

**LANGUAGE, PLACE AND IDENTITY:
THE POLITICS OF PLACE AND LANGUAGE IN THE FORMATION OF
INDIGENOUS IDENTITY IN HUALIEN, TAIWAN**

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Abstract

The making of place is at the core of human geography. Geographers explore the various processes of place-making in terms of individual emotional attachment, election campaign strategy, the competitions among various cities and communities for economic opportunities, political economy, etc. What is absent from this place-making process is the recognition of the crucial role of language(s) in the establishment of landscape characters. Although the various ways in which language policies contribute to the identity formation are well documented, language's influences upon place construction are overshadowed by the omnipresent identity and nation-building politics in the postcolonial era for the indigenous population in Taiwan.

The paper will first examine the literatures of place construction and identity formation in human geography, particularly the links between power and politics of naming places, and the broader social, spatial and historical circumstances. The authors will then review the politics of "national" language policy and its role in the development of indigenous rights movement in Taiwan. A unified official state language, though undermined and eroded the identity base of young indigenous population, provides paradoxically, a common foundation for communication and the emergence of pan-indigenous identity for the future political activism. The intensity of indigenous rights movement, together with other social and political movements, precipitates the alteration of the hegemonic language policy toward a more tolerant and inclusive one. A series of field works interviewing indigenous elders produce abundant contents for the use of discourse analysis to interpret the relations between place naming and socio-cultural identity. The contemporary indigenous rights' discourses and politics that frame narratives are included in our interpretation.

The revitalization of indigenous language and culture has many geographical implications, including, among others, the delimiting of cultural and autonomous regions, the re-construction of place identity within traditional territory, and the representation of social and physical characteristics embedded in place names. From the geo-linguistic perspective, this paper aims to investigate the newly emerging role of language and discourse in the making of place and identity in indigenous population in Hualien as the primary step toward a more comprehensive cartography of sociolinguistic mapping in Taiwan.

Keywords

Geolinguistics, place-making, identity, discourse analysis.

1. Introduction

The process and consequence of place-making is at the core of human geography inquiry. The discipline has been emphasizing the economic and cultural forces in their making of place over the past three decades (see, for example, Massey and Jess, 1995), and relatively neglected the “traditional” humanistic approach in the formation of sense of place. People make places in tremendously different ways and with various social and cultural factors. Language is, paradoxically, among the most unrecognizable factors that contribute to place-making, though people formulate ideas and discuss them through the medium of language (Tuan, 1991). Naming is, in most cases, the first step in place formation. Place meaning is often associated with particular landscape and sense of place for those who live there or just pay a short-term visit. The significant role of language in the construction of place lies not only in its use of naming a specific space, but also in its selection and the underlying connections between language choice and identity politics.

The paper wants to develop a geo-linguistic perspective which utilizes discourse analysis to disclose the relations among *language use*, *identity construction* and *place formation*, by asking participating interviewee (mostly indigenous elders) to specify place names in their native tongue in order to analyze the complexity existing among our three major concerns. Code-switching is a pervasive phenomenon in multilingual societies, especially for their socially and economically marginalized groups, who tend to learn the mainstream language at the expense of their own. By choosing the language in communicating with the researchers and in referring to a specific location, our interviewees have firstly implicitly conveyed their place identity, and secondly, reflected a larger socio-political contexts which shape their choice of language while calling the place names, and thirdly, subverted the power relations in a research project by restoring their rights to language and by providing crucial information for the project in their own native tongue.

Our research area, Shoufong Township in Hualien County, is the only township that stretches across the Coastal Mountain Range and East Rift Valley. The East Rift Valley is a long, narrow valley, with the towering Central Mountain Range to its west and the Coastal Mountain Range in its east. As the colliding location of the Eurasian and the Philippine tectonic plates, the East Rift Valley is famous for its frequent earthquakes and scenic landscape. The Hualien County is frequently referred to as ‘the last clean and unpolluted area’ in Taiwan, so the Valley and its industrious peasants grab the niche to transform their narrow strip farmlands into Taiwan’s most important foundation for organic farming.

Hualien is also characterized by its population diversity. While the indigenous peoples only account for about 2 % in Taiwan’s 23 million population, they form almost a quarter of total population in Hualien. The geographical distribution of the indigenous peoples (or nations) is as followed: Taroko in the north and middle parts of the county, Amis (Pangcah) in the middle-to-north and the coastal area, and Bunun in the middle and south. The rich diversity even within the indigenous population itself reflects the changing ethnic power relations and complex historical interactions in this region. Amis is the major indigenous people in Shoufong Township, whose population is predominantly Han people. Shoufong was considered as a buffer zone among various ethnic groups of Taroko, Amis and Han. Our focus of analysis, the naming of places, therefore, reflects the wax and wane of dynamic power interactions among various groups. Different peoples names places differently, according to and based upon their perceived landscape and flora-and-fauna, myth, legendary heroes, historical legacy and life experience. To dig out different layers of place names is to reveal the archaeology of place history. This history is not only about time, but also about space, a spatial history.

As we set out this research project, the selection of indigenous elders is crucial. These elders need to have both a certain degree of Mandarin capability to communicate with us, and a good memory to react to our requests for recalling traditional place names that only circulated within their own ethnic group in old times. Further we ask our participating elders to explain the meaning of the place names and unfold the stories behind these names. The contents of conversation are treated as discourse which is, at least to some degree, the product of broader social and political contexts. We then single out a few questions and answers to conduct our discourse analysis. Our attention

is concentrated on the meaning of place names, and how the elders express their identity (ethnic, social, and cultural) through the use of language and their interpretation of narratives/stories related to place names.

2. Language, Place-Making, and Identity

The intimate links between linguistic, cultural and biological diversity have been demonstrating all over the world. The general trend is that the more indigenous population in a region, the richer cultural and biodiversity this region will preserve. However, these diversities at all levels are under threats by some of the same global forces, ranging from the globalizing ‘placelessness’ to green house effect. The resulting consequence in academics is the emerging field to study the “parallels and correlations between biodiversity and linguistic diversity, the overlaps in the global distribution of languages and biodiversity, and the relationships between language, traditional knowledge, and the environment” (Maffi, 2005). Studies and assessments of the sociocultural and environmental consequences of loss of these interlinked diversities become the cross-disciplines concerns, including linguistics, anthropology, and geography. Although language bears the mark of the physical environment in which the speech ‘takes place’, research tradition on the links of cultures (and/or languages) and biogeography did not establish because such correlations tended to be unpopular particularly when they evoked romantic ethno-centric theories of geographical and biological determinism (ibid.). However, the recent ethnoecologists’ studies on indigenous knowledge and use of local flora and fauna, as well as in indigenous place naming, have led to ‘increasing recognition of the value of the ecological knowledge and practices that are developed, encoded, and transmitted through language’ (Maffi, 2005).

Language is power, in terms of its creative capability to make something into being, to render neutral meaningful, and to give or change characters for certain things (Tuan, 1991). Language has the power to affix new label to old places and potentially wipe out the accumulated historical layers of meaning from memory and identity. As European colonialists have assumed the power to rename, replace or sometimes adopt the native place names in their colonized world, the new settlers in Taiwan

performed similar scenario in naming the new frontier. The power of naming place is in proportion to both the duration of settlement history and the degree of domination of Han population over the indigenous. Naming is one of the ways that space can be imbued with meaning and became place. Naming is also the symbolic and practical force to make claim to a space and turn it into the place of empire in the history of colonialism (Cresswell, 2004: 9).

Landscapes, whether natural or cultural ones, are often associated with sense of place and place meanings for those who live there. Due to differing interpretations of history and world views, landscapes possess different meanings to various ethnic groups. In other words, landscapes represent socially constructed systems of meaning and are contingent on historical trajectory and cultural changes. In the development of humanistic geography,

sense of place traditionally described the bonds that people develop with the land through long residence in a defined place, includes the attachment people have with the land as a result of cultural connections to the land through symbols, myths, and memories. The locals develop a layered and deep sense of place and place attachment, then another set of newcomers come in and overwhelm them. (McAvoy, 2002)

McAvoy might unintentionally imply that sense of place could change because of changing ethnic power relations. Politically speaking, sense of place is intimately tied to the history of the concept of legal sovereignty that recognizes a particular cultural group as having a special relationship to a certain territory (Spencer, 2008). The different treatments of power dimension distinguish traditional humanistic geography from the much diversified new cultural geographies. For the native groups facing newcomers (including the state), when competing claims over particular territorial jurisdictions become a political issue, the sense of place and territorial attachment form an emotional appeal in the legitimacy of their claims against the state for self-government that is not shared by newly arrived immigrants and even the state (Spencer, 2008). However, recognize the particular historical and political circumstances of ethnic power relations could help us re-consider the rightfulness of current cultural politics. McAvoy (2002) points out three distinguishing types of links with the

landscape: historic, contemporary and symbolic in the formation of sense of place. In his study, the most prevalent expressions of place meanings for American Indians lie at culturally relevant, a heightened sense of place or connection to the land, and a long historical tie to the territory. Key aspects of the indigenous collective identities are safeguarded and regenerated through preserving language, cultural traditions, and their rootedness to specific places (McAvoy, 2002). Naming place in one's own language is to leave cultural mark on landscape and to form identity atop a space.

Massey (1997), in her influential paper 'A Global Sense of Place', emphasized a flexible, open, and porous boundaries of place, and challenged the traditional, fixed, and closing conceptualization of place. Place is no longer a homogenous space in which group identity remains intact. Place-based identity is constantly changing, according to the complex configuration of social, cultural and political conditions. There is no single, unique identity in place, which is full of internal conflicts. Globalization does not simple result into loss of place characters. 'On the contrary, the globalization of social relations is yet another source of (the reproduction of) geographical uneven development, and thus of the uniqueness of place' (ibid.). Empirical evidences are numerous in showing the continued, even intensified sense of place in an era of globalization. The revival of local customs, practices, languages, and even ethnic separatism are just some cases. McDowell (1999: 213) considers the new development as a separation between the notion of identities and specific places, and thus results into a re-conceptualization of both place and identity. There is

a spatial politics to uncovering the ways in which identities and places are being transformed and reconnected, positioning people within new patterns, or geometries, of inclusion and exclusion. (ibid. 214)

Our studying area, Hualien experienced waves of immigrants who brought various degrees of cultural and spatial impacts since 17th century. Indigenous peoples also endure several migrations either forced by state or other ruling regimes, or moved voluntarily to seek for better farmlands. Place names change as groups came and left. Japanese colonial state and the Chinese Nationalist Party (KMT) are the two most recent ruling powers that exercise almost absolute authority over the compartment of living space of the indigenous peoples. New place names are imposed upon the old

ones as the traditional cultural practices are buried under layers of place meanings. Our research starts at the localities where memory and oral history are stopped by the outside colonial forces.

3. Research Method (Materials and Methods)

There are various approaches to identity. This paper starts with “social constructionism” stating that identity is not fixed and monolithic, but multiple and based on practices. Linguistically, a practice means the linguistic processes and strategies in the creation, negotiation and establishment of identities. For example, one of the linguistic practices, “indexicality” (Schegloff, 1972), personalizes language in that it ties a speaker to his/her utterance, and further connects language to the world out there, i.e. the extra-linguistic context.

When the real world is identified or re-identified in language, the world map of the speaker might be reconstructed through the language he/she uses. Tim Ingold (2000) draws a distinction between a perspective based on building, a construction on pre-existing, uniform space and dwelling, in which life and its practices precede the organization of space (Szerszynski, 2004). In another word, space is considered as a pre-existing reality to which we then give cultural meanings. One of the ways to give the space cultural meanings is by the use of the languages.

Hualien is the area with the most cultural and linguistic diversity in Taiwan. According to the statistic data issued in July, 2005 by Hualien County Government, there are at least nine languages using in this area: Mandarin Chinese, Taiwanese, Hakka, and six indigenous languages. Among these indigenous groups, which constitute one forth population in Hualien, there are Amis, Atayal, Truku, Bunu, Kavalan, and Sakizaya (Lin 2006). In this paper the analysis of the discourse recorded during the interviews, which are mainly concerning the linguistic reference use, especially the place naming in the conversation, produces contribution to a new perspective on landscape in this area, i.e. space reconstruction and the making of place meaning. Discourse analysis is a form of interpreting a conversation or story in which attention is paid particularly to the embedded meanings and evaluations of the speaker and their context. To focus on the linguistic reference use in this paper is in accordance

with Schiffrin's (1996) argument, which differentiates between the linguistic reference in the textual world (noun phrases and pronouns) and the social reality (the people they refer to), which, at the same time, have influences on the local identities in the interactional world.

In this paper, the discourse analysis focuses on how and what people talk about and evaluate places, experiences and situations. We can interpret and understand discourses at several connected levels. We believe that the discourse about place can connect intimate details of experience to broader social and spatial relations on the one hand. On the other hand, examining what individuals have to say about their personal experience provides us with useful insights into social and spatial processes and events. The larger social context of what people say is also important for discourse analysis, and the social discourse and politics that frame discourse must be included in any interpretation of place construction (Wiles, Rosenberg, and Kearns, 2005).

In our following four case studies, there appear even more interesting points for discussion. The most important one is the phenomenon of code-switching (i.e. language changes) concerning the reference use, which also reflects the linguistic diversity in Hualien. The factors which cause the code-switching in the talk are related either to communication or identity. It is well-known that mother tongue is central to the construction of the speakers' linguistic identity (Joseph, 2004: 184). However, the importance of the linguistic identity for these language users can be different at their different age or due to change in their socio-economic status, historical experience, political awareness, etc. On the other hand, the language planning in this area seems also to reflect language choices of the language users.

4. Case Studies

4.1. Case study 1

This example was recorded in the southern part of Hualien city, and the Sakizaya informant Asan tried to introduce us where he was from. In his following talk, he used Mandarin Chinese most of the time, except for the place names.

(2007.04.22)¹

(1) Asan; *yiqian zhebian ye you suan shi sakizaya la:*

before here also PART PART be Sakizaya PART

“Before here was also Sakizaya.”

(2) Asan; *yiqian nabian jiao zuo sakor//*

before there call PART Sakor

“Before there was called as Sakor.” (place name)

(3) Asan; *zai zhebian shi cupo//*

at here be Cupo

“Here is (called as) Cupo.”

(4) Asan; *yiqian shi siapaloway zheyang, yiqian laorenjia de ‘apalo zai nabian(...)*

before be Siapaloway PART before elders PART breadfruit at there

“Before (it) is called as Siapaloway. Before the elders had breadfruits there.”

(5) Asan; *zai shanshang pangbian, ranhou taifeng, wenni taifeng de shihou diaoxia lai le//*

at mountain aside then typhoon Weny typhoon PART moment down PART PART

“By the mountain. Then a typhoon (came). During the Typhoon Weny, (the breadfruits) were gone.”

(6) Asan; *ranhou...meiyou le, xianzai you zhe ge cupo, fulaoren shuo women shi cupoka//*

then NEG PART now have this CL Cupo (place name) Mainlanders say we be Cupoka

“Then ... none. Now (we) have this dike. Mainlanders say we are the people by the dike.”

In the example above, the informant used *sakor* in (2), *cupo* in (3), *siapaloway* in (4) to name the same entity — where he was from. This code-switching clearly shows the speaker personalizes the language and connects the language to the world. On the other hand, it not only gives the space different cultural meanings but also indicates the language identity of the speaker.

¹ PART: particle NEG: negation CL: classifier LOC: locative marker
NOM: nominative GEN: genitive ACC: accusative SG: singular
AF: agent focus

In (2), the Sakizaya expression of *sakor* originally comes from the Japanese term *sakora*, so the first use of the term *sakor* might imply that the language use of the informant is influenced by his education background during the Japanese colonial period. On the other hand, the indexicality of this use also implies the Sakizaya identity of the informant. The Amis expression for this place is *siapaloway* shown in (4). This term is derived from *‘apalo*, denoting “breadfruits”. According to the morphological meaning, *siapaloway* means the place where the people plant many breadfruits trees.

In (3), the informant further uses the expression *cupo* to indicate the same entity as *sakor* in (2) and as *siapaloway* in (4). From (6), we know that *cupo* means a “dike”. Here *cupo* and *cupoka* are derived from Taiwanese which is used by the second biggest ethnic group in this area nowadays. The factor which causes this code-switching is apparently related to communication, instead of identity.

4.2. Case study 2

In this example, the informant, Fulaw was interviewed by Fotol (our research assistant, interviewee). Fulaw tried to explain to Fotol that he was from Hualien City, however, in his talk he used two different terms to name the same place in order to explain where it is more clearly. Fulaw’s different ways of place naming give the space different cultural meaning and at the same time reflect the landscape of the place for him.

(2008.01.13)

(7) Fotol; *na i coway itiyaho i coway ko orip kiso?*

PART LOC where before LOC where NOM life [2SG.NOM]

“Where were you born?”

(8) Folaw²; *no i tira i kalingko ili amis , amis i loping*

GEN LOC there LOC Hualien PART Amis Amis LOC

“At Hualien. At Loping.”

(9) Fotol; *i loping//*

² The informant Fulaw uses the term *tingalaway* denoting the meaning “bottle”. By that we can assume that Fulaw belongs to the Lidaw community in Northern Amis.

LOC

“At Loping.”

(10) Folaw; /hay

PART

“Yes.”

(11) Fotol; *i 'ayaw i **loping** namalecad?*=

LOC before LOC (place name) used to be - the same

“Is the place also called Loping before?”

(12) Folaw; *=itini i hiya i **tirkitaw** ham no holam i **papululan**.*

here LOC this LOC (place name) PART GEN mainlanders LOC (place name)

“Mainlanders at Papululan called this place Tirkitaw.”

In (8), the informant names where he was born with the Amis terms *kalingko* and *loping*. Due to the reduplication use, we assume that for the informant the space where the term *kalingko* indicates is the same entity denoted by the term *loping*. However, according to (11) and (12), we know that the place named as *loping* is called as *tirkitaw* by the mainlanders at *Papululan*, and *tirkitaw* indicates the place close to the current Hualien main train station. As a short conclusion, the sense of the space named as *kalingko* only means the area close to the current Hualien main train station to the informant.

4.3. Case study 3

In (14) and (15), La’is used the reduplication to give Panay (our research assistant, interviewee) the information where he was from.

(2008.03.09)

(13) Panay; *i cowa loma’ iso*

LOC where home [2SG-GEN]

“Where is your home?”

(14) La'is; *ci atomo, ci amengan*
NOM (place name) NOM (place name)
“Atomo. Amengan.”

(15) La'is; *tafalong*
(place name)
“Tafalong.”

Tafalong and *Amengan* both are the names of the places located in the middle part of Hualien County, and between *tafalong* and *amengan* there is a partially overlapped area, which is named by the informant as *atomo*. However, from (14) and (15), we can assume that for the informant the denotation of *atomo* is equal to the denotation of *tafalong* and *amengan*. It also implies that the sense of place can be changed according to the language in use.

4.4. Case study 4

In the following, La'is continued to explain where he was from. He tried to describe the location of *atomo*.

(2008.03.09)

(16) La'is; *mafolaw tayni*
[AF-move] from
“I move from ...”

(17) La'is; *atomo*
(place name)
“Atomo”

(18) La'is; *sa'amisan*
[SA-north-LOC]
“Northern part.”

(19) La'is; *sa'amisan no futian.*

[SA-north-LOC] GEN (place name)

“the northern of Futian”

(20) La'is; *sa'amisan ora ni o kalotongan.*

[SA-north-LOC] [that.GEN] GEN ACC (place name)

“the northern of Kalotongan.”

In (19), La'is mentioned that *atomo* lies to the north of *futian*. And in (20), he used another expression *kalotongan* to describe the location of *atomo*. *Futian* is the current Chinese expression and *kalotongan* is the Amis expression. The factor which causes this code-switching in fact is related to the communication. This code-switching also serves as a visible marker of the community transformation.

5. Conclusion

Place is still an important part of identity construction despite of the seemingly homogenous trend of globalization. Language, with no doubt, has been and continued to be an important element of identity politics. Benedict Anderson (2006) in his classic work *Imagined Communities: Reflections on the Origin and Spread of Nationalism* provides a convincing argument that the development of printing capitalism is one major contributor to the spread of modern nationalism in Europe. The diminution of language diversity in 19th century and declaration of official language by the then newly established nation-state is a pre-emptive step for the popularization of printing literatures. It is the common language, plus the emotional attachment to a specific territory, that is, a place, that make the national imagination possible. Identity politics is still revolved around language and place even though the influx of peoples and cultures makes identity more complex and unstable.

Native peoples in Taiwan encounter waves of immigrants who imposed upon indigenous ancestral lands variety names and meanings, and later dominate almost every aspect of this island country. The original names, either personal or spatial, were replaced and meanings transformed and distorted. A historical geography of place names and language use is therefore, a way to dig out the changing group identity and to

revitalize indigenous ways of thinking, naming and interpreting places and their meanings. This primary study is just the beginning of future historical geo-linguistic research that will explore how the space was constructed through naming places, and how identity transformed by a new hegemonic spatial construction.

The modern mapping of space in Taiwan is unprecedented before Japanese colonial rule. Mapping reveals a detailed control over certain space and a fixed socio-cultural hierarchy among ethnic groups. A spatial history reflected in language use and in place naming is the direction we will proceed in the future research.

References

- ANDERSON, Benedict (2006) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, New Edition, London: Verso.
- BROWN, G., & YULE G. (1983) *Discourse Analysis*, Cambridge: Cambridge University Press.
- CRESSWELL, Tim (2004) *Place: A Short Introduction*, Oxford: Blackwell.
- DE FINA, Anna; SCHIFFRIN, Deborah, and BAMBERG, Michael (2006) *Discourse and Identity. Studies in Interactional Sociolinguistics*, 23, Cambridge: Cambridge University Press.
- HYMES, D. H. (1974) *Foundations in Sociolinguistics: An Ethnographic Approach*, Philadelphia: University of Pennsylvania Press.
- INGOLD, Tim (2000) *The Perception of the Environment: Essays in Livelihood, Dwelling, and Skill*, London: Routledge.
- JOSEPH, John E. (2004) *Language and Identity: National, Ethnic, Religious*, New York: Palgrave.
- LIN, Melissa Shih-hui (2006) *Language identity in Taiwanese indigenous communities – The case of indigenous languages users in ShouFeng, Hualien*. The Fifth International Conference on Chinese Sociolinguistics (ICCSL5), P.R.C.: Beijing University.
- MASSEY, Doreen and JESS, Pat (eds.) (1995) *A Place in the World? Places, Cultures and Globalization*, Oxford University Press and The Open University.
- MASSEY, Doreen (1997) “A Global Sense of Place”, in BARNES, T. and GREGORY, D. (eds). *Reading Human Geography*, London: Arnold, 315-323.
- MAFFI, Luisa (2005) “Linguistic, Cultural and Biological Diversity”, *Annual Review of Anthropology*, 34: 599-617.
- MCAVOY, Leo (2002) “American Indians, Place Meanings and the Old/New West”, *Journal of Leisure Research*, 34(4): 383-396.

- MCDOWELL, Linda (1999) *Gender, Identity and Place: Understanding Feminist Geographies*, Minneapolis: University of Minnesota Press.
- MYERS, Greg (2006) “‘Where are you from?’: Identifying Place”, *Journal of Sociolinguistics* 10(3): 320-343.
- SCHEGLOFF, Emanuel A. (1972) *Notes on a conversational practice: Formulating place*. In David Sudnow (ed.) *Studies in Social Interaction*, New York: Free Press, 75-119.
- SCHIFFRIN, Deborah (1987) *Discourse Markers*, Cambridge University Press.
- SCHIFFRIN, Deborah (1996) *Narrative as self-portrait: Sociolinguistic constructions of identity*. *Language in Society* 25:167-203.
- SIN, Chih Hoong (2003) “Interviewing in ‘Place’: the Socio-Spatial Construction of Interview Data”, *Area* 35(3): 305-312.
- SPENCER, Vicki (2008) “Language, History and Nation: A Historical Approach to Evaluating Language and Cultural Claims”, *Nations and Nationalism* 14(2): 241-259.
- SZERSZYNSKI, Bronislaw (2004) *The Sacralisation of Nature: Nature and the Sacred in the Global Age*. Oxford, U.K.: Blackwell.
- TUAN, Yi-Fu (1991) “Language and the Making of Place: A Narrative-Descriptive Approach”, *Annals of the Association of American Geographers* 81(4): 684-696.
- WILES, Janine; ROSENBERG, Mark; and KEARNS, Robin (2005) “Narrative Analysis as a Strategy for Understanding Interview Talk in Geographic Research”, *Area* 37(1): 89-99.