., & Truan, M. (2017). France: The Reluctance to use the Word Populism as a Concept. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 182-195). Routledge.
- Jagers, J., & Walgrave, S. (2007). Populism as political communication style: An empirical study of political parties' discourse in Belgium. *European journal of political research*, 46(3), 319-345. <https://doi.org/10.1111/j.1475-6765.2006.00690.x>
- Langsdorf, L. (1994). Why phenomenology in communication research?. *Human Studies*, 17(1), 1-8. <https://doi.org/10.1007/BF01322763>
- Mammone, A. (2009). The eternal return? Faux populism and contemporarization of neo-fascism across Britain, France and Italy. *Journal of Contemporary European Studies*, 17(2), 171-192. <https://doi.org/10.1080/14782800903108635>
- Papathanassopoulos, S., Giannouli, I., & Andreadis, I. (2017). Greece: populism between left and right. In T.Aalberg,F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 195–206). Routledge.
- Perez, F. (2013). *Political communication in Europe: the cultural and structural limits of the European public sphere*. Springer.
- Pfetsch, B. (2018) Dissonant and Disconnected Public Spheres as Challenge for Political Communication Research, Javnost - The Public. <https://doi.org/10.1080/13183222.2018.1423942>
- Podobnik, B., Jusup, M., Kovac, D., & Stanley, H. E. (2017). Predicting the rise of EU right-wing populism in response to unbalanced immigration. *Complexity*, 2017. <https://doi.org/10.1155/2017/1580526>
- Podobnik, B., Kirbis, I. S., Koprcina, M., & Stanley, H. E. (2019). Emergence of the unified right-and left-wing populism—When radical societal changes become more important than ideology. *Physica A: Statistical Mechanics and its Applications*, 517, 459-474. <https://doi.org/10.1016/j.physa.2018.10.054>
- Reinemann, C., Aalberg, T., & Esser, F. (2017). Populist Political Communication: Toward a Model of Its Causes, Forms, and Effects. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback,& C.DeVreese (Eds.),*Populist political communication in Europe* (pp. 12-29). Routledge.
- Rooduijn, M. (2014b). “Vox Populismus: A Populist Radical Right Attitude among the Public?” *Nations and Nationalism*, 20, 80–92. <https://doi.org/10.1111/nana.12054>
- Schmuck, M., & Boomgaarden, (2017). Candidate-centered and Anti-immigrant right-wing populism. In T.Aalberg, F.Esser, C.Reinemann, J.Stromback, & C.DeVreese (Eds.), *Populist political communication in Europe* (pp. 85-99). Routledge.
- Schulz, A. (2018). Where populist citizens get the news: An investigation of news audience polarization along populist attitudes in 11 countries. *Communication Monographs*, 1-24. <https://doi.org/10.1080/03637751.2018.1508876>
- Strömbäck, J., Jungar, A. C., & Dahlberg, S. (2017). Sweden: No longer a European exception. In T. Aalberg, F. Esser, C. Reinemann, J. Strömbäck, & C. de Vreese (Eds.), *Populist political communication in Europe* (pp. 68–85). New York, NY: Routledge
- Sturgess, J. N. (2018). In defense of phenomenological approaches to communication studies: an intellectual history. *Review of Communication*, 18(1), 1-18. <https://doi.org/10.1080/15358593.2017.1405065>
- Van Os, R., Jankowski, N. W., & Wester, F. (2009). Exploring the online European public sphere: The Web and Europeanization of political communication in the European Union. *Mediating Europe: New media, Mass Communications and the European Public Sphere*, 73-98.
- Wessels, B. (2013). Exploring the role of European information society developments in the Europeanization of public spheres. *Mediating Europe: New Media, Mass Communications, and the European Public Sphere*, 2, 150.
- Wodak, R., KhosraviNik, M., & Mral, B. (Eds.). (2013). *Right-wing populism in Europe: Politics and discourse*. A&C Black.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the [Creative Commons Attribution license](https://creativecommons.org/licenses/by/4.0/) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.