





Las arquitecturas del pensar *

The Architectures of Thinking

YOSUKE NAKANO

Philosophy Department, UAB, Bellaterra (Barcelona) 08350, Catalonia - Spain

JORDI VALLVERDÚ

Philosophy Department, UAB, Bellaterra (Barcelona) 08350, Catalonia - Spain Jordi.vallverdu@uab.cat

ORCID http://orcid.org/0000-0001-9975-7780

Recibido/Aceptado: 10 -09- 2021/01-01-2022

Cómo citar: Nakano, Yosuke & Vallverdú, Jordi. 2022. "The Achitectures of Thinking", Journal of the Sociology and Theory of Religion, 13:250-266

Este artículo está sujeto a una: Licencia "Creative CommonsReconocimiento -No Comercial" (CC-BY-NC)

DOI: https://doi.org/10.24197/jstr.1.2022.250-266

Resumen: En este trabajo, sugerimos que las arquitecturas, especialmente las sagradas, juegan un papel significativo en la configuración de la cognición, al ser ésta el resultado de las relaciones entre los sujetos y su entorno. Al compartir un mismo entorno y las relaciones con él, los miembros de este conjunto comparten valores, métodos y actitudes dando lugar a todo tipo de artefactos culturales, como el lenguaje y las acciones performativas.

El efecto de los lenguajes naturales en la cognición ha sido estudiado intensamente por filósofos, lingüistas y otros científicos cognitivos; sin embargo, el papel de las arquitecturas en el pensar parece estar infrarrepresentado, e históricamente se ha subestimado o descuidado.

Palabras clave: arquitectura, cognición, asiático, Occidental, espacio, sagrado.

Abstract In this paper, we suggest that architectures, especially sacred ones, play a significant role to shape cognition. Therefore, cognition is the result of the relationships between the subjects and their surroundings. By sharing the same environment and the relationships with it, the members of a community would weave "common-sense", as a common attitude towards what they define as the "reality". This shared set of values, methods, and attitudes shapes all kinds of cultural artifacts, like language and performative actions. The effect of natural languages on cognition has been intensively studied by philosophers, linguists, and other cognitive scientists; however, the role of thinking architectures seems underrepresented by them. Although the design of the living spaces greatly

JOURNAL OF THE SOCIOLOGY AND THEORY OF RELIGION (JSTR), 13 (2022): 250-266 ISSN: 2255-2715

Prof. Vallverdú research has been supported by project MICINN FFI2017-85711-P "Epistemic innovation: the case of cognitive sciences", and ICREA Acadèmia Grant.

contributes to the nurtural formation of our cognition, it hasJosuke been historically underestimated or neglected

Keywords: architecture, cognition, Asian, Western, space, sacred.

Since Sapir-Whorf hypothesis or theory of linguistic relativity had suggested that our cognitive processing gets an effect from the subjects' usages of natural languages, the relationship between our cognition and natural languages has been heavily studied by cognitive scientists, linguists, and philosophers. As you may see the variety of arguments in the book Expressing the Self edited by Huang and Jaszczolt, the relationship between the phenomenological starting point of our awareness, de se thought, and its expression through the natural languages is the hot topic among them (Huang and Jaszczolt [2018]). Also, Nisbett, specifically, suggests the difference in the system of thought depending on the subjects' origins, namely West and East¹. In his book, Geography of Thought, Nisbett indicates that there is a distinct difference in how the subjects capture their surroundings while showing compatibility with their ontological ideas that can be observed in philosophical texts. Universalists suggest the commonality among human beings for cognitive faculties (Chomsky [2002]), and some researchers even reject the cognitive deviation by types of natural language that the subjects use (McWhorter [2014]).

Our stand for writing this paper is that we agree with Universalists in terms of the fact that we share some common cognitive faculties with others as members of the species, namely Language Acquisition Device (LAD) to acquire a language and the bodily features, although we could disagree with universalists in the issues of what LAD is and what bodily features may contribute. At the same time, we believe, more importantly for the topic of this paper, that our cognitive processing develops by following the environment, including the cultural aspects, where the subjects are surrounded, as situated cognition suggests. Precisely, we think that there are nurtural features developed based on phylogenetically developed features. However, as 4-E (Embodied, Embedded, Extended, and Enacted) cognitive

¹ Nisbett defines 'Easterners', which should instead be defined as "Asians", as people from the Chinese cultural sphere, especially China and the other two countries that have been culturally influenced by China, Korea, and Japan. 'Westerners' are, in his definition, people from Europe and any Americans except Asian Americans. In this paper, we use these terms in the same way or, more precisely, Easterners as Japanese establishing the cultures based on Shintoism and Westerners as Christian Europeans (Nisbett [2003]: 17).

theorists, we concern that the situated cognitive theorists underestimate the significance of the effects of the cultural artifacts on the process of shaping our cognition. Therefore, our aim of this paper is to suggest the importance of those cultural artifacts' role in our cognitive inclinations, especially sacred architectures.

Sacred architectures play a similar role to natural languages, at least following two points: 1) devices as same experience providers to the members of tribes due to their publicness, (2) embodied manifestations transiting knowledge across the temporal points. For (1), the semantics of natural languages provide their meanings to users or interpreters. From the meanings or the experiences from usages or interpretations, the cognition abstracts and store a certain knowledge to apply to another cognitive processing. The experiences or meanings that emerged from the semantics must be common or, at least, hold commonality in each user or interpreter—otherwise, the communication through the natural language would be impossible, or language involving cognitive process would not be consistent. Architectures are designed while considering affordance, meaning that subjects may experience under the relationships the given space. Chemero redefines affordance as the relationship between the ability of actors and the features of the environment, rather than the property of the environment that is the original account by Gibson (Chemero [2003]; Gibson [1979]). Therefore, if either bodily or mental relationships between the subject and the architectures are the same, the relationships afford the same experience to each subject. This same experience would be woven as the same knowledge in each individual's cognition, and this knowledge will come up to the surface as the regional cognitive inclination. For (2), since we have been using the natural languages, we may share the experience with their users at a different temporal point. This fact may allow us to have a constant cognitive inclination as Nisbet shows in his study; although we live in the culturally interacting era, the subjects having the difference of origins shows the different cognitive inclination. The architectures, on the other hand, might not be able to show the flexibility as natural languages in terms of the evolvement; however, they may maintain the environmental features throughout the time sequence owing to their concreteness as the manifestations of the thought of the people at the current moment of their erections.

Owing to these roles of the sacred architectures, the members of a certain community or tribes share the same knowledge. This is not only the factor of the individuals' cognitive tendencies but also the emergence of the uniqueness of cultures in various aspects. To thoroughly understand the mechanism of

our cognition, we must consider the cognition in the mass and its effect on the cognition of its members. As the cultural artifacts holding publicness that is the result of the actualization of common sense or mutual attitude towards the environment among the members' cognition, the architectures are the excellent samples to investigate both how mass cognition works and how it influences our cognition (Hufendiek 2016). Although this paper would not go further from suggesting the importance of the architectures for cognitive science; however, it would be a good start point for the investigation of how the top-down effect will appear in our cognitive activities and how bottom-up processing reaches the emergence of conceptual knowledge. In short, the study of architectures as experience providers will lay out a variety of opportunities to reveal the mechanism of human being's cognition.

In this paper, we organize the argument as follows. At first, we discuss the emergence of common sense while considering the statement of Japanese philosopher, Tetsuro Watsuji. In his book, Fudo, Watsuji suggests that our state is owing to our presence outside. This implies that our cognitive state is actualized by the relationship with the cognitive subject's ambient. Second, we are going to argue about how architecture plays a role similar to natural languages. Third, we will devote this section to lay out the stylistic and pragmatic differences between East and West while concerning shrines of Shinto and cathedrals of Christianity. Then, based on the previous section, we will present the correspondence of Easterners' and Westerners' ontological views or how they capture the word to construct their realities with aesthetic and pragmatic expressions (considering architecture as an experience, (Slater [1984]) as sacred architectures, as the supporting examples of our argument).

1. EMERGENCE OF ONTOLOGICAL SACRED COMMON SENSE

The religions behind the sacred architectures are, as briefly mentioned above, the forms of abstraction of communities or tribes that confront commonly some difficulties that manpower cannot deal with or phenomena that their members cannot comprehend. Here, we discuss how common sense, including the ontological views towards nature, has been emerged, while considering the statement of one of the most representative figures in Japanese philosophy, Watsuji Tetsuro. After discussing the emergence of common sense among members of communities or tribes, we will lay out the main concepts in comparisons between East and West.

His statement (1935) starts with the analysis of feeling a temperature; the subject may feel cold because it locates itself into the cold out there. Therefore, the subject does not have intentionality to the coldness out thereby alienating the coldness objectively, rather it realizes itself located inside of the coldness, to feel cold (Wastuji [1935]: location No.106). The important point here is whether there is the cognitive penetration of interpretation in the feeling. If there were the definitive existence of coldness and the subject feels it with the intentionality toward it, it would be cognitive penetrability or some kind of interpretation with the object of the intentionality. However, in the case of direct feeling with the intentionality towards the self located in the coldness, there would not be that intervention of the cognitive function since the subject of feeling cold and the object of intentionality located in the cold are identical.

This compulsory sensation allows common sense towards the environment to emerge among members of communities or tribes. Since they share the same climates and the environment, the place to locate themselves is the same (Watsuji [1935]: Location No.123). In other words, as far as they have the same modal capacity to capture certain types of environmental features, and the content of the environmental features are the same; they must feel in the same way, although the interpretation of the feeling might be different (the selves feeling cold are the same, though if one can endure the condition or not depends on the state of oneself—interpretation). Communities or tribes establish their own cultures based on their unique mutuality as the results of relationships with the dynamic combination of the environmental features. Hence, the cultural artifacts, including sacred architectures, can be considered as manifestations of mutuality.

Here, we will introduce the main concepts that can help to describe the ontological situatedness of the human agents which use architectures to define their relationship with the realm of sacred natures. Our first aim is to remark that humans display cognitive skills according to cultural traditions, rules, and values, which at their turn are also related to ecological constraints (Norenzayan and Nisbett [2000]; Nisbet [2003]). Hence, such ontological coupling is not only ecological, but expresses (and is reinforced by) the cultural values, affecting all spheres of knowledge (Vallverdú [2017]; Schroeder and Vallverdú [2015]) and, even, ontologies (Vallverdú [2019]). As a consequence of this initial fact, we can express our second and main idea: ontologies are culturally embedded and express specific and situated aspects of the visions about sacred nature. As a consequence of both facts, we defend here the third fact, which is the fundamental contribution of our paper: sacred

architecture is ontologically embedded and culturally situated. We summarize the basic concepts of our contribution in Table 1., and the following are the detailed descriptions of the categories.

- i. Ontology: the most radical difference between Western and Asian philosophers is the belief of first into the stability of reality (the noumenon, Ding-an-sich,...), while second ones consider reality as experiencing continuous change.
- ii. Reality: directly related with the previous concept, Western thinkers considered that philosophy aimed to study such permanent entity, that is Being; on the other hand Asian thinkers following consequently their impermanent views departed from the pure inexistence or Nothingness (Heisig [2001]).
- iii. Climate: as an ecological constraint, we can affirm that climate differs greatly in Europe concerning Eastern countries. While the regularity of weather conditions is obvious in Europe, Asian countries experience strong weather changes, with important and severe conditions (earthquakes, rainy periods, typhoons). While the extraordinary 1755 Lisbon earthquake was suffered from great sorrow and surprise by European thinkers, similar events happen in Asia, creating a completely different relationship with reality and adapting human constructions to such conditions.
- iv. Materials: the belief or disbelief in permanence/impermanence of sacred nature is supported by building materials selection: stone in Western countries (as a perdurable material), wood in Asia (our main focus is placed upon Japan; as a perishable material). Both materials are also adapted to the weather conditions in both geographical areas.
- v. Atmosphere: best Western architects aimed to increase highness while gaining space for stained colored glasses; on the other side Eastern ones preferred to keep the sacred into darkness according to Tanizaki [1933]).
- vi. Divinity: as a conclusion of all previous aspects, emerges the notion of divinity and the sacred realm. In Western countries, this God is beyond this reality, and the whole building just prepares the human to the sacred experience, while in Eastern ones the believer experiences by herself/himself such sacredness through the walk across space, which can include gates (鳥 月) placed into woods or even seashore/lakes.

2. FUNCTION OF SACRED ARCHITECTURES

In the previous section, we discuss how common sense to the subjects' environment would emerge from human beings' relationship with their environment. In this section, we present the role of sacred architectures in the frame of human beings' communities. The first step of architectures' effect on the cognitive step is how the design of sacred architectures emerges. Their styles and purposes are the manifestations of the ideas of the religion, of course. The second is the utilization of them by the members of the community. Finally, the subjects of experiences upon the sacred space may share the religious or ontological ideas abstracted from the experience with the others. This cycle of the utilization of architectures allows the members to condense their religious or ontological common sense in the community, so that the top-down effect from this knowledge becomes even observable in the study, as Nisbet showed. Also, we will see how sacred architectures transit the effect through the sequence of time.

The publicness and the interest attraction of sacred architecture and the thought behind it—religions—seem to be, by itself, due to our cognitive mechanisms. Precisely, human beings' cognition tends to seek the explanation in teleology (Wagner-Egger et al. 2018; Barrett 2000; Boyer 2006). When initially establishing those architectures, the analytical view was only within a specific community; the teleological bias must have been stronger than now, where they are admired to a certain degree generally. Therefore, when confronting something that locals cannot deal with or is hard to find the definitive cause, they try to find the cause and reason from some kind of sublime agencies manipulating and giving meanings to the phenomenon happening around us to reach a certain state—explicitly, the God for Christianity and the spirits of natural and artificial phenomenon for Shintoism. Most probably, the forms of the religions differ depending on what kinds of difficulties that the locals had to deal with; thus, as Watsuij states that it is entirely the result of the relationship with our environment (Baek [2013]; Berque [2004]; Janz [2011]), the sacred architectures' concepts for designing have merged from locals' relationships with their environment.

What the sacred architectures convey will make the subjects of experience with them to have the same or similar states. To actualize their belief toward the agents setting the reasons for the current state and as the interacting points with them, the locals establish the sacred architectures. Since the difficulties caused by or being solved by the agents should be shared among the people who share the same environment, the actualizations must be with the consideration of their shared sense. Also, by their purposes, they must be visual or even experiential media to convey common sense.

Therefore, the builders of the sacred architectures crystalized the commonality of the communities, and their creations are the experiential media spreading it to or making it concrete in the cognition of the locals. Some could claim that our argument here ignores the political aspect of sacred architectures; however, we consider that the fact of the political utilization of the religions, indeed, shows that the political figures at the current moments of erections are aware of overlap of their interests and the common sense of their people.

The power of the sacred architectures is not only to propagate the common sense to the communities at the current moment but also to maintain the social level cognitive inclination throughout the time. What the sacred architectures are conveying will makes the subjects of experience to have the same or similar states within themselves. Since the subjects of the experience are, originally, the locals, who have the same conditions as the others, the state of each individual may not radically different than the others. In other words, if their abilities or states are the same owing to living in the same circumstance, the features provided by the sacred architectures will be combined in the same manner among the subjects, and the experience upon the same affordances will be the same. Thus, the experiences with the sacred architectures will cause the same experiential realization of the common sense on the subjects. By this process of realization of common sense, the locals show stronger similarity in the attitude towards their environment due to the shared knowledge or abilities abstracted the experiential realization.

Moreover, sacred architectures may provide the same sense to the subjects at a different temporal point. This might be considered as one of the reasons that we can take an observation with certain generalizations, such as East and West. It is not surprising that our attributes have been vanishing due to, historically speaking, the heaviest cultural interaction. Comparing effectiveness at the current moment and now, it cannot influence the subjects nowadays since our concerns are, most probably, different from the people at the current moment. Also, the concreteness of the architectures as solid material cannot be the only definitive reason for remaining it; however, as the cultural artifact showing inflexibility and crystallizing interests and thoughts, they hold considerable power for conservation, at least the resource of those thoughts. Besides the properties of the sacred architectures themselves, our basic bodily structures and our mental states influenced by climates allowing us to act upon the affordance with the spatial features must be the same. Therefore, even though disparities have emerged bypassing the time, there

should be a common aspect between what they experienced and what we experience with the sacred architectures.

In this section, we have briefly shown the mechanism of the role of the sacred architectures. Concluding this section, the sacred architectures have been influencing our cognition while contributing knowledge or abilities that are the items for the cognitive processing and are abstracted from the experience. Culture, in the anthropological term, is quite broad, however, precise; the referent of the term indicates the common sense that is the crossing point of what locals have been creating and acting upon. From this point of view, if situated cognition claims the significance of cultures as well as natural languages on shaping our cognition, we consider that the sacred architectures should be included as the object of study as a constituent of cultures. Indeed, by analyzing the relationship between the artifacts and human cognition, we must abstract the core contents of cultures and investigate how they affect our cognitive activities. In the next section, we will show the samples from East and West, presenting compatibilities in each region between the architectural designs and ontological views in each region.

3. THE DIFFERENCE IN ARCHITECTURAL STYLES BETWEEN EAST (SHINTOISM) AND WEST (CHRISTIANITY)

In the previous sections, we have shown how the ontological basis of sacred architectures has emerged and how their functions have been executed in our societies. As reifications of our ontological attitude towards the world emerged from our relationship with the surroundings, the sacred architectures have played their roles to spatiotemporally convey to the locals and make it concrete in each of them while providing experiences. In this section, then, we will investigate and compare East and West in the architectures' styles and practices, while heavily taking into consideration of Yasuhara's investigation and analysis in architectures. Also, we would like to introduce the Japanese traditional artisans' practice. Again, this paper's main aim is to suggest the significance of the study of architectures for cognitive science to comprehend the situatedness of cognition. Although we cannot go into the actual mechanism of the influential process of the architectures onto our cognition through the experiences they provide, the ontology of the world towards the world of the locals can be seen in architectural matters as well as peculiarities of philosophies or, perhaps, what the cognitive linguists have abstracted from our natural language usages and the results of experimental studies conducted by Nisbet. Therefore, here, we cannot show the connection between their

styles and the practices with them and our situated cognitive processing; however, they show some obvious compatibilities.

One of the most significant differences between the architectural aesthetics in East and West is the consideration of the light: the main concern for interior design in Shinto's shrines or Buddhist temples stylistically influenced by the shrines is the shadow, whereas the natural light in Western architectures always highlights the focal points of interior design. In the Eastern style of sacred architecture, the interiors of the sacred architectures have considered places supposed to be hidden (Yasuhara [2016]: 118). In Shinto, the spirits are humanized, though having the controls of a specific phenomenon. Therefore, it is natural to consider the shrines as the private spaces of the spirits. Also, considering that our cognitions tend to seek the reasons in the sublime agencies (Wagner-Egger et al. 2018) when facing unsolvable difficulties, one way to treat the agents causing them is to take them as untouchables. On the other hand, the cathedrals spot the lights on the divines by introducing the natural light into the interior spaces. Through the internal arcade reaching to the apse, there is a graduation of focality highlighted by the natural light from the clerestory. Thus, it is designed to raise the level of eye attraction: the axis than the sides, top than the floor. This is another way to treat the sublime agent; it seems that Christians and locals of the cathedral try to interact with it actively by their recognition for the sake of comprehension of the reasons. Indeed, there is a difference in the notion of the world; in the East, some incomprehensible matters intervene the phenomenon in the world, whereas, in the West, the reason should be comprehensible with our rationality.

Owing to this difference, what the sacred architectures afford the subjects to capture from the space differs from the other. Even though the opposites highlight the objects of worship, the fact that the light leads the eye attraction should be mutual. Thus, the cathedrals afford to capture the world as the interior, ultimately the statement expressed in the apses, whereas Eastern locals capture the things except the interior hidden by the shadow. Precisely, the Eastern sacred architectures are specially designed to experience the harmony of the buildings from the outside standing point (Yasuhara, 2016: 122). Usually, the approach towards the sacred architectures or the way for walking in the precincts is limited, which means that the passways afford to capture the surroundings (the precincts composed with the architectures) as a whole, contrasting Western architectural style that the cathedrals are normally established together with the plazas, which do not constrain the aspect of the sight of the building. This could be interpreted as the different

conceptualization of the center. In the East, the center is the darkness, and the surroundings are the reality. The darkness, in a sense, can include everything. The inclusiveness of darkness can be seen in the interior design of the architectures: when establishing ones with height and spaciousness, they do not introduce any lights into the ceilings (Yasuhara [2016]: 118). The darkness of the ceiling makes space lofty. Thus, the darkness—the unknown, imperceptible, non-existing matter, in another word, nothingness—is the starting point of the world. This specific reference to emptiness is present also in the classic ideas about Japanese art of Yanagi (Minura 1994), who is also interested on defending the role of imperfection and simplicity for Japanese arcraffs.

As we have explained, the architecture may afford a feeling of being part of the whole to the subjects by providing the experience to be distant from the center and to capture the holistic view of the precincts. On the other hand, the cathedrals' center is highlighted. Indeed, by revealing by lights to be a percept, the subjects may realize their existence as its perceivers. This realization of own existence by contrasting with divinity could be one of the roots of the ontological and philosophical consideration in the West.

The materials and our relationships with them for the construction are also possible excellent objects of study. In sacred architectures in the East, most of the cases, are built with wood, whereas cathedrals are made with stones. The wood as a material has a relatively short duration of life. Therefore, the sacred architectures themselves remains their material existence shortly, comparing to the ones made with concrete materials. We consider this aspect of the sacred architectures as one of the factors of deviation of cognitive inclination. The usage of wood in Japan can be considered because of practicality; there, the climate is variable, and sometimes there are some severe natural disasters, such as earthquakes, typhoons, and tsunami. This should have destroyed artifacts. Therefore, it is reasonable to construct architectures with available, flexible, though the short span of lives rather than concrete, resistant, though hard to deal with. At first, considering this reason of difference in materials, we may find it as the manifestation of the relationship with the surroundings.

To understand how the sacred architectures play a role to influence in our cognition, we have interviewed the traditional Japanese carpenters, called Miya-daiku. Because Japanese sacred architectures, representatively Ise-Jingu, have re-established in constant span, we consider the carpenters as the primary practitioners with the architectures as the effective devices allowing the cognition to be branched. Mr. Soichiro Yokoyawa, the president of a

studio of Miya-daikus, Shokoh-Do (匠弘堂) says << The most important matter that we have to keep in our mind is to satisfy the clients including the parishioners of a temple. [...] the carpenters might not have spiritual meanings in their works. [However,] we, Japanese, paid respect to the trees; when cutting a tree from a forest, we execute a ritual. We even consider the material as a living thing.>> Therefore, the material holds mortality so that the artifacts made with wood require repairing and even re-establishment, according to Mr. Yokoyama. He continued:

The Ise-Jingu's 20 years cycle of reconstruction is to transmit the techniques of artisans to the next generation. 20 years is or used to be the cycle of artisans' lives as artisans. (Before the present era) Artisans had started to work in their early teens, and their careers as matured artisans should have been more or less 20 years. So, it makes sense that Ise-Jingu is rebuilt from concern this fact; the materials would not be so bad in 20 years, but artisans could reach the end of their career. Not only the architectures but also all the artifacts are recreated at the moment, such as ones made with steels and others made with semi-permanent materials, which means that the specialists of other materials are also in the cycle of transmission of techniques.

Thus, they know that material existences cannot continue eternally. Instead of trying to maintain the materiality of artifacts, they intend to remain the culture as the abstract knowledge passed through generations while being mediated by the sacred architecture.

On the other hand, the cathedrals are made with stones that can keep their material existence for, relatively long duration of time. This choice of material can be said that it is owing to the local climates, which are relatively stable. In other words, if you establish the architectures solidly, they will maintain their shapes as they are as long as their solidness because the local climate would not radically change as it will cause destruction.

4. CONCLUSION / ONTOLOGICAL COMPATIBILITY

Here, we have suggested the significance of the sacred architectures for the investigation of situated cognition while laying out the possible relationships among the climates, common sense, and our cognitive inclinations mediated by the sacred architectures. Our idea is that the common sense towards the surroundings have been emerging from the relationship between the locals and the climates, and the cultural artifacts, including the sacred architectures, are the usable crystalized form of the mutual sense among the locals. By experiencing with them, the effect of the mutuality on our cognition would become stronger and would be allowed to transmit on a temporal scale. In this section, instead of the conclusion, we organize the compatibility among them while reconsidering what we have shown in the previous sections.

The concepts expressing peculiarities of East and West that we consider to be relative to the sacred architectures' styles and practices with them are as followed: at first, we may think of ontological views towards the world: stability and change. In the West, the climate is relatively calm; at least, the severe natural disasters holding the power as much as able to destroy architectures are considerably rare, whereas it often forces the locals to renew them by reestablishment in the East. These ontological views towards the structures of the world may be observed in their material choice. Also, owing to the choice, the locals may experience architectures' scales, meaning that the Western locals may experience the everlasting condition with the concrete architectures that have not changed from their ancestors, whereas the Eastern locals have observed the variability through the necessity of reconstruction. This ontological view may be observed in empirical studies. The study is about the anticipation of future states, and Nisbett analyzes the result as <> East Asians believe that the world is full of change and that what goes around comes around. Westerners (or at any rate, Americans—we have no data on other Westerners at this point) appear to believe that what goes up needn't come down (Nisbett 2003: 195-196).>> Although he observed this compatibility as one with Chinese and Greek social organizations; considering their historical interrelations with the regions that we talk about here, we affirm the validation of the compatibility between his study and what we observe from the sacred architectures.

Another interesting point is a manner to understand their realities: being and nothingness. Those two ideas are the definitive keywords; Western epistemology is the discipline to investigate the nature of existence, whereas the group of founders of systemized philosophy, the Kyoto School, has considered the main notion of philosophy, the fundament of the reality, as the nothingness. We consider the difference of architectural styles in the usage of lights as the compatible point here; the light sheds itself on the existence by making it to recognizable, and the darkness conveys the unsegmented world as the ultimate fundaments of the manner of reality.

Relating to how the sacred architectures display with the constraints of the subjects' movements, the subjects may experience the ontological

constitution of the world: the field of aggregation of the distinctive matters—in other words, ideas—or the continuum. As I mentioned above, the architectural compositions, especially the passway towards the architectures, constraint how the subjects observe them. Eastern shrines usually allow the subjects to walk in only specific ways to show the exterior and the harmony of the buildings that keep changing the view by their constrained movement. In contrast, Western cathedrals provide the freedom to approach them theoretically; however, there is a great attraction towards the apse, so that it provides only the perspective in the sense of distance between the subject and the building—when being the outside—of the apse—when being inside. We may see this structural difference as the difference in how the locals see the ontology of the world. Eastern origin may see the world's nature as motional, and Western origin may do so as static.

Our interest, as philosophers of cognitive science, is actually in how the experiences with those features provided by the sacred architectures may affect our cognitive activity, or more precisely, the mechanism of experience with the space and its effect on the cognitive function. The issue that we could raise further is if the effect from the architecture is symbolic direct and one side influence or dynamic and symmetrical relation between the subject's side and the environmental features. The analysis of the sacred architectures is just a study of the object out there; there is, in the study, a premise that the objects have meanings without the interventions of cognition. Perhaps, for the study about the natural languages, we may say the same thing. However, owing to the investigation conducted so far, the interrelation between cognition and languages is one of the main topics in the disciplines relating to cognitive science. Even though we have laid out the compatibilities among what investigators have observed, we may not say anything about the mechanisms of how the effect from the cognitive function from the past appears in its present function, yet; they only present the possibility that our shapes of cognition relate to those things provided by the sacred architectures. The significant thing is that the sacred architectures are great objects to study the interrelation among the spatial experience, its effect, and even the crystallization of the social level cognitive activities.

ACKNOWLEDGEMENTS

We greatly appreciate that the Japanese traditional canter (Miya-Daiku)'s studio, Shoko-Do (匠弘堂), gave us an opportunity for an interview to hear about their ideas and techniques. Without their help and explanations, we

could not accomplish this work. We have summarized and translated the contents of the interviews from Japanese to English. If there are any misinterpretations or the contents that they did not intend to convey, it is completely our fault and responsibility.

REFERENCES

- Baek, Jin. 2013. "Fudo: An East Asian Notion of Climate and Sustainability." Buildings. https://doi.org/10.3390/buildings3030588.
- Barrett, Justin L. 2000. "Exploring the Natural Foundations of Religion." Trends in Cognitive Sciences. https://doi.org/10.1016/S1364-6613(99)01419-9.
- Berque, Augustin. 2004. "Offspring of Watsuji's Theory of Milieu (Fûdo)." GeoJournal. https://doi.org/10.1023/B:GEJO.0000042975.55513.fl.
- Boyer, Pascal. 2006. "What Makes Anthropomorphism Natural: Intuitive Ontology and Cultural Representations." The Journal of the Royal Anthropological Institute. https://doi.org/10.2307/3034634.
- Chemero, Anthony. 2003. "An Outline of a Theory of Affordances." Ecological Psychology.
- Chomsky, Noam. 2002. Syntactic Structures. Mouton de Gruyter.
- Gibson, James J. 2014. "The Theory of Affordances (1979)." In The People, Place, and Space Reader. https://doi.org/10.4324/9781315816852.
- Heisig, James W. 2001. Philosophers of Nothingness: An Essay on the Kyoto School. University of Hawai'i Press.
- Huang, Minyao, and Katarzyna Jaszczolt. 2018. Expressing the Self: Cultural Diversity and Cognitive Universals. Edited by Huang Minyao and Kasia Jaszczolt. Oxford University Press.
- Hufendiek, Rebekka. 2016. "Affordances and the Normativity of Emotions." Synthese, 2016. https://doi.org/10.1007/s11229-016-1144-7.
- Janz, Bruce B. 2011. "Watsuji Tetsuro, Fudo, and Climate Change." Journal of Global Ethics. https://doi.org/10.1080/17449626.2011.590277.

- McWhorter, John. 2014. The Language Hoax: Why the World Looks the Same in Any Language. Journal of Experimental Psychology: General. Oxford University Press.
- Minura, Kyoko. 1994. "Soetsu Yanagi and the Legacy of the Unknown Craftsman." The Journal of Decorative and Propaganda Arts.
- Nisbet, Richard E. 2003. The Geography of Thought: How Asians and Westerners Think Differently...and Why: Richard E. Nisbett: 9780743255356: Amazon.Com: Books. New York: Free Press (Simon & Schuster, Inc.). https://www.amazon.com/Geography-Thought-Asians-Westerners-Differently/dp/0743255356.
- Nisbett, Richard E. 2003. The Geography of Thought: How Asians and Westerners Think Differently... and Why. New York: Free Press. https://doi.org/10.1177/108056990306600315.
- Norenzayan, Ara, and Richard E. Nisbett. 2000. "Culture and Causal Cognition." Current Directions in Psychological Science 9 (4): 132–35. https://doi.org/10.1111/1467-8721.00077.
- Schroeder, Marcin J., and Jordi Vallverdú. 2015. "Situated Phenomenology and Biological Systems: Eastern and Western Synthesis." Progress in Biophysics and Molecular Biology. https://doi.org/10.1016/j.pbiomolbio.2015.06.019.
- Slater, B. H. 1984. "Experiencing' Architecture." Philosophy. https://doi.org/10.1017/S0031819100067735.
- Tanizaki. 2010. "In Praise of Shadows." Comparative Critical Studies. https://doi.org/10.3366/E1744185409000925.
- Vallverdú, Jordi. 2017. "Brains, Language and the Argumentative Mind in Western and Eastern Societies. The Fertile Differences between Western-Eastern Argumentative Traditions." Progress in Biophysics and Molecular Biology, September. https://doi.org/10.1016/j.pbiomolbio.2017.09.002.
- Vallverdú, Jordi. 2019. "The Situated Nature of Informational Ontologies." In Philosophy and Methodology of Information, 353–65. WORLD SCIENTIFIC. https://doi.org/10.1142/9789813277526_0016.

Wagner-Egger, Pascal, Sylvain Delouvée, Nicolas Gauvrit, and Sebastian Dieguez. 2018. "Creationism and Conspiracism Share a Common Teleological Bias." Current Biology. https://doi.org/10.1016/j.cub.2018.06.072.