01. Target Authors: Dubourg & Baumard

02. Word Counts:

ABSTRACT WORD COUNT: 53 words MAIN TEXT WORD COUNT: 953 words REFERENCES WORD COUNT: 357 words

ENTIRE TEXT (TOTAL + ADDRESSES etc.) WORD COUNT: 1399 words

- 03. Commentary Title: Socioecology and Fiction
- 04. Authors: Nicholas Buttrick & Shigehiro Oishi
- 05. <u>Institutions:</u> Princeton University (NB) & University of Virginia (SO)
- 06. <u>Mailing Addresses:</u> Nicholas Buttrick, School of Public and International Affairs, Princeton, NJ, 08540

Shigehiro Oishi, Department of Psychology, University of Virginia, Charlottesville, VA 22904.

- 07. <u>Telephone Numbers:</u> 609-258-0157 (NB) 434-243-8989 (SO)
- 08. Email Addresses: buttrick@princeton.edu; soishi@virginia.edu
- 09. Websites: www.nickbuttrick.com (NB); https://psychology.as.virginia.edu/oishi (SO)

10. Abstract:

We argue that the generation and enjoyment of imaginary worlds does not necessarily rely on an evolved preference for exploration. Rather, we suggest that culture is shaped by socioecological facts on the ground, and we hypothesize about the role of residential mobility, specifically, as an important factor in the popularity of imagined spaces.

11. Main Text:

While we find it plausible that consumption of imaginary worlds satisfies a desire for exploration, we are less convinced that the contemporary surge in the production of such worlds is the outgrowth of an evolutionary-psychological process that has finally been given the proper environment to express itself (section 5.3). Instead of relying on such an ultimate-level evolutionary story, we suggest that the popularity of such narratives better tracks something far more proximate, changes in the socioecological environment in which such literature is produced and consumed.

Socioecological psychology seeks to understand human behavior with reference to the social and physical worlds in which people are embedded, investigating how factors such as the built environment, population density, demographic diversity, political system, and economic conditions shape and are shaped by individual and group psychologies (e.g. Choi & Oishi 2020; Oishi, 2014). Residential mobility, specifically, may be especially relevant when thinking about the growth of imaginary worlds. As people move from place to place, they gain greater firsthand experience of the potential for difference in the world - different people, different environments, and different ways of being (see e.g., Buttrick & Oishi, 2021). This sense that a world can be other than it currently is would seem to be central to the production and consumption of a robustly imaginary space (e.g. Trilling, 1950).

Empirically, it may be useful to think about the historical context in which these imaginary worlds were and were not created. We can point, for example, to the contemporaneous experiences of Ming China (1368-1664) and Western Europe. Ming China was at least as wealthy as England during the period of Shakespeare and Thomas Moore (Broadberry, Guan, & Li, 2018), and had a literary culture producing works as rich and renowned as *Journey to the West* and *The Plum in the Golden Vase*. So why was England at the forefront of the development of imaginary worlds, and not China?

One clear difference is that Ming China differed quite significantly from Europe in the degree to which it allowed its population to move. Thanks to the *baojia* system, most people were tied to their lands and the central government strongly discouraged voluntary residential mobility of any kind, extolling the importance of belonging to a place (Lary, 2012). By contrast, contemporary England was hypermobile - from the 1580s to the 1730s, it's estimated that nearly three-quarters of residents, men and women both, left the parish of their birth (Clark & Sounden, 1988). While England was more mobile than the rest of Western Europe during the 17th century (MacFarlane, 1991; Moch, 2009; Whyte, 2000), Western Europe had largely caught up by the 18th century (Hayhoe, 2016; see also Rosental, 1999). It may be no surprise then, that the list of imaginary worlds compiled by Wolf (2012) is so dominated, in the 1600s & 1700s, by French and English writers. As the everyday experiences of people involved changes in place, their appetites for cultural products echoed this variability of location.

Europe was not uniform in its patterns of mobility. Central Europe lagged a bit behind in its rate of residential mobility, and did not reach Western-European rates of mobility until the 1800s (Moch, 2009). One estimate has residential mobility rates in Germany roughly quadrupling from 1820 to 1880 (Hochstadt, 1999). This timeframe, for example, neatly matches the rise in popularity of the Brothers' Grimm's fairytales - an exemplar of alternate world-building. Initially published in 1812, they were relatively unpopular at first, with their popularity growing through the 1850s, eventually making it into the state curriculum of Prussia in the 1870s (Zipes, 2002), right at the 19th century peak of residential mobility; as Germany becomes more mobile, German writers appear with increasing frequency in Wolf's (2012) list.

20th-century China also helps in thinking about the relationship between socioecology and the consumption of imaginary worlds, thanks to its severe swings in the official permissibility of changing one's residence. Residential mobility had a major peak in the 1920s and 1930s (Lary, 2012); with the rise of the Communist government came a return to a place-based system of citizenship, the *hukou*, which locked roughly 85% of the population in place, and by the 1980's, only 0.6% of this population were 'not where they were supposed to be', i.e. had moved from where they had been tied (Chan, 2016). The liberalization of the 1980s encouraged ruralites to move: scholars argue that China is now amongst the most mobile societies in the world, with as many as 200 million migrants (Fan, 2008). As the authors point out, science fiction first becomes popular in the late Qing and early-Republican era (mapping on to the first 20th century wave of residential mobility), and again becomes popular at the turn of the 20th century, right in the middle of the unprecedented boom in mobility set off by the end of the *hukou* system in the 1980s.

[We would also note that in their empirical paper (Dubourg et al., 2021), the authors find that the share of speculative novels, as a proportion of novels in general, peaks in the 1970s and dips thereafterwards. They may not realize it, but this is a trend that cleanly maps on to the pattern of American residential mobility in the 20th century (Buttrick & Oishi, 2021), and not the linearly-increasing rise in American GDP (US Bureau of Economic Analysis, 2021)].

In sum then, we argue that there is no need to propose a grand evolutionary theory of the imagined world, when one can point to a perhaps humbler, more parsimonious, hypothesis: that the cultural production of

a society is influenced by the ways in which the experiences of everyday people are shaped by the sociological, economic, and demographic features of their worlds (e.g. Marx, 1852/1998).

- 13. Conflict of Interest Statement: The authors declare that they have no conflicts of interest.
- 14. Funding Statement: There is no funding to report for this submission
- 15. References:

Broadberry, S., Guan, H., & Li, D. (2018). China, Europe, and the Great Divergence: A Study in Historical National Accounting, 980–1850. *The Journal of Economic History*, 78(4), 955-1000.

Buttrick, N. & Oishi, S. (2021). The cultural dynamics of declining residential mobility. *American Psychologist*. In press.

Chan, K. W. (2016). Five decades of the Chinese hukou system. In R. R. Iredale & F. Guo (Eds.), *Handbook of Chinese Migration: Identity and well-being* (pp. 23-47). Elgar.

Choi, H., & Oishi, S. (2020). The psychology of residential mobility: a decade of progress. *Current Opinion in Psychology*, 32, 72-75.

Clark, P. & Sounden, D. (1988). Migration and society in early modern England. Hutchinson

Dubourg, E., Thouzeau, V., de Dampierre, C., & Baumard, N. (2021, February 16). Exploratory preferences explain the cultural success of imaginary worlds in modern societies. *PsyArxiv*. https://doi.org/10.31234/osf.io/d9uqs.

Fan, C. C. (2008). China on the move: Migration, the state, and the household. Routledge.

Hayhoe, J. (2016). Strangers and neighbours: Rural migration in eighteenth-century northern Burgundy. University of Toronto Press.

Hochstadt, S. (1999). *Mobility and modernity: Migration in Germany 1820-1989*. University of Michigan Press.

Lary, D. (2012). Chinese migrations: the movement of people, goods, and ideas over four millennia. Rowman & Littlefield Publishers.

MacFarlane, A. (1991). The origins of English individualism. Wiley-Blackwell.

Marx, K. (1852/1998). *The eighteenth brumaire of Louis Bonaparte*. D. de Leon (Trans.). Project Gutenberg. https://www.gutenberg.org/files/1346/1346-h/1346-h.htm.

Moch, L. P. (2009). *Moving Europeans: Migration in Western Europe since 1650* (2nd ed.). Indiana University Press.

Oishi, S. (2014). Socioecological psychology. Annual Review of Psychology, 65, 581-609.

Rosental, P.-A. (1999), Les sentiers invisibles: Espaces, familles et migrations dans la France du 19e siecle. Paris: Editions de l'EHESS.

Trilling, L. (1950). The liberal imagination: Essays on literature and society. Viking.

U.S. Bureau of Economic Analysis (2021). Gross domestic product. https://fred.stlouisfed.org/series/GDP

Whyte, I. D. (2000). *Migration and society in Britain, 1550-1830*. Macmillan International Higher Education.

Wolf, M. J. P. (2012). Building imaginary worlds: The theory and history of subcreation. Routledge.

Zipes, J. (2002). The Brothers Grimm: From enchanted forests to the modern world (2nd ed.). Routledge.