

# 以儿科医生的视角诊断城市环境： 访谈理查德·J·杰克逊

## EXAMINING THE URBAN ENVIRONMENT THROUGH THE EYES OF A PEDIATRICIAN: AN INTERVIEW WITH RICHARD J. JACKSON



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收稿时间 RECEIVED DATE: 2014-10-27  
中图分类号 / TU986.2 文献标识码 / C

### 摘要

本次访谈从儿科学的视角，就与城市景观对人类健康的影响相关的几个重要问题进行了讨论。理查德·J·杰克逊介绍了其在该领域内的职业生涯，并对如何通过改善城市环境来促进身体、精神和社会健康这一问题进行了阐释。另一位对话者姜斌也在中国城市的社会和物质环境语境下提出了与该主题相关的一些重要问题。本次对话以一种全新的视角，将有助于城市管理者 and 设计专业人士通过重塑城市环境和改变市民的生活方式和行为规范，解决迫在眉睫的人类健康问题。

### 关键词

儿科学；人类健康；城市环境；中国城市；后代

### ABSTRACT

This interview article focuses on discussion of several important issues related to the influence of urban landscape on human health from a perspective of pediatrics. Richard J. Jackson introduced his career in the field and explained how to promote physical, mental, and social health through improvement of urban environment. Bin Jiang, the interviewer, raised a few important questions related to the topic within the social and physical context of Chinese cities. Together, through a fresh perspective, this work would help city managers and design professionals to contribute to solving pressing human health problems by reshaping urban environment and changing citizens' lifestyles and social norms.

### KEY WORDS

Pediatrics; Human Health; Urban Environment; Chinese Cities; Future Generations

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### 理查德·J·杰克逊简介

加州大学洛杉矶分校公共卫生学院环境健康科学系教授、系主任。作为一名儿科医生，他曾在加利福尼亚州环境健康部环境健康与传染病两个部门中先后担任领导职务，最高职位曾为加州卫生长官。他曾出任美国疾病预防控制中心亚特兰大国家环境健康中心主任一职达9年，并获得了总统杰出服务奖。2011年10月，他入选美国国家科学院医学研究所，并被授予约翰·海因茨奖以表彰其在环境健康方面做出的突出贡献；他还被美国公共健康协会授予了该协会的最高奖项——塞奇威克奖章。他作为联合作者，撰写了教科书《创建健康场所》并主持了一档4个小时的美国公共电视系列剧集“设计健康社区”，以及一个同名活动。本文作者姜斌——其研究领域集中于探讨建成环境对人体健康和可持续都市主义的影响——于2014年4月在美国内布拉斯加州奥马哈市对杰克逊进行了采访。

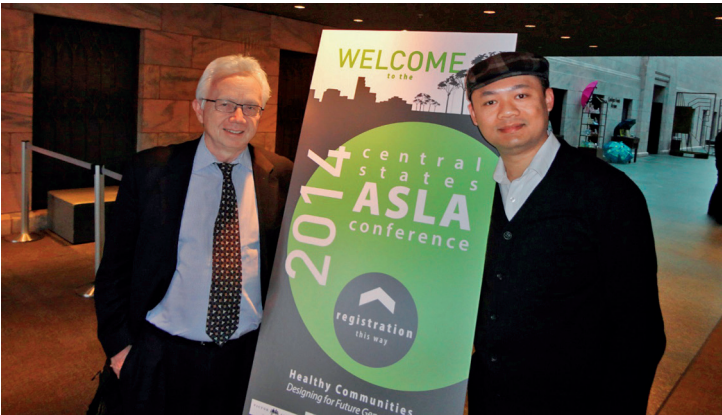
**姜斌（以下简称姜）：**杰克逊教授，很高兴见到您！据我了解，虽然您不曾接受过设计师培训，但在过去的15年中，您一直投身于建成环境和人类健康的领域。我想知道，是什么让您认识到生活环境对人体健康的重要性？是什么促使您将主要的职业生涯都奉献给了环境健康这一领域？

**理查德·J·杰克逊（以下简称杰克**

逊）：

理查德·J·杰克逊与姜斌在2014年4月于内布拉斯加州奥马哈市举办的“为子孙后世而设计”健康社区会议上的会面。

Richard J. Jackson and Bin Jiang on the Conference of Healthy Communities: Designing for Future Generations, held in Omaha, Nebraska in April, 2014.



逊）：冥冥中我注定要投身于公众健康这个领域。当然，我成年后才真正意识到这一使命。我的父亲曾在第二次世界大战中担任战斗机飞行员，并于1945年全身而退回到美国。他当时是一个身强体健的年轻人，但1949年因罹患脊髓灰质炎在病情发作不到三天便辞世了。那时他和我的母亲育有三个不到4岁的小男孩。他的逝去给我们带来了无限哀伤，我的母亲尤为悲痛。当时我们为贫困所迫，搬到了母亲的故乡新泽西州——那里被誉为美国的“花园之州”。当新泽西获得如此美誉的时候，还是个美丽的地方。但毫无节制的工业化、过度使用铺装，以及空气、水以及土地的污染等诸多因素令新泽西州面目全非，我以及在那里长大的每一个人都深知，这个“花园”是如何遭受毁坏的。而且遭受毁坏的不仅是那片土地，还有人民的健康。

我最终选择就读医学院校，立志成为一名医生。我想从事一份服务于大众的事业，随后我决定学习儿科。儿科是一个非常美好的职业。从某种意义上说，是因为儿科与成人医科所作的事情并不相同。在成人医科中，我们只是简单地试图帮助病人复原从前的身体状况。在儿科中，我们诊断一个孩子的时候，我们知道我们看到的只是电影中的一帧画面，因此尤为关注的是这个孩子生命中的心理发育、生理发育、社会成长，乃至其（家庭）经济环境的健康。我们需要对孩子的生态特性非常了解。每一个孩子都是她/他自己的生态系统的中心。从生物学的

角度上讲，孩子会将所接触的环境融入自己的身体。孩子每公斤身体的饮食和呼吸量是成人的二至三倍。所以，我们所创造的环境对孩子的影响要大于成人。而这些影响的结果不是持续5年或10年，而是70年或80年。因此，关注儿童（的健康）是极为重要的。有一句西谚这样说道：童年将决定人的一生（The boy is the father of man）。

我曾在流行病学和毒理学上投入了30年的精力以认识诸多环境危害的影响，包括有毒化学物质、辐射、气候变化、大气中的CO<sub>2</sub>浓度、空气和水污染物等。大约15年前，我坚信关注有毒化学物质是非常重要的——但对普通人来说并非那样重要。人们居住的生活环境才是关键的。我的朋友，霍华德·弗兰坎教授和我决定，我们应更多地关注人们的生活环境。我们为美国疾病预防控制中心引入了许多专家。我们一起探讨如何通过环境设计来加强社区治安，例如，如何通过“街道之眼”来减少犯罪。我们引入了身体伤害预防专家，试图通过改变建成环境来防止身体伤害。我们还引入了哮喘病专家和心理健康专家。弗朗西斯·郭教授和威廉·C·苏利文教授曾对生活 在恶劣住宅环境中的儿童的社会和心理健康进行了研究。他们的研究令我突然意识到一个事实，一个我和其他人都认可的事实：儿童是属于绿色环境的。大多数家长都知道孩子们需要挑战——一些既不太难，也不太容易的挑战。孩子需要玩耍嬉戏，需要融入他们所处的这个世界。孩子们需要被允许去探索，即

便也许会受到些许伤害。如果我们过分地保护他们，他们对世界的感知会变得不真实。此外，苏利文教授的研究让我惊叹的另一点是，他用确凿的证据证明，在绿色空间中玩耍的孩子——就我理解，例如在河边的树木和灌丛间奔跑，或向河中扔石头——会比呆在房间里的孩子更加健康，无论是精神上、社会性上，还是在体质上。所有这些我们似乎有所知晓，但苏利文教授为其提供了确凿的证据支持。

我们建造了许多“现代”环境，却剥夺了属于孩子们的绿地。我们所构建的环境使年迈者无法亲近宜人的水景和绿色景观。我们如此这般地接纳和拥抱机械化的、人工的环境，我们已经失去了大自然给予我们的许多恩赐。我怀疑这种环境的硬化化已经毁坏了人的精神世界。我在很多方面都非常欣赏我的祖国——或许她能成为其他国家的典范——但我希望一些诸如中国的快速发展的发展中国家不要重复美国曾犯下的错误：其中的一个错误就是令人们的生活被汽车所主宰，被囚困在一个由水泥和混凝土所构成的环境中，并失去与大自然的接触。

**姜：**是的，当代的中国城市遍布高层建筑，且人口密度非常高。人们生活在拥挤和紧张的城市环境之中。越来越多的城镇居民选择使用私家车进行通勤和休闲。人们在效仿西方人的生活方式。尽管我们知道这种生活方式存在问题，但我们却难以拒绝其诱惑，因为这是我们中的很多人渴望的生活。人们想生活在整洁的环境中，驾驶自己的汽车，避免乘坐拥挤的公共汽车和地铁。您对

如何鼓励人们选择更可持续的生活方式有何建议？

**杰克逊：**首先，如果让你在乘坐拥挤、燥热、气味不佳的地铁，与乘坐舒适的、拥有空调的小汽车之间做选择，小汽车看起来肯定是首选。但我认为一定有解决的方法。显然，小汽车的人均燃油量要更高，而且对于一个拥有全世界1/4人口的国家来说，人人拥有一辆私家车的想法不切实际。事实上，美国已几乎真正步入了一个后汽车时代。美国的汽车比司机还多。多数高速公路在大部分时间都处于停用状态。研究表明，（经常）开车的人体型更不健康。当他们驾驶汽车时，皮质醇等内分泌水平会升高而增加心脏病发作的危险。诚然世界各地人口的肥胖问题都在加剧。但生活在依赖机动车的地区的人比那些生活在较少开车的地区的人平均体重重要超出约3k g。各个国家应该解决如何令地铁系统高效、安全、清洁、舒适。使用公共交通的人均成本要远远低于使用小汽车的人均成本。因此，经济合算或出行便捷是吸引人们使用公共交通的因素——仅仅摆摆手告诉人们“不要这样做”从来都不起实效。然而，我也确实很欣赏斯堪的纳维亚的模式，那种模式为人们创造了很好的环境。

**姜：**中国现在有大量正在进行的建设项目，由此有很多供景观设计师实践的机会。公共和私人投资者都开始认识到绿色景观在推动经济发展和促进人们健康方面的重要性。然而，尽管城市地区建设了许多绿地，

但在城市中，我们逐渐失去了朴素的自然，或者具有原始野性的地方。我注意到，大多数的城市景观都被视为装饰性元素或建筑性的元素。许多景观设计师力求使景观具有几何式的、干净的、整齐的边缘、形状，或模式。但是，我认为这些景观不能传达出自然的意味。您曾提到，要通过让孩子与自然玩耍，让人们享受野趣，以促使人们理解人与自然之间的本质关系，并使人们通过与大自然接触而变得更加乐观、专注、放松。因此我对视觉特性的过度控制，或只将景观作为建筑元素的趋势表示担忧。

**杰克逊：**虽然我是一位医生，但我的偶像之一是弗雷德里克·劳·奥姆斯特德。我喜欢置身于他和他的儿子设计的场所之中，那些地方有装饰性的构件，例如古典形式的石桥。但是如果你走入奥姆斯特德设计的公园中，你会觉得“哦，这里可能一直以来都是这样”。尽管这些地方在很大程度上都是人造的，但至少其通过各种树木、水景、鸟类和其他野生动物，营造出置身于自然的感受和氛围。这些场所非常注重灵魂和精神。

奥姆斯特德将公园称为“城市之肺”，部分原因是公园能够降温 and 清洁空气。然而，我们医生都知道，我们能够治疗多种疾病，但是一个人的肺功能衰竭时，就意味着这个病人即将走向生命的终结——如果一个城市没有了“肺”，是否也是如此呢？我们城市的“绿肺”保障了市民的健康。我们需要场所暂缓工作，纾解压力。我欣赏那些规则形式的花园和公园，但如果你真正想放松一下，或想坐下来静静地读一本书，没有

其他地方会比一个真实的自然环境更适合。

**姜：**中国的另一个现状是，人们更关注身体健康问题，而不重视心理健康问题。当人们感到抑郁消沉，或是压力重重时，他们不愿意去看心理医生，这与美国人有着很大的不同。通过我自己的研究，我发现在城市环境中与自然接触可以在消除过度紧张和疲劳、提升积极情绪、增强社会凝聚力方面显著地促进心理健康。对于许多城市居民，特别是年轻人和中年人来说，他们承受着日常生活所带来的焦虑、抑郁和压力，例如教育和就业中的激烈竞争，住房、医疗和教育的高昂费用。心理健康似乎正成为严重影响中国城镇居民健康的一个问题。

**杰克逊：**许多社会都低估了心理健康的重要性。一个人缺少了一条腿，是很容易意识到的问题。但心理健康状况不佳可能比肢体残缺更严重：这一点只要问问任何一个患有精神分裂症或重度抑郁症的儿童的父母就可以知道。我们决不能仅仅因为无法用肉眼看到那样的苦痛而轻视它们。一个终日焦虑、陷于抑郁的人，以及那些深爱他们的人所承受的痛苦是无法想象的。事实是，大脑是我们身体最重要的器官。忽视心智的重要性是错误的。

我认为，毫无节制、不断扩张的资本主义，以及漠视了人类尊严的自由市场经济，致使很多人感到流离失所、孤立无援。当人们感到非常脆弱的时候，他们会以与过去截然相反的方式来看待世界。过去的世代，即便是我父母那一辈人，他们会非常自然地认

为：“我在这里生活，我的余生也在这里度过，而我的孩子们也将生活在这里”。然而，这种想法在如今的美国已经不再适用。现在，我们的失业率更高，人们可以在一年之内，从一个高收入雇员变为一个无家可归者，尤其是当人罹患疾病时。我认为当这个社会进入自由经济时，我们需要确保我们拥有治安的保障系统、经济的保障系统、食品的保障系统，以及住房的保障系统。我不是提倡人们应该懒惰和无所贡献；我的意思是，每个人总会在他们的生活中遭遇困厄，而我们有责任去帮助他们渡过难关。

**姜：**我注意到，您所提到了诸如家人去世或者失业等一些带来巨大生活压力的重大事件，但在我们的生活中还有许多琐碎的压力，例如工作截止日、账单支付和交通拥堵等。这些压力可能导致急性压力的积累和慢性压力的发展，并可能继而导致严重的疾病，甚或死亡。我们如何改变我们的人居环境，以帮助人们从日常的精神压力中及时恢复，防止急性压力的积累，并控制与压力相关的疾病和死亡的发生？

**杰克逊：**我们在美国做调查时发现，人们常常抱怨“我没有足够的时间”。美国人拥有洗衣机、吸尘器、微波炉——他们拥有的这些东西理应使他们的生活变得更加轻松。然而，他们却仍然抱怨没有时间。当我们审视这些人的生活，会发现人们花费太多的时间在看电视、做一些没有产出的事情上，他们将自己的精力花在微不足道的小事和个人兴趣上——例如，关注娱乐圈和电子

游戏，这些都是没有产出但却要耗费大量时间的事情。随后人们会感到压力，是因为他们没有时间去做别的事情。本质上，集权资本主义会尽可能多地吸收我们的资本——无论是金融资本、社会资本、时间资本，还是人力资本。事实上，商业广告的目的就是为了让你失去快乐。因为广告里说：“你看，如果你喝这种饮品或驾驶这款车，你将看起来更棒。”这会让我们感到自卑和缺乏自信（于是我们会认为）：“买了广告里的商品后我就会快乐起来。”我们就这样被不断地操纵。我认为置身于自然，并远离这些无稽之谈，是重新找回自我的一种非常重要的方式。

**姜：**作为我们谈话的结束，您能为发展中国家在城市在营造健康的生活环境方面提供一些意见么？

**杰克逊：**以一名儿科医生的视角来讲，如果想在一年半载完成这些事情并做出显著的改变，是非常困难的事情。但是，我们需要有愿景，为孩子们创建一个更加健康、更加美丽、拥有多样生物种的世界。人想要不消亡，就必须怀有愿景。还有很多事情需要我们去，或去进行规范，或去进行增补，或去改变城市规划的方式。但最终，我相信每一个社会都必须为我们的后世去拥抱一个积极、健康的愿景，一个世界和谐的愿景——如果我们背弃了自然，和谐将难以实现。**LAF**



# EXAMINING THE URBAN ENVIRONMENT THROUGH THE EYES OF A PEDIATRICIAN: AN INTERVIEW WITH RICHARD J. JACKSON

## Introduction of Richard J. Jackson

Richard J. Jackson is Professor and Chair of Environmental Health Sciences at the Fielding School of Public Health at the University of California, Los Angeles. As a pediatrician, he has served in many leadership positions in both environmental health and infectious disease with the California Health Department, including the highest as the State Health Officer. For nine years he was Director of the CDC's National Center for Environmental Health in Atlanta and received the Presidential Distinguished Service award. In October, 2011 he was elected to the Institute of Medicine of the National Academy of Sciences, was given John Heinz Award for his Environmental Health leadership Work, and received the Sedgwick Medal, the highest award of the American Public Health Association. He co-authored the textbook *Making Healthy Places* from Island Press, and hosted a four hour US Public Television Series Designing Healthy Communities along with a companion by the same name. The author, Bin Jiang, whose research work examines the impacts of built environment on human health and sustainable urbanism, interviewed Jackson in April, 2014 in Omaha, Nebraska, U.S.

**Bin JIANG (JIANG hereafter):** Prof. Jackson, it is my pleasure to meet you. I notice although you were not trained as a designer, you have worked in the field of built environment and human health for the last 15 years. I wonder what made you realize the importance of living environment on human health. What made you redirect a substantial portion of your career to this area of environmental health?

**Richard J. JACKSON (JACKSON hereafter):** I was destined to go into public health. Of course, I did not realize until when I was an adult. My father who had been a fighter pilot survived World War II and came back from the war in 1945. He and my mother soon had three little boys under age four. He was a strong young man, but in 1949, he developed polio, and died in less than three days. His death was a tremendous loss, with our mother suffering the most. We were very poor and moved to New Jersey where my mother had grown up. New Jersey is called the “garden state” of the US. When it received that name it was a beautiful place, but in many ways it has been, destroyed by rampant industrialization, over paving, and air, water and land pollution. I and every other person who grew up there knew very well how this “garden” had been destroyed. And this destruction was not

only to the land, but to people's health.

I eventually went to medical school to become a physician. I wanted to do a career of public service and then decided to do pediatrics. Pediatrics is a very wonderful profession. In a way, because what we do in pediatrics is different from adult medicine. In adult medicine, we simply try to help him or her become as well as before. In pediatrics, when we look at a child, we know we are looking at just one frame in a movie, so we very much focus on the progression of that child's life: the mental, physical, and social development, even the economic wellbeing of that child. We need to be very aware of the ecological nature of child. The child is the center of her or his own eco-system. Biologically, the child integrates the exposures she or he has. The child eats, drinks, and breaths two to three times as much for every kilogram of body weight as does an adult. So any exposure we create in the environment impacts a child more than adult. The result of impact lasts not five or ten years, but seventy or eighty years. So it is extraordinarily important that we focus on children. We have a saying in English: the boy is the father of man.

I have spent thirty years doing epidemiology and toxicology, learning the effects of environmental hazards including toxic chemicals, radiation, climate change, CO<sub>2</sub> loading of the

atmosphere, air and water pollutants and more. And I become convinced about 15 years ago that focusing on toxic chemicals were very important — it was not that important to average person. It is where we live really matters to people. My friend, Prof. Howard Frumkin and I decided we needed to focus more on where people live. We brought CDC a series of experts. We talked about community policing through environmental design, for example, how do “eyes on the street” reduce crime. We brought experts in injury prevention to change built environment to prevent injuries. We also brought experts on asthma and mental health. Prof. Frances Kuo and Prof. William C. Sullivan were examining the social and mental health of children living in very difficult housing situations. It really hit me something that I, and I think everyone else, had known all along: children belong in green environments. Most parents know that children need challenges that are sequenced to be neither too hard nor too easy. Children need to play and to engage the world they are in. Children need to be allowed to explore though maybe get a little bit hurt. If we overprotect them, we give them an unreal sense of the world. Another thing Prof. Sullivan surprised me with was the strong data showing that children playing in green spaces, for example, running on a trail

past trees and shrubs, or throwing stones in a river were mentally, socially and physically healthier than a child always sitting in a room. We all kind of knew that but Prof. Sullivan found concrete evidences.

We construct many “modern” environments that deprive children of green spaces. We construct environments that make hard for the elderly to be around of comfort water features or green features. We have so married and embraced the mechanical, man-made environment and we have lost gifts nature gave us. I suspect this environmental hardening has damaged the human spirit. There are many things I admire very much about my country, that perhaps could be a model for other countries, but there are mistakes I hope rapidly developing countries like China do not emulate — one of which is to have your life owned by the automobile, and boxed in by a physical environment of cement stone and concrete, and to lose touch with nature.

**JIANG:** Indeed, contemporary Chinese cities are crowded with high-rise buildings and high population densities. People live in compact and intense urban environment. More and more urban residents choose private cars for commuting and recreation. People are following Western people's lifestyle.

We know it is problematic but we can hardly resist because that is the life many of us want. People want to live in neat environment, drive private vehicles, and avoid crowded bus and subway. Do you have suggestions on how to encourage people to choose more sustainable lifestyles?

**JACKSON:** First of all, if you have a choice of being on a crowded, hot, and smelly subway or a comfortable car with air conditioning, the car seems irresistible. I think there must be ways one could have both. Clearly cars burn much more fossil fuel per person, and the idea of everyone has a private car would seem impractical for a country with one quarter of world people. In fact, the United States are really almost post-automobile. We have more cars than drivers. Most of highways are stopped a great deal of time. Research shows people who drive more are less physically fit. Their cortisol and other endocrine levels go up while they are driving which actually raise the risk of heart attack. In every part of the world, the problem of obesity is increasing. Yet people who live in car dependent areas weight about 3 kg on average more than in areas where few people drive. Countries should figure out how to make subway systems efficient, safe, clean, and comfortable. The cost of using public transit is a lot less per

person than owning a car. So, having economic benefits or convenience make people want to do that. Telling people by waving your fingers “Do not do this” is never going to work. But, I do admire the Scandinavian model which creates environments that work well for people.

**JIANG:** In China, huge amount of projects are going on so there are a lot of practice opportunities for landscape architects. Both public and private investors start to realize the importance of green landscape on promoting economy and gaining health benefits for people. However, although many green spaces are constructed in urban areas, we gradually lose pristine nature, or the wildness, in cities. I notice a trend that majority of urban landscapes are regarded as decorative or architectural features. Landscape architects work very hard to make landscape have geometric, clean, and neat edges, shapes, or patterns. However, I consider those landscapes fail to convey a sense of nature. You mentioned that let children play with nature and let people enjoy the wildness to assure people understand the essential relationship between human and nature, and to become more positive, attentive, and relaxed by contacting with nature. So, I am little worried about the trend of obsessive control on visual characteristics or just regarding landscapes as

architectural elements.

**JACKSON:** Even though I am a physician, one of my heroes is Frederick Law Olmsted. I love being in places that he and his sons designed. There are decorative features like old fashion cast-stone bridges. But if you go through the Olmsted parks, you will think “oh, it probably was always this way”. Yet, it is largely human made, but at least it conveys the feeling, the sense of being in nature through the variety of trees, water-features, birds and other types of wildlife. It is very caring for the soul and spirit.

Olmsted called parks the “lungs of the city” in part because of the cooling and cleaning of air. Yet we doctors know that we can treat many illnesses, but when the lungs fail, it is the end of the patient — is it the same for a city without a park? Our cities’ “green lungs” keep people healthy. We need places for respite from work and stress. I enjoy very formal gardens and parks, but if you really want to relax, you want to sit and read a book quietly, there is nothing like a real natural setting.

**JIANG:** Another observation of China is that people pay much less attention on mental health problems than physical health problems. People are reluctant to see a doctor when they

are depressed or stressed, which is much different from Americans. Through my own research, I realize that contact with nature in urban environment is significantly beneficial for mental health in terms of relief of psychological stress and fatigue, promotion of positive moods, accelerate social cohesion. For many urban citizens, especially young and middle-aged, they are suffering anxiety, depression, and stress caused by challenges in daily life, such as intense competition for education and employment, and high costs for housing, medicine and education. It seems mental health is becoming a serious issue for human health in Chinese cities.

**JACKSON:** Many societies underestimate the importance of mental health. If a person is missing a leg, on readily recognizes the problem. But poor mental health can be worse than a missing limb — ask any parent of a child with schizophrenia or a spouse with overwhelming depression. Do not dismiss the suffering because you cannot see it, someone who is immobilized by anxiety, paralyzed by depression, is in enormous pain, as are the people who love them. The truth is, the brain is the most important organ in our bodies. It is wrong to dismiss the importance of the mind.

I think that unbridled and aggressive

capitalism, and a free market that undervalues human dignity, leave too many people feeling unhinged, and unconnected. People feel very vulnerable to the world in ways opposite from what they felt in the past. The older generations, even my parents’ generation, they felt very comfortable with the idea “I am here, my rest of my life is here, and my kids will be here”. It is not that way in United States anymore. Our unemployment rates are higher, people can go from being an employee with high income to a homeless in a year, especially with a serious illness. I really think when a society moves to free economy, we need make sure we have a security safety net, a financial safety net, a food safety net, and a housing safety net for people. I am not saying people should be lazy and not contributing. I am saying everyone comes across difficult times in their life. We have obligation to help people get through them.

**JIANG:** I notice you mentioned main stressful life events like death of family members or unemployment, but there are many minor stressful things in our life like working deadlines, paying bills, and traffic jams. Those stressors may lead to an accumulation of acute stress and development of chronic stress, which has been proven as a significant contributor of serious diseases and even death. How

we can intervene our living environment to help people recover from daily stress on time, prevent from the accumulation of acute stress, and control the growth of stress-related diseases and death?

**JACKSON:** When we do surveys in United States, one thing people complain about is “I do not have enough time”. American people have machines to wash their clothes, vacuum the floor, microwaves — they got all these things supposedly make their life easier. Yet they complain they have no time. When we look at people’s lives, they are spending too much time watching television, doing things that are not productive, and they distract themselves with trivial tasks and interests. The entertainment structure and the video game industry are good examples. They are not productive and consume a lot of time. Then they feel stressed because they do not have time after all these. Basically, totalitarian capitalism seeks to absorb as much of our capital — financial, social, time, human energy capital — as possible. In fact, the purpose of commercial advertising is to make you unhappy. Because the advertising says “See, if you drink this drink or drive this car, you will be better looking.” It makes us feel inferior and inadequate: “go buy something and I will be happy”. We are constantly manipulated. I think by being

in nature and disconnecting from this nonsense is really important way to get ourselves get centered again.

**JIANG:** To wrap up our conversation, could you offer some comments on creating healthy living environment for cities in developing countries?

**JACKSON:** It is a pediatrician speaking: it is very hard to do these things and have much change in six months or one year. But, we have to have a vision to give our children a world that is healthier, more beautiful and more diverse in terms of wildlife species. Without a vision the people will perish. There are a lot of things we need to do like regulate this or add that or change the urban planning. But ultimately, I believe every society must embrace a positive and healthy vision for our children and grandchildren, a vision of harmony of the world. It is very hard to have the harmony if we disregard nature. **LAF**