How Does Street Vending Contribute to Walkability?
A report on a study in Yuncheng, China

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Abstract

In contemporary Chinese cities, street vendors often emerge in a predictable space where numerous people frequently walk or stay. In this sense, the ubiquitous phenomenon of street vending closely relates to the walkability of urban space in the Chinese context. The use of Actor-Network Theory (ANT) analyses a series of immaterial and material actors, which intertwine as a heterogeneous network within complex associations. Based on our previous reviews, this study is the first exploration to implicate the heterogeneous network of street vending as a possible approach to understanding walkable spaces.

1. Introduction

Cities' residents are living longer than ever before and life expectancy, at least for the present, continues to increase (Ward Thompson, Aspinall, & Bell, 2010). Yet, at the same time they are confronted by a range of severe issues in terms of public health, neighbourhoods' interaction, environmental pollution, climate change, misdirected investment and shrinking cities and so on. This is a consequence of changing lifestyles, where the majority of residents have become less active than in mediaeval times, along with changing from pedestrian-oriented cities to automobile-dominated ones. In this context, "walkability" becomes an issue that both impacts upon and embodies the urgent issues mentioned above. If walkability is on the right track, many of the rest will follow (Speck, 2013).

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Walkability is an aim and an approach as well as a measurement. Due to the social and physical benefits of walking are many, walkability makes a crucial contribution to urban vitality (Sapawi & Said, 2013; Shamsuddin et al., 2013). This research prefers to present our thoughts as a critical construction of contemporary everyday life, which understands the specificity of walkable spaces in a socio-cultural context. Harvey (1969) notes that spatial properties cannot be distinguished from objects 'in' space but have to be studied from external spaces as a system of social, economic and political relations. People's everyday life operates at different scales, which interacts with the built environment.

In contemporary Chinese cities, street vendors represent one of classical elements for Chinese everyday life, regularly emerge in a predictable space where many people frequently walk or rest. As such, the ubiquitous phenomenon of street vending closely appears to have a relationship with the walkability of urban spaces. By examining how street vendors engage with urban space, this paper explores the walkability of particular spaces in contemporary Chinese cities across various scales. This study considers the heterogeneous network of street vendors in Yuncheng, to explore the specificity of walkability in respect of everyday demands.

Street vending is a pervasive phenomenon in developing countries, particularly in Africa and Asia (Nastiti et al., 2012; Liu, 2013; Okoye, 2015). In contemporary China, the majority of studies about street vendors focus on them negatively and try to solve or manage the phenomenon. This is due to street vendors being seen to contribute to "dirty, noisy and disordered" outdoor spaces (Liu, 2013; Huang, Xue, & Li, 2014). In recent years, a few studies have started challenging this mainstream view, that stand on the neo-liberalism and neo-Marxism to represent an ambiguous position, which means that treat street vendors as "a necessary conflict" making suggestions for a reframing of policy which actively engages with the phenomenon (Huang, Xue, & Li, 2014).

This paper mainly uses Actor-Network Theory (ANT) as a conceptual tool and a methodology. ANT not only focuses on controversy and conflict (Ramiller & Wagner, 2009) but also offers an opportunity to explore an invisible order behind a phenomenon (Wissink, 2013). The paper includes five parts. The first part discusses the use of ANT, which sets up the methodological framework to analyse a series of social (immaterial) and material processes in relation to street vending. The second part is an introduction to the controversy in respect of street vending that rejects the negative attitude as a conventional Chinese perspective. The third part discusses the material actors involved in this network of street vending, including different groups of people and mobile amenities. The following part explains the immaterial actors as the processes of street vending, which investigates the spontaneous social/economic orders that emerge due to the demands of everyday life. The last part binds all actors together to view the phenomenon of street vending as a walkable paradigm and further discusses the possible network. The paper explores these heterogeneous associations of human and non-human actors in a comprehensive network. As the "walkability" is a dynamic and heterogeneous network, it can only be temporarily categorised. What this paper tries to demonstrate is only one of the possible approaches to grasping it. By understanding how the nearby residents' behaviours of daily walking relate to the various agencies of street vending, a specific walkable space (across different scales and associations) can be traced.

2. Actor-Network Theory and the phenomenon of street vending

2.1 Introduction for Actor-Network Theory

Actor-network theory (ANT) has been considered as a theory and a methodology (Cordella & Shaikh, 2004; Stanforth, 2007). The main debates surrounding ANT relate to its flat ontology, which rejects differences between human and non-human actors. It attempts to define associations between actors under the premise that such associations are unpredictable and bilateral. Mitev (2009) notes that actors can be individuals, groups, institutions, culture and artefacts, which can be intertwined in continuously changing associations. Hanseth et al (2004) also elaborate that studying the configuration of 'thing's is universally recognised as the core idea and motivation of ANT.

ANT rejects a priori knowledge and reducible hierarchical ideas (Sheehan & Vadjunec, 2012). Vayda (1983) explains that any actor-network approach requires being aware of all possible actors with these actors being placed within increasingly multiple associations considering broader contexts. As such, researchers should follow the actors to find narratives and stories rather than assume results.

ANT proposes a concept of 'translation', with research focussing on processes of configuration and the relations, which result from these processes. It is different from the structuralist model of configuration, which interprets cities as having multiple layers of spaces. However, ANT pays greater attention to the heterogeneous and temporary properties of space (Silvis & Alexander, 2014).

2.2 Terminology for the "translation" concept

ANT theory is underpinned by a significant philosophical concept called 'the sociology of translation' (Pentland & Feldman, 2007). This concept is a prominent feature in ANT based research, making the translation visible between street vending and walkable spaces. As Mitev (2009) notes, ANT is not only about the translation differences when different actors intertwine associations with others, but also the broad range of actors and corresponding translations that can be used to study contextual conditions and discourses critically.

'Black boxes' is an important concept to compress the complexity of an actor-network for the translation process. It considers an unchanging and uncontested network to become a single actor. As the concept's core, every network can be associated closely to become a single actor; every actor can also be deconstructed to become a network (Venturini, 2012). Our research tries to understand a network of street vendors as black boxes, in which the network can be connected tightly enough to become a single actor (black boxes) for the purpose of the walkability study.

'Actors at a distance' is another concept, in this instance distinguishing between local and global actors. It illustrates how an actor is able to act upon another actor from a distance (both conceptually and physically). It can be understood as different scales of commonality (global) and singularity (local). In a global level, the phenomenon of street vendors seems to be the commonality under the Chinese context. However, in a local level, the complex types of street vendors might be the singularity under the nearby people's various demands.

In addition, if an actor can act at a distance, the actor might make another actor mobile. Latour (1987) explains that a mobile actor can move between different actors. For instance, street vendors, as the mobile actors in walkable spaces (which have street vendors) transport demand and supply between people (relate a convenient within walking distance). Nearby residents and street vendors are a strong association with actors using or interacting with it. Therefore, street vending is an immutable mobile actor, not simply regarding its physical form but rather regarding its function and how it is employed by nearby residents. However, the idea of the immutable mobile actor has been argued in terms of contexts (Silvis & Alexander, 2014). For example, if local culture changes and income equality increases to a high level, street vending might disappear, or at least reduce rapidly, as a mutable mobile actor.

2.3 ANT and the phenomenon of street vending

Law (2009) states that an actor-network is an approach to explaining phenomena. An actor-network can also trace or map connections or disconnections among phenomena, which give shape to the 'social' context (Latour, 1993; Law, 2009). This study seeks not only to describe the phenomenon of street vending, but also to explore how the society (street vendors and nearby residents) is assembled through constant-changing associations and relations within a heterogeneous network. Hence, ANT can be used to trace associations within different temporal scales from the individual moment to understand how street vending is constructed and why it always emerges in walkable spaces.

Castells (1996) posits a concept of 'space of flow'. He argues that physical space is a representation of society and an expression of everyday life. Social practices and spaces are naturally intertwined (Rasidi, 2013; Wissink, 2013). In this way, the research will attempt to understand the specific social phenomenon of street vending through

a socio-spatial approach, which acknowledges the phenomenon as a positive contributor to the walkability of urban spaces. ANT has a new perspective that illustrates how associations of physical and social (non-physical) actors emerge together regarding social explanations and technologies (Latour, 2005).

In this research, the 'social explanations and technologies' can be replaced by 'everyday demands and walkable spaces'. Through this point of view, actors have not yet been determined. Latour (1987) claims that translation is happening, that the process of space is running, which is, thus, the spaces studied are constantly in a state of flux and change. Therefore, street vending should consider the process of configuration and acceptance of street vending associations. Spinuzzi (2008) also mentions that actors induce other actors to maintain particular conditions through various means. Therefore, actors never act alone, but act within actor-networks, through various agencies (Latour, 2005). The phenomenon of street vending cannot be simply understood as a single 'thing' that can 'be pointed at by the index finger' (Latour, 2005: 34), but rather has to be considered as an actor-network in which a series of interweaved associations perform, work and rework. Street vendors are understood not only as dynamic reflections of spaces and time, but also as constitutive and performative contributors to a variety of social and environmental processes, at a variety of scales.

Panelli and Welch (2005) suggest more study on 'community' in relation to space and place. That is to say, street vendors, as one 'community', do not belong to a fixed social structure that produces stable effects and conditions. They belong to various networks but this study will be focusing on one particular network to understand how and why two different groups (street vendors and nearby residents) construct walkable spaces. This study reveals corollaries to specific walkable spaces through a configuration of street vending actor-networks.

To conclude, the aim of this paper is to explore why exactly street vending does emerge; which actors maintain the phenomenon. These questions have to be analysed and answered by a heterogeneous network of street vending. This paper presents an actor-network and a set of actors, as well as their associations. The result of associations all reflects our own understanding of ANT. However, the aim of the paper is not to offer an analysis framework, but rather to explore a new insight to understand the meanings and motivations of specific walking behaviours regarding the process of configuration of street vending.

2.4 Research methodology and structure

Callon (1986) proposes four phases to explain the translation process consisting of 'Problematisation', 'Interessement', 'Enrolment' and 'Mobilisation'. The first phase, (Problematisation), is the starting point, arising when key actors identify an issue, and proposes a solution of association. During the second phase (Interessement), the focal actors try to bind additional actors to become part of the solution. The following phase (Enrolment) is achieved, when the Interessement is successful. During the last phase (Mobilisation), the solution of association can be widely accepted (Silvis & Alexander, 2014). After the successful process of translation, the association (i.e. human and non-human actors) interweaves to become an entirety as 'black boxes' and is without any questions. However, Latour (1987) mentions that associations are able to be questioned and debated. Namely, 'black boxes' can be opened repeatedly when associations need to be questioned.

For example, the translation between walkable space and street vending goes through the four phases. Street vending translates everyday life into an understandable format for functions and meanings (Problematisation). Namely, the phenomenon of street vending itself is conflicted and contradictory actors. The everyday life is introduced into the actor-network, which tries to bind additional actors from functions and meanings (Interessement). A number of reasonable associations are forged between material and immaterial actors (Enrolment). A network (the associations) with a large number of actors and strengthening of translation are accepted or become stable (Mobilisation). This makes the conflicted and contradictory actors together with making a process of heterogeneous translations visible, which generates a stable network as a paradigm of context-specific walking behaviours.

3. The controversy of street vending in contemporary Chinese cities (Problematisation)

In contrast to earlier Chinese urban policies, for instance in Guangzhou, the exclusionary strategy towards street vendors has been carried out by the National Sanitary City campaign as 'revanchism' that tries to erase the undesirable populations from public space (Huang et al., 2014). However, the resistance of street vendors, who possess an individualised, varied, adaptable and flexible activism to sustain their livelihoods, has seen the exclusionary strategy encounter implementation difficulties. Moreover, due to street vendors having adapted to the demands of everyday life, with respect to both sellers and buyers, a desire for social harmony at a national level has impelled local government to seek alternatives in attempts to mitigate common resistance. As such, today an ambivalent strategy exists, seeking to alleviate tension between the demand to maintain clean urban images and improve the livelihoods of the poor in urban areas, China (ibid.). Nevertheless, this strategy is still an inferior practice in terms of invalidation for the ubiquitous street vendors.

Street vendors' nickname in China is "Zou Gui". Figuratively and with a negative connotation, this means 'escape the ghost'. It can be argued that to understand the street vendors' flexible activism, we have to initially determine what their purposes might be and to study where the resistances and controversies are in the diversiform properties regarding the street-vending actors.

The prevalence of street vending in Chinese cities emerges from ancient times. Unfortunately, as they have always been part of informal business practices and come from self-organisation, the phenomenon is impossible to trace for its origin and historical record. It is not certain to what this refers, but a distinguished Chinese traditional landscape painting, named "Along the River During the Qingming Festival", captures the everyday life of ancient Chinese people, and represents the street vendors, in Bianjing (today's name Kaifeng), from the Northern Song period (Murray, 1997). The painting was done by Zhang Zeduan, almost 2000 years ago. This is intended to indicate that the majority of actors, in terms of outdoor spaces, have disappeared in contemporary cities, except for the characteristics of street vendors. In the theory of relativity, the variability and changeable structure of street vendors seem to be timeless in their adaptability. More specifically, a part of Genius Loci (Norberg-Schulz, 1980) in the painting, as the ancient liveable space, has been translated through the features of street vendors into contemporary Chinese cities, such as night markets and festival markets. It is somewhat superficial to speculate that if we want to capture the phenomenon considering its spontaneous orders, we have to ascertain what the heterogeneous network and the configuration of street vendors are, according to the social-economic-spatial contexts.

Technologies change swiftly while humans change slowly. Currently, new technologies tend to hugely impact the development of cities, urban planning and architectural theories in terms of automobiles, computers and the Internet (Le & Etchells, 1946; Kelly, 2010). It is likely that future generations will require new and different urban patterns and activities. However, the time-tested and historical forms, as well as elements and phenomena, are able to adopt the new technologies and satisfy the elementary needs to engage people moving to cities (Hanan, 2012; Rukayah et al., 2013), where people can live, play and work effectively, potentially achieving self-actualisation (Moore, 2015). As Maslow's concept of the hierarchy of needs has shown (Maslow et al., 1987), street vending, as a time-tested phenomenon, can absolutely relate to the physiological needs in terms of the most basic functions for everyday life such as food consumption. For this reason, we must also examine this prevalent phenomenon beyond mere description.

In the following sections, the actors are used to analyse and interpret the two associations of street vending related to the real-life and spaces in the social-culture-economic context. The street vending in contemporary Chinese cities has been deconstructed to two main associations: functions (material actors of versatility and flexibility, i.e. type, people, location, time and space) and meanings (immaterial actors of adaptability, i.e. culture, society and economy).

Street vending is not a common urban phenomenon; rather it emerges from specific socio-spatial associations. It might emerge in many urban places, but its precise functions, forms, time, meanings, features, properties, systems and influences have to be analysed in relation to associations in specific spaces and contexts. This study of street

vending moves beyond a general narrative and a simple phenomenon, towards a precise empirical study into the influences and causes of the behaviours of specific walking trips in specific local contexts.

4. Functions of street vending – material actors (Interessement and enrolment)

4.1 A survival function – livelihood (the feature of a human actor)

The urban action of street vendors is a necessary phenomenon in the Chinese transforming process. This social-economic phenomenon is particularly affected by post-reform China (Huang et al., 2014). The behaviour of street vendors is a simple survival means for surplus labourers. It can be associated with the reformation of state-owned enterprises from the mid-1990s, and marginalised groups including ethnic minorities, the homeless, disabled and aged people, who have been excluded from the rapidly growing and thriving labour markets (ibid.). It also can be related to households' second profession to increase their income as a part-time job, which frequently includes urban workers (if the main salary cannot support their family due to inflation or emergency) and peasants (rural migrants and non-busy farming seasons). For example, in Guangzhou, the current number of street vendors reached around 300,000 people, which accounted for 6.4% of total jobs and decreased 2.1% of the unemployment rate in 2010 (Xie &Yuan, 2010).

4.2 The optimal and flexible features – preliminary functional actors

Chinese street vendors often prefer locations with massive and stable pedestrian flows, which capitalise on spaces closely accessible to commuters and pedestrians. Street vendors can precisely perceive where the locations and spaces are in relation to their types of sale regarding different spatial properties (i.e. fast foods, vegetables, living goods and small and cheap items). For instance, typical street vendors selling vegetables are generally near high-density neighbourhoods, including the Chinese capital city Beijing. Additionally, street vendors frequently appear around underground stations, bus stations and near traffic nodes due to the high-density pedestrian flow.

Street vendors are also able to perceive spatial features of time, especially the times of high-density pedestrian flow (12pm and 2pm or after 6pm). Street vendors selling breakfast often appear in the morning peak in spaces. In addition, around the spaces of schools, the flexible business hours of street vendors seem precisely related to leisure time as well as the beginning and end of the school day. Generally, these street vendors will attract many children wishing to buy toys or food. From this point of linking to spaces, time could be seen as another narrative, which relates the object possibility to the network of street vending.

4.3 A feature of walkable spaces – mobile actors

The various types of street vendors can be attributed to the motivation of walkability in the context of outdoor spaces for daily life. More specifically, the versatility and flexibility of street vendors might be a type of flexible amenity to support and supplement other stable amenities (the nearby facilities) in mixed-use neighbourhoods, to meet the essential demands of everyday life for local residents. The various types of street vendors have subtle distinctions in detail, which might have different properties (i.e. relatively fixed and mobile). According to our observation, the majority of the relatively fixed street vendors' type is selling vegetables as semi-supplementing amenities, especially in the east of Yuncheng. However, the type that is selling seasonal fruits, is mobile.

The mixed-use strategy is one of the main methods to improve local walkability (Azmi & Karim, 2013). As such, street vendors seem to be an action possibility that can relate a convenient walking environment for daily life, thereby bringing a series of additional benefits from increased walkability for nearby inhabitants, in terms of public health, neighbourhood harmony, interpersonal connections and safety.

5. Meanings of street vending – Immaterial actors of adaptability (Interessement and enrolment)

5.1 The everyday life – a meaningful association between seller and buyer

Street vendors are complex since they have two different perspectives at the same space and time. One is to interpret the physiological needs of local residents in order to give themselves a micro-economic opportunity. The other is to understand the functions of street vendors from the local residents' perspective, as a service for everyday life. It can be argued that street vendors emerge to possibly satisfy a part of basic demands, due to everyday life having local demands, especially about eating. At the same time, the possibility of association, both by seller and buyer, relates and increases the value of a space. This space also relates another possibility of action, in which various and versatile street vendors emerge.

5.2 A special Chinese association – a kind of origin of street vendors

Food is the most significant demand for human life, one of the most basic needs for everyone (Maslow et al., 1987). A particular Chinese culture, linked to the original meaning of street vendors, is selling vegetables. Dietary habit is often related to medical research. However, in this section, it will be represented in relation to spaces as well as to two groups of people - street vendors and nearby residents. For instance, there are different dietary habits between the U.S. and China in daily life, especially the proportion of vegetables consumed (Kendall & Pimentel, 1994; Volpe & Okrent, 2012). Chinese everyday life much more depends on (leafy) vegetables than that of North Americans. Such (leafy) vegetables might be linked to fat free in health but they are also about how many days the vegetables can be stored in a refrigerator. Chinese people frequently buy fresh vegetables every couple of days as some vegetables can only be saved for a few days, such as Chinese cabbage. This common dietary habit for daily life relates to Chinese people not wanting to spend one or two hours every few days going shopping to a far away supermarket. In U.S. the dietary habit relates a different lifestyle, which Americans usually spend a longer time going supermarkets round but do this every 1-2 weeks. Greater prevalence of the motorcar in the US leads to this urbanism, which generates behaviours.

As a result, this dietary habit as an actor has shaped the unique Chinese phenomenon, which has resulted in every Chinese high-design neighbourhood having vegetable sellers nearby. The habit relates both a desire and a need from residents, and this desire and need relate an opportunity of a frequent and massive urban micro-economy. The opportunity then relates an action possibility for low-income groups who can undertake street vending to sell vegetables. At the same time, this type of street vendors relates one of the mixed-use functions, increasing local walkability. Localised walkability, in turn, relates other types of street vendors in terms of impulse buying. A liveable place might have been shaped by the series of associations. The associations of everyday life shape and generate a meaningful system between seller and buyer. Given the bottom-up spontaneous order, the system is more adaptive and resilient in the local context.

5.3 A meaningful association in the society and economy system

The long-time existence of street vendors has meant they generate a resilient social and economic system. The resilient feature of the system relates to their adaptability without disappearance over time and spaces.

In the socio-economic domain, social progress is characterised by relationships of reciprocity. Petcou & Petrescu (2015) convey that sharing spaces and infrastructures will reinforce these relationships. The system of assembled street vendors is a bottom-up framework to generate a self-organised system through self-employment, diversity and microforms in a particular place. Therefore, a set of street vendors might generate a collective participation to afford solidarity in relationships. Moreover, the relationships of reciprocity are involved with nearby residents. According to our observation, a strongly mutual trust and a constant-stable relationship have been built between relatively fixed street vendors (who frequently sell goods in one place) and nearby local residents. For instance, this

relationship closely relates between the street vendors (who sell vegetables), and the local older demographics (women, who buy vegetables to cook every day).

In the economic aspects, the needs of nearby residents generate the fundamental purchasing power. As the needs are fundamental and frequent, the features of this economy generate the appearance of an urban micro-economy. It relates a typical type of street vendor that has an independent economic system, such as the supply of goods. Overtime, various types of street vendors, in a shared place, produce a mutual economic system to assist each other. The various functions relate a mixed-use function to service local residents' life. Overall, the entire system of street vendors relates a meaning of elastically collective benefits.

As a result, the social reciprocity relationships produce the common economy from multiple associations. The phenomenon of street vendors relates two actors in terms of common economy and social reciprocity. It involves abundant low-income people and generates a self-circulating system in local and small-scale spaces. The highly resilient system from multiple features relates the meaning of incomparable adaptability so that the phenomenon of street vendors can be timeless and placeless.

6. Discussion the actors-network of street vending – a paradigm for walkability (Mobilisation)

People react and act not only to the space itself but also the story and meaning behind it. Studying street vendors is the best story to interpret a complex configuration in a typical space in China. Using ANT is an alternative way to analyse the actors and associations of street vendors, which is the reason why the street vendors have highly resilient features in terms of their heterogeneous network.

The overarching thesis of this paper demonstrates an irreducible heterogeneous network of street vendors as the black boxes. More specifically, people belong to different groups that intertwine to set an interactional network under the same socio-cultural context. The different groups have different communal properties, and the different communal properties interweave and reflect in different time and spaces. In the Chinese context, the group of street vendors represents the main property of survival and livelihood. The needs of nearby people offer the micro-benefits and match to the communal property of street vendors. The street vendors can satisfy the needs with less investment. In addition, the different groups understand different properties of time and space, and features of other groups. For example, in a space, the nearby people might see the property as "dirty and crowded but cheap and convenient". However, the street vendors might consider the property is a "time for more walking and staying, and needs as well as micro-economy."
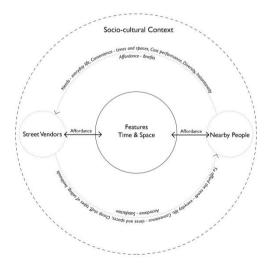

Fig. 1. A walkable paradigm of street vendors– an actor-network between people, time, space and group.

This research is an initial and novel study, which might alter researchers' conventional cognition and perspectives on Chinese street vendors. Namely that the street vendors are not "issues" and do not "need to be solved". Research into street vendors in Guangzhou saw the antagonistic policy change from revanchism to ambivalence and a new exclusion emerged (Huang et al., 2014). That result might be able to be answered by this study. In other words, we have to understand the network and configuration of street vendors in terms of the functions and meanings as multiple actors of street vending, instead of a result.

6.1 Critiques of ANT

Actor-network theory has a serious disadvantage. The concept of the actor-network is useful to capture an actor within a wide range, but it cannot capture the boundaries of an actor-network, which seems to have unlimited expansion (Silvis & Alexander, 2014). Over time, networks tend to be increasingly large and complex, becoming difficult to analyse. Street vending seems to have a similar problem, thereby leaving the impression of uncontrollable and unlimited expansion. As Latour (2005) claims, there is no end to this kind of research and the explanation cannot be sufficient just to offer one explanation. Mitev (2009) also notes that it is also possible that the outcomes from ANT would different if another theory were adopted. Therefore, clearer guidelines about how to analyse the actor-network should be explained.

In this study, the analysis of materials is based on the researchers' judgement and the selection of materials decided by the researchers. The network of street vending seems stable with no questions and can be put into the black boxes for the further study of walkable spaces. However, if any actor is removed or added to the actor-network, the network configuration might change due to the equilibrium would have to be maintained.

7. Conclusion

Using ANT as a methodological framework, this study has shown additional knowledge (actors) to the 'why walkability', as well as how specific walkability is configured in the Chinese context. The study traced how patterns of everyday life fundamentally influenced street vending actor-networks in relation to walkable spaces. In Yuncheng, street vendors exist, in part, as a coping mechanism in order to deal with the everyday demands of the surroundings and livelihood. This study elaborates that street vending is embedded in the materiality of meanings related with and attached to walkability. We also consider 'street vending' not as a 'thing' with assumed qualities and geographic boundaries, but rather as a broader set of ideas and actions, based on multiple shifting relations and entrenched associations. We suspect other Chinese cities, especially in urban areas, might have similar situations that shape street vending actor-networks, which could be further used to study the specificity of walkability. Hence, mapping configuration and associations of street vending through an actor-network approach relate a valuable and significant insight into an understanding of the 'walkable space' concerning specific walking behaviours closely filled with context-specific correlations for walkability.

In the Chinese socio-economic-cultural context, the phenomenon of street vending is a complex paradigm of walkability. The paradigm can be deconstructed to a mass of possible properties in multiple relations with both material and immaterial (human and non-human) actors. The objective of this paper has been to propose a heterogeneous hypothesis and positive possibilities, which lead to breaking away from the conventional studies of street vendors. In addition, it can offer a practical analysis from a network of the typical walkable spaces. At the same time, the heterogeneous hypothesis and positive possibilities lead to a potential feasibility, which uses the ANT in a more comprehensive way and takes them in an entire network to interpret the multi-threading processes of street vending.

Acknowledgements

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