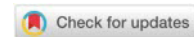


THREE SYSTEMIC APPROACHES TO HUMAN BEHAVIOR, BEHAVIORAL HISTORY AND POPULATION BEHAVIOR: WHAT ROLE FOR SOCIAL ENVIRONMENT AND PUBLIC PARTICIPATION?

Anca Parmena Olimid^{1*}, Daniel Alin Olimid¹

¹University of Craiova, Faculty of Social Sciences, Craiova, Romania,
e-mail: anca.olimid@edu.ucv.ro, daniel.olimid@edu.ucv.ro



Abstract: Purpose: The research considers the systemic approaches to human behavior, social environment and behavioral history engaging the theoretical representations and conceptualizations of the relevant constructs in the field. Methods and methodology: The research overviews the conceptual clarity using terms and association of terms and following a five-steps research technique: (1) determination of conceptual clusters using JavaScript based programming Mermaid Live Editor; (2) generating three themes of analysis using the tools and services provided by four databases, namely: Wiley Online Library, Sage Journals, JSTOR and the Royal Society Publishing (information retrieved during the period from January 10, 2024 to February 10, 2024); (3) identifying the associated domains and applications of the conceptual clusters by reviewing the relevant scientific literature; (4) examining the concepts and evolutionary advances; (5) framing the patterns of the terminological analysis. Results and findings: The findings of the research patterns the analysis units referring to the relationships between various constructs and discussing the variations and role of concepts. Conclusions: In conclusion, the paper releases significant research outcomes concerning linkage between human behavior, social environment and behavioral history and the occurrence and viewpoints about the three themes of analysis by focusing on the role of social environment and public participation.

Keywords: human behavior, social environment, behavioral history, systemic approach, historical change.

Field: Social Sciences and Humanities

1. INTRODUCTION

The analysis of human behavior and behavioral history requires a systemic analysis approaching conceptual difference, associating and integrating social and human practices, historical origins and other aspects related to the social environment, social systems and social organization (Storey & Figueroa, 2012). Given the system-centred approach, the current paper analyzes the multidisciplinary and interdisciplinary knowledge and developments, but also how social interaction, social change, the human condition, and social behavior are researched and developed by studies in the social sciences, humanities, behavioral sciences, genetics and related fields. Thus, the research explores the historical evolution and conceptual foundations of human behavior mapping social organization and the social environment and proposing an integration of micro- (individual-centred) and macro- (community- and society-centred) systems theory through the conceptualization of interaction individual-social environment. Thus, considering the variations of human behavior and behavioral history, as well as the influences of the social environment and societal and community interactions, the analysis aims to study the conceptual complexity, but also the perspective moderated by a series of variables that are based on the behavioral attributes and descriptive norms identified at the interpersonal and social relational level. As such, this approach identifies three directions and applicative processes for the study of social behavior and behavioral history. The first direction perceives behavioral norms and a series of variables that identify social proximity and social relationships based on moderators such as: social skills, social behavior, communication, cooperation, social organization, social structure, and social history. The second direction of analysis integrates factors and patterns that focus on the social environment, human condition, human personality, social interaction, culture and social behavior. The third perspective approaches the cumulative effect of the systemic approach that considers the multiple functions and associations of human behavior in historical behavior studies, historical change, social systems, behavioral history, genetics, human social behavior, human population, genetics, social behavior, health and social psychology.

*Corresponding author: anca.olimid@edu.ucv.ro



2. METHODS AND METHODOLOGY

The main objective of the paper is to present a systemic approach to human behavior, behavioral history and population behavior using the method of research of the literature review. The number and complexity of papers about human behavior, behavioral history and the human population have rapidly evolved including new data, areas of research and innovative assessments. In this research, a total of 24 scientific articles, book chapters and studies were analyzed and categorized considering the main research area, the publishing year and the paper type (article or book chapter) as follows:

(a) considering the research type, the research reviewed 10 book chapters published during fourteen years between 2008 and 2022 and 14 scientific articles and studies published during a period of more than thirty years between 1991 and 2023. For the research, we used the tools and services provided by four databases, namely: Wiley Online Library, Sage Journals, JSTOR and the Royal Society Publishing (information retrieved during the period from January 10, 2024 to February 10, 2024);

(b) based on the scientific category, the foundational theme and objectives, the research is systematically focused on the conceptual progress of social sciences, history and nature sciences proposing a complex theoretical integration related to existing scientific literature, human behavior and human condition theories combining both research topics and exploratory investigation using JavaScript based programming Mermaid Live Editor (Figure no. 1, Figure no. 2 and Figure no. 3).

(c) for the empirical research of the conceptual developments of the analysis, we will consider the convergent approaches. The first approach develops the theoretical and empirical settings to concepts, and the second perspective follows research based on the description, relation and understanding of concepts by explaining the role of the social environment, arguing social phenomena and the emergence of social organization and social interaction.

(d) to carry out the research plan, in quantitative research, we will identify multiple perspectives of research that operationalize the use of more than twenty semantic constructions, linguistic concepts, research themes and proposed topics such as behavioral history, networks and participatory public spaces, behavioristic models, prosocial behavior, human communities, social organization, the human condition, historical resilience, the role of social change, population studies and demography. In this sense, the research identifies and illustrates three themes of analysis. The first perspective of the analysis represents the area of quantification of variables at the individual and social level, focusing on social skills, social behavior, communication, cooperation, social organization, social structure, and social history (Figure 1, Figure 2 and Figure 3). The second perspective proposes theoretical revisions and the operationalization of some concepts associated with the human condition and the social environment such as: social environment, human condition, human personality, social interaction, culture and social behavior, systems theory. The third perspective focuses on analytical generalization of factors and fields such as: historical behavior studies, historical change, social systems, behavioral history, biological foundations, genetics and human social behavior, human population, genetics and social behavior, social health and social psychology.

3. RESULTS AND FINDINGS

3.1. HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT

The focus on the linkage between human behavior-social environment shapes the micro level of the variables by pointing to the social-level approach. The social environmental characteristics and factors play a significant role in understanding and exploring the behavioristic models following individuals' behaviors, social environment and prosocial behavior (Figure no.1). Thus, the discussion regarding human behavior and the social environment, as it was approached and mediated by specialized studies of the last twenty years, identified several separate opinions within the systemic theory (Kaufman, 2020; Sciortino, 2008). The first category of studies also accepts and develops the relationship between human behavior and the social environment but rationalizes the social environment as a frame of reference for the conceptualization of individual-society interaction by integrating a multidimensional framework centred on historical evolution, cultural, social and historical capital (Stone, Berzin, Taylor & Austin, 2008). Another category adopts the essentialist and dual model between human behavior and the social environment starting from the foundations of systemic theory and the role of communication through the argumentation proposed by the theory of behavior change generated by interaction with social networks and participatory public spaces (Mahoney & Tang, 2016).

In this sense, for the research of human behavior, a recent direction is represented by the status of

the concept “prosocial behavior” (Labroo, Khan & Su, 2023: 92–108) and the role of public participation. Thus, this approach centred on the intersocial and prosocial aspects of behavior contributes to a more in-depth understanding of the comprehensive theory that links the micro and macro levels relating to the social environment. Although there are earlier marks in social causality and social status, most significantly the work of Hicks et al. (2015) basing the focus on the causal relationship between human values, social standards, psychological factors and individual preferences. In addition to this theory, the authors approach the various aspects of plurality, social causality and the theory of human values by relating to social standards, culture, religious factors, social norms, social status, people’s well-being, associated human values, etc. (Hicks, Cinner, Stoeckl & McClanahan, 2015: 1471-1480). This distinction discusses human nature and the key concepts of the systemic approach challenging the evolution and the complexity of human communities and the set of factors related to well-being (Jenks, 2004: 209-217). These factors include the social and cognitive effects looking at the social system distribution and functioning. This example opens the behavioral analysis centred on the “equilibrium correspondence” and the distributive mechanism in private and public areas of the social systems. Through this formulation, the systemic theory also extracts the essential components related to social skills, social behavior, communication, cooperation in this situation. In addition, the mentioned theoretical constructions preserve four defining components of any type of system: social organization, human communities, social structure, and social history (Lapointe, 1998: 193-208). Thus, this type of theorizing found at the macro-level has effects at the societal level both in the functional sense and in the sense of social, political or systemic reflection (Lapointe, 1998: 193-208). Such an approach synthesizes the classic approaches of the 1990s (Hall, 1997: 397-418) and a new style of interdisciplinary theoretical and applied argumentation involving social interactions, social policy development, public participation and social media (Figure no.1).

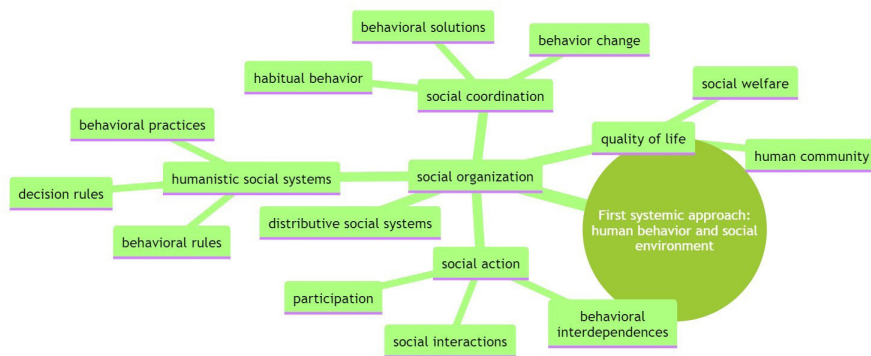


Figure no. 1. Flow chart for first systemic approach using Mermaid Live Editor (v10.8.0 – mermaid.live)

3.2. HUMAN BEHAVIOR, BEHAVIORAL HISTORY AND THE HUMAN CONDITION

The second section of the research develops the associated concepts of “behavioral history” and “human condition” combining the infrastructure of notions inventoried by critical thinking and historical changes. At this level, the concept of “social change” translates the evolutionary advances of the human societies and the approach to the concept of “event in history” (Kennedy, 2004: 315-327). This insight explores the historical approach and topics detailing the research content of the role of social modifications and historical events. This type of research has received new insights setting the attributes of the social organization, social life and social group (Figure no. 2). With this complementary perspective, the contemporary academic studies launched in the 2010s mainly reflected the multidisciplinary fields focusing on four dimensions of the human behavior research content: (1) the basic functioning of the social organization; (2) the social role of the individual participation and the human condition; (3) the effectiveness of the historical resilience and the role of social change; (4) the new paradigms of the population studies, demography and behavioral history (Bernatzky & Snow, 2018; (Parashar, 2018). By rethinking the theoretical foundation of the human condition, Fox argues the need for a triple validation: types of social relations, social organization and social life (Fox, 2015: 301-318). In addition, the concept of “social world” offers a scale of different attitudes and values regarding social organization by recognizing social, political and decision-making differences (Fox, 2015: 301-318; Bruch, Hammond & Todd, 2015).

First of all, this perspective implies the collective assumption, social institutions and the convergence between history, culture, biology and sociology (Fox, 2015: 301-318). A second formulation targets the social role and intellectual performance of the individual at the societal level and the pluralistic theories of historical resilience (Figure no. 2). Other authors appeal to the conceptual debate that focuses on the historical narratives, the recognition of the role of the social group, normative culture and social change by associating representations of population studies, demography and societal change (Parashar, 2018). Another aspect is related to the critical evaluation of human behavior that signals the rational articulation of behavioral history, social movements and social organization (Bernatzky & Snow, 2018). Thus, the adoption of the systemic thesis of social pluralism and social organization involves other key concepts of the specific functionalist construction of the theory of social systems developed by Leydesdorff (2002: 129-136). Other authors develop new directions by advancing new paradigms of social change, public participation and historical events. This extent manages multiple dimensions of the historical analysis and the relationship between human behavior, behavioral history, social variables and social history (Figure no. 2). Moreover, in the related debates, recent studies conceptualize the trajectories of the environmental behavior and the “pro-environmental behaviour” (Tian & Liu, 2022). This new perspective analyzes a cluster of value-belief norms and theories and behavior topics affecting the environmental behavior by revealing the social mechanisms, the influencing indicators and the decision models (Tian & Liu, 2022) (Figure no. 2).

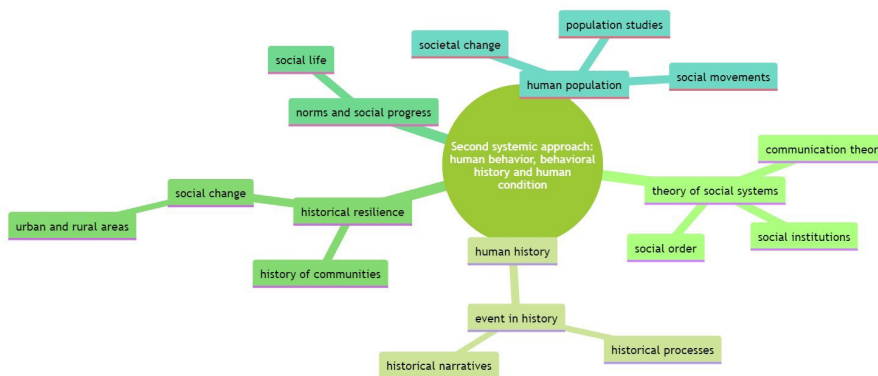


Figure no. 2. Flow chart for second systemic approach using Mermaid Live Editor (v10.8.0 – mermaid.live)

3.2. HUMAN POPULATION AND ENVIRONMENTAL BEHAVIOR

The arguments introduced by Thirlaway and Davies (2013) resonate with the recent concerns related to personal responsibility and systemic behavior. In the second place, a point of view that legitimizes the paradigm is focused on health behavior, “genetic aetiology” and “genetic predisposition” (Thirlaway & Davies, 2013). In this direction, most recent scientific studies explain both the dominance of concepts such as genetics, social behaviour, “behavioural heritability” and the practice of the social structures (Schneider, Atallah & Levine, 2017: 1027-1038). There is still another perspective noted by Schneider et al. (Schneider, Atallah & Levine, 2017: 1027-1038) corresponding to a recurring theme in the recent scientific literature developed mainly after 2010 and focusing on the linkages between social environment, behavior, social interaction, social relationships, social dominance and life history. In this sense, the authors affirm the normative model of behavioral changes through a plural construction of social settings and following the patterns of the theory of population behavior (Figure no.3). The theory illustrates two key contributions linking behavioral science, community influence and individual-related changes, namely interpersonal relations and the behavioral objectives (McAlister, 1991: 345–361). Other studies underpinned the evolving relationship between the systemic behavior, environmental changes and the dynamics of human population (Bro-Jørgensen, Franks & Meise, 2019). Thus, in the year 2012, Fisher et al. invoke two solid conditions to represent the ambivalence of the relationship between human behavior and sustainability (Fischer, Dyball, Fazey, Gross, Dovers, Ehrlich, Brulle, Christensen & Borden, 2012: 153-160). The first condition considers the role of social engagement and sustainable behaviors and the second condition substantiates the settings of beliefs and values. This dual theoretical construction of systems theory regards both the debate regarding the conventional orientations of systemic behavior

and the structuralist analysis centred on norms, values and principles. In front of the predominance of this approach, some authors who support a second option than the structuralist thesis. This direction centres preference on individual experiences, preferences, knowledge and subjectivity. The approach is personalized, being justified by the individualistic meaning of human social behavior, which reflects the individual in his theoretical construction. A multifaceted approach is developed by Ebstein et al. (Ebstein, Melman, Lai, Monakhov & Chew, 2013) and King (2022) attending to the social environment, the cultural factors, the social interactions and the role of the ecological systems and human population.

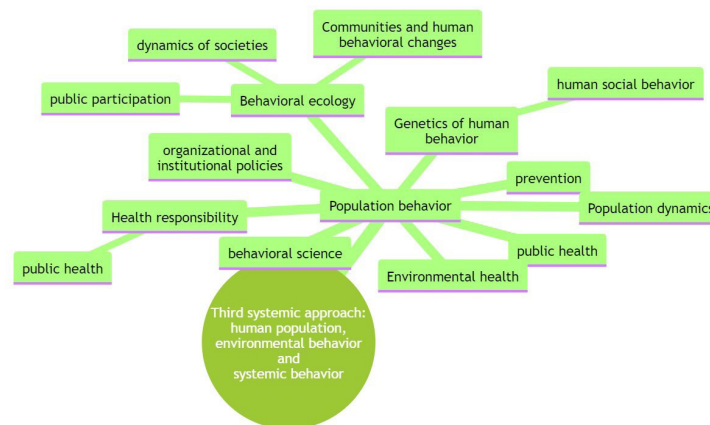


Figure no. 2. Flow chart for third systemic approach using Mermaid Live Editor (v10.8.0 – mermaid.live)

Another argument articulates the plurality of social interests and the role of human behavior as the crystallization of civic engagement and public participation. The idea of the link between human behavior and public participation expresses, on the one hand, the perspective of resources for social organization, public participation and civic engagement, and, on the other hand, constitutes a foundation for the norms and collective values of the social system.

4.CONCLUSIONS

In conclusion, the research focusing on the systemic approach to human behavior, behavioral history and population behavior provides a thematic analysis based on the complexity of the social environment and participation-related concepts. However, due to the complexity of the scientific literature, the study finds the prominent themes of behavioral history, human population and systemic behavior and the discussion of the social change providing new dimensions such as social interaction, social relationships, social group, normative culture, social dominance, public participation and life history. The results of the findings reveal that the analysis has introduced also the processes of engagement and public participation as new networked areas of research for the study of human behavior and human population. However, due to a lack of mixed analysis, the results also underpin the new perspectives of behavioral history by exploring a multi-level analysis including methods of research used in history, culture, biology and sociology. In conclusion, the research reveals the inner content of the new paradigms and theories requiring the establishment of an analytical framework based on the synergic approach and role of the social environment and public participation.

REFERENCES

- Bernatzky, C. & Snow, D.A. (2018). Social Movements and Social Change. In Core Concepts in Sociology, J.M. Ryan (Ed.). <https://doi.org/10.1002/9781394260331.ch76>
- Bro-Jørgensen, J., Franks, D.W., Meise K. (2019). Linking behaviour to dynamics of populations and communities: application of novel approaches in behavioural ecology to conservation. *Phil. Trans. R. Soc.* <http://doi.org/10.1098/rstb.2019.0008>
- Bruch, E., Hammond, R.A. & Todd, P.M. (2015). Coevolution of Decision-Making and Social Environments. In *Emerging Trends in the Social and Behavioral Sciences* (eds R.A. Scott and S.M. Kosslyn). <https://doi.org/10.1002/9781118900772.etrds0044>
- Ebstein, R.P., Melman, R.-B., Lai, P.S., Monakhov, M. & Chew, S.H. (2013). Genetics of Human Social Behaviour. In eLS, John Wiley & Sons, Ltd (Ed.). <https://doi.org/10.1002/9780470015902.a0024387>
- Fischer, J., Dyball, R., Fazey, I., Gross, C., Dovers, S., Ehrlich, P.R., Brulle, R.J., Christensen, C. & Borden, R.J. (2012), Human behavior and sustainability. *Frontiers in Ecology and the Environment*, 10, 153-160. <https://doi.org/10.1890/110079>

- Fox, N.J. (2015). Emotions, affects and the production of social life. *The British Journal of Sociology*, 66, 301-318. <https://doi.org/10.1111/1468-4446.12119>
- Hall, P.M. (1997). Meta-Power, Social Organization, and the Shaping of Social Action. *Symbolic Interaction*, 20, 397-418. <https://doi.org/10.1525/si.1997.20.4.397>
- Hicks, C.C., Cinner, J.E., Stoeckl, N. & McClanahan, T.R. (2015). Linking ecosystem services and human-values theory. *Conservation Biology*, 29, 1471-1480. <https://doi.org/10.1111/cobi.12550>
- Jenks, C.L. (2004). The well-being of social systems. *Syst. Res.*, 21, 209-217. <https://doi.org/10.1002/sres.616>
- Kaufman, S.G. (2020). Understanding Human Behavior. In *Prepare and Protect*, S.G. Kaufman (Ed.). <https://doi.org/10.1128/9781683670179.ch6>
- Kennedy, M.D. (2004). Evolution and Event in History and Social Change: Gerhard Lenski's Critical Theory. *Sociological Theory*, 22, 315-327. <https://doi.org/10.1111/j.0735-2751.2004.00220.x>
- King, B. (2022). Environmental Health. In *International Encyclopedia of Geography* (D. Richardson, Editor-in-Chief, et al.). <https://doi.org/10.1002/9781118786352.wbieg0754.pub2>
- Labroo, A. A., Khan, U., & Su, S. J. (2023). Reconsidering prosocial behavior as intersocial: A literature review and a new perspective. *Consumer Psychology Review*, 6(1), 92–108. <https://doi.org/10.1002/arcv.1088>
- Lapointe, G. (1998). Human nature, humanistic social systems, and design. *Syst. Res.*, 15, 193-208. [https://doi.org/10.1002/\(SICI\)1099-1743\(199805/06\)15:3<193::AID-SRES221>3.0.CO;2-A](https://doi.org/10.1002/(SICI)1099-1743(199805/06)15:3<193::AID-SRES221>3.0.CO;2-A)
- Leydesdorff, L. (2002). The communication turn in the theory of social systems. *Syst. Res.*, 19, 129-136. <https://doi.org/10.1002/sres.453>
- Mahoney, L.M. & Tang, T. (2016). Understanding Social Media and Social Behavior Change. In *Strategic Social Media* (eds L.M. Mahoney and T. Tang). <https://doi.org/10.1002/9781119370680.ch1>
- McAlister, A. L. (1991). Population Behavior Change: A Theory-Based Approach. *Journal of Public Health Policy*, 12(3), 345–361. <https://doi.org/10.2307/3342846>
- Parashar, S. (2018). Demography and Population Studies. In *Core Concepts in Sociology*, J.M. Ryan (Ed.). <https://doi.org/10.1002/9781394260331.ch18>
- Schneider, J., Atallah, J. & Levine, J.D. (2017). Social structure and indirect genetic effects: genetics of social behaviour. *Biol Rev*, 92, 1027-1038. <https://doi.org/10.1111/brv.12267>
- Sciortino, G. (2008). Functionalism and Social Systems Theory. In *The New Blackwell Companion to Social Theory*, B.S. Turner (Ed.). <https://doi.org/10.1002/9781444304992.ch5>
- Stone, S.I., Berzin, S., Taylor, S. & Austin, M.J. (2008). Human Behavior and the Social Environment: Exploring Conceptual Foundations. In *Comprehensive Handbook of Social Work and Social Welfare* (eds K.M. Sowers, C.N. Dulmus and B.A. Thyer). <https://doi.org/10.1002/9780470373705.chsw002004>
- Storey, D. & Figueroa, M.E. (2012). Toward a Global Theory of Health Behavior and Social Change. In *The Handbook of Global Health Communication* (eds R. Obregon and S. Waisbord). <https://doi.org/10.1002/9781118241868.ch4>
- Thirlaway, K. & Davies, L. (2013). Lifestyle Behaviours and Personal Responsibility for Health. In *eLS*, John Wiley & Sons, Ltd (Ed.). <https://doi.org/10.1002/9780470015902.a0025159>
- Tian, H., & Liu, X. (2022). Pro-Environmental Behavior Research: Theoretical Progress and Future Directions. *International journal of environmental research and public health*, 19(11), 6721. <https://doi.org/10.3390/ijerph19116721>.