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Hara Tanzan and the Japanese Buddhist Discovery of “Experience”

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Abstract

This paper explores the role of Hara Tanzan 原坦山 (1819–1892) in the transformation of Buddhism into an “experiential religion” during the Meiji period. Scholars such as Sharf have argued that this transformation is due to Western influence on figures such as DT Suzuki. Japanese language scholarship has instead shown that in the early 1900s, the notion of Buddhism as experiential religion was already widespread, considering Tanzan as a predecessor of this discourse. I argue that Tanzan was among the first to discover the importance of “experience” in the confrontation with science, yet interpreted it as an empirical standard for both religious and scientific knowledge. However, Tanzan did not yet establish the separation of science and religion characteristic of the modern understanding of both terms. I conclude that Tanzan was one starting point in a dialectic that is integral to the indigenous genealogy of “religious experience” in Japan.

Keywords

Meiji period – Buddhism – Hara Tanzan – science – experience

1 Introduction

Although few recognize his name, Western Zen practitioners are well acquainted with the Sōtō Zen monk Hara Tanzan 原坦山 (1819–1892). No less than three anecdotes of Tanzan's eccentricities are included in *Zen Flesh Zen Bones*, the popular spiritual classic compiled by the American poet Paul Reps (1895–1990) and the Zen teacher Senzaki Nyōgen 千崎如幻 (1876–1958).¹ The perhaps best known of these episodes runs as follows.

In Tokyo in the Meiji era there lived two prominent teachers of opposite characteristics. One, Unsho, an instructor in Shingon, kept Buddha's precepts scrupulously. He never drank intoxicants, nor did he eat after eleven o'clock in the morning. The other teacher, Tanzan, a professor of philosophy at the Imperial University, never observed the precepts. When he felt like eating he ate, and when he felt like sleeping in the daytime he slept. One day Unsho visited Tanzan, who was drinking wine at the time, not even a drop of which is supposed to touch the tongue of a Buddhist. "Hello, brother," Tanzan greeted him. "Won't you have a drink?" "I never drink!" exclaimed Unsho solemnly. "One who does not drink is not even human," said Tanzan. "Do you mean to call me inhuman just because I do not indulge in intoxicating liquids!" exclaimed Unsho in anger. "Then if I am not human, what am I?" "A Buddha." answered Tanzan.

REPS 1994: 29–30.²

This episode frames Tanzan in a highly complex yet revealing fashion. The words "when he felt like eating he ate, and when he felt like sleeping in the daytime he slept" are an echo of the encounter between the legendary Tang period Chan patriarch Dazhu Huihai 大珠慧海 (fl. 8th century) and the otherwise unknown precept master (*lüshi* 律師) Yuan 源. When Yuan asked Huihai what merit derives from Zen practice, the latter answered "eating when hungry, sleeping when tired" (*Jingde chuandeng lu* 景德伝灯録, T 51: 247c). By framing Tanzan's meeting with Shaku Unshō 釈雲照 (1827–1909), a conservative precept revivalist, with the precedent of Huihai, the episode portrays Tanzan as a representative of the ancient wisdom of Zen.

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- 1 Senzaki was a student of Shaku Sōen 釈宗演 (1860–1919). Sōen is best known for having taught the most influential Zen propagandist of the 20th century, D.T. Suzuki (1870–1966). On Sōen, a somewhat controversial figure, see Mohr (2010: 183–216).
 - 2 For a Japanese version of this story, see Katō (1909: 1–2).

At the same time, Tanzan is depicted as a thoroughly modern type, a man of the world as opposed to Unshō’s pompous bonze. Tanzan conforms to the ideals propagated by modernist Zen teachers such as Senzaki, who sought a revitalized spiritual practice beneficial to contemporary society outside the confines of the monastery. The presentation of Tanzan as a “professor of philosophy” underlines this framing of Tanzan as a new type of practitioner engaging with modern forms of knowledge that a Western reader would feel comfortable with. In fact, Tanzan is mentioned in most discussions of modern Japanese Buddhism as the first person to lecture on Buddhism at Tōkyō Imperial University under the heading of *Indo tetsugaku* 印度哲学, or Indian Philosophy. As we shall see, Tanzan’s thought was far from what the average Western reader would recognize as philosophy, not to mention Indian.

The complexity of Tanzan’s image in Western Zen is a fitting tribute to the complexity of the man himself. Born in 1819, Tanzan rose to prominence during the tumultuous years of the late Tokugawa (1603–1868) and early Meiji (1868–1912) periods and experienced first hand the brief but devastating conflagration of violence visited upon Buddhist institutions in the immediate aftermath of the 1868 revolution. He also shared in the shock Japanese Buddhists felt upon encountering the forces of Westernization, which threatened Buddhism’s place in the social order. Tanzan’s career coincided with the beginnings of a process that would eventually lead to the emergence of Japanese Buddhism as a modern religion, a process in which he was actively involved. As this paper will show, Tanzan’s most influential contribution was to introduce into Japanese Buddhist parlance the notion that Buddhism is, or could be made into, a religion founded upon the principle of direct ‘experience,’ even if, to anticipate one of the paper’s conclusions, Tanzan’s concrete articulation of this idea was based on an empiricist notion of ‘experience’ that was abandoned by following generations.³

The understanding that Buddhism grants religious experience a privileged position vis-à-vis scholarly learning or blind faith is deeply ingrained in the popular imagination. Scholars such as Bernard Faure (1991: 19) and Robert Sharf (1995) trace this understanding to the efforts of D.T. Suzuki and his presentation of Zen Buddhism to the West. As Suzuki himself explained, “the discipline of Zen consists in opening the mental eye in order to look into the very reason of

3 In other words, Tanzan asserted a variant of the empiricist position that only direct experience in the form of sensory perception could provide a valid basis for true knowledge. Later in his life, Tanzan also explicitly embraced the materialistic correlate of this position, asserting that, “there is nothing between heaven and earth that is not a material object (*buttai* 物体)” (Hara 1988: 58).

existence” (Suzuki 1991: 40). Suzuki understood this insight to occur through an unmediated experience of reality leading to a state of oneness, “which is however not to be understood conceptually” (Suzuki 1994: 105). Sharf has argued that Suzuki’s emphasis on a form of mystical experience as the *sine qua non* of Buddhist practice can be traced to Western influences such as the thought of William James (Sharf 1995: 246).

However, emphasizing the experiential nature of Buddhism was neither an idiosyncrasy on Suzuki’s part, nor was it limited to the modernist Zen tradition from which he hailed. The notion that Buddhism was rooted in a specific form of religious experience was actively discussed in the Buddhist intellectual circles of the late 19th and early 20th century, to which Suzuki belonged. For instance, the Jōdo shinshū 浄土真宗 thinker Sasaki Gesshō 佐々木月樵 (1875–1926), a close friend of Suzuki, expressed his understanding of religion, and especially Buddhism, as follows.

Religion has to be considered from the heart of its founder. Thus, I know that, no matter which religion, all these religions are religions of experience (*jikken* 実験), and I must acknowledge that, no matter how impoverished their teachings and doctrines, they have life and potency as religions of spiritual experience (*shinreiteki* [alt. *shinryōteki*] *jikken* 心靈の実験).

SASAKI 1903: 17–18

Sasaki used his experiential understanding of religion to insulate Buddhism from the prevalent and aggressively secularist criticism leveled against it by some natural scientists. He argued that Buddhist cosmological notions, such as its complex system of hells or the existence of Pure Lands, were fully as real as mountains, rivers, or atoms. Unlike these, however, hells and paradises did not exist out there in a world to be scientifically measured, but rather as subjective facts spiritually confirmed through the experience of faith (Sasaki 1903: 90–95).

In short, both Suzuki and Sasaki conceived of religion as individual, inward, and experiential, a characterization that formed in Europe from the mid-19th century onwards. Karl Barth drew attention to the pivotal role that the thought of Friedrich Schleiermacher (1768–1834) played in precipitating the emergence of such an understanding of religion. Barth diagnosed the main thrust of Schleiermacher’s thought as afflicted by anthropologization, that is to say the inability of distinguishing between the inspiration of the Holy Spirit and mere human cognition (Barth 1972: 462–463). As the only possible ground for god-speech became the inner experience of the believer, Protestant thought wit-

nessed the “collapse of theology into anthropology, pneumatology into psychology” (Burnett 2001: 39). While scholars such as Ernst Feil (1986: 25–30; 2007: 880) attempt to draw a straight line between Schleiermachiian anthropologization and the developments of the mid-19th century, Michael Bergunder has stressed the historically conditioned emergence of the modern, interiorized concept of ‘religion’ from the second half of the 19th century onwards. Bergunder has shown that at this crucial junction, an additional factor absent from earlier theological discourses came into play: namely, the demarcation of religion from the natural sciences, the rapid progress of which challenged religious orthodoxies insofar as the latter sought to defend truth-claims regarding the natural world. This led to an interiorization of religion, with an inward ‘religious experience’ serving as a line of defense against the sciences (Bergunder 2014; 2016: 88–109).⁴

Suzuki and especially Sasaki’s reconceptualization of Buddhism as ‘experience’ can thus be seen as one instance of the global emergence of religion struggling against the natural sciences, rather than as a unidirectional Western import. Such a global perspective, however, risks overlooking the local Japanese antecedents to Suzuki and Sasaki’s position and thus obscuring its precise historical genealogy. As Yoshinaga and Klautau have suggested, Tanzan can be seen as an early pioneer of the modern understanding of religion as individual, inward, and experiential. According to Klautau (2012: 73), Tanzan emphasized individual, liberating insight into the human mind (*ningen no kokoro* 人間の心). Yoshinaga draws attention to the central role ‘experience’ (*jikken* 実験) plays in Tanzan’s thought as the means through which such an insight could be attained. Whereas in modern Japanese, the term ‘*jikken*’ refers to a scientific experiment in the narrowest sense, in the 19th century, its usage was more ambiguous, carrying connotations both of ‘experiment’ and of direct and practical ‘experience.’ According to Yoshinaga, Tanzan employed the term in the latter sense:

[Tanzan does not use] “experience” (*jikken*) in its contemporary meaning [of ‘scientific experiment,’ but] points to the practical experience of the [religious] practitioner (*keiken* 経験). Being a creative reader rather than a faithful interpreter of texts, Tanzan made “experience” (*jikken*), that is

4 Bergunder also cites a second factor in the emergence of the modern notion of ‘religion’: the encounter of different religious traditions with each other as instantiations of the same *genus* ‘religion.’ Although this factor was also at work in Japan, the present paper focuses on the struggle with science, as Tanzan himself seems to have considered the progress of the Western sciences a more pressing threat than Christianity. See TOZS: 104.

to say his own, direct experience (*taiken* 体験), the basis of his interpretation of Buddhism.

YOSHINAGA 2006: 7

In this passage, Yoshinaga differentiates Tanzan's 'experience' from scientific experiment and emphasizes its individual and practical, 'experiential' nature. Thus, while Tanzan's notion of 'experience' might not be exactly identical with Suzuki and Sasaki's more conceptually refined usage, according to Klautau and Yoshinaga, it certainly appears to closely foreshadow it.

The present paper will argue for a more nuanced understanding of Tanzan's concept of 'experience' and its place in the history of modern Japanese Buddhism. It will show that Tanzan's 'experience,' or, as it shall be translated below, 'experimentation,' fundamentally differed from Sasaki's in its relationship with science. While Suzuki and Sasaki understood 'religious experience' as being outside the sphere of, and thus unassailable by, the empirical sciences, Tanzan used 'experimentation' with the exact opposite intention, namely to invoke the 'experimental' as the sole standard of verifiable knowledge by which both science and Buddhism can be judged. Tanzan, this paper argues, represents a distinct case of religious interiorization in which the interiority of religion was not to be found in the experiences of the human heart, but rather in the nervous system of the human body.

In order to make this point, the paper will first examine Tanzan's physiological Zen and the perceived problem in pre-modern Buddhist thought it sought to remedy. It will next consider Tanzan's understanding of 'experimentation' in its relation to 'experience' and scientific 'experiment.' A final section will discuss the role of 'experimentation' as a rhetorical tool in the various controversies between Tanzan and his more conservative peers. The positions taken by Tanzan and his opponents, the paper concludes, represent the starting points of a complex dialectical process that would culminate in the modern notion of religious experience articulated by the likes of Suzuki and Sasaki.

2 Tanzan's Physiological Zen

Before becoming a Zen monk, Tanzan was trained in traditional Japanese medicine under Taki Genken 多紀元堅 (1795–1857) and in Confucian thought at the academy of Satō Issai 佐藤一斎 (1772–1850). As shall be discussed below, a keen interest in medicine as well as the form of Confucianism taught by Satō contributed to Tanzan's physiological reformulation of Buddhism. To put it briefly, Tanzan became convinced that key metaphysical concepts of Buddhism

were only insufficiently explained in the Buddhist scriptures and therefore open to criticism, particularly from a scientific point of view. To remedy this perceived weakness, Tanzan turned to Western science, in particular medicine, and elaborated a model that could map Buddhist metaphysical concepts onto states of the human nervous system. This section will provide an outline of Tanzan’s physiological Zen and its sources, including the supposed shortcomings of pre-modern Buddhist teachings it sought to redress.

As Watabe has pointed out, Tanzan’s understanding of Buddhist metaphysics is based on the *Awakening of Mahāyāna Faith* (Ch. *Dasheng qixin lun* 大乘起信論; Jp. *Daijō kishin ron*), hereafter *Kishin ron* (1998: 100).⁵ The *Kishin ron* is a Chinese apocryphal text which argues that the mind is fundamentally pure and beyond delusion and awakening. However, because this fundamentally pure mind follows impure conditions arising from ignorance (Ch. *wuming* 無明; Jp. *mumyō*), it manifests as suffering phenomenal consciousness, which in turn gives rise to duality, including the distinction between awakening and delusion. Although the *Kishin ron* develops this basic model in profuse detail, for the purposes of this paper only two main points need be noted. First, the pure mind, ignorance, and phenomenal consciousness are not three different entities, but rather different functional states (Ch. *xiang* 相; Jp. *sō*) of mind. Second, and consequently, if one succeeds in removing ignorance, the fundamental purity of mind will naturally shine forth. It is for these two points that Tanzan sought to provide a scientific basis, as he understood it.

Although Tanzan continued to refine his physiological Buddhism throughout his life, its basic outline is already apparent in six essays written between 1847 and 1869 and published together as *Notes on Grasping the Opportune Moment* or *Jitoku shō* 時得抄 in 1869. In the first essay, the “Treatise on Ignorance” or “Mumyō ron” 無明論, Tanzan outlines the basic problem and prepares the grounds for the solution to be developed in the remaining treatises. Tanzan opens the “Mumyō ron” by summarizing the central message of the *Kishin ron*.

Naturally abiding and quiescent, the complete essence [of mind] is fully endowed [with all virtues]. From the first, delusion and awakening are devoid of reality.

TOZS: 83

Yet, Tanzan asks, if only the originally quiescent mind truly exists, with awakening and delusion utterly lacking in independent existence, how is it that

5 I follow the rendering of the title suggested by Sung Bae Park. See Park (1991: 35–42).

sentient beings come to be caught in delusion and seek awakening? According to Tanzan, the Buddhist texts answer that this unhappy state is due solely to ignorance (TOZS: 83). This, however, is no answer at all, for whence does ignorance arise? Scripture stops short at asserting that only a Buddha can penetrate the ultimate source and nature of ignorance. What can be communicated to sentient beings is merely that “the true nature of ignorance is Buddha nature” (TOZS: 84). Thus, a definite answer to the question of the origin of ignorance, as well as of its exact relationship with Buddha nature, is not forthcoming.

Tanzan considered himself as having discovered a fatal flaw in Buddhist thought, namely its inability to explain how ignorance can cause phenomenal consciousness, and hence suffering, to arise. In order to address this flaw, Tanzan turned to medical models of the human nervous system. In the essay directly following the “Treatise on Ignorance,” entitled the “Treatise on Mind and Consciousness” or “Shinshiki ron” 心識論, Tanzan postulates that fundamentally, there are only two types of mind: enlightened (*kakushin* 覺心) and unenlightened (*fukakushin* 不覺心) (TOZS: 93–945). The former corresponds to the fundamentally pure mind taught in the *Kishin ron*. The latter is known as *adanashiki* 阿陀那識 and sustains the physical body.⁶ Tanzan asserts that enlightened and unenlightened consciousness can be located in the human organism: the enlightened consciousness is a secretion originating in the forward part of the brain and skull. It is eternally unchanging and pervasively luminous. Unenlightened consciousness, on the other hand, is a mucus produced in the hindbrain and spine. When this unenlightened consciousness seeps into the enlightened consciousness, they mix and thus give rise to the state of ignorance. In turn, phenomenal consciousness arises. This phenomenal consciousness, the consistency of which Tanzan likens to tofu, has a tendency to coagulate in various parts of the body, thereby producing mental and physical sickness or suffering. Tanzan had already described this process in the “Treatise on Ignorance”:

Furthermore, because the flux of this substance [of phenomenal consciousness] congeals and clogs, it accumulates in the body and produces sickness. It piles up in the heart-base (*shinchi* 心地) and manifests the

6 In Hossō 法相 orthodoxy, *ādanavijñāna* is but a different name for *ālayavijñāna*, connoting its function of containing the karmic seeds and sustaining the physical body and the sense organs. Tanzan’s ideas concerning the *ādanavijñāna* seem to draw inspiration from earlier categorizations of consciousnesses proposed in the Dilun 地論 and Shelun 撰論 scholastic traditions, in which *ālaya* and *ādana* were considered different types of consciousness.

hindrance of afflictions (*wakushō* 惑障). This is the origin of delusion and awakening.

TOZS: 83

In order to be liberated from the various afflictions caused by the contamination of enlightened by unenlightened consciousness, the Buddhist practitioner needs to develop meditative concentration and discerning wisdom (*jōe* 定慧), which can disrupt the influx of impurities into the pure mind. Once this is achieved, delusion and awakening, themselves but a false dichotomy rooted in ignorance, both disappear (TOZS: 96).

In sum, Tanzan inherited from the *Awakening of Faith* the problem of the origin of ignorance. Tanzan's solution was to propose a physiological model of the mind based on two forms of consciousness, enlightened and unenlightened, each of which was identified with a neurofluid secreted by a specific organ of the nervous system. Ignorance meant the admixture of these two fluids, which resulted in phenomenal consciousness and subsequent suffering and afflictions. Consequently, if ignorance is nothing but a remediable distortion in the flow of neurofluids, then ultimately it has no independent existence. In this way, Tanzan could preserve what he considered the fundamental message of the *Kishin ron* without having to resort to mystical obscurantism.

From a modern perspective, Tanzan's understanding of consciousness as a neurofluid appears perhaps no less eccentric than the Buddhist metaphysics he sought to overcome. Yet if we consider Tanzan's background and the intellectual landscape in which he moved, his proposition becomes less stupefying. First, as Yoshinaga has pointed out, the notion that certain sicknesses are caused by irregularities in the flow of *ki* 氣 (Ch. *qi*) is a fundamental principle of traditional East Asian medicine and one with which Tanzan, a trained physician, certainly was familiar (Yoshinaga 2014: 82–83). *Ki* also was closely connected to bodily fluids, including blood, which in turn was seen as intimately related to the human spirit (Ch. *shen* 神; Jp. *shin*) (Ogawa 1984: 164). East Asian medicine thus provided Tanzan with a general model in which spirit, bodily fluids, and the circulation of a semi-material force were closely linked.

Furthermore, the head of the academy at which Tanzan studied Confucianism, Satō Issai, was keenly interested in the arts of “nourishing life” (*yōjō* 養生) through the preservation of *ki* (Kondo 2005). Issai's interest in and somewhat rationalistic approach to this topic was far from an outlier in Tokugawa Confucian circles. In 1713, the pioneering scholar Kaibara Ekken 貝原益軒 (1630–1714), then 83 years of age, published a treatise on the nourishment of vitality, the *Yōjōkun* 養生訓. This text turned out to be something of a bestseller, not least, perhaps, due to the author's venerable age, which conferred on it a cer-

tain credibility. In articulating his theory of health, Ekken drew on and integrated both East Asian medical theory and Neo-Confucian thought. Besides stressing the importance of exercise, nutrition, and oral hygiene, Ekken cautioned against prolonged periods of inactivity, which cause the *ki* to stagnate (*todokoori* 滞り) and thereby cause illness (Ahn 2008: 179–180). This latter idea closely resembles Tanzan's notion that affliction stems from semi-material consciousness coagulating within the body.

Even after taking tonsure as a Zen monk, Tanzan had ample opportunity to indulge an interest in curative and life-prolonging practices. The influential Zen reformer Hakuin Ekaku 白隠慧鶴 (1686–1769) chronically suffered from a condition he termed “meditation sickness” (*zenbyō* 禪病). In his *Yasen kannā* 夜船閑話, Hakuin recounts meeting the mysterious Hakuyū the Immortal (*Hakuyū sennin* 白幽仙人), from whom he learned curative meditative techniques, through which he succeeded in restoring his health by concentrating his vital *ki* in his lower body.⁷ Tanzan likewise claimed that during one of his periods of asceticism, he met a hermit called Shōkō 正光, who transmitted to him the essentials of the path of immortals (*sendō no daiyō* 仙道之大要) (Hara 1884: 2). As discussed below, the meditative manipulation of neurofluids was an essential part of Tanzan's physiological Zen and the way in which he sought to bolster its scientific credentials. In addition, Tanzan's student Araki Giten 荒木磯天 (n.d.) describes concentrating one's spirit *ki* (*shinki* 神氣) in the abdomen as an aid to separating enlightened from unenlightened consciousness (Araki 1907: 116). In a word, Tanzan could draw on a rich tradition of meditative cures, transmitted as part of the contemplative know-how of the Zen tradition, in order to construct his physiological Buddhism.⁸

7 For a discussion and translation of the *Yasen kannā*, see Waddell (1995).

8 The meditative cures of the Zen tradition were part of a wider East Asian Buddhist discourse on meditational sicknesses and healing. See for example Salguero's translation of the ninth chapter of the Chinese Tiantai 天台 patriarch Zhiyi's 智顛 (538–597) *Xiui zhiguan zuochan fayao* 修習止觀坐禪法要 (Salguero 2012). Furthermore, although I have discussed Tanzan's background under the headings of medicine, Confucian thought and the strand of meditative energy work associated with Hakuin, these were incorporated into the practical spirituality of the Tokugawa and early Meiji periods as described by Anderson Sawada (1993, 2004). Yoshinaga (2014: 83) and Stein (2019: 39) also claim a “Daoist” influence on Tanzan. This assertion seems problematic given the highly diffuse nature of Daoism in general and in Japan in specific. As Gaynor Sekimori (2018: esp. 181–183) has argued in her review of *Daoism in Japan: Chinese Traditions and Their Influence on Japanese Religious Culture*, the major problem consists in “dislodging [Daoism's] specificity from the broader mass of Chinese culture that has entered Japan over 15 centuries” (Sekimori 2018: 181). Nothing in Tanzan's writings seems to suggest that he was inspired by any specifically “Daoist” sources rather than by the wider Chinese cultural heritage.

Tanzan’s intellectual background thus contained many elements that would have predisposed him towards his physiological turn. Yet Tanzan himself points out that the most important factor was his encounter with Western science and medicine. As he writes in the preliminary remarks to the “Shinshiki ron”:

The details of the origin and branches of the flow of mind and consciousness (*shinshiki* 心識) are not explained in the scriptures and treatises (*kyōron* 經論). This is the reason [I] now sift through (*shusha* 取捨) the explanations of the West and bind them to the essential way of practice and verification (*shūshō*, alt. *shushō* 修証).

TOZS: 92

In other words, Tanzan turned to Western knowledge to work out the particulars of his physiological Zen. Fortunately, in his 1873 *Shinshō jikken roku* 心性実験録, originally published as *Buppō jikken roku* 仏法実験録 in 1871, he provides us with at least some of his sources (TOZS: 105–125).⁹ Yoshinaga has already suggested the importance of Western medical knowledge as filtered through traditional Sino-Japanese conceptions of the body for understanding the origins of Tanzan’s notion that the mind has some kind of neurofluid as its substrate (Yoshinaga 2014: 84–86). A closer look at the texts cited by Tanzan allows us to pinpoint this influence more precisely. To give but one example, Yoshinaga comments that when Hara “learned [Dutch medicine], the standard textbook on Dutch medicine was Udagawa Genshin’s (1769–1834) *Seisetsu ihan teimō shakugi* [sic. *Seisetsu ihan teikō shakugi* 西説医範提綱積義, 1805]. ... it is

9 These include: (1) *Jinshin kyūri sho* 人身窮理書, 1856. *Nouveaux Éléments De Physiologie* (1817) by Anthelme Balthasar Richerand (1779–1840), translated by Hirose Genkyō 広瀬元恭 (1821–1870) from the Dutch translation by Abraham van Erpecum (1796?–1838?), *Nieuwe Grondbeginselen der Natuurkunde van den Mensch* (1821). On a different translation of the *Éléments*, see Clements (2015: 169–171). (2) *Byōgaku tsūron* 病学通論, 1849. By Ōgata Kōan 緒方洪庵 (1810–1863). (3) *Kenzen gaku* 健全学, 1867. *The Book of Health* (1850) by Robert James Mann (1817–1886), translated by Sugita Gentan 杉田玄端 (1818–1889) from the Dutch adaptation by Jacob Leonard de Bruyn Kops (1822–1887), *Eenvoudige Gezondheidsleer* (1857). (4) *Hakubutsu shinpen hoi* 博物新編補遺, 1869. *An Introduction to the Sciences* (1861, originally published 1836) by William (1800–1883) and Robert Chambers (1802–1871), translated by Obata Tokujirō 小幡篤次郎 (1842–1905). For other translations of works by the Chambers brothers, see Naganuma (2012). (5) *Kaitai shinsho* 解体新書, 1774. *Anatomische Tabellen* (1722) by Johann Adam Kulmus (1689–1745), translated by Sugita Genpaku 杉田玄白 (1733–1817), Maeno Ryōtaku 前野良沢 (1723–1803), and Nakagawa Jun’an 中川淳庵 (1739–1786) from the Dutch translation by Gerardus Dichten (?–1770?), *Ontleedkundige Tafelen* (1734). (6) *Zentai shinron* 全体新論 (1851). *Quanti xinlun* by Benjamin Hobson (1816–1873). (7) *Seiyō jijō* 西洋事情 (1866–1870), by Fukuzawa Yūkichi 福沢諭吉 (1835–1901).

likely that it would have been one of the first [texts] Tanzan consulted when he began to study Western medicine" (Yoshinaga 2014: 86). The *Shinshō jikken roku* bears out Yoshinaga's intuition as it contains a highly relevant quotation from the *Ihan teikō*:

The brain marrow is the central seat of the spirit (*seishin* 精神). It produces a wondrous liquid (*reiki* 靈液) and gives rise to the nerves, through which develops the organ [that controls] waking and rest, movement and stillness, nurture and nourishment. This [organ], which is at the back, is the spine.

TOZS: 119

This passage demonstrates the close relationship that medical theories, even if they claimed a Western pedigree, postulated between spirit or consciousness and some form of mysteriously efficacious fluid circulating the nervous system. Furthermore, the notion that the brain is the seat of spirit or intellect, whereas the spine is responsible for the vegetative functions maintaining the body, anticipates the division of labor between Tanzan's enlightened and unenlightened forms of consciousness.¹⁰

As has become clear from the above, Tanzen derived his physiological theories from a number of interwoven contexts, which include traditional Japanese or East Asian medicine, late Tokugawa Confucian thought, and the meditative know-how of the Zen tradition. Yet the most significant influence was Tanzan's encounter with Western medicine. Tanzan sought to remedy the perceived weaknesses of traditional Buddhist thought by augmenting it with this cutting edge scientific knowledge. Yet he was clear that this theory should not be construed as an uncritical surrender to science.

It may be that the Small and Great [Vehicles of Buddhism] are fully provisioned with the explanations of the practice and verification of delusion and awakening, with the nature and characteristics of mind and consciousness [as taught in] the scriptures and treatises, and that other

10 As Yoshinaga has remarked, *rangaku* 蘭学 or Dutch studies, to which the field of Western medicine belonged, constitutes less a direct transmission but rather a creative adoption of Western knowledge (Yoshinaga 2014: 85). What complicates this already tangled situation even more is that Japanese scholars often relied on Chinese works to access Western knowledge. More often than not, these works were co-productions between Western missionaries and their Chinese interlocutors, thereby adding a further layer of potential transcultural confusions. A case in point is the *Quantixinlun* quoted by Tanzan. On this text, see Chan (2012).

teachings cannot equal them [on this point]. However, they [i.e. the Small and Great Vehicles] do not teach their [mind and consciousness’] location (*shobu* 所部) [in the body], and on this point are deficient. Western natural science (*seiyō no rigaku* 西洋之理学) explains the location of mind and consciousness in great detail. ... However, it does not explain the true essence of delusion and awakening. (Westerners only see the characteristics of mixed [i.e. phenomenal] consciousness and consider these the fundamental essence of mind. They do not yet know the true essence of enlightened and unenlightened consciousness.) For this reason, I now take that [i.e. Western science] and augment this [i.e. Buddhist teachings].

TOZS: 94

According to Tanzan, Western science could contribute towards untangling the riddle of ignorance by providing information on the physiological grounds of consciousness. However, in so far as the sciences mistake phenomenal consciousness for the whole of consciousness, they are unaware of the underlying structures of enlightened and unenlightened consciousness, and consequently cannot account for ignorance nor offer a route to liberation. It is only through the combination of Buddhist teachings with Western, scientific knowledge that the ignorance about ignorance can be dispelled and thus suffering overcome.

On its own terms, Tanzan’s strategy immediately encounters an epistemological difficulty: If neither science nor Buddhism on their own can account for ignorance, how can it be shown that their combination arrives at the correct conclusion? Tanzan replies as follows.

... This is what I have discovered through research and experimentation (*seikyū jikken* 精究実験) and [it is therefore] not in the least [just] my private opinion.

TOZS: 95

Tanzan insists on the fact that his solution to the ancient problem of ignorance is based on his own *jikken* or ‘experimentation,’ which provides the basis for judging *both* science and Buddhism. It is to the thorny issue of *jikken* that the next section will turn.

3 Tanzan's Understanding of *jikken*

There can be little doubt that Tanzan's turn to science, especially medicine, and consequent emphasis on the necessity of *jikken* stems from his dispute with the physician and scholar Komori Sōji 小森宗二 (1804–1862). Tanzan's obituary, published in the *Meikyō shinshi* 明教新誌, describes this fateful encounter in detail.

[Tanzan] also met a person [called] Komori Sōji, who was a physician using Dutch [i.e. Western, rather than traditional Japanese medical] methods. The master [i.e. Tanzan] met him in Kyōto, and they fell into exchanging ideas when the topic of the six consciousnesses¹¹ came up. The master explained that the six bases [or sense organs] are paired with the six objects [of perception] and thus produce the six consciousnesses. Sōji said, “[They] say that the six bases each have their location [in the body]. I have nothing to quarrel about concerning the five bases [of the physical senses]. It is simply that I cannot yet accept that the mind base is located in the flesh heart (*nikudan shin* 肉団心), that this flesh heart is in the chest, and that it has six divisions (*rokuben* 六弁).¹² When physicians use the skill of dissection, and [seek to] verify this [claim] according to the facts (*jitsu ni yorite kore wo ken suru ni* 実に拠りて之を験するに), the only thing resembling this ‘flesh heart’ is the heart. However, the heart only receives and passes the blood, and there is not a single proof that it pairs with a mental object and thereby produces consciousness. Just like all the vain boasts of Buddhism, your words are only empty talk and do not bear believing!” The master could not dispute [this]. From then on, considering Western learning to be based upon experimentation (*jikken*) and of no little value, [Tanzan] devoted himself to Western learning through translated books.

TOZS: 395–396

This account, although written many years after the event, accords both with Tanzan's own presentation of his intellectual development and with the testimony of his students (see for example Araki 1907: 6–8). The episode shows Tanzan attempting to defend the traditional Buddhist theory of consciousness,

11 The six sense consciousnesses, i.e. the five consciousnesses associated with the physical senses and the mind consciousness.

12 This is likely a mistake. The heart base is said to have eight, not six, divisions, thus resembling a stylized lotus flower.

according to which sense consciousness arises when a sense organ encounters a sense object. By this account, mental consciousness is akin to sense consciousness and arises when the mental organ encounters a mental object. Although not themselves material, sense organs, including the mental organ, are taken to have a physiological support and location in the body. In some versions of this theory, the mental organ is said to reside in the physical “flesh heart.”

Using his Western medical learning, Komori rebukes Tanzan’s explanation of the origin and physical basis of mental consciousness. He explains that the “flesh heart,” posited by the Buddhists to be the physical support of consciousness, can have no other equivalent in the human organism but the heart itself. The latter, however, merely pumps the blood through the body and has no role in the generation of consciousness. This, Komori emphasizes, has been verified through the dissection of the human body. Consequently, if compared to the secure, empirical knowledge produced by Western science through experiments, Buddhism is but empty talk. It should be noted that the phrase Komori uses to make this assertion, “*jitsu ni yorite kore wo ken su*” literally translates to “verifying it by relying on the facts” and essentially paraphrases the term *jikken*. This suggests that in Tanzan’s case, too, *jikken* was more closely associated with the empiricist criterion of true knowledge advocated by the sciences rather than with a more general form of experience.

The context of empiricism is clearly apparent in a third essay contained in the *Jitoku shō*, the “Treatise on the Difference between Brain and Spine” or “*Nōseki itai ron*” 脳脊異体論, which Tanzan opens as follows.

Relying on the doctrinal principles of Buddhism, I have discovered a fact of utmost importance concerning the human body and mind. Now, not rashly declaring it correct on my own, I wish to announce it widely to men of great learning throughout the world [in order to receive confirmation].

TOZS: 98

Tanzan, in other words, does not address his important discovery to a specifically Buddhist or even religious audience. Rather, his appeal is to all men of learning. After outlining his physiological Buddhism, Tanzan reveals the gist of his great discovery.

Relying on this principle [of the three different types of consciousness, i.e. the enlightened, the unenlightened and the phenomenal], after some ten years of observational research (*kansatsu kenkyū* 観察研究) I have discovered its true [material] essence [in the nervous system]. Concerning

this, there is great confusion [to be found] when surveying the writings commonly circulating among physicians. That is to say, they are correct in making the brain the origin of consciousness (*shinshiki* 心識) and the soul (*shinkon* 心魂). [However], they are mistaken in considering the spine to be the same entity and to fulfill the same function as the brain.

TOZS: 99

Tanzan repeats his earlier charge that Western science offers a detailed explanation of phenomenal consciousness, yet is ignorant of its underpinnings in enlightened and unenlightened consciousness. On the physiological level, they consider the brain and spine to be a single unit. This is a severe mistake, as Tanzan discovered through “observational research.” Brain and spine ooze the liquids corresponding to enlightened and unenlightened consciousness, respectively, and thus support different forms of consciousness. Given this difference in function, Tanzan argues, it follows that brain and spine ought to be considered two separate organs.

Tanzan was not content to merely gesture towards the precedent of Buddhist treatises or some unspecified inner experience when challenging the results of modern scientific research. Rather, he considered his great discovery regarding the difference between brain and spine to be as empirical as the insights of modern medicine, and furthermore, arrived at by an experimental process identical to the one used in the natural sciences, as the following passage makes clear.

Generally, the Western explanation of the human body is established on [the basis of] two thousand years of experimentation (*jikken*) in the investigation of natural laws and in dissection. If I were to try to disprove them by relying merely on the explanations [derived from] Buddhist introspection (*naikan* 内観), it is to be feared that people will find it hard to give me credence. For this reason I myself will employ a number of instances of intimate proof through experimentation (*jikken*).

When cutting off the [flow of] consciousness in the abdomen through the power of meditative concentration, I have felt a surge and overflow of consciousness in the chest and head. When I cut consciousness off in the chest, the chest becomes empty and pure, while the head surges. When cutting it off in the brain, chest and brain are empty and pure, but the circulation of fluids in the hindbrain and spine surges. This is the first proof.

TOZS: 101

Tanzan continues to offer a number of further, similar proofs he considered capable of demonstrating the veracity of his scheme even to those familiar with the results of 2000 years worth of Western experimentation supporting the—now, thanks to him discredited—notion that brain and spine function as a single unit. So convinced was Tanzan of the persuasive force of his experimentation that he wrote to foreign scholars such as the missionary and physician M.L. Gordon (1843–1900), informing them of his discovery and even inquiring how he could have the meditative method by which he had arrived at this conclusion patented (TOZS: 335–336).

In sum, Tanzan understood the proof he offered for his assertion that brain and spine are two different physiological units as a form of meditative vivisection, yielding results that, in their evidentiary weight, equal those achieved by the physiologist. Tanzan thus considered his own experimentation or *jikken* to be the equivalent of scientific, empirical inquiry and therefore sharply differentiated them from mere Buddhist introspection. The latter, he implied, carries no persuasive weight in an age besotted with science. As the next section will demonstrate, this insistence on the empirical nature of valid knowledge also served Tanzan well in his confrontation with his Buddhist critics.

4 Tanzan and His Critics

Especially in the early part of his career, Tanzan’s appeal to Western science attracted considerable criticism from more cautious Buddhist thinkers. This section will discuss two such attacks on Tanzan, focusing on his polemical use of *jikken* as a rhetorical strategy to undermine his Buddhist critics. The earliest attempt to refute Tanzan’s novel theory was made by Nishiari Bokusan 西有穆山 (1821–1910), a prominent teacher in the Sōtō Zen school to which Tanzan himself belonged. Bokusan was instrumental in establishing the *Shōbōgenzō* 正法眼藏, the infamously equivocal *magnus opus* of the school’s founder, Dōgen 道元 (1200–1253), as the central text of Sōtō sectarian studies.

Bokusan penned a refutation of Tanzan’s physiological Zen as formulated in the “Shinshiki ron,” which was published, together with Tanzan’s reply, as *A Refutation of the Abbreviated Discussion of the Treatise on Mind and Consciousness* or *Shinshikiron ryakuben happa* 心識論略弁反破. The exact dates of the two masters’ dispute are unclear, but in his introductory remarks Tanzan mentions that he received Bokusan’s criticism after having already sent the “Shinshiki ron” to scientists in both Japan and the West, which he did in 1870 (TOZS: 125, 335–338). It thus seems likely that Bokusan penned his missive not long after.

Bokusan accepts that the Buddhist scriptures do not touch upon the physiological basis of consciousness. While Tanzan considers this a fatal flaw, Bokusan asserts that it is perfectly unproblematic since consciousness is formless, and therefore cannot be identified with any specific body parts:

The reason the Buddha did not specifically teach the location of mind and consciousness (*shinshiki* 心識) is that it is divided into six kinds: visual, aural, olfactory, gustatory, tactile, and mental. As consciousness (*shiki* 識) is formless, it complements the six bases and has no fixed location.

TOZS: 125

To Bokusan, consciousness covers both physical and non-physical phenomena, therefore it itself needs to be formless and cannot be confined to any specific location. Furthermore, Bokusan continues, while the five physical senses indeed do have physical bases in the body, the mind base, in so far as it belongs to the mental rather than any of the sense consciousnesses, is formless. However, Bokusan points out, formless consciousness manifests and functions through form, and thus different parts of the body are more closely associated with one or the other of the five sense consciousnesses, for example the eyes with visual consciousness or the ears with aural consciousness. The head naturally becomes associated with consciousness itself, as all six senses (the five physical senses plus mind) are particularly active there (TOZS: 126). Bokusan concludes,

It is merely due to the acuity or dullness of the bases that their associated locations are endowed with fullness or lack of consciousness. Because of this, various heretical views (*jaken* 邪見) arise. The heretical view from China argues that consciousness resides in the chest or in the cinnabar field (i.e. the abdomen, C. *dantian* 丹田, J. *tanden*). The heretical view from the West argues that it [resides] in the head. They each have their [own] unique explanation (*ichii* 一意). However, none of them is the correct view of the Buddha. It is merely that heretical views are deeply rooted and their arguments (*ri* 理) most skillful that they are respected in the world. Oh, how could anyone believe in such things?

TOZS: 127

Bokusan's case against Tanzan rests on the assertion that consciousness is formless and therefore any attempt to assign a definite physiological location to consciousness is heretical. Two points should be clearly noted with regard

to Bokusan’s argument. First, the heresy of localized consciousness includes both the Chinese superstition that consciousness resides in the chest or the lower abdomen, and the Western scientific fallacy of locating it in the head. Only the Buddhist view that consciousness is formless can be given credence. In other words, Bokusan, like Tanzan, does not observe any clear difference between ‘religious’ and ‘scientific’ truth claims. Both men believe that a unitary standard can apply equally to the statements of science and the revelations of religion, rendering them commensurable. It is only on the question which standard is to be applied that Tanzan and Bokusan differ, which raises the second point: Bokusan does not actually argue his critique of Tanzan. Instead, he merely invokes the *a priori* epistemic authority of the Buddha. Tanzan, on the other hand, seeks to offer proof in accordance with ‘experimentation’ or *jikken*, which, in principle, is open to all, as his attempts to directly engage scientists and others who would not admit the authority of the Buddha show. This divergence of recognized epistemological standards is clearly expressed in Tanzan’s pithy reply to Bokusan’s criticism:

Already the entire world has been convinced of their [i.e. Western scientist’s] explanation [that consciousness resides in the brain] because of the clarity of [its proof through] experimentation (*jikken*). It is virtually undisputed now in both East and West, and the learned consider it definite. Why [do you, Bokusan], close your ears and eyes?

TOZS: 127

Tanzan here appeals to *jikken* not to settle a dispute among rivaling scientific theories, or even between Buddhism and science, but rather to rebut the doctrinal position of a fellow Buddhist. *Jikken*, in other words, becomes the sole standard on which Buddhist dogmatics can be judged. Consequently, Tanzan’s dispute with his critics was only on the superficial level about whether mind has a physical basis or not. Actually, it revolved around the question of how, and on which grounds, reliable religious knowledge can be established in an age that affirms the superiority of the empirical and merely human over the revelatory and more-than-human.

Of course, Tanzan was not the only Buddhist in the Meiji period to urge the adoption of scientific insights. In 1872 Shimaji Mokurai 島地黙雷 (1838–1911) sent a letter to the *Kyōgi shinbun* 教義新聞 (Nr. 2, October 1872: 11–12), Japan’s first religious newspaper, in which he admonished his fellow priests to abandon their unlearned ways and embrace modern scientific knowledge. Over the next couple of decades, asserting the scientific nature of Japanese Buddhism, especially in reference to evolution, became a common strategy for its apolo-

gists.¹³ What sets Tanzan apart was not only how early he had identified the problem science posed to Buddhist thought, but also his unflinching advocacy for empirical evidence as the sole foundation of both scientific and religious knowledge.

This point is also discernible in Tanzan's treatment of traditional Buddhist meditative technologies, which both Bokusan and Tanzan label *naikan* 内観 or introspection, though with opposite intentions. On the role and importance of meditation, Bokusan argues that,

even without knowing the location of consciousness, he who completes the merits of introspection, clearly cutting off the afflictions and verifying the truth, truly can be called a hero of the [*Buddha*]*dharma*.

TOZS: 131

Bokusan considered the question of the physiological basis of mind secondary at best. Successful Buddhist practice involved cutting off the mental afflictions through introspection, regardless of any underlying theory concerning the mind-body problem. Tanzan replies to this argument in the following way:

The *Śūraṅgama sūtra* says: "If you wish to catch a thief, you must first investigate his whereabouts in detail." Now, introspecting without knowing the location [of mind and the afflictions], this would be contemplating what? It is wanting to cut off insubstantial (*mutai* 無体) afflictions with a formless mind!

TOZS: 131

In this passage, Tanzan argues that traditional Buddhist introspection, which is based on a metaphysical view concerning the formlessness of mind, is entirely ineffective as it seeks to overcome an unreal problem using imaginary means. What is needed to render Buddhist meditative technologies effective, Tanzan suggests by quoting the *Śūraṅgama sūtra*, is to first ascertain the physical conditions of their objects via *jikken* or experimentation.

From this brief presentation of Tanzan's dispute with Bokusan, it is readily apparent that the appeal to *jikken* or 'experimentation' in Tanzan's polemics functioned in a very specific way. Rather than seeking to carve out a space for religious truth beyond the clutches of the natural sciences, as Suzuki and Sasaki

13 For an in-depth study of the Japanese Buddhist response to and adoption of evolutionary theory, see Godart (2017).

would try half a decade later, Tanzan instead invoked the epistemic authority of the empirical in order to defeat rival doctrinal positions and approaches to Buddhist thought and practice. The strategic role that *jikken* played in Tanzan’s confrontation with his conservative critics is also apparent in a polemical exchange between himself and the Jōdo priest Fukuda Gyōkai 福田行誠 (1809–1888), one of the most influential Buddhist clerics of the late Tokugawa and early Meiji periods. In common with figures such as Bokusan or Shaku Unshō, Gyōkai represented the conservative tendency within early modern Japanese Buddhism.

Gyōkai’s confrontation with Tanzan was published, together with Tanzan’s reply, in 1888 as the *Shinshō jikken roku hihan saigo hi* 心性実験録批判最後庇 or *Final Shelter from Criticism of the Shinshō jikken roku*. In this text, Gyōkai presents a detailed criticism of the *Shinshō jikken roku* 心性実験録, in which Tanzan summarized and systematized the findings already presented in the *Jitoku shō*. The dispute between the two masters stems from their mutually exclusive approaches to the challenges of modernity. In the introduction to the *Shinshō jikken roku hihan saigo hi*, Tanzan summed up their disagreements.

[There are] three differences [between Gyōkai and myself]. First, the master [Gyōkai] relies on the authentic precedents of the scriptures and treatises while I rely on the self-nature of beginningless fundamental being (*musho honnu no jishō* 無始本有の自性). Second, the master wishes to establish the clear discernment of the principles and doctrines of the scriptures and treatises, while I wish to clarify by experimentation (*jikken*) the *dharma* essence of self-nature (*jishō hōtai jikken* 自性法体実験). Third, the master, considering the *Dharma* and teaching of the ancient Buddhas the vital point, vows to clearly [re]establish the *Budhadharma* [as it was] in the distant past, while I vow to demonstrate decisively the unchanging true *Dharma* of the universe through experimentation (*jikken*) on the fundamental nature of the non-duality of beings and Buddhas.

TOZS: 134–135

As this passage makes clear, the clash between Tanzan and Gyōkai is one about the nature of religious knowledge and the means by which it can be ascertained. Whereas Gyōkai considers scriptures and treatises the ultimate religious authority, Tanzan instead appeals to the fundamental nature of reality itself. Consequently, for Gyōkai, textual criticism and hermeneutics are the high road to establishing the true meaning of the words of the Buddhas and ancestors, whereas Tanzan advocates experimentation as the approach

through which fundamental secrets can be brought into the open. Finally, whereas his conception of epistemological authority and method firmly lodges Gyōkai's Buddhism in the past and makes his project one of restoration, Tanzan lays claim to the timeless truth of universal principles, which he proposes to firmly establish through the innovative method of 'experimentation.'

The clash of Tanzan and Bokusan's respective religious paradigms is obvious from their different understanding of the role of and approach to scriptural quotations. In the *Shinshō jikken roku*, Tanzan adduces the *Mahāyāna mahā-parinirvāṇa sūtra* (*Nehan kyō* 涅槃經) as scriptural proof for his discovery that the mind resides in the brain:

The head is the main hall, the mind king (*shinnō* 心王) resides therein.

TOZS: 110; T 12: 367b

Tanzan explains that this passage shows that theories according to which the mind resides in the heart or chest are later superstitions originating in China and therefore not the original intention of the Buddha (*hotoke no hon'i* 仏の本意). Rather, the quote represents a "secret explanation" (*missetsu* 密説) to the effect that the mind is located in the brain. Unfortunately, the Buddha's original discovery had soon been forgotten. It is only now that he, Tanzan, recovered the Buddha's original meaning by "relying on the experimentation of the natural sciences of the West" (*sei'yō no rigaku jikken o mune to su* 西洋の理学実験を旨とす) (TOZS: 110). 'Experimentation' or *jikken* is thus positioned as the key with which the "secret explanations" of the scriptures can be unlocked and as a standard according to which competing interpretations of doctrine can be empirically evaluated.

The problem is that the passage Tanzan quotes actually says almost the exact opposite of what he claims it does. The full passage reads as follows:

This body is like a castle. Blood, flesh, tendon, bone, and skin are its outer surface, hands and legs form its defense towers, eyes are its windows, the head is the main hall. The mind king resides therein.

T 12: 367b

This simile suggests that the whole body, rather than just the brain or head, should be viewed as the seat of mind, just as a sovereign controls the totality of his castle.¹⁴ In his rebuttal of Tanzan, Gyōkai pointed out the flaw in Tanzan's

14 This has also been pointed out by Matsumura Ryōei 松林了英 (n.d.) in a critical review of the *Shinshō jikken roku*. See Matsumura (1877).

claim to scriptural proof by dryly asking if the passage from the *Mahāparinirvāṇa sūtra*,

also should be considered a secret explanation that the mind is in the arms and legs?

TOZS: 144

Gyōkai thus relied on textual evidence to show that Tanzan’s insistence on having recovered the true message of the Buddha through ‘experimentation’, and furthermore being able to prove his success by appeal to the scriptures, is based on philological incompetence. Tanzan, however, was not impressed by Gyōkai’s argument, as his rebuttal of the conservative scholiast’s criticism shows:

If investigating them based on experimentation, my Buddhism and the explanations of the Western sciences have [points of] agreement and [points of] disagreement. [But regarding t]he explanation that the spirit (*ryōkaku* 靈覺) has its original place in the brain, [the] 30 years of research (*seikyū* 精究) [I and Western scientists have conducted have] settled [the matter] and [it] cannot be moved.

TOZS: 144

This short passage encapsulates the essence of Tanzan’s message, not so much on the level of actual content but rather on the underlying level of the principles that guide his exposition. Experimentation is the epistemic standard that secures both science and Buddhism. The explication of scripture, therefore, cannot follow any standard other than experimentation, and philological counterarguments, rather than having to be engaged with, are simply voided. The invocation of ‘experimentation’, with its empirical overtones, thus becomes a cudgel to be applied enthusiastically to Tanzan’s Buddhist criticisms.

A similar strategy is displayed in Tanzan’s reply to another of Gyōkai’s criticisms. Relying on a lengthy exposition of Buddhist cosmology, Gyōkai pointed out that the Buddhist cosmos was comprised of three levels, namely the sphere of sensual desire (*yokukai* 欲界), the sphere of form (*shikikai* 色界) and the sphere of formlessness (*mushikikai* 無色界). In the last and highest of these spheres, consciousness exists but (common) matter does not. This, Gyōkai asserts, shows that matter is derived from and dependent on consciousness, not the other way around (TOZS: 145–148). Tanzan’s reply to this argument is as dismissive as the one quoted above:

Form [sphere], formless [sphere], the various heavenly abodes, ... I have not yet even done experimentation on the existence or non-existence of Mt. Sumeru, the location of the various heavenly abodes, how much less so of the heavens [themselves]? I have simply no doubt in the definiteness of my experimentation that in the human body, the fundamental essence of Buddha nature and true mind is located in the head and brain.

TOZS: 149

Tanzan's reference to Sumeru is hardly accidental. According to traditional Buddhist cosmology, the meditative heavens of the form and formless spheres, which the practitioner accesses through ever more refined levels of meditative concentration, are arranged hierarchically above this mythical mountain located at the center of a flat, disc-shaped earth. Consequently, Sumeru is shorthand for the close entwinement between Buddhist cosmology and soteriology. As such it became a preferred target for Christian missionaries, who used Sumeru to highlight Buddhism's supposedly irrational and anti-scientific nature. In this context, Tanzan's invocation of Sumeru is highly significant, for Gyōkai does not actually refer to the mountain in his exposition of the various heavens. Tanzan polemically connects Gyōkai's criticism with the empirically disproven cosmology of traditional Buddhism and contrasts it with his own, supposedly scientific, understanding based on experimentation.

The polemical effectiveness of 'experimentation' or *jikken* in Tanzan's counterattack on Gyōkai is rooted in its normative function of circumscribing what can meaningfully be said about Buddhism. As Tanzan himself put it in the conclusions to his reply to Gyōkai:

Broadly speaking, among the scriptures and treatises, those like the *Yuikyō gyō* 遺教經¹⁵ or the *Kishin ron* can be verified by experimentation in their entirety. In the *Yuishiki ron* 唯識論 and *Kusha ron* 俱舍論 [on which Gyōkai's criticism is based] there is much that is hard to do experimentation on, and when inquiring with the scholiasts of these doctrinal positions, much that has nothing to do with experimentation. (If they say that these [teachings of the *Yuishiki ron* and *Kusha ron*] are the perceptual realm seen by the holy ones [i.e. the Buddhas and advanced *bodhisattvas*] and deluded beings have no part in them, then it must be a teaching that is useless for today!)

TOZS: 163

15 *Yuikyō gyō* or the *Sūtra of the Bequeathed Teaching* is the abbreviation of the title of the

Tanzan's claim is that what cannot be verified by experimentation, or what is the sole preserve of the Buddhas, is not relevant for modern Buddhism. The flipside of this argument makes it clear whose preserve ‘experimentation’ is, namely that of ordinary beings. Tanzan, in other words, rejects supernatural forms of revelation in favor of grounding religiously relevant knowledge in a naturalistic paradigm.

There are strong indications, however, that Gyōkai held a more sophisticated view on Mt. Sumeru than Tanzan gave him credit for. As shall be argued in the Conclusions, in certain respects, it was actually the conservative Gyōkai who contributed important elements to the final discovery of ‘experience’ as interior, subjective reality characteristic of the Buddhism advocated by the likes of Suzuki and Sasaki. Gyōkai was loath to yield even an inch on the reliability and authenticity of the Buddhist scriptures. This attitude became problematic in 1876, when the Japanese government prohibited the teaching of the traditional Buddhist cosmological model focused on Mt. Sumeru (Umebayashi 2007: 50). In 1878, Gyōkai's followers published a lecture of his, *Shumisen ryakusetsu* 須弥山略説 or *A Brief Explanation of Mt. Sumeru*, in which Gyōkai pushed back against this prohibition. Gyōkai insisted that Mt. Sumeru was indispensable to understanding the Buddhist worldview, and especially the fundamental teaching of karmic rebirth (Fukuda 1878: 8–11). In doing so, he distanced himself from what he considered three wrong interpretations of Mt. Sumeru: First, Sumeru is not a metaphor, as it actually has been seen by eminent Buddhist masters, and furthermore, does not fit with the manner in which the Buddha uses metaphor in the scriptures (Fukuda 1878: 5–8, 11–12). Second, Mt. Sumeru is not a residue of Buddhism's heathen past borrowed from Brahmanism (Fukuda 1878: 12–14). Finally, and most importantly, Sumeru is not taught as a means to making astrological or astronomical calculations (*suiho sokuryō* 推歩測量) (Fukuda 1878: 14–16).

This last point is related to a movement known as Indian calendric science or *bonreki* 梵歷. From the late Tokugawa period, Buddhist monks such as the Tendai prelate Entsū 円通 (1754–1834) sought to defend Buddhism against the threat of heliocentrism by constructing their own, competing astronomical system. They adopted the observational methods of Western science and sought to bring them in accord with the cosmological information contained in the Buddhist scriptures.¹⁶ Gyōkai's associate Sada Kaiseki 佐田介石 (1818–1882) was a prominent early Meiji representative of this movement.

Busshi hatsu nehan ryakusetsu kyōkai kyō 仏垂般涅槃略説教誡經. This text contains an admonition against the casting of horoscopes and related procedures.

16 On the *bonreki* movement, see Rambelli (2011), Umebayashi (2007) and Okada (2001).

Gyōkai took a carefully calibrated stance towards the *bonreki* movement by neither fully endorsing it nor rejecting it as false. Gyōkai argued that the cosmological information on which the *bonreki* thinkers based their system is of at best marginal importance in the scriptures. The omniscient Buddhas might impart (correct) astronomical knowledge, but their purpose was not to fuel cosmological speculation but rather to lead beings to liberation. Buddhist astronomy, in short, is likely true, but it is definitely beside the point (Fukuda 1878: 14–16).

Yet if the Buddhist teaching on Mt. Sumeru is neither a metaphor, nor an expandable pagan heritage, nor indeed astronomical knowledge, then what is it? According to Gyōkai, the answer is that Mt. Sumeru is the perceptual realm of the contemplation (*kankyō* 觀境) of the four bases of mindfulness (*shinenjo* 四念處)¹⁷ and of karmic retribution in the three spheres¹⁸ and six mundane destinies.¹⁹ Relying on the third or fourth century *Sūtra on the Establishment of Mindfulness of the True Dharma* (Ch. *Zhengfa nianchu jing* 正法念處經; Jp. *Shōbō nenjo kyō*; Sk. *Saddharmasmṛtyupasthānasūtra*), Gyōkai argues that Mt. Sumeru is the meditative object engaged by the practitioner seeking to discern twofold retribution²⁰ in the heavenly realms.²¹ Gyōkai sums up his argument as follows:

[Mt. Sumeru] has been taught as a *Dharma* gate. One should know that it is not a metaphor. It has truly been seen [by the Buddha's leading disciples through their own supramundane powers gained in meditation and by later masters through the Buddhas' intercession]. Why should [Buddhism] borrow [what little] the heretical teachings of the Brahmins can explain? It has been taught for use as the perceptual realm in contemplation. Should it rather be said that it has been taught for use of astronomical calculations regarding the movements of the heavenly bodies?

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While stopping short of outright denying the empirical nature of Buddhist cosmological teachings, Gyōkai marginalizes the very question of scientific via-

17 The body, feelings, mind-states (Sk. *citta*), and mind-objects (Sk. *dharma*).

18 The spheres of desire, form, and formlessness.

19 Those of hell, hungry ghosts, animals, wrathful deities, humans, deities.

20 The body and its corresponding environment. Thus somebody born in hell is tormented both by an infernal body and by an infernal environment. Conversely, somebody born in heaven is rewarded both with a celestial body and a celestial environment.

21 On the *Saddharmasmṛtyupasthānasūtra*, see Stuart (2015).

bility as but a secondary concern, instead placing emphasis on the role Mt. Sumeru plays as an object of Buddhist contemplation. At the same time, by refusing to consider the mythological mountain a metaphor, Gyōkai resists the temptation of reducing the Buddhist vision of the world to the merely subjective. According to Gyōkai, Mt Sumeru is an objective fact, but one disclosed not to the scientist with compass and triangle, but rather to the inner eye of the ascetic.

5 Conclusions

The aim of this paper was to depict the unique position of Hara Tanzan in the history of modern Japanese Buddhism, specifically in relation to the notion of ‘experience.’ In the early part of the 20th century, the understanding of Buddhism as an experientially grounded religion gradually became mainstream in Japanese intellectual circles and made its first forays into the West. Against the assertion of scholars such as Sharf, according to whom the Japanese Buddhist rhetoric of experience can be attributed to one-way Western influences, the present paper has argued with Bergunder that the modern—that is to say, inward, subjective, and experiential—understanding of religion emerged in a globally entangled manner in the second half of the 19th century. Consequently, to reduce the emergence of ‘experience’ as a religious category to a ‘from the West to the rest’ model of globalization ignores the creative contributions of Asian Buddhists such as Tanzan.

In the Japanese context, Tanzan stands out for being one of the first Buddhist thinkers to have discovered scientific, empiricist knowledge as a systematic problem that required a fundamental epistemological reorientation on the part of Japanese Buddhism. Other early attempts at coming to grips with Western science included the *bonreki* movement, which sought to fit empirical observations to Buddhist cosmology, as well as Tanzan’s contemporaries Bokusan and Gyōkai, both of whom, in response to Tanzan’s innovations, dismissed scientific knowledge as a secondary concern. These positions affirm the supernatural epistemic authority of the Buddha as revealed in Buddhist scripture. Within this framework, scholasticism is the high road to valid knowledge, and Buddhist practice the ascetic’s realization of textual models.

Due to his encounter with Komori, Tanzan could no longer consider this a viable approach. Instead, scientific criticism of Buddhist metaphysics had to be confronted head on. In order to do so, Tanzan appropriated the empiricist and naturalistic conception of knowledge operative in the sciences. In

this way, 'experimentation' became the single standard by which both scientific and Buddhist forms of knowledge could be judged. However, just like his critics, Tanzan did not make a clear distinction between the spheres of science and religion, a distinction intrinsic to the modern understanding of both. His conception of 'experimentation' as grounding both religion and science is by necessity ambiguous and conceptually equidistant from both the modern scientist's 'experiment' and the modern religionist's 'experience.' On this count, Tanzan's 'experimentation' fundamentally differs from Sasaki and Suzuki's 'experience,' which operates on exactly this binary in order to insulate religious truths from their scientific cousins. It thus seems unlikely that Tanzan, as Yoshinaga and Klautau have suggested, can be understood as a direct forebear to the line of thought advanced by the latter two.

A more fruitful approach might be to consider Tanzan in contrast with his critics, especially Gyōkai. Ironically, on one point, this conservative stickler for the veracity of scripture is actually closer to Sasaki and Suzuki than the self-consciously reformist Tanzan. Although Gyōkai, like Tanzan, did not differentiate religious from scientific truth claims, he nonetheless envisioned a realm of religious facts beyond the empirical, even if he did not conceive of this realm, as Sasaki and Suzuki would, in terms of religious experience but of ascetic perception. Thus one might conclude that Tanzan's quasi-empirical experimentation and Gyōkai's non-empirical ascetic perception were the starting points, both of which came to be erased, of an almost dialectical process that culminated in the discovery of the absolute subjectiveness of the facts ascertained by religious 'experience.'

Abbreviations

- T *Taishō shinshū daizōkyō* 大正新脩大藏經. 1924–1933. Edited by Takakusu Junjirō 高楠順次郎 et al. Tokyo: Taishō Issaikyō Kankōkai.
- TOZS *Tanzan oshō zenshū* 坦山和尚全集. 1909. Edited by Akiyama Goan 秋山悟庵. Tokyo: Kōyūkan.

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