

科技鄰避設施風險知覺之形成與投影： 核二廠

洪鴻智

國立台北大學不動產與城鄉環境學系副教授

本文主要目的在探討科技設施與周圍居民的風險知覺空間衝擊關係。文中以台北縣萬里鄉之核二廠為例，應用二階段風險社會擴展模式，納入影響風險知覺的主要因素估計風險知覺指數 (risk perception index; RPI)，並引用民族誌 (ethnography) 方法，描繪核二廠對周圍社區衝擊的風險知覺投影 (risk perception shadow; RPS) 圖。透過核二廠周圍社區居民的抽樣調查結果，發現受訪者風險知覺決定的主要影響因素為：心理測度、社會信任、社會經濟與人口特質及居民認為設施對生活的影響。核二廠的 RPS 描繪共呈現三種不同型態，包含原始觀察風險知覺、估計之平均 RPI 與應用群落分析之 RPS 分布特性的歸納。從 RPS 分析，發現核二廠周圍不同地理區的風險態度具有明顯的歧異性。另 RPS 圖描繪，可提供以下之可行應用層面：(1)以社會知覺 (social-context) 資料定義的風險態度，可提供一套助於瞭解特定族群集體風險知覺特徵與環境管理態度的方法；(2)改變傳統以既定印象界定的社會情境，轉以居民——科技設施關係重新定義的核二廠環境影響關係，此模式可助於思考如何提供一套公平的民眾參與與溝通機制，及避免產生環境歧視的環境管理決策方向。

關鍵詞：人類學，風險知覺投影，風險知覺指數，風險知覺地景，風險的社會擴展，核二廠，鄰避情結，環境歧視

The Determination and Shadow of Risk Perception for Technological NIMBY Facility: The Nuclear Power Plant II

Hung-chih Hung

Associate professor,
Department of Real Estate and Built Environment

ABSTRACT

The main purpose of this paper is to demonstrate spatial impacts of perceived risk among locally affected people surrounding a technical NIMBY (not in my backyard) facility. A two-level risk social amplification model was conducted in the estimation of risk perception index (RPI) that is composed of the key factors that determine risk perception. For investigating the risk attitudes distributed spatially, an ethnography approach called risk perception shadow mapping was used to identify the perceptual characteristics of the geographical areas or communities surrounding the Nuclear Power Plant II in Wanli. A center-point radial sampling design and survey was employed to build a model of risk perception. The results showed that the social trust, psychometrics, socio-economics and everyday life influential factors play important roles in the determination of risk perception. We demonstrated three types of RPS mapping, which utilized the originally surveyed data, estimated RPI and results of cluster analysis to present the risk perceptual characteristics for Nuclear Power Plant II. Preliminary findings reveal that the risk attitude for Nuclear Power Plant II is both spatially extensive and perceptually heterogeneous. The applications of the RPS mapping approach have at least two distinct prospects: (1) using explicitly social-context data to define of risk attitudes, which is helpful to identify the collective risk perceptual characteristics and mitigation issues raised by its constituent population; (2) redefining the environmental effects for Nuclear Power Plant II based on the population-facility relationship rather than

etically defined social context, as well as how this relationship can be used to seek participatory equity and avoid environmental discrimination in the decision making of environmental risk communication and management.

Key Words: Anthropology, Environmental discrimination, Nuclear Power Plant II, NIMBY, Risk perception shadow, Risk perception index, Risk perception landscape, Social amplification of risk