# Health Literacy in housing: commitment-non-commitment of residents and architecture in the face of energy renovation

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#### **Abstract**

Keywords: housing, health, residential narratives, architecture, Paris

Today, Parisian buildings, whether they are condominiums or social housing buildings, are concerned by work programs undertaken within the framework of the Climate Plan initiated by the City of Paris. This renewal affects the social life of the buildings which has been consolidated over the years. For if a building is built by materials and populations, it is also the result of a history from its construction to the daily maintenance (or degradation). The buildings we studied represent typical figures of the Parisian housing stock. The latter is composed of 326,000 dwellings (one third of the total) with high energy consumption, particularly in the private rental sector. But in any case, the low energy efficiency of Parisian housing is mitigated by the fact that Parisian housing is on average small. In addition, energy consumption is higher in the Capital's affluent neighborhoods, where housing is more spacious and households have above-average incomes (APUR, 2018). This raises the question of how these heating inequalities are experienced by residents and how the health impact of these situations is identified. This question comes down to considering the demand for health literacy in the face of housing. This concept of "health literacy," originally developed by Sorensen (2012), involves a series of criteria such as the knowledge, skill, motivation, and ability an individual may have to identify, understand, and evaluate health-related information. Mastery of these criteria can enable them to make better decisions about what is best for their health, disease prevention (Sørensen et al., 2013). The point we wish to develop in this research, is therefore, how the individual acts to improve his quality of life and, therefore, his physical environment and housing. Among the different criteria, the concept of "competence" is of strong interest, because it is the basis of other variables such as "having the ability to evaluate" and apply all this information to prevent diseases" (Van den Broucke, 2017) and to address the conditions necessary to have a healthier habitat. Thus, we can ask what skills do residents have to make the connection between their heating difficulties and health problems, and then what are their capacities to intervene and improve their habitat? Can they fight autonomously against the energy difficulties they are confronted with, do they consider that it is an individual or collective activity? What are the risks for their health and the external variables that can influence their decision making: the cost of these actions, the lack of knowledge of public or technical aids, the judgment of the neighbors on these actions?

This type of issue was documented by Harrington's team in 2005. They noted that according to socially mediated processes, "poorer health" can lead to a decline in the economic status of the individual (Harrington et al., 2005). They analyze how living in fuel poor housing, coupled with low socioeconomic status, directly influences people's health. Among the results, there are objective conditions, decent heating, air quality and ventilation (Zúñiga-Bello et al., 2019) There is a relationship between the cooling of the body and the ability to close a window properly, for example, whether it is a measure controllable by the person or a technical problem. This "ability to control" has an influence on health. Similarly, people who cannot control the heat in their homes are more likely to become ill, as low temperatures in apartments increase humidity and, consequently, indoor pollution (mold and dust mites, among others) in addition to more traditional illnesses such as flu or asthma. Finally, among the subjective variables, personal and emotional control, as well as material conditions, such as lighting or sound quality (Bluyssen, 2010) Finally, among subjective variables, personal and emotional control, as well as physical conditions, such as lighting or sound quality (Bluyssen, 2010), increase the likelihood of "feeling capable" of controlling a healthy space and having a more sustainable quality of life. Finally, these objective and subjective measures of housing quality require the integration of residential trajectories and, more broadly, the history of apartment occupancy, which is fundamental to the analysis of energy consumption and space occupation (Shove, 2003).

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