

Environment

In health terms, the environment is two things: it is where people live, work, and recreate; and it is nature, the 'wild', or the biophysical. Human health is a consequence of these societal-biophysical interactions, as the result of the influence of the natural environment on how we live, and the influence that humans have on the natural environment.

The concept of the environment is used in different ways by different disciplines. Natural scientists define it in biophysical terms, as the context that sustains life. Social scientists treat it as the social context for human action (Fox and Alldred, 2018). Health scientists regard the environment as a source of human harm; describing it either as the socio-cultural, economic and institutional context responsible for human disease and illness, or the physical, chemical (abiotic) or living, biological (biotic) and biophysical environment used as the resource for human existence, the habitat for survival, and the repository for waste. A biophysical understanding suggests human health rests in the physical, natural, nonhuman world, which is mediated through human senses, emotions and bodies. It is the socio-cultural environment that is of key concern for medical sociologists; as a passive background for health, and the context for social action that shapes the social causes of disease and illness, and their inequalities.

When conceived as a passive background, the natural and social environment can be a source of harm to human health (Gislason, 2013). Social scientists ensure that the external context (what is outside humans and human action) is recognized as much as a contributor to illness and health as human physiology (or the internal context). In the literature on the hazards and benefits to human health, attention is given to short-term externalities (for example, flooding or an hour spent in nature) as well as longer-term changes to the natural environment, such as climate change, deforestation and urbanization (Gislason, 2013).

As the context for social action, attention is given to the social, cultural and economic environment, described as the places in which people live, work and socialize. The environment here is a social system or process that can shape human action and identities, and that can be harmful or beneficial to human health (as shared values and collective consciousness). The attention given to social structures and institutions can be used to understand the divisions that are created between people or groups (or more fundamental divisions between the social and the natural world, Gislason, 2013). The capacity of humans to affect and shape the biophysical and social environment, on which they depend for health, is explained through the social and constructed nature of human health. While natural processes can also affect the social context, additional effort is needed to recognize the role of the natural environment in shaping health (rather than being determined by these institutions).

When the natural environment is taken into account, there is evidence that improvements in life expectancy (mortality) and years lived in poor health (morbidity) are worsening as a direct result of climate change (increased global temperatures due to fossil fuel consumption) and land use change (Franchini and Mannucci, 2015). Research into the causes of severely infectious diseases like SARS, Ebola and COVID-19 suggest that human activity has impacted on the natural world (deforestation, transportation), thereby escalating the likelihood of their emergence and spread (United Nations Framework Convention on Climate Change [UNFCCC], 2017). To understand how to sustain levels of health, researchers are encouraged to build an awareness of humans' impact on the environment. This awareness includes understanding: i) threats to human health, ii) improvements that enhance human health, iii) threats to natural resources used to improve health or deliver healthcare, and iv) health inequalities caused by uneven environmental impacts of human activity.

Before moving forwards, it is worth noting how medical sociologists understand the role of the social determinants model of health. A substantial body of evidence shows how the distribution of money, power and resources is largely responsible for health inequalities at local, national and global levels (Bradby, 2012). By drawing on perspectives and ideas from epidemiology, medical sociology almost exclusively regards social and economic factors as key to the conditions under which environmental decline is experienced and contributes to disease. This model remains focused on (and may be becoming outdated in this respect) the

social context and all its norms, institutions and inequalities that shape the relationship to the natural environment (Bradby, 2012). For medical sociologists, the social environment is a wide set of structures and processes that largely sit outside medicine, like access to transport, housing or education, on which health depends. While more critical approaches distance themselves from the broader and historical traditions of (medical) sociology, particularly those associated with (Parsonian) functionalism and symbolic interactionism, it is this social environment, the successful functioning of society and its norms, that dominates discussions about what contributes to human health.

Ecological models (also called ‘eco-social’ and ‘socio-ecological’) have prompted a conceptual shift in the social determinants literature. They address the gap in understanding how disturbances in the natural world, i.e. pollution, declines in biodiversity or flooding, affect human and planetary health. Using both linear (eco-social) and dynamic and multi-layered (socio-ecological) approaches for understanding the ‘causes’ of disease, these models propose that the natural environment (its biodiversity, degradation and management systems), along with inequalities in access, use and provision of it, is a contributor to illness (McLaren and Hawe, 2005). Alternately, health or an ‘adaptive capacity’ to respond to environmental change is also possible (see Rayner and Lang, 2012, for a discussion). The socio-ecological health approach has been widely taken up in health policy; for example, the World Health Organization (WHO) includes urbanization and effects on living conditions as one of nine overarching social determinants integral to health and well-being (Hordyk et al., 2015). Socio-ecological health models also consider how globalization and consumption processes at the global level are consequential for and are shaped by local behaviours and actions, and vice versa (McLaren and Hawe, 2005).

Notably, questions about the wider ecological processes that govern humans (for example, seasons, pollination of foodcrops), and the capacity of nonhuman animals, plants or processes (i.e. earthquakes) to have independent actions that can affect human health, have largely been left to earth scientists and biologists. Environmental sociology draws attention to a conceptual ‘turn to nature’; recognizing that social factors alone cannot explain the intricate relationships between the natural environment and human health. While the devastating impacts of human activity warrants further study, so to do efforts showing how mutually beneficial ecological-social relationships can improve health (see suggested read Kimmerer,

2013). Core ideas converge here, to regard health as embedded in socio-ecological processes that reflect interrelationships between the natural environment and its ecological, social and economic dimensions (McLaren and Hawe, 2005).

The problem with social determinants and ecological approaches becomes apparent when considering environmental injustice (Pellow and Brehm, 2013). Critical development studies assume that environmental conditions are a matter of poor (economic but also social) development, but that development that includes the use of natural resources will improve health outcomes. This claim is supported by research findings that link global development to improvements in population health. Yet missing from the analysis is how improvements in access, use and autonomy over the natural environment can also have negative health outcomes; particularly evident when considering the deleterious effects of consumption (of natural resources) by the Global North on the South. This gap in the social determinants model struggles to explain how chronic, infectious diseases and mortality rates, along with health issues resulting from severe events (i.e. flooding, storms) are increasing for some people and places but not others. While medical sociology may have been slow to grasp how human activities (deforestation, land use change, burning of fossil fuels) have shaped this new ‘epidemiological transition’, it is possible that the global COVID-19 pandemic might lead to new perspectives on health and environmental inequalities from a social sciences lens.

The ‘turn to nature’ signals a new set of interdisciplinary relationships that are needed to understand the scope of the environment-health relationship. Geographical, evolutionary and psychological approaches can help address shared concerns about for whom in society, how and under what conditions the natural environment benefits human health. This contemporary concern about the environment-health relationship includes asking what new understandings of existing sociological concepts and approaches are needed, such as expanding social determinants to include environmental capital as well as social capital, or including environmental policies in the analysis of health policy. It may also involve socio-ecological analysis of existing psychological and environmental concepts and theories, *so that they are viewed critically through a sociological lens* (see also Maller et al., 2008). Attention could be directed here at concepts such as ‘resilience’ and ‘restoration’ (relating to the capacity of individuals and nature to manage environmental change), ‘biophilia’ (the innate, evolutionary

affiliation to natural environments) as well as ‘stress reduction theory’ (the physiological impact of nature contact).

Within medical sociology, references to nature and the environment, present in the work of its early contributors, are only now being rediscovered. As already explained, attention to the natural environment has encouraged thinking more broadly about the influences (social and natural) that contribute to health. For Foucauldian medical sociologists (with their interest in how knowledge is produced and shapes our understandings), the re-emergence of the natural environment may be an expression of the politics that currently shape our health and healthcare services (Bradby, 2012). The value of the natural environment for health, for example, has reemerged in popular discourse and academic research (Maller et al., 2008) at a crucial moment for society where health systems worldwide are subject to chronic under-resourcing (or profiteering). The natural environment has come to represent a potential alternative for preventing ill health as the discourse of environmental benefit and threat has become visible with the declaration of a ‘climate emergency’. Understanding the discourses of health, and the role of medicine, in the context of this combined health and environmental crisis may be needed now, more than ever.

In medical sociology thinkers in the new materialism camp have cautioned against only focusing on health discourses (Fox and Alldred, 2018). They argue that in a new era of environmental politics, social constructionist accounts struggle to address our material experience of the world outside of these health discourses. For new materialists, the concept of the environment must instead be revised to include the importance that material and other nonhuman (or ecological) processes have on human health. By integrating human and nonhuman aspects, they argue that medical sociologists would be better placed to consider how existing human relationships to nature impact on society and the natural environment. They propose that a radical ontology is needed; one that addresses the tendency to separate human (cultural) processes from natural ones, and that avoids discussing the natural environment (or indeed any physical entity) as an object. Health, human bodies and health systems are instead conceived of as processes that gain meaning around specific events and people (MacBride-Stewart, 2019). Drawing together human and nonhuman processes, new materialism aims to breakdown distinctions, seeing health and medicine relationally via a

focus on patterns of connections between them. In this approach health is never an outcome, rather it is a process, intimately tied up in associations and relationships that regard environments not as states but as capacities for action. Ecological health therefore is one which starts from the idea that environments and bodies are entangled. In their contribution to the debate over the privileging of human action over natures' agency, new materialist sociologies have argued that human and nonhuman health has the potential to be expressed in different, possibly as-yet-unknown, ways.

To conclude, the concept of the environment in medical sociology has long been considered as the background or context in which health and disease emerge. However, an interdisciplinary and relational understanding of the environment has contributed new perspectives to explain how intersecting societal-biophysical processes contribute to both human and planetary (including nonhumans') health. Medical sociology is adapting its conceptual tools and understanding to grasp these new ideas. Certainly COVID-19 provides an important route for medical sociologists to contribute their insights and learning about the existing societal-biophysical conditions that precipitated and accelerated a global pandemic. Questions remain about the role for medical sociology in reducing human impacts on the environment for human and planetary health, but new materialist thinking seems to offer a promising way forward for bringing the natural world into closer focus.

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See also: Place; Material and Cultural Factors.

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SUGGESTED FURTHER READING

- Barry, J. (2007) *Environment and Social Theory*, 2nd edn. London: Routledge.

Part of the ‘Routledge Introductions to Environment Series’, this book provides an in-depth and detailed account of how social theory has understood ‘nature’ and ‘the environment’.

Earlier chapters address the historical management of these ideas while later chapters address concepts of risk and risk society. This book is essential reading for students seeking to understand the contested concept of the environment and nature in social theory.

- Kimmerer, R.W. (2013) *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teaching of Plants*. London: Penguin Random House.

This book takes the reader on a narrative journey that combines attentiveness to nature, cultural knowledges and ways of doing things, with botany and natural history. Sociological concepts like ‘gift’, ‘community’, ‘family and kin’ are used to bring both scientific knowledge and the natural world to life. Kimmerer interweaves the social and natural sciences, showing the possibilities of an integrated approach.

- Marsden, T. (ed.) (2019) *The SAGE Handbook of Nature*. London: Sage.

This four-volume anthology includes important background reading for students. Specific sections and chapters on the environment include: Part Two: Natural and socio-natural vulnerabilities: interweaving the natural and social sciences (see Larner) and Part Eleven: Biosensitivity – an integrative approach to the health of people and planetary systems (see Capon).

- Nading, A.M. (2014) *Mosquito Trails: Ecology, Health and the Politics of Entanglement*. California: University of California Press.

This is an excellent critical ethnological study of a disease - Dengue Fever - which is one of the world’s most prevalent mosquito-borne illnesses. Nading blends medical anthropology, political ecology and science and technology studies in an innovative analysis of local environments, global disease, people and mosquitos. It is must-read for any student wanting

to know what the field of socio-ecology and environmental health looks like, or should look like.