

# Air Pollution Perception and Urban Settlement Intentions

Subjects: Urban Studies

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With the public paying more and more attention to the problem of air pollution, the impact of air quality on migration has gradually become a growing concern. The concept of talent urban settlement intentions is the willingness of talent to work and live in a city for a long time. A comprehensive analysis of the influencing factors of the willingness of talent to settle down can help city administration understand what such talent need from the city and thus enact targeted and efficient public policies and provide public goods. As environmental hazards, e.g., air pollution, have become increasingly serious, more individuals consider air quality an important factor when choosing a place of residence (for physical and mental health purposes). Young talent are more sensitive and concerned about air pollution, and that this may consequently influence their choice of cities when seeking long-term employment.

Keywords: air pollution perception ; young talent ; urban settlement intentions

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## 1. Impact of Air Pollution Perception on the Urban Settlement Intentions of Young Talent

By referring to perceived quality research, based on the consumer perspective <sup>[1]</sup>, air pollution perception is defined as people's opinion formed by the air pollution conditions around them and considers the processes by which the opinion is modified. Although there is no research that directly examines the impact of air pollution perception on the willingness of young talent to settle in cities, many scholars have conducted exploratory studies about the relationship between subjective and objective environmental quality and the migration and settlement of a population. Chen et al. analyzed the impact of air pollution on population migration in China from 1996 to 2010 <sup>[2]</sup> and found that, within the study period, air pollution reduced the in-migration of mobile populations by 50% in a county, ultimately reducing the total population by 5% through net out-migration. However, as Gronroos et al. <sup>[3]</sup> stated, customer satisfaction regarding a service stems from comparing the customer's perception of a service and their expectations from the service. Accordingly, air pollution perception is a direct reflection of objective air quality, a complement of, and development in, objective air quality, and is a more direct influencing factor in decision-making. Air pollution perception may influence the willingness of young talent to settle down in cities in three ways. Concerns about their own and their family's health may influence the willingness of young talent to settle down in cities. Air pollution can cause respiratory diseases, physiological dysfunctions, and irritate mucosal tissues, such as the eyes and nose, resulting in illnesses or the recurrence of old illnesses in people with a history of respiratory diseases <sup>[4]</sup>. Continuing to live in a polluted environment may place residents at an increased risk of contracting heart disease and lung cancer <sup>[5]</sup>. Sun et al. <sup>[6]</sup> analyzed data from a 2014 survey conducted by the National Health and Family Planning Commission in eight cities, including Beijing, Xiamen, and Shenzhen, and found that, as the concentration of PM2.5 increased, people's health-related expectations decreased significantly. Consequently, young talent may choose to leave such cities. The willingness of young talent to settle in cities may also be influenced by air pollution surpassing all other environmental issues and increasingly affecting residents' trust in the government, becoming a political, societal, and living condition issue <sup>[7]</sup>. Wang and Han <sup>[8]</sup> found that air pollution perception significantly affects the public's evaluation of the government's performance. They also found that poor air perception may cause young talent to lose trust in local governments, thus losing interest in settling down in a city. Moreover, additional living expenses for young talent caused by air pollution perception may also influence their willingness to settle down. Further, they are required to pay for the explicit costs of protective equipment, such as air purifiers, and shoulder various hidden costs, such as reduced labor efficiency <sup>[9]</sup> and increased workdays owing to air pollution. For example, studies show that a 1% increase in suspended particulate matter in the air is associated with a significant increase of 0.44% in the number of workdays lost <sup>[10]</sup>. The combination of these costs is not negligible and constitutes a "push" factor in migrating from cities.

## 2. The Mediating Role of Residential Satisfaction between Air Pollution

# **Perception and the Urban Settlement Intentions of Young Talent**

## **2.1. Air Pollution Perception and Urban Residential Satisfaction**

Satisfaction occurs when people's inner desires and all their subjective feelings are in tune with each other. It is reflected in a person's psychological state, when one is extremely pleased and comfortable <sup>[11]</sup>. Scholars, such as You and Chen <sup>[12]</sup>, defined urban residential satisfaction as the public's satisfaction assessment, based on the accumulation of all environmental feelings. An empirical study on the elderly found that subjective evaluations, that is, perceived factors, explained the degree of variation in residential satisfaction much more effectively than objective environmental variables <sup>[13]</sup>. Objectively measured air quality ultimately affects residential satisfaction by influencing the subjective perceptions of young talent. Air pollution directly triggers sensory discomfort, which consequently causes negative emotions. Moreover, studies show that, although individuals have many behavioral beliefs, only a relatively small number of these are accessible at any given time and in any given context. These obtainable beliefs, also referred to as salient beliefs, are the cognitive and emotional bases for behavioral attitudes, subjective norms, and perceptual behavioral control <sup>[14]</sup>. Young talent is more concerned about air quality and have higher expectations regarding this issue <sup>[15]</sup>. Therefore, for young talent, air pollution perception becomes a salient belief that profoundly influences residential satisfaction. If their perception of air quality differs from their preferred conditions, it causes a negative assessment of their satisfaction with urban living. Therefore, perceived air pollution is a subjective perception and an important aspect of the urban environment from the point of view of young talent and is likely to significantly influence residential satisfaction.

## **2.2. Residential Satisfaction and the Urban Settlement Intention of Young Talent**

People tend to follow practices that satisfy them. In other words, satisfaction drives loyalty. Cardozo <sup>[16]</sup> suggested that customers are more likely to purchase a product again (or other goods) if they are satisfied with a merchant's production. Similarly, if young talent has high-level residential satisfaction in a city, they are more likely to continue living there. In other words, residential satisfaction generates a willingness to settle down in cities. Weng et al. <sup>[17]</sup> proposed the concept of regional commitment in his study on talent agglomeration, arguing that, if the regional environment matches the growth and living needs of talent, that is, if they experience good residential satisfaction, it can generate regional commitment between the talent and the city. This will, in turn, result in the desire to actively work to promote regional development. Therefore, residential satisfaction evaluates the degree to which the needs of young talent are met. According to customer loyalty and regional commitment theories, high-level urban residential satisfaction can make young talent emotionally "loyal" to a city, promote strong regional commitments, and make them willing to invest more in regional development. Liang <sup>[18]</sup> found that satisfaction with urban life has a significant impact on the willingness of a migrant population to settle down, especially those who are "relatively satisfied" and "very satisfied". Yao <sup>[19]</sup> conducted a large-scale questionnaire survey of foreign residents in Shanghai and found that the higher the satisfaction of foreign migrants with the city and community, the greater the likelihood of their long-term residence in Shanghai.

## **2.3. Residential Satisfaction Plays an Intermediary Role in the Impact of Air Pollution Perception on the Urban Settlement Intentions of Young Talent**

Residential satisfaction reflects whether residents' various expectations and needs from a city are met, resulting in a pleasant and positive state of mind <sup>[20]</sup>. It essentially reflects the comparison of people's perceptions with their expectations in the context of various urban residence-related factors and satisfaction arises when perceptions meet expectations <sup>[21]</sup>. Young talent is a group of urban residents who are significantly concerned with environmental issues and the impact of air quality factors on health <sup>[15]</sup>. If their perception of air quality is not satisfactory, they will feel dissatisfied and choose to relocate to a better environment. Previous research further shows that residential satisfaction is a positive psychological mechanism that can explain proactive psychological processes, such as urban settlement intentions. Further, it links the perceived environment with the intentions of long-term residence <sup>[22]</sup>.

## **2.4. The Moderating Role of Place Attachment in the Relationship between Residential Satisfaction and Urban Settlement Intentions**

Place attachment is a concept in psychology that characterizes the emotional bond and psychological identity between an individual and a specific environment. It refers to an individual's emotional response to their interaction with the environment and reflects a deep emotional connection to the place. Cultural and social characteristics modify this human-place relationship <sup>[23]</sup>. Psychological attachments to a place, or place attachment, occurs when individuals assign specific values to places in human-place interactions and form a positive emotional tie <sup>[24][25]</sup>. Place attachment may arise from cognition (i.e., the more you know about a place, the more you love it), well-known or reciprocal social networks, or a special emotional connection <sup>[26]</sup>. Cassn et al. <sup>[27]</sup> suggest that people's attitudes and behaviors toward a particular place

are significantly influenced by the emotions, meanings, and values that they assign to that place. Young talent, after working and living in a city, become inextricably linked to the city in various ways. A positive link generates positive emotions and is assigned special values, thus developing place attachment. Greater place attachment means that they have special emotional and social ties to a city and a deeper sense of identity and belonging. Therefore, they are likely to give better satisfaction ratings, even when they perceive air quality as being poor.

Further, place attachment may not only affect the relationship between perceived air pollution and attitude, but it may also influence the relationship between attitude and behavioral intentions. Although there is still no research in this area, studies in other fields have found similar findings. Scholars studying the loyalty of tourists to tourist destinations show that place attachment significantly influences the relationship between tourist perceptions of a destination and satisfaction with tourism, as well as loyalty [28]. Li and Zhou [29] found that place attachment, as a moderating variable, significantly reinforced positive behavior among tourists, such as protecting tourist attraction sites. Therefore, in conjunction with the analysis above, it can be hypothesized that this moderating factor may exist between residential satisfaction and the urban settlement intentions of young talent. The inclination of young talent to leave a city owing to lower residential satisfaction arising from what they perceive to be poor air quality may be weakened when there is good place attachment.

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## References

1. Mitran, D.; Golder, P.N. How does objective quality affect perceived quality? Short-term effects, long-term effects, and as asymmetries. *Mark. Sci.* 2006, 25, 230–247.
2. Chen, S.; Oliva, P.; Zhang, P. The Effect of Air Pollution on Migration: Evidence from China. 2017. Available online: [https://www.nber.org/system/files/working\\_papers/w24036/w24036.pdf](https://www.nber.org/system/files/working_papers/w24036/w24036.pdf) (accessed on 10 September 2021).
3. Gronroos, C. An applied service theory. *J. Mark.* 1982, 7, 46–56.
4. Katsouyanni, K.; Grypairs, A.; Samoli, E. Short-term effects of air pollution on health. *Encycl. Environ. Health* 2011, 4, 51–60.
5. Schwartz, J. Long-term effects of particulate air pollution on human health. *Encycl. Environ. Health* 2011, 12, 520–527.
6. Sun, W.Z.; Zhang, X.N.; Zheng, S.Q. Air pollution and spatial mobility of labor force: Study on the migrants' job location choice. *Econ. Res. J.* 2019, 11, 102–115. (In Chinese)
7. Wang, X.Y.; He, X.B. Research on the influence mechanism of air pollution on the trust of urban resident government. *Chin. J. Popul. Sci.* 2017, 4, 97–107. (In Chinese)
8. Wang, Y.J.; Han, D.L. Air quality, environmental pollution perception and local government environmental governance evaluation. *China Soft Sci.* 2019, 8, 41–50. (In Chinese)
9. Jones, B.A.; Fleck, J. Shrinking Lakes, air pollution, and human health: Evidence from California's Salton Sea. *Sci. Total Environ.* 2020, 1, 136–148.
10. Sherefkin, R. Ford Blames Its Suppliers for Quality Problems, Demands Improvement. 2002. Available online: <https://www.autoweek.com/news/a2108396/ford-blames-its-suppliers-quality-problems-demands-improvement/> (accessed on 8 September 2021).
11. Zhang, Y.G.; Wong, I.K.; Cheng, J.J.; Yu, X.Y.; Chen, X. The influence of multidimensional deconstruction of stressors on enhancing urban residents' well-being: From the perspective of rural tourism and leisure involvement. *Geogr. Res.* 2019, 38, 971–987. (In Chinese)
12. You, J.X.; Chen, Q. Urban management pattern oriented by public satisfaction. *J. Public Manag.* 2004, 1, 51–57. (In Chinese)
13. Rojo-Pere, F.; Fernandez-Mayoralas, F.G.; Pozo-Rivera, E.; Rojo-Abuin, J.M. Ageing in place: Predictors of the residential satisfaction of elderly. *Soc. Indic. Res.* 2001, 54, 173–208.
14. Fishbein, M.; Ajzen, I. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*; Addison-Wesley: Reading, MA, USA, 1975.
15. Fischer, G.W.; Morgan, M.G. What risks are people concerned about. *Risk Anal.* 1991, 11, 303–314.
16. Cardozo, R. An experimental study of customer effort, expectation and satisfaction. *J. Mark. Res.* 1965, 2, 244–249.
17. Weng, Q.X.; Yang, S.C.; Cao, W.L. The influence of regional environment on talent commitment and rooting willingness. *Sci. Res. Manag.* 2014, 35, 154–160. (In Chinese)
18. Liang, S.K. An analysis of influencing factors of settling willingness of floating population. *Popul. Soc.* 2016, 2, 63–74. (In Chinese)

19. Yao, L.Y. Influencing factors of young talents' urban dwelling willingness. *Contemp. Young Res.* 2019, 5, 51–60. (In Chinese)
20. He, Z.J.; Wang, Y.; Li, Y. Analysis on the perception dimensions of residential satisfaction in new-type rural communities. *Henan Soc. Sci.* 2018, 26, 82–88. (In Chinese)
21. Amerigo, M.; Aragones, J.I. A theoretical and methodological approach to the study of residential satisfaction. *J. Environ. Psychol.* 1997, 17, 83–90.
22. Spear, A. Residential satisfaction as an intervening variable in residential mobility. *Demography* 1974, 11, 173–188.
23. Steel, E.F. *The Sense of Place*; CBI Publishing: Boston, MA, USA, 1981.
24. Williams, D.R.; Patterson, M.; Roggen, J.W.; Watson, A.E. Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leis. Sci.* 1992, 14, 29–46.
25. Raymond, C.M.; Brown, G.; Robinson, G.M. The influence of place attachment and moral and normative concerns on the conservation of native vegetation: A test of two behavioral models. *J. Environ. Psychol.* 2011, 31, 323–335.
26. Wang, X.; Aoki, N.; Xu, S.B. Reflection on displacement in the context of inner-city redevelopment from the perspective of place attachment: A case study of the demolition project of Xigunan, Tianjin. *Hum. Geogr.* 2019, 5, 44–52. (In Chinese)
27. Cassn, W. Emotion and rationality: The characterization and evaluation of opposition to renewable energy projects. *Emot. Space Soc.* 2009, 2, 62–69.
28. Yuksel, A.; Yuksel, F.; Billim, Y. Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty. *Tour. Manag.* 2010, 31, 274–284.
29. Li, Q.C.; Zhou, L.Q. The impact of perceived outcome efficacy on tourists' decision to adopt environmental behaviors. *J. Zhejiang Univ. Sci. Ed.* 2015, 42, 460–464. (In Chinese)

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