

POWER AND HIGH STORIES

ANNA DORFMAN, DANNY BEN-SHAHAR, AND DANIEL HELLER #

ABSTRACT

While the effects of high- versus low-rise occupancy have been comprehensively addressed in the urban social science literature, much less is known about the implications of the preference to occupy upper versus lower floors within a given high-rise structure. Drawing from the discourse on the psychology of social power, we propose and empirically explore the novel concept of *vertical social power locations*: namely, that social power and the vertical dimension of high-rises are interrelated. In a series of five experiments we demonstrate that (a) people's social power signals the floor level on which they (prefer to) reside and work (Experiments 1 and 2) and the price that would be paid for a high versus low floor (Experiment 3); and (b) information about people's floor location signals their social power (Experiments 4 and 5). The current research significantly contributes to the fields of real estate and urban economics, urban sociology and planning, as well as to the general discourse within social and organizational psychology.

Anna Dorfman, Coller School of Management, Tel Aviv University, Tel Aviv 6139001, Israel; email: annadorfman@post.tau.ac.il; Danny Ben-Shahar, Coller School of Management, Tel Aviv University, Tel Aviv 6139001, Israel; email: bdanny@post.tau.ac.il; and Daniel Heller, Coller School of Management, Tel Aviv University, Tel Aviv 6139001, Israel, email: dheller@post.tau.ac.il.

1. INTRODUCTION

The urbanized world of the twenty-first century is increasingly characterized by the development of high-rise residential and commercial buildings (e.g., Yuen, 2005). In the past forty years, research in urban psychology and sociology has explored multiple implications of this trend, focusing specifically on mental-, emotional-, and behavioral-related consequences of high- (vs. low-) rise occupancy. Such research has centered on the study of individual and group aspects such as satisfaction, strain, depression, crowding, mental health, suicide, child behavior, and social relations (e.g., Panczak et al., 2013; review by Gifford, 2007). Similarly, urban economics research, while traditionally considering the urban environment as flat (e.g., the classical work of Alonso, 1964; Mills, 1967; Muth, 1969; and, more recently, Glaeser & Kahn, 2004), has lately devoted increasing attention to the trend toward high-rise construction, arguing, for example, that market players compete over tall buildings and locations (e.g., game-theoretical analysis of Ben-Shahar et al., 2009, and Helsley & Strange, 2009; as well as the empirical work of Ahlfeldt & McMillen, 2015; Barr, 2010, 2012; Koster et al., 2014; and Liu et al., 2016.) Interestingly, however, while the effects of high- versus low-rise occupancy have been comprehensively discussed in the urban social science literature, much less is known about the motivation and implications of the choice to occupy upper versus lower floors within a given high-rise structure. This lacuna in the urban literature is particularly surprising since it may carry (as described below) meaningful insights and implications for real estate and urban economics, urban sociology and planning, and indeed to the general discourse within social and organizational psychology. In this work, we fill this deficit by particularly exploring vertical social power locations: namely, that social power and the vertical dimension of high-rises are interrelated. Specifically, we explicitly test the bi-directional causal link between floor location and the perception of social power, focusing on (a) the effect of high (vs. low) floor occupancy on social perception of an individual's power, and (b) the effect of high (vs. low) level of social perception power on one's perceived preference for upper (vs. lower) floors within a given building. Importantly, signaling power by high-floor location is obviously expensive, as higher floors, *ceteris paribus*, cost more than lower ones (e.g., Liu et al., 2016); hence locating on higher floors is likely to be available only to those controlling sufficient resources (i.e., the powerful).

Psychologists commonly recognize social power as a basic force of social life (Russell, 1938), typically defined as a person's relative control over valued resources (Kifer, Heller,

Perunovic, & Galinsky, 2013; Magee & Galinsky, 2008). Recent theorizing has delineated the boundaries of the social power construct, distinguishing it from other related, yet distinct, hierarchical constructs such as “status” (defined as the prestige, respect, and admiration that one gains in the eyes of others—see, e.g., Anderson et al., 2006) and “socio-economic status” (SES) (a composite measure of education, income, and occupation—see, e.g., Kraus et al., 2009).

Previous research in cognitive linguistics argues that social power is associated with the abstract concept of verticality—to wit, when thinking about power one often uses spatial metaphors referring to the vertical axis of “up” versus “down” (Lakoff & Johnson, 1980, 1999). For example, a person who is powerful in his or her work environment is said to be “higher up” on the corporate ladder, whereas someone who is powerless is “on the bottom rung.” Simply put, the activation of the vertical dimension activates the psychological concept of power. A number of empirical studies have recently lent support to the link between power and an abstract spatial position. For example, abstract circle pairs arranged in vertical—as compared to horizontal—depictions are strongly associated with power-related statements (Schubert, 2005). Similarly, vertical position in an organization chart influences judgments of a leader’s power and, conversely, information about a leader’s power influences the leader’s vertical positioning in an organization chart (Giessner & Schubert, 2007). Finally, thinking about the concepts of “powerful” and “powerless” activates a corresponding vertical representation: participants identify a letter located at the top of a computer monitor faster when it follows a word referring to a powerful person than when it follows a word referring to a powerless person (Zanolie et al., 2012).

While our interdisciplinary research is the first comprehensive investigation of the vertical power location, it has received several indirect and preliminary considerations in the literature. For example, Ben-Shahar et al. (2009) theorize that the price of a given floor decreases, *ceteris paribus*, with the number of floors in the building as its relative height (and the accompanied status) effectively decreases. Similarly, people expect an individual with high (vs. low) SES to live in a northern location, based on the associations of “north” with “up” and “south” with “down” (Meier et al., 2011). Finally, people select higher location residence for clients with high (i.e., CEOs of Fortune 500 companies), medium (i.e., CEOs of companies outside the Fortune 500 list), and low (i.e., specialized trade professionals) “social status” (Tower-Richardi et al., 2014). Importantly, however, while Tower-Richardi et al. (2014) test social perception of various

types of housing, they do not directly focus on higher versus lower floors within a given structure, nor do they examine the reverse floor-to-power directional link, namely, the effect of floor location on social perception of power. Moreover, in their study they concentrate on “social status” (rather than social power)—an undefined term in the social psychological literature—thereby not allowing for a differentiation between various hierarchical dimensions (such as “SES,” “power,” and “status”—see, e.g., Anderson et al., 2006; Magee & Galinsky, 2008).

Our interdisciplinary research integrates the disparate literatures on high rises and specifically the preference for high floors (from the fields of urban sociology, urban and real estate economics, planning, and decision making) and the literature on the nature, antecedents, and outcomes of social power (from the fields of social psychology and organizational behavior). We examine two main causal hypotheses regarding the links between power and high floors that have never been directly examined in the literature: (a) social perception of power, *ceteris paribus*, positively affects people’s inferences regarding the preference to locate on higher (vs. lower) floors; and (b) locating on higher (vs. lower) floors positively affects people’s inferences regarding social power. We tested these hypotheses in five experiments in which we either manipulated social power and examined inferences about floor locations (Experiments 1-3) or manipulated floor location and examined inferences about social power (Experiments 4 and 5).

2. THE EFFECT OF SOCIAL POWER ON FLOOR LOCATION

In the first part of this work we investigated the effect of social power on people’s inferences (i.e., social perception) of an individual’s floor location. Specifically, we test the hypothesis that people’s social power signals the floor level on which they (prefer to) reside and work. To this end, we conducted three experiments that offer a comprehensive examination of this directional link.

EXPERIMENT 1: INFERENCES FROM POWER TO PREFERENCE FOR HIGH-FLOOR RESIDENCE

In Experiment 1 we randomly assigned 200 Amazon Mechanical-Turk workers to read about a high power or a low power target (Fragale, Overbeck, & Neale, 2011.) The description for the high (low) power condition was as follows:

Mr. L is 40 years old, married and has 2 children. L works at a mid-sized company and earns \$70,000 (a salary higher than 75% of all US

individuals). L is very powerful (weak) within the company. L holds a formal position that provides him with a great deal of (very little) control over valued resources in the company. Thus, L has (no) influence over others because of his great (limited) access to resources in the company. In his spare time, L likes to watch sports, hike, and read books.

To avoid the potential confounding influence of income that is trivially linked to floor affordability, in both conditions we provided an identical, fixed annual income of \$70,000, roughly equal to the sixth household-income decile in the US (see US Census, 2014).

After reading the description, participants saw a graphic representation of a 10-floor apartment building and indicated the floor on which they believed that the target would choose to reside (see Appendix A). Then participants rated the target's preferences for various potential apartment attributes (e.g., nice view and natural light). We then asked participants to indicate the target's preferences for different products, including luxury and regular products (Rucker & Galinsky, 2008). After completing the dependent measure, we asked participants to recall several details from L's description (L's gender, age, level of power and ability to influence others), rate the extent to which they think L had high status, was powerful, respected, and nice, as a manipulation check. Finally, participants provided demographic information about themselves.

RESULTS AND DISCUSSION

We excluded 9 participants who failed to correctly recall both target's level of power and ability to influence others. Thus, we analyzed a total of 191 responses (95 in the high power condition.)

We found that participants believed a powerful target would choose a higher floor ($M=7.83$, $SD=2.93$) than the powerless target ($M=5.01$, $SD=2.63$), controlling for the importance of view, $F(1, 196) = 15.57$, $p < .001$.

EXPERIMENT 2: INFERENCES FROM POWER TO PREFERENCE FOR HIGH-FLOOR IN THE WORKPLACE

In Experiment 2 we examined whether the effect of power on floor location replicates in an organization context. We used the procedure from Experiment 1, manipulating high versus low power of a target individual. We added a control group in which participants received no

information on target's power. Additionally, in order to exclude the possibility that the target is perceived as very rich, we told participants that the annual target's income was \$50,000, the average yearly income among US men. We asked 200 Amazon Mechanical-Turk workers to indicate the floor on which they believed the target works in a given 20-floor office building owned by the target's company. As in Experiment 1, we asked participants to recall details from the target's description (importantly target's level of power and ability to influence others) and provide demographic information.

RESULTS AND DISCUSSION

Following the exclusion criteria we used in Experiment 1, we excluded 18 participants who did not recall correctly both target's level of power and target's ability to influence others. Thus, we analyzed a total of 182 responses (62 in the high power condition, 61 in the low power condition, and 59 in the control condition.)

Replicating the findings of Experiment 1, we found that controlling for the importance of view, participants inferred that the powerful target worked on a higher floor ($M=13.88$, $SD=5.01$) compared to a low power target ($M=8.62$, $SD=4.62$) and the control condition ($M=10.28$, $SD=4.12$), $F(2,178)=16.89$, $p<.001$. The findings from Experiments 1 and 2 provide support for the idea that power is linked to high floors, suggesting that information about individuals' power influences the inferences people make about these individuals' preference for high floors, and their actual floor locations.

EXPERIMENT 3: POWER AND THE WILLINGNESS TO PAY FOR HIGH-FLOOR RESIDENCE

In Experiment 3 we examine whether social power influences the willingness to pay for a higher versus lower floor, for another, powerful versus weak, individual in order to examine the implications of power on the pricing of high floors.

Similar to Experiments 1 and 2, we presented 200 Amazon's Mechanical Turk Workers with a short description of a target individual L, including L's power. Participants were randomly assigned to one of two between-subjects conditions: high power or low power. We asked participants to assume that they work at L's company and must find an office for L. We further inform participants that there are two available spaces in a given 20-floor building—on the 2nd and 19th floors—and ask them to indicate how much they would be willing to pay for an office

for L on each of the floors. Participants are further informed that all other physical characteristics (e.g., size in square feet and number of rooms) of all office units in the building are identical. To control for the a-priori prevailing price difference between the 19th and 2nd floors, we use a standardized scale, ranging from “1” (minimal price) to “10” (maximal price), with the middle point representing the average price of a typical office space on a given floor. Finally, we controlled for the extent to which participants might wish to please L (as they might please the more powerful and higher-status individual). We hypothesize that participants would be willing to pay more for the 19th floor (than for the 2nd floor) for high- versus low-power targets.

RESULTS AND DISCUSSION

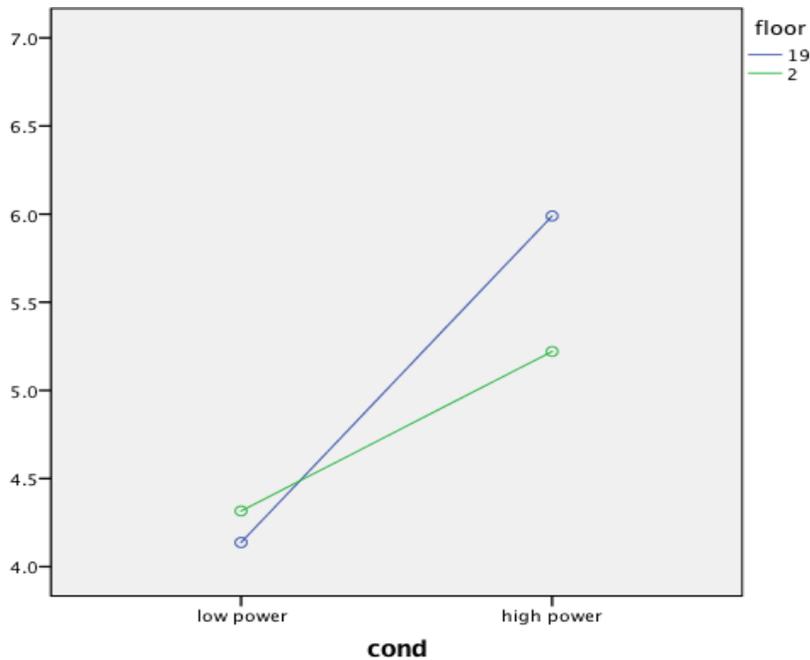
Following the exclusion criteria from Experiment 1, we excluded 11 participants who did not recall correctly both target’s level of power and target’s ability to influence others. Thus, we analyzed a total of 191 responses (95 in the high power condition, 96 in the low power condition.)

Manipulation check. Participants rated the target’s power (combined measure of power items- decisive, in control, leader-like, influential; cronbach’s Alpha= .94). The manipulation was successful in making the target appear more powerful in the high power condition ($M=5.70$, $SD=.93$) than in the low power condition ($M=2.95$, $SD=1.08$), $t(189)=18.82$, $p<.001$.

Participants rated the ‘importance of pleasing L’ significantly higher in the high power condition ($M=5.47$, $SD=1.42$) than in the low power condition ($M=3.51$, $SD=1.62$), $t(182)=7.78$, $p<.001$.

Willingness to pay. We ran a MANOVA of willingness to pay with power (high vs. low) as a between-subjects factor, and floor (2nd vs. 19th) as a within-subject factor, controlling for the extent to which participants might wish to please the target. The analysis yielded a main effect of power. Participants were willing to pay more for an office for a powerful target ($M=4.23$ $SD=1.5$) compared to the weak target ($M= 5.60$ $SD=1.32$), $F(1,180)= 4.53$, $p=.035$. We found a marginal effect of floor on participants’ willingness to pay, with participants willing to pay somewhat higher amounts for the 19th floor, $F(1,181)=2.81$, $p=.095$. Importantly, the main effects were qualified by a power X floor interaction, $F(1,181)=8.32$, $p=.004$ (Figure 1).

Figure 1: Willingness to Pay to Locate a High versus Low Power Target on the 2nd and 19th Floors (Experiment 3)



Planned comparisons revealed that the difference in willingness to pay between the 2nd (M=5.22, SD=1.86) and 19th floors (M=5.99, SD=1.88) was significant only for the high power target, $F(1,181)=10.35$, $p=.02$. There was no difference in willingness to pay for the 2nd (M=4.32, SD=1.66) and 19th floors (M=4.14, SD=1.92) for the low power target, $F(1,181)=.73$, $p=.393$.

Additionally, the difference in willingness to pay between the high and low power conditions was significant only for the 19th floor, $F(1,180) = 5.66$, $p = .018$, but not for the 2nd floor $F(1,180) = .74$, $p = .391$

3 THE EFFECT OF FLOOR LOCATION ON SOCIALLY PERCEIVED POWER

In the second part of the research we investigated the effect of high floor location on people's inferences (social perception) of an individual's power. To this end, we conducted two studies in which we manipulated information about floor location of an individual and measured inferences regarding this individual's social power.

EXPERIMENT 4: INFERENCES FROM FLOOR TO POWER IN THE WORKPLACE

In Experiment 4 we examined the reverse causal direction, namely the effect of high versus low floor on inferences about power. We randomly assigned 187 Amazon Mechanical-Turk workers to read about a target who works in a 20-floors office building, either on the 18th floor (high floor condition), or the 3rd floor (low floor condition) (see Appendix B). We also included a control condition that did not present participants' with information about the target's floor. After reading the description, participants rated the target's level of power, ability to influence others, and professional rank (cronbach's alpha=.90) on a scale of 1 (very little) to 7 (a lot). Participants also rated the target's subjective sense of power, using an 8-items scale adapted from Anderson, John, and Keltner (2012).

RESULTS AND DISCUSSION

We found that participants who read about a target who works on a low floor rated the target a having less power ($M=3.27$, $SD=.79$) compared to participants who read about a target who works on a high floor ($M=3.97$, $SD=1.12$) and participants who received no information about floor ($M=3.70$, $SD=1.05$), $F(2,184)=8.13$, $p<.001$. However, we found no effect of floor on the subjective sense of power scale. These findings support the existence of a causal link between floor level and power level, indicating that people who work on lower floors are perceived as having little power compared to people who work on a higher floor.

EXPERIMENT 5: INFERENCES FROM FLOOR TO POWER IN RESIDENTIAL CONTEXT

In Experiment 5 we aimed to replicate the findings of Experiment 4, namely that information regarding a target's floor location affects perceptions of target's power, in a residential context. As in Experiment 4, we randomly assigned 213 Amazon Mechanical-Turk workers to read about a target who lives in a 20-floors apartment building, either on the 18th floor (high floor condition), the 10th floor (intermediate floor condition) or the 3rd floor (low floor condition). After reading the description, participants rated the target's level of power, ability to influence others, and professional rank (Cranbach's Alpha=.84). Participants also rated the target's subjective sense of power, using the 8-items scale from Anderson, John, and Keltner (2012).

RESULTS AND DISCUSSION

We excluded 11 participants who failed to recall the target's floor, thus analyzing 202 responses (65 in the low floor condition, 66 in the high floor condition, and 71 in the intermediate floor condition).

In line with the findings of Experiment 4, the results showed that targets living on a low floor were perceived as having less power ($M=3.55$, $SD=.79$) compared to targets living on a high floor ($M=3.89$, $SD=.81$) and targets living on an intermediate floor ($M=3.79$, $SD=.92$), $F(2,199)=2.77$, $p=.065$. Planned comparisons revealed that targets' in the low floor condition was perceived as significantly less powerful than targets in the intermediate and high floor conditions, $t(1,199)=2.26$, $p=.025$, whereas the intermediate and high floor conditions did not differ $t(1,199)=.69$, $p>.60$. As in Experiment 4, there was no effect of floor on the sense of power measure.

These findings indicate that even information about one's residential floor serves as a cue to this person's power, although this effect is arguably weaker than the effect in an organizational context. This weaker effect in Experiment 4 compared to experiment 5 may be due to the fact that in Experiment 4 we manipulated floor of residence and measured the target's power within an organization, while in Experiment 5 we both the manipulation and the measure of power were related to the organizational context.

4. GENERAL DISCUSSION

The current research significantly contributes to the fields of real estate and urban economics, urban sociology and planning, as well as to the general discourse within social and organizational psychology. Our research introduces social power as a significant economic good that should be considered (and possibly priced) in the context of high-rise construction. While the literature of real estate economics traditionally considers the economic value of the physical ("rational") features of high floors, such as better views and reduced noise (see, for example, Benson et al., 1998; Bourassa et al., 2004; Wilhelmsson, 2000), our study proposes and empirically tests a new, considerably valuable effect that is associated with high floors—arguably of equal (or greater) importance relative to prevailing explanations—that is, the social perception of power that is linked to elevated vertical location. This economic insight may provide real estate customers with a better understanding of their floor preference and thereby

assist them in reaching a more informed decision related to residential and corporate vertical locations. In that vein, our study may also be useful to other real estate players (e.g., entrepreneurs and agents) in understanding the demand (and consumers' willingness to pay) for high floors. From a broader perspective, our proposed social power motivation may provide additional insight into the worldwide high-rise building movement and its individual and social implications.

Within psychology, we argue for and test the premise that locating on high floors provides a real-world behavioral means for being perceived as powerful. While studies of high/low power (as mentioned earlier) have largely focused on fixed characteristics such as gender, race, physical attributes, and personality traits (Anderson & Brion, 2014; Anderson et al., 2001; Anderson & Kilduff, 2009), there is emerging evidence of situational factors and behaviors that may alter perceptions of power (Smith et al., 2008; Wakslak et al., 2014; and Van Kleef et al., 2011) for high/low social power individuals. Thus, our proposed research identifies an external, physical factor—floor location (high vs. low) within a building—that affects social perception of power (high vs. low) and can therefore be used by individuals (and groups) to strategically influence power levels. Furthermore, our research is especially important given the paucity of research examining real-world preferences, signals, and behaviors associated with social power such as locating on high floors (Smith & Hofmann, 2016). Finally, locating on higher floors may serve as a mechanism for reinforcing and exacerbating existing social power hierarchies (see also Magee & Galinsky, 2008; Smith et al., 2008)—namely, social power triggers higher floor location, while the latter, in turn, further boosts others' perception of one's power, and may potentially boost the subjective feeling of power. This self-reinforcing floor-power loop contributes to the maintenance of power hierarchies embedded in the urban space.

If the powerful prefer higher floors, and high-floor occupancy in turn reinforces the perceived level of power, it follows that the continuous trend of high-rise development carries with it an adverse effect on social cohesion, as higher floors both pull together (self-select) and strengthen the more powerful in society while excluding the less powerful, resulting in further power-based physical, vertical segregation and increased social polarization and inequality. The latter is arguably an important factor in the discussion of regulatory measures that may accompany high-rise construction, including, among others, implications for inclusionary policies to be considered in the continuing trend of high-rise development (e.g., Madar & Willis, 2015).

REFERENCES

1. Ahlfeldt, G., & D. McMillen (2015). The vertical city: The price of land and the height of buildings in Chicago. Working Paper, July 2015.
2. Alonso, W. (1964). *Location and Land Use; Toward a General Theory of Land Rent*. Cambridge, MA: Harvard University Press.
3. Anderson, C., & Brion, S. (2014). Perspectives on power in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*, 67-97.
4. Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology*, *81*, 116–132.
5. Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, *80*, 313-344.
6. Anderson, C., & Kilduff, G. J. (2009). Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal of Personality and Social Psychology*, *96*, 491-503.
7. Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E., & Chatman, J. A. (2006). Knowing your place: self-perceptions of status in face-to-face groups. *Journal of Personality and Social Psychology*, *91*, 1094-1110.
8. Barr, J. (2010). Skyscrapers and the skyline: Manhattan, 1895–2004. *Real Estate Economics*, *38*, 567-597.
9. Barr, J. (2012). Skyscraper height. *Journal of Real Estate Finance and Economics*, *45*, 723-753.
10. Ben-Shahar, D., Deng, Y., Sulganik, E., & Somerville, T. (2009). Relative status in high-rises. *Journal of Housing Economics*, *18*, 25-33.
11. Benson, E. D., Hansen, J. L., Schwartz, A. L., & Smersh, G. T. (1998). Pricing residential amenities: The value of a view. *Journal of Real Estate Finance and Economics*, *16*, 55-73.
12. Bourassa, S. C., Hoesli, M., & Sun, J. (2004). What's in a view? *Environment and Planning*, *36*, 1427-1450.
13. Fragale, A. R., Overbeck, J. R., & Neale, M. A. (2011). Resources versus respect: Social judgments based on targets' power and status positions. *Journal of Experimental Social Psychology*, *47*, 767-775.
14. Giessner, S. R., & Schubert, T. W. (2007). High in the hierarchy: How vertical location and judgments of leaders' power are interrelated. *Organizational Behavior and Human Decision Processes*, *104*, 30-44.

15. Gifford, R. (2007). The consequences of living in high-rise buildings. *Architectural Science Review*, 50(1), 2-17.
16. Glaeser, E. L., & Kahn, M. E. (2004). Sprawl and urban growth. In V. Henderson, & J. Thisse (Eds.), *Handbook of Regional and Urban Economics* (Vol. 4, pp. 2481-2527). Amsterdam, The Netherlands: Elsevier Press.
17. Helsley, R. W., & Strange, W. C. (2008). A game-theoretic analysis of skyscrapers. *Journal of Urban Economics*, 64, 49-64.
18. Kifer Y., Heller, D., Perunovic, W. Q. E., & Galinsky, A. D. (2013). The good life of the powerful: The experience of power and authenticity enhances subjective well-being. *Psychological Science*, 24, 280–288.
19. Koster, H.R.A., van Ommeren, J., & Rietveld, P. (2014). Is the sky the limit? High-rise buildings and office rents. *Journal of Economic Geography*, 14, 125-153.
20. Kraus, M. W., Piff, P. K., & Keltner, D. (2009). Social class, sense of control, and social explanation. *Journal of Personality and Social Psychology*, 97, 992–1004.
21. Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.
22. Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh*. New York: Basic Books.
23. Liu, C. H., Rosenthal, S. S., & Strange, W. C. (2016). The vertical city: Rent gradients and vertical structure. Working Paper, February 2016.
24. Madar, J., & Willis, M. (2015). Creating affordable housing out of thin air: The economics of mandatory inclusionary zoning in New York City. *Housing for an Inclusive New York: Affordable Housing Strategies for a High-Cost City*, pp. 1-15. New York: Furman Center.
25. Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2, 351–398.
26. Meier, B. P., Moller, A. C., Chen, J. J., & Riemer-Peltz, M. (2011). Spatial metaphor and real estate: North–south location biases housing preference. *Social Psychological and Personality Science*, 2, 547–553.
27. Mills, E. S. (1967). An aggregative model of resource allocation in a metropolitan area. *American Economic Review*, 57, 197–210.
28. Muth, R. F. (1969). *Cities and Housing*. Chicago: University of Chicago Press.
29. Panczak, R., Galobardes, B., Spoerri, A., Zwahlen, M., & Egger, M. (2013). High life in the sky? Mortality by floor of residence in Switzerland. *European Journal of Epidemiology*, 28, 453-462.
30. Rucker, D. D., & Galinsky, A. D. (2008). Desire to acquire: Powerlessness and compensatory consumption. *Journal of Consumer Research*, 35, 257-267.
31. Russell, B. (1938). *Power: A New Social Analysis*. London: Unwin Books.

32. Schubert, T. W. (2005). Your highness: Vertical positions as perceptual symbols of power. *Journal of Personality and Social Psychology, 89*, 1-21.
33. Smith, P. K., & Hofmann, W. (2016). Power in everyday life. *Proceedings of the National Academy of Sciences, 113*, 10043–10048.
34. Smith, P. K., Wigboldus, D. H. J., & Dijksterhuis, A. (2008). Abstract thinking increases one's sense of power. *Journal of Experimental Social Psychology, 44*, 378-385.
35. Tower-Richardi, S. M., Brunyé, T. T., Gagnon, S. A., Mahoney, C. R., & Taylor, H. A. (2014). Living the high life: Social status influences real estate decision making. *Journal of Applied Social Psychology, 44*, 611-621.
36. U.S. Census Bureau. (2014). Income and Poverty in the United States. Retrieved from <http://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf>
37. Van Kleef, G. A., Homan, A. C., Finkenauer, C., Gündemir, S., & Stamkou, E. (2011). Breaking the rules to rise to power: How norm violators gain power in the eyes of others. *Social Psychological and Personality Science, 2*, 500-507.
38. Wakslak, C. J., Smith, P. K., & Han, A. (2014). Using abstract language signals power. *Journal of Personality and Social Psychology, 107*, 41-55.
39. Wilhelmsson, M. (2000). The impact of traffic noise on the values of single-family houses. *Journal of Environmental Planning and Management, 43*, 799-815.
40. Yuen, B. (2005). Romancing the high-rise in Singapore. *Cities, 22*, 3-13.
41. Zanolie, K., van Dantzig, S., Boot, I., Wijnen, J., Schubert, T. W., Giessner, S. R., & Pecher, D. (2012). Mighty metaphors: Behavioral and ERP evidence that power shifts attention on a vertical dimension. *Brain and Cognition, 78*, 50-58.

APPENDIX A – MATERIALS FOR EXPERIMENT 1

Power Manipulation:

L is 40 years old, married with 2 children. L works at a mid-sized company and earns \$70,000 (a salary higher than 75% of all U.S. individuals). L is very powerful [powerless] within the company. L holds a formal position that provides him with a great deal of [very little] control over valued resources in the company. Thus, L has [does not have] influence over others because of his great [limited] access to resources in the company. In his spare time, L likes to watch sports, hike, and read books.

Testing the Preference for a Floor Level

L is looking for a new apartment. The following picture shows a 10-floor building. Please indicate the floor that L would prefer in this building.

10	
9	
8	
7	
6	
5	
4	
3	
2	
1	

Additional Measures

The following are potential attributes of apartments. Please indicate how important each attribute is for L when choosing his apartment. Please use the scale 1 (not important at all) to 7 (extremely important):

- Hardwood floors

- Reduced street noise
- Nice view
- Located on a higher floor
- Natural lighting
- Spacious rooms
- Green (sustainable) structure

APPENDIX B – MATERIALS FOR EXPERIMENT 4

Floor Manipulation: Instructions for the High-Floor Condition

Mr. L is 40 years old, married with 2 children. In his spare time, L likes to watch sports, hike, and read books.

L works at a mid-sized company and earns \$50,000 (the average salary for U.S. men).

L works on the 18th floor of this 20-floor office building:



Perceptions of power:

In your opinion, what is L's professional rank within his company?

Low rank		Mid-level rank			Top rank	
1	2	3	4	5	6	7

In your opinion, how much ability to influence others does L have within his company?

