Article

Farmers as Bodies-in-the-Field, Becoming-With Rice

Kei Yan Leung * and Ika Darnhofer

Institute of Agricultural and Forestry Economics, University of Natural Resources and Life Sciences, Vienna, Feistmantelstraße 4, 1180 Vienna, Austria; ika.darnhofer@boku.ac.at
* Correspondence: natalie.leung@boku.ac.at

Abstract: Research on farmers has predominately focused on how they think through the mind, i.e., their reflexivity regarding farming practices and values, as well as their cultural and symbolic representations of farming. While this literature offers valuable insights, it builds on an underlying mind/body duality. Based on qualitative interviews with 25 rice farmers in Japan, this paper focuses on the body of farmers, in terms of how bodily senses shape how farmers make sense of their farming practices. We show that the body, as the site of interaction with matter, shapes the farmers' ability to be affected by rice plants. By honing their senses, the farmers learn to make differences and to perceive new possibilities, engaging in a reciprocal process of becoming-with the rice. This ability to develop sensuous engagements may contribute to farmers developing production practices that are in harmony with the local agro-ecosystem and more generally enable new imaginations, strengthening the possibility that things could be otherwise.

Keywords: new materialism; posthumanism; relations; embodiment; affect; Japan

1. Introduction

Theorists in rural sociology have taken several approaches to conceptualize farmers. Most of these approaches have in common that they focus on how the farmers think, i.e., the cognitive processes underlying their choices. Thus, farmers are usually presented as explaining in a rational and logical way how their practices align with their preferences, motivations, values, and beliefs; and how they understand, reflect on, and take into account various technical, economic, or social constraints (e.g., [1–4]). While ambivalences and contradictions might be acknowledged, behavior is portrayed as the more or less direct outcome of cognitive processes. In this representation of farmer decision making, the farmer’s body is often neglected. Such approaches thus conceptualize the body as auxiliary, passive, and there to execute previously thought-about plans.

However, the visceral, somatic experience of the world may also play a role in how farmers encounter the world. The ability of farmers to involve in the environment surrounding their farm and to have knowledge of nature are central for farm management [5–7]. To facilitate connections with the natural environment, the body may play an important role through sensations and sensing the environment [8], e.g., making sense of soil from a tractor, including the embodied feelings of how a tractor handles the soil [9]. Agri-environmental knowledge is also obtained in the process of doing (see [7,10]), in which experiences combine with the cognition of scientific knowledge to facilitate environmental conservation [6]. Experiential practices are important because they involve an ongoing process of enskillment [11] in which farmers ‘get their hands dirty’ to figure out how the environment would change under various circumstances of the farm. All this is not to deny that farmers plan and formulate objectives but points toward a more complex interplay of body and mind in how farmers make sense of the world.

Focusing on the body might allow us to understand farming from a different perspective. As Carolan [12] (p. 149) noted, modernized agriculture seems to be more interested in ‘telling than listening, in directing rather than following, and in effecting rather than
in learning to be affected’. To shift perspective, it might be helpful to conceptualize farming differently, allowing us to attend to the material world and to explore the entanglements between humans and nonhumans. Farming can be understood as a complex inter-involvement of human body and human mind as well as multiple nonhuman actants, and how they together form an ‘effective assemblage’ (see [13] p. 88, [14,15]). This framing challenges the subject/object duality, and the hierarchy of power, where the capacities of mind of knowing subjects impose meaningful form on a passive object-world [16] (p. 64).

In this new conceptualization, the body of farmers plays a crucial role in building assemblages with nonhumans, and these assemblages are understood as influencing the farmers’ practices. Researchers in care studies have shown examples of how physical engagements and how affective and sensorial involvements of the human body with nonhumans are important to facilitate good care (e.g., [5,17–19]). Through embodied encounters such as looking at and touching plants, farmers develop affects and feel their needs, developing attentiveness toward them [5]. Meanwhile, constant observations of the plants provide farmers feedback when they experiment with different farming approaches and may lead to practices that are more adapted to the local environment [17]. Care is not only facilitated through a material engagement of the body with nonhumans but also by the affective state of the body [18], and this state can be triggered by affective moments such as enchantment [20] (see [21]) and charisma [22].

In this paper, we build on Carolan’s [12] (p. 136) invitation to unpack what farmers’ bodies do (a performative-as-process claim) rather than focusing on what they are (a fixed ontological claim). We do not want to reduce farming to a specific set of crop production techniques. Rather, we focus on farming as developing a sensibility, a learning to be affected, that enables farmers to engage in an open process of becoming-with crops, animals, and soils. Our aim is thus to contribute to the debate of how we think and talk about farmers, in particular what influences their choices and why they engage in specific crop production practices. We argue that focusing on what the body can do allows new insights into how farming practices are shaped by bodily sensibilities, and how these can enable farmers to make sense differently and thus to see different opportunities. By framing farmers as bodies-in-the-field, we want to add to the discussions that counter the representation of farmers as primarily cognitive thinkers and the dichotomous representation of cognitive and noncognitive knowing. Instead, we focus on the interplay between senses and making sense in farming. By framing farmers as becoming-with their crops, we want to emphasize the role of interactions with the natural world, as well as the processual quality of these interactions. Indeed, the ability to be affected is not a given, but a process of engagement in a reciprocal relationship, built on developing the senses and on learning to make differences.

We start by clarifying our theoretical approach and exploring the conceptual openings afforded by nondualistic approaches to the bodymind. We then outline the study site and the qualitative interviews which were conducted with 25 rice farmers in Japan. In the interviews, we invited farmers to reflect on how they situate their farming experiences within their bodies, through their sense of sight, touch, and smell. In the results section, we present our major findings, focusing on how the farmers are affected by rice and how this ability to be affected enables the farmers to develop different relations with plants, with the soil, with the landscape. We also discuss how this ability of the bodymind to be affected is a sensibility that needs to be developed and how the farmer and the rice engage in a reciprocal and open process that enables different becomings. We conclude by pointing out how this approach challenges the notion of an inert, passive, malleable word onto which the farmer impresses her or his interests.

2. Conceptualizing the Body

The ancient Greek philosopher Plato suggested a dualistic view of mind and body, which has remained influential in western philosophy. Plato suggested that the mind (soul) is imprisoned in the body, and humans can only comprehend the world and develop intelligence by separating the mind (soul) from the body [23]. In the Renaissance, Descartes
carried forward the mind-body dualism to understand how humans possess knowledge; he focused on how the mind interacts with the body [23]. For Descartes, the body is an inert thing; it is ‘not a knowing body, rather a known body, an object among others in a mechanical world’ ([24] p. 37, emphasis in original). This may be seen as a secularized form of the spirit/flesh dualism in Christian thought, which contrasts an immortal soul with a mortal body. The mind and the physical body are thus distinct, with a self that ‘experiences’ itself as being ‘inside’ the body [25] (p. 352). Associated with the mind/body dualism is the rationalistic thought that reason, which is processed by the mind, is the source of knowledge, the body being subordinate to the mind. Ever since the emergence of the mind/body dualism in ancient Greece, it has generated many debates and criticisms among philosophers. Although it is just one of the philosophical thoughts among many other western philosophies, the mind/body dualism has played a crucial role in shaping the development of modern sciences.

A nondualistic view of mind/body appeared in Western philosophy when Merleau-Ponty reformed the phenomenology of Husserl and Heidegger and rejected the Cartesian view ‘I think, therefore I am’. Merleau-Ponty [26] suggested that body is consciousness, it coexists with the world through sensing and sensations. He argued that perceptions and thoughts are not separable: we do not deduce ‘I am’ from ‘I think’; instead, ‘I think’ rests on ‘I am’ [26].

In the last two decades, there has been a growing scholarship that strives to incorporate the embodied being of farmers and nonhumans. This builds on the work of social theorists who reengage with materiality (e.g., [13,27–31]). There is an assortment of labels that may be used to refer to their approaches, including ‘the material turn’, the ‘ontological turn’, and ‘posthuman turn’. In different ways, they question hierarchical binaries such as subject/object, human/nonhuman, culture/nature, and with them the prioritization of the discursive and the representational, pushing toward a relational understanding of subjects and objects, acknowledging the dynamic powers of matter.

The East Asian philosophical tradition does not have the dualistic starting point of much of Western philosophy. There, the body is seen as an intimate part of attaining knowledge. Theoretical or conceptual understanding is seen as partial and insufficient, and to achieve full understanding, the body must live the knowledge [24,32]. For example, in Zen meditation or martial arts, the mind is trained and cultivated through bodily practice, so that the distortions of the mind can be corrected by training the body. The body is thus not mere matter; it is not just a container for the mind. It is something that is active in itself; it is a site of knowledge [24,32–34]. Japanese philosophers Watsuji Tetsuro and Yuasa Yasuo referred to this nondualistic view of humans as ‘bodymind’ ([35,36] in [24] p. 37).

The Japanese nondualistic ‘bodymind’ concept resonates with Western new materialist philosophical views. They both treat the human body as active and relational with nonhumans in the material world. In Japanese, human (ningen) is composed of the characters for people and social [24]. According to Watsuji ([35] in [24]), ningen is more than an individual: it is at the same time an individual and that individual in relation with others. Ningen is always also the in-betweenness, embedded in a network of relations—a network that does not only include human relations but also relations with nonhumans [37]. As ningen, we relate to other humans, nature, and the world of things through our body ([38], in [37]).

Although the philosophy of Watsuji is used as one of the main arguments to serve the myth of Japanese ‘inherent affinity with nature’ (the myth of Japanese ‘inherent affinity with nature’ is originated from the Shintoist idea of unity of human and nonhuman elements [39]; the myth has been used to serve various agendas, e.g., Japanese imperialism and nationalism) [40], and we by no means aim to argue Japanese uniqueness and total difference [41]. Instead, we identify three affinities between the Japanese ‘bodymind’ concept and the Western new materialist approach and build on these affinities to conceptualize Japanese farmers. By doing so, we take into account local theory culture [42] in Japan and recognize that knowledge in rural studies is not homogenized and monolinguistic.
Through identifying similarities and differences between Japanese and Western approaches, we build on the alternative understandings of a true ‘global’ countryside [43].

The first affinity is conceptualizing the body as active, engaged, and engaging, rather than conceptualizing the body as passively written in systems of thought, with no desires of its own [44]. The body is understood as an experimenting organism, which has the capacity to form new relations and has the desire to do so [44,45].

The second affinity is that the human body plays an important role in developing subjectivity, through its interactions with social and material worlds. As Deleuze and Guattari [27] argue, it is impossible to have a self without having a body, as the body links psychic experience with the forces of society and nature in creating a sense-of-self [25]. Indeed, the body is the site where our senses meet the material world, allowing to highlight how materialities matter in terms of their effects and affectivities [12,46–48]. Matter is seen as agentic, although not volitional, as affective but not ‘willed’ [16] (p. 64). Focusing on the body thus allows us to complement the question of: ‘what does a farmer think of his/her farming practices?’ with ‘what can his/her body do?’ This question is not about assessing bodily cause and effect. It does not refer to the functions of the body or of its parts. It does not refer to what the farmer can do while complying with social norms. It also does not refer to impositions by agro-ecological processes tied to crop production, such as the physical strain put on the body that is bowed over when weeding a rice paddy. These social, physical, and biological constraints are real, and their impacts must be considered. However, it does not mean that there is no beyond [44], and it is this beyond—beyond the physical limits of the physical body—that is the focus of attention.

The third affinity between the Japanese approach and Western approach is that both highlight the process of becoming, of transformation. What matters is the process through which the body opens to other possibilities. In the Japanese approach, the focus is about how to train the body to cultivate and transform the mind [36]. Similarly, the western approach asks what a body can do and focuses on what can affect a body and what a body can affect, i.e., the psychological, emotional, and physical relations it can form or engage with [25] (p. 356), [44] (p. 80).

The practices of a farmer cultivating crops are thus seen as shaped physically and emotionally by a whole range of natural elements, of materials that affect the bodymind. Importantly, this is an ongoing process, which is shaped by both the physicality of embodied subjectivity and the associated sense-making processes which enable a ‘self’ [25] (p. 351). By increasing its capacity to be affected, a bodymind can push its limits and enlarge the envelope of what it can do. The body is thus an “interface that becomes more and more describable as it learns to be affected by more and more elements” [28] (p. 206).

This ‘learning to be affected’ is a dynamic process, where the farmer as a bodymind learns to register, to become more sensitive to the plants, the soil, the insects, the weather, developing the body in what it can do, in how it can be affected, in its ability to discern more and more subtle differences and making sense of them [3]. This is a reciprocal process of engagement with the world, about sensing and making sense. Indeed, “acquiring a body is thus a progressive enterprise that produces at once a sensory medium and a sensitive world” [28] (p. 207, emphasis in original). As differences are constructed in the process, rather than being predefined, this process is highly individual, where each farmer might well learn to register different differences. The process is about a body progressively learning to resonate, to be affected, to be moved by new differences it can now register, widening the repertoire of actions, opening new political possibilities, enabling new and unexpected becomings, developed through the interaction with the natural world.

Conceptualizing farmers as bodies-in-the-field allows us to focus on the relations that bodies can build and uphold with the natural environment, with plants, with the soil, and with the landscape. To understand how plants affect farmers’ aspirations in their process of becoming, we explore how the bodymind learns to be affected by rice plants and how they influence the active experimentation of farmers in searching for alternative production practices. We argue that the ability of farmers to be affected by rice plants mirrors their
ability to build different relations, different from those guiding mainstream agricultural practices, thus opening new ways of becoming.

3. Data Collection

3.1. Study Site

The study is conducted in the Echigo-Tsumari area of the Niigata Prefecture in Japan. Agriculture in Japan is characterized by small-scale, partly-commercial family farming under the coordination of the Japanese Agricultural Cooperative (JA). Supported by the state, the JA coordinates sales and marketing and promotes a highly standardized management of rice, built on mechanization and the use of agri-chemicals [49,50]. Most farmers are part of the JA system, and the group-oriented nature of farming is further reinforced by the embeddedness of farming in local agrarian communities.

Located in the upland rural areas in Japan, Echigo-Tsumari is famous for its high-quality rice production and its satoyama landscape (Satoyama is a traditional farming landscape in mountainous areas in Japan, where the hillsides are covered with managed woodlands and small-scale terraced rice fields [51,52]. The satoyama landscape represents people’s life in harmony with nature [51,52]), characterized by terraced rice fields. Like many rural areas in Japan, the area is increasingly abandoned due to the aging population, and there are a number of abandoned houses and rice terraces. In the last two decades, the area has become well known for hosting the Echigo-Tsumari Art Triennale, which is a large-scale outdoor rural art festival that aims to revitalize the depopulated area and remind people that ‘humans are part of nature’ [53]. By putting open-air art installations in abandoned rice terraces, the artworks are combined with the local landscape to draw attention to human–nature relationships and how they are shaped by traditional and contemporary agricultural practices.

The upland geographical features of Echigo-Tsumari, together with the art festival, have made the area an ideal site for farmers who want to experiment with alternative practices. Because of its remoteness and heavy snows in the winter, traditional farming practices, i.e., small-scale, pluriactive, and subsistence farming, persist among these upland farmers [54]. In addition, the success of the art festival has enabled income generation from tourism and created job opportunities [55], while making local people more receptive of incomers and new ideas ([56], cited in [57]). This context motivates new-entry farmers who want to take up a traditional farming lifestyle, to move to the area and engage in sustainable farming practices. It also motivates local farmers to experiment with alternative practices.

3.2. Methods

In early 2019, qualitative interviews were conducted with 25 farmers who engage in alternative practices. These alternative practices were broadly defined, i.e., included farmers who use more sustainable inputs, those who use more environmentally friendly practices compared to the JA system, and generally farmers who sought ways to reconnect with traditional practices, which are better suited to the local agroecosystem.

Purposive sampling was used based on the practices farmers in local area engage in. In this study, 20 farmers who engage in alternative practices as defined above were recruited through the network of ‘Gift from Land’, an art–farming program in which the first author participated in the Summer of 2018. The program encouraged interactions with alternative farmers in Echigo-Tsumari because the program combined art, farming, and education through permaculture. After talking with the initial 20 respondents, a pattern of how the farmers relate to bodily experiences was found. Five further farmers were recruited through the referral from these initial 20 respondents. From these five farmers, similar comments were repeatedly heard. This indicated that data had become saturated [58] after interviewing 25 farmers.

Based on the information provided by the respondents, the 25 interviewed farmers are most of the alternative farmers that are known of in the area. Among the interviewed farmers, eight are farm successors, and 17 are new-entry farmers who come from a non-
farming background. Among these new-entry farmers, nine moved to Echigo-Tsumari because of its distinctive geography, landscape, and the persistence of a traditional lifestyle; six moved to the area because of the opportunities afforded by the art festival.

Table 1 shows the background of the 25 interviewed farmers (referred to through pseudonyms) and their farming practices. We distinguish between farm successors and new-entry farmers to highlight the different starting points: the former moved toward more environmentally sustainable farming practices compared to previous generations, while the latter started farming using alternative practices as part of a lifestyle choice.

**Table 1. Profile of the respondents, distinguishing between farm successors and new entrants.**

| Name (Gender) | Age (Years of Farming Experiences) | Crop(s) | Alternative Practices |
|---------------|-----------------------------------|---------|-----------------------|
| Farm successors | | | |
| Ikeda (M) | 50 s (40+) | Rice | Certified organic farming |
| Watanabe (M) | 70 s (43) | Rice, soybeans | Certified organic farming |
| Seto (M) | 50 s (32) | Rice, soybeans, wheat | Reduced chemical pesticides usage + organic fertilizers |
| Nakano (M) | 80 s (77) | Rice | Certified organic farming; no-till farming |
| Kedo (M) | 30 s (4) | Rice, vegetables, wild vegetables | uncertified organic farming |
| Koji (M) | 70 s (53) | Rice, vegetables | Certified organic farming; duck-rice farming |
| Yoshihiro | 30 s (11) | Rice, Kozo | uncertified organic farming |
| Yuji (M) | 30 s (2) | Rice, hop flowers | uncertified organic farming |
| ‘New-entry’ farmers | | | |
| Abe (M) | 50 s (5) | Rice | uncertified organic farming |
| Ikumo (F) | 30 s (7) | | |
| Kudo (M) | 30 s (4) | | |
| Kikuchi (M) | 30 s (16) | | |
| Tanaka (M) | 30 s (10) | Rice | uncertified organic farming; no machinery |
| Nagamo (M) | 30 s (1) | | |
| Yanaga (M) | 30 s (4) | Rice, vegetables | uncertified organic farming; horse-rice farming |
| Kita (F) | 30 s (6) | Fruit, rice | uncertified organic farming |
| Shibata (M) | 40 s (7) | Rice, Holy basil | uncertified organic farming |
| Keiko (F) | 80 s (20+) | | |
| Morita (M) | 20 s (4) | Rice, vegetables | Reduced chemical pesticides usage + organic fertilizers |
| Rika (F) | 20 s (3) | | |
| Murata (F) | 20 s (3) | | |
| Yokohama (M) | 50 s (3) | Rice | |
| Kouta (M) | 20 s (3) | Rice, soybeans, wheat | |
| Yoshida (M) | 30 s (7) | Rice, wheat | |
| Shuji (M) | 30 s (10) | Rice, vegetables | |

The interviews were held with the help of a local translator. They ranged from 40 to 90 min and were audiotaped and transcribed in full. During the interviews, the farmers were invited to share how and why they started farming, why and how they developed specific farming practices, and how they made sense of these practices. The focus was not on cognitive reasoning about why and how a specific agricultural production practice works.

Data collected from the interviews were analyzed through inductive thematic analysis [59] and coded with ATLAS.ti. Initial themes were identified through initial coding [60]. Coding themes that emerged include the relationships of bodily experiences with practices, environments, and farming values. Based on these key themes, focused coding was conducted to synthesize the codes generated from initial coding and develop conceptual categories [60]. Finally, theoretical coding was carried out to analyze the conceptual codes in light of theories of embodiment. Through the coding process, we strived to remain
attentive to how farmers referred to their bodies and how they felt affected by material forces, not least by taking farmers’ expressions literally rather than assuming they use metaphors when referring to how the plants affected them.

This research is based on qualitative interviews; we therefore cannot measure validity and reliability in an absolute sense based on statistical standards [58]. To ensure a valid portrayal of realities in a relative sense [61,62], we have followed the suggestion of DeWalt and DeWalt [63] to provide a detailed documentation (see [64]) of the research process for the evaluation of readers. The documentation includes transcriptions of the interviews; they are open access. This can strengthen reliability of this research, as it allows readers to evaluate the research process [58].

Although a pilot study was not conducted, the interview questions were adapted slightly after the first three interviews. These interviews showed that the farmers found some of the questions about their farming approach difficult to relate to. Thus, the first author adjusted the questions and focused on those aspects of experiences that are more aligned with the daily farming activities of the respondents. For instance, some of the farmers could not understand what was meant by their farming approach, as it was something they never ‘thought’ about. In later interviews, the questions probed further to incite farmers to express the affective and visceral aspects of how they make ‘sense’ of farming. The farmers were explicitly invited to describe their feelings and talk about how they use their senses to develop their knowledge of the plants and their farming practices more generally. The farmers were also asked about memorable moments in their farming life, how they affected them, and how these moments influenced how they make sense of their farming practices. While it seems that bodily feelings and experiences are not something well thought-out before the interviews, the farmers included them in the conversation when making associations between their bodily sensibilities, how they are being affected, and their becoming. Talking to the farmers was thus less about obtaining their accounts of how they feel and focusing on precise meanings. It was more about uncovering how they made associations between their bodymind, their sensations and experiences, and the transformation of their farming practices.

The first author’s experiences of working in the rice fields in ‘Gift from Land’ provided an important check on reliability. These experiences helped her to be more empathetic when asking the farmers to give detailed descriptions of their practices and how they feel. Having worked in the fields with some of the interviewed farmers and learnt their farming practices also gave her a physical experience of the soil, climate, landscape, and rice farming practices of Echigo-Tsumari. These allowed her to make sure that the practices that farmers mentioned reflect what they are doing in reality. In addition, the first author benefitted from being an outsider and a foreigner, as it enabled her to discuss what is taken-for-granted within a community and within a culture. The research was thus taken in awareness of the challenges of doing crosscultural research.

Indeed, there are limitations in the ability of words to communicate emotions, feelings, and embodied experiences [8,9]. A translator who is familiar with the field site and the situations of alternative farmers also helped to increase reliability of the data. The translator acted as an important cultural broker to convey meanings, feelings, and emotions across language and cultural barriers. As she had moved from Tokyo to the area to seek an alternative lifestyle, she could relate well to the farmers, especially to the new entrants. She thus provided important background information to contextualize the content of the discussions with the farmers, thus avoiding gross misrepresentation. The first author discussed various aspects with the translator during and after the interviews to make better sense of what the farmers said. In addition, the translation of the quotes was double-checked with the translator, allowing her to highlight the emotional and affective aspects that might have been lost in the English translation.

Validity is about whether the research is indeed measuring what it intends to measure [58]. Internal validity makes sure that the research outcome is not just an artefact of the research design [63]. When the farmers shared their bodily experiences with plants
and environments, these experiences are moments that happened spontaneously in their daily farming life, suggesting that an interview is not the only setting that they would give an account of these bodily experiences. Therefore, this study could fit the criteria for internal validity.

For external validity, it is about how far the research findings could be generalized to a wider population [62]. External validity is limited within this study, as it is a case study that focuses specifically on alternative farmers in the Echigo-Tsumari area. We cannot ascertain to what extent the results can be generalized to a wider population of farmers. To strengthen external validity and its applicability to a wider population of farmers in different cultures, we take into account the broader context of Eastern thoughts and juxtaposing them with European thoughts in the analysis. We build on [65] who explores the different conceptualizations of the world in Chinese and European thoughts, noting that Chinese thought is not founded on a logic of causality but on propensities and influences, not on an isolated subject but on situations, not on abstract ‘pure thinking’ that searches for the essence of things, but on flux, processes, and adaptive transformation.

4. Bodies-in-the-Field, Becoming-With Rice

4.1. Sense(s) and Sensibility: The Inseparable Bodymind

Humans have five senses, but arguably our eyes are our most important sense organs. Vision is often understood as the eye providing raw data, i.e., the representation of the external, physical, material world, which can then be used to form knowledge. This may be termed ‘pure vision’, since what is seen is understood as providing an objective view of the world [66]. As Kearns [66] points out, this understanding of vision has been critiqued not least by Foucault, who has raised the question of how the visible is made visible and maintains its visibility. Indeed, for Foucault, objects and phenomena are only visible in certain contexts and discourses. As such, the mind and the concepts it holds influence not only how we make sense of what we see but also what we can see. Moreover, Ingold [67] argued that what we can see does not only depend on concepts we hold in our minds, as how we can think and make sense of the world requires us to engage in it through actions. In other words: how we perceive the world is not independent of our actions; reasons and meanings are not necessarily absolute and well-founded before actions; rather, they are developed in the acts [8,47].

For the farmers in Echigo-Tsumari, the condition to apprehend what they see, e.g., the landscape is not just tied to a broader cultural discourse regarding the need to preserve the satoyama landscape; it is also tied to their body. For Keiko, it is the relation she makes between the physical work in the field and the landscape that makes what she sees meaningful, which allows a specific appreciation of what she sees:

Keiko: After working hard on rice planting, I sat on a hillside covered by wild edible plants, then I just felt the happiness. The landscape is not just about what you see; it is something you feel . . . it is about what you feel in your daily life.

Q: What do mean by what you feel?

Keiko: When compared with the tough time I had when working on the rice fields, I felt so happy to sit in the landscape with wild edible plants. How I see the landscape is related to how I feel in my daily life. (Keiko, a new-entry farmer, 20+ years of farming)

The bodily exhaustion from planting rice with her hands, a practice that Keiko believes is more connected to nature than rice planting with a machine, shapes how Keiko perceives the landscape surrounding her. Morita, a new-entry farmer who strives to preserve satoyama landscape, resonated with Keiko in that how he sees and feels in the landscape is influenced by the physical exhaustion of working on rice fields:

When I got the moment to rest after working on the rice fields, everything I saw at that moment was really beautiful and impressive. It was like a switch inside me was flipped. When I was working on the fields, I just focused on work. After I finished and looked at
the landscape around me, the sunlight, the trees next to the rice terraces . . . everything had become so beautiful. (Morita, a new-entry farmer, 4 years of farming)

A sight may also suddenly trigger a profound shift, opening a new way to become, as was the case for Shibata. He had moved to Echigo-Tsumari because he was inspired by the lifestyle of a former co-worker from Tokyo who had moved to the area. However, Shibata was unsure what to do in the countryside. Until one day he was stricken by flowering holy basil (*Ocimum tenuiflorum*), a sight which suddenly gave him a sense of direction:

I was on the way to a naïve American ceremony in Nagano Prefecture, I happened to stop by the house of a family there. I was so shocked by the view of holy basil in front of their house, and there was a very beautiful mountain behind their house, it was just so beautiful! I asked, ‘what is that beautiful purple flower?’, and that was holy basil. I began to think that maybe I wanted to have that view in front of my house too. There is also a beautiful mountain view, I could have the same view here with my own holy basil flowers from my house. (Shibata, a new-entry farmer, 7 years of farming)

Shibata’s aesthetic experience shows that it is not only practice which informs a farmer’s appreciation for the landscape, but seeing can also inspire practice. Thus, seeing is an active engagement with the world, allowing one to develop an understanding of it, enabling new relations and new possibilities, which themselves enable a new way of seeing.

The effect of the basil on Shibata can be related to the concepts of ‘wonder’ and ‘enchantment’ (see [5,21,68–70]). As Bennett [20] (p. 4) puts it: ‘to be enchanted is to be struck and shaken by the extraordinary that lives amid the familiar and the everyday’. Enchantment can be central in shaping farmers’ experiential connection with their farms, putting the focus on the microscale, where the personal, contingent, and embodied relations are built [21]. This is illustrated by Yanaga, who often feels enchanted by nature when working on his farm. He mentioned the interconnection between the feeling of being captured by nature and the sense of connection to his farm and nature during the practice of farming.

Yanaga: I often feel captured [by nature] when I am working on the farm, it happens every day even though I am very busy. I kind of feel the connection with nature, when I see my plants, even weeds. I always feel so impressed.

Q: What kind of connection are you referring to?
Yanaga: [it is] in everyday life, but the moment is extraordinary . . . my farm is deep in the mountains, sometimes when I see the rain clouds coming, even these small things are impressive. I feel that I can sense nature; I feel the connection to nature. I think farming itself is the expression of this connection and my respect to nature. (Yanaga, a new-entry farmer, 4 years of farming)

Yanaga actualizes this connection by being attentive and looking closely at his plants. He pointed out that being sensitive to the plants enabled a more differentiated seeing, which allowed him to be more responsive and to develop a deeper understanding of the needs of the plants. Over time, he has built an intimate knowledge of plant health based on the look of a plant, understanding that what is visible at the surface is indicative of deeper processes:

When I am doing well [getting more skillful] in growing some crops, I can see the failure from their shapes. If they don’t grow well, it just shows by how they look, I can see that it is not doing well. Everything is visible from the surface. For example, if you look at a tomato closely, you feel the hair, you can feel those things by yourself. (Yanaga, a new-entry farmer, 4 years of farming)

The process of ensuring that the plants have the nutrients they need to enable their growth is much more than a rational-cognitive process that focuses on material cause-effect relationships as they might be captured by modern crop sciences. For these interviewed farmers, understanding how to care for plants involves all their bodily senses, from the
sense of touch when they transplant the seedlings, to the sight of healthy plants and the smell of the crops, to the taste of the harvested crops.

Indeed, although vision enjoys dominant status when compared to other senses, the experience of touch, sounds, and smell can be equally significant for the bodymind. Within the mind/body dichotomy sensory experiences are understood as organs such as the skin or ears sending nervous signals to the brain when they encounter stimuli from external environment [71]. Therefore, sensory experience is treated primarily as perception, i.e., the process by which the brain selects and interprets sensations. The sensations in the body, i.e., the noncognitive processes are not given much attention. However, these play an important role, as the previous quote from Yanaga illustrates: ‘if you look closely … you feel’. Later in the interview, Yanaga reiterated the inseparability of the senses and how they are tied to sense-making. He uses all his senses to apprehend the needs of the plants and to care for them throughout the growing season. He refers to this process as artistic, in which he uses his senses to appreciate an artwork:

*The art festival . . . you know, we call it the art festival of local land in Japanese, it is actually the real meaning of . . . I think vegetables and plants themselves are kind of like art, like how they grow their leaves and how they grow, it is really artistic. The scent, you can feel it, touch it and you can taste it, you use all of your senses. ( . . . ) From the seed to the whole plant, the plant goes through its whole life cycle in half a year, I felt very impressed when I harvested the fruit.* (Yanaga, a new-entry farmer, 4 years of farming)

Similarly, Yoshida vividly conveys how the knowledge about rice cultivation practices resides in both the mind and the body, which are intimately connected and interdependent:

*Yoshida: I am trying to use a combination of chemical and organic fertilization. I need more experiences, many things can change the condition: soil, water, weather and everything. I need more confidence of what I am actually doing, then I can move on. Probably after 2–3 years, what I have learnt from books and my mentor will be more in my body and experience, so I will feel more confident. I want to have an actual sense and better feelings of what I was taught.*

Q: Feeling and sense? What do they mean?

*Yoshida: It is something that experiences will show me. If I work on practical things maybe two or three times more, I will have more experiences and be more confident about it. The skills and knowledge will be more in my body.* (Yoshida, a new-entry farmer, 7 years of farming)

The interdependence of knowing and doing echoes Japanese philosophy, where being aware of something in the mind already involves the body [24] (p. 42). In other words: there is no just-intellectual understanding, which is then expressed through bodily gestures. Rather, as for Yoshida, his attentiveness to the changes of nature, and knowledge about the health conditions of the plants can only be acquired through repeated bodily interactions with the environment, and he would only feel confident when the knowledge becomes embodied through repeated practical experience. Only then can he acquire a ‘sense’ of what he was taught, which implies that his bodily senses are able to pick up critical features, by seeing, smelling, and touching the rice plants. Learning is thus not cognitive distancing but integrated in its surrounding; it “does not separate theory from practices or detach a ‘self’ from the world” [65] (pp. 65–66). It is a learning in which comprehension occurs through acts and discovery made through each limb, where the farmer as bodymind remains actively involved in his or her environment.

What Yoshida also points toward is that learning is more than the transfer of information from his mentor, which he then simply needs to apply. Rather, while the mentor guides and provides relevant information, he needs to actively build the knowledge for himself, as it is experience-based and thus needs time and attention. This is akin to West’s [72] description of the process through which artisan cheese makers learn to make cheese through engaging with the curd by making it, touching it, feeling it, and pressing it in the
form. As West [72] (p. 330) points out, this “belys the notion that knowledge is simply passed on like an object from hand to hand”.

‘Making sense’ of the world and of crop production practices is thus intimately linked to bodily senses. This understanding of knowledge as ‘skill’ contrasts with the classical cognitivist view of knowledge as ‘mental content’ [31]. Learning is thus about developing embodied skills of perception and action through constant practice, while mentally processing various aspects of the farming techniques. Indeed, the bodily movements involved in taking care of rice plants are not rote repetition but need to be finely tuned, responsive to changes in surrounding conditions. As such, skilled performance of a task is much more than the mechanical execution by the body of a set of commands generated by the intellect, i.e., the simple execution of a predetermined plan, which means that learning is not so much the transfer of information but the ‘education of attention’ [31]. Ingold [31] proposes an ‘ecological account of skilled practice’, where the skilled practitioner is continually and fluently responsive to the perturbations of the perceived environment, guided by what she or he sees, hears, and feels even as she or he works. The essence of action thus does not lie in aforethought but in the close coupling of bodily movement and perception [11] (p. 94). Skilled practice is embodied responsiveness [11] (p. 65).

4.2. The Bodymind Affected by Rice

The interviewed farmers in Echigo-Tsumari not only question the body/mind duality, but they also question the human/nature duality. Indeed to them the bodymind is not distinct and separate from rice; rather, they are interdependent. The interrelation between the farmers and the rice is not just the result of manual labor in the field affecting them physically, i.e., through their back feeling sore after a day of transplanting rice seedlings. It is much more an emotional affect, where they engage in resonance with the plants. Affect is noncognitive, and it is prior to feelings [73,74]. Feelings, emotions, and affect are all closely associated with the body: emotions and feelings are experienced and expressed through the body, and affect resides in the body, flows through the body, and defines what a body can do [73,75–77]. The ability to be affected requires the receptivity of the bodymind as well as the agency of rice. The farmer does not see him- or her-self as the only one being active, as imposing his or her will on a passive crop.

In modernized agriculture, the farmer is conceived as an autonomous agent whorationally plans in accordance with his/her objectives and then projects this will onto the crops. The interviewed farmers in Echigo-Tsumari convey a different picture, one in which crop and farmer are interdependent from the beginning, where one cannot be conceived without the other. Farming is thus not a collection of passive objects, but more akin to what Jullien [65] (p. 8) terms “a situation with capacities reciprocally at work”. The rice is seen as having an active potential, as engaging in and actively shaping a web of dynamic relations.

This was richly conveyed by Kudo, who is not only a rice farmer but also a professional Shakuhachi (traditional Japanese bamboo flute) player. For him, his physical involvement, the rice plants, and the natural environment are mutually constitutive. It is not about control, but a collaboration with nature, with the rice plants, with the living soil: if there is no rice paddy or no him, there will be no rice. Through an analogy between growing a crop and making a bamboo flute, he explained how the farmer is dependent on nature’s collaboration, and how this understanding contrasts with the one underlying modernized agriculture:

It [farming] is kind of the same philosophy: Shakuhachi is about collaborating with nature. It is [made of] raw bamboo, but to some extent it is artificial, e.g., I made these holes, so Shakuhachi is made of natural materials but it is not 100% natural . . . If there is no bamboo, or if there is no me, then there is no sound. It is a kind of collaboration. ( . . . ) The same thing with farming, if you use machines, chemicals and fertilizers, you feel like you are making these food, not nature. I am in control, this is ‘ME, making THIS food!’ But in organic farming, you have to rely on different creatures, the bacteria, etc., it is not just you making this life. (Kudo, a new-entry farmer, 4 years of farming)
This description of the close interconnectedness of soil, plants, and farmer is akin to the French notion of ‘terroir’. This concept is used by artisan cheese or wine makers to refer to their dynamic relationship with a broader ecology. However, it is not just the distinctive soil composition and the specific climate that gives rise to signature tastes and textures. Indeed “the artisan herself constitutes a component of terroir” [72] (p. 322). Just as Kudo points out that he is not in control but relies on and collaborates with ‘different creatures’, the French cheese makers point out that they do not “determine the trajectory of the whole” [72] (p. 334). The agency of the soil has also been highlighted by Ferguson et al. [78], who pointed out that farmers perceive the soil as an active agent, and it is the (organic) farmer’s relationship with soil that allows for different qualities of food. The farmer is thus someone who uses his/her bodymind to discern, to see ever more nuances, to recognize this active potential, and find ways to develop a “favourable propensity” [65] (p. 9).

The interviewed farmers in Echigo-Tsumari are responsive to the rice, seeking production practices that are in accordance with the local environment and which enables the rice plants to be ‘lively’ and ‘healthy’. Kikuchi and Nakano both pointed out their observations of how the rice plants changed when they experimented with alternative farming practices and contrasted it with growing rice using mainstream farming methods, when they just started farming. When they cared for the rice plants using traditional practices, e.g., using manual labor to grow the seedlings, transplanting them, weeding the field, and avoiding chemical fertilizers, they encouraged a different relation between the rice plant and the soil. They noticed that this led to a very different rice:

A neighbour who taught me a lot in farming passed away in the middle of rice planting, I kind of had no choice but took over all his fields for his family. I had never done anything like that before, I did not have any confidence to do 50 acres of land in the organic way, I had to use the machines to plough and chemicals to weed. ( . . . ) I still preserved the little rice field in front of my house, I did not use any chemicals there. A month later, I could see how different those rice shoots look like, the one without chemical was stronger and more lively, it was obvious. The one with chemicals is not lively, it is like they do not want to do anything, it’s like the depressed one. (Kikuchi, a new-entry farmer, 16 years of farming)

Weeds are different . . . and the rice straws look really different too, they look much healthier and taste differently. ( . . . ) Chemical fertilization mainly provides nitrogen, phosphorous, and potassium to the plants, but there are other elements the rice straw could draw in too. If you give them fertilization, they don’t need other elements because they are given enough. But for uncultivated rice [no-till farming rice], they seem to get stronger; the taste has more layers because it gets the taste of the soil. (Nakano, a farm successor, 77 years of farming)

The quotes illustrate how the perceptive can become affective, when it establishes itself as a partnership, when a relation is established [65] (p. 68). It allows an understanding between the crop and the farmer, building on an open engagement, where the farmer does not project him- or her-self onto the plant, but the plant, making itself conspicuous, emerges from its indifference and brings the farmer into its tensional field (see [65] p. 69). Nevertheless, this is not so much about forging a relation between discrete individuals but rather a sensibility toward the plants, a responsiveness within a pre-existing interdependence (see [24] p. xi). These farmers engage in producing rice by attuning their thinking as well as practices with the dynamics of the rice paddy ecology and with the agentive potentialities of the entire rice farming assemblage (see [72] p. 336). They see the plants as partners, seeking to understand the plants through a silent conversation (see [65] p. 65). It is about enabling a bodily resonance, attuning themselves with the rice plants so that it may convey its needs to avoid being ‘depressed’ and allow them to ‘get stronger’, enabling them to produce grains of rice which have ‘more layers’. The skilled rice farmer is similar to a successful cheese maker, in that each needs to develop a ‘knack for his terroir—an
intangible way of understanding its dynamics and engaging with them’ [72] (p. 329). It is thus not about controlling the plants, but about creating conditions of possibility favorable to their growth, by opening up to their influence and allowing a resonance, about a reciprocal relationship between farmer and plant, about affecting and being affected.

The role of bodily affects in guiding farming practices was also highlighted by Tanaka, who explained how he was affected by the use of machinery, which did not ‘feel right’, which ‘felt ugly’:

I tried to use a dryer to dry the rice, to make weeding easier I used a little bit of machine. In the end, I went back to the original way, I found it easier to do everything by hand. There is something I did not like in the process, something did not feel right when I changed, it is not in a cycle to me anymore . . . something felt ugly. (Tanaka, a new-entry farmer, 10 years of farming)

Caring for the rice is then not primarily guided by rational thought based on scientific knowledge of nutrient requirements at various stages of growth or by considerations for efficiency through using machinery. Nor is the manual transplantation of rice seedlings primarily a matter of coordinating the muscles of the waist and of the fingers to insert the seedlings at the right depth in the muddy soil of the paddy. The connection between farmer and rice is subtler. Shibata points out how he uses his body to connect with the plants and the soil, transmitting a positive energy, a vital force, a life-energy (The Japanese concept of ‘ki’ is similar to the Chinese ‘chi’ or ‘qi’, which is seen as a vital force that animates all life. When ki/chi flows smoothly, health and wellness follows. Human beings are thus seen as a life phenomenon resonating with the invigorating activity of nature [32] (p. xiii)). To him, it is the direct involvement of human bodies that makes the rice taste ‘more delicious’:

We like planting rice by hands because it makes rice more delicious. When we use our hands to touch the plants, some good energy is transmitted to the plants and the Earth. I believe in the power of it, that’s why I want more people to be involved in my farming, so I can get a lot of good energy from a variety of people. (Shibata, a new-entry farmer, 7 years of farming)

For Shibata the engagement of the bodymind is crucial: it is not just that the farmer learns how to care for rice plants; it is about the life-energy (ki) that flows from his physical body and that connects the humans, the plants, and the soil in harmony. Indeed, in Japanese ethics, ki circulates within the body, while at the same time intermingling with the ki pervasively present in the environment [32] (p. xiii). To ensure the flow of ki, the body of the farmer thus functions as a mediator between the inner world (mind) and the outer world (matter) [32] (p. xx). For farmers such as Shibata, a sensibility to rice plants is not so much a relation between discrete individuals but a responsiveness to a pre-existing interdependence (see [24] p. xi). When such an intimate relationship is established, it “momentarily folds the opposition of self and world together” [65] (p. 68). This allows a very different form of knowing rice, one that does not isolate ‘nature’ and situates it as an ‘object’, as is foundational for the natural sciences underlying modernized agricultural practices.

This is about allowing rice to affect the bodymind, guiding the care for the plants, from the seedling to the mature plant. The flow of care for the rice is expressed through various practices, such as ensuring that the temperature is suitable for the seeds to sprout or protecting the seedlings against too heavy rain or too strong sunshine. Each stage of caring for the rice seedlings involves a minute attention to the temperature, moisture level, soil quality, and water level, where the farmer needs to be attentive to discreet maturations. Kikuchi expresses this by comparing caring for rice seedlings to taking care of children:

At first, it was not really fun, I just did it [rice farming] because my neighbour suggested it, it was more about maintaining relationship with the community. But two years later, I tried to start growing rice from seeds, that was life changing to me. From seeds to the thin, white seedlings, and they began to grow quickly after transplanting them to the field. Seeing how they grow, it impressed me so much, I had never felt this way before. It
is like having children, looking at how they grow from the beginning, it was something that really impressed me. (Kikuchi, a new-entry farmer, 16 years of farming)

The comparison of taking care of rice with taking care of one’s child goes beyond anthropomorphizing the rice plant. Comparing the farmer–rice relation to a parent–child relation refers directly to bodily knowledge. Indeed, Watsuji illustrates the concept of a knowing body, of the oneness of bodymind through the example of mother and child who “know one another other bodily, not just psychologically” [24] (p. 40, emphasis in original). This is not about a relationship between two independent individuals with two separate minds, as the relationship cannot be separated from the relation of their bodies. As McCarthy [24] points out, this links to the ethics of care in feminist ethical philosophy, with its emphasis on the affective, by considering such categories as care, affect, nurturing, responsiveness, and somatic engagement. It echoes Watsuji’s ethical thought and challenges western modernist intellectualism, where truth arises only from detached, context-free, affectless, impersonal observation, and formal reasoning [24] (p. xii).

4.3. Learning to Be Affected, Becoming-With Rice

In the previous sections, we have shown that the farmers do not conceive of themselves based on a duality of body/mind, but rather, their bodily senses are integral to their building knowledge about growing rice. Nor do the farmers perceive themselves as being separated from nature, but rather as interdependent, physically attuned to, engaging in a bodily resonance with the rice plants. In this section, we want to emphasize that this is not an essence of the farmer or of the rice but rather an ongoing unfolding process, a learning to be affected.

This ability to affect and to be affected is a sensibility that needs to be honed, and it needs to be cultivated, such as a rice field. Indeed, affect is not universal, and it only takes place when the body has the ability to be affected [73,74]. This ability does not come ready-made; rather, it “develops, as part and parcel of the organism’s own growth and development in an environment” [11] (p. 94, emphasis in original). Indeed, the farmers ‘are’ not alternative, and they ‘are’ not attuned to the plants; rather, they are engaged in a process of becoming-with rice. They actively learn to become ever more receptive to the growing rice plants, the ever-changing weather, the living soil, and the incessant renewal of nature.

It is tough to do uncultivated [no-till] rice planting, it is easy to just plant the seed, but it has to struggle a lot in the soil, and I also have to take care of the weed. I am an idiot . . . With machinery rice planting, I can see when to do what, when the leaves will divide, I can tell. But for uncultivated farming, I can’t tell, it is new to me every year. I think that is also part of the reasons that it is challenging, and I love the challenges. After I fail, I can succeed in my projects. I love the process of failing, getting better and succeeding. (Nakano, a farm successor, 77 years of farming)

This is an open process, i.e., there is no attempt to impose a predefined plan. It is a maturation which follows its own course, borne along by its own movement [65] (p. 73). The bodymind engages in an unfolding process, developing its abilities and finding out what and how it can become through the interrelation, rather than striving to achieve a specific outcome that was set beforehand. As Nakano conveys, ‘it is new to me every year’ even though he has performed it for more than 70 years, and growing rice is not a controlled, predictable, uniform, routine, and standardized sequence of steps as the ideal of crop production within the modernization paradigm. While clearly the broad steps of seeds germinating, plants maturing, and rice harvesting remain the same, Nakano focuses on those details that are different each year, and by paying attention to them, by engaging with them, he learns and becomes-with the rice.

This trial-and-error process implies that experimenting with more environmentally friendly farming practices is quite different from the concept of control based on predictable cause–effect relations underlying modernized farming. It is also not a rote learning and
application of traditional cropping practices. Rather, experimentation with alternative farming is a novel reconfiguration, an ongoing, creative exploration of possibilities, an adaptation to ever-changing configurations. For example, Yanaga finds it difficult to maintain the quality and quantity of his harvest. He is therefore experimenting with the method of growing green manure to improve the soil of his farm. At the beginning, he tried to tackle the problem by taking farming courses and seeking advice from teachers, but he eventually understood that he needs to adapt the methods to the specific conditions and soil of his farm:

*I went to some farming courses where I met a group of people who learn alternative farming methods in Nagano Prefecture. Those farmers showed me how good different approaches are, and their crops can grow really well. But I eventually realized that even if I do the same thing as them, it does not work the same because the land, the weather, the soil, and everything is different, that’s the difficult part. Then I started to improvise the approaches through understanding my own farm and the soil there.* (Yanaga, a new-entry farmer, 4 years of farming)

The alternative practices are an unfolding process where different options are discerned; Yanaga recognized and explored their potentialities through making sense of what is better for his farm and soil. In addition, this process requires an engagement by the whole bodymind, as Nagamo points out:

*When I first rent the land, it was dry and not in a good condition. My teacher suggested me to use a tractor to plough the soil. At the beginning, I used the tractor. But it is important for me to process, to experience the whole process. I am not interested in knowing and doing the efficient way [using machinery]. I am more interested in doing the actual process, so I can learn things. (…) I am going to get to that same position in the end, but I kind of like to walk the winding road to get to that destination.* (Nagamo, a new-entry farmer, 1 year of farming)

Nagamo started with the more efficient method of using machinery, but he felt that he did not get to know the whole process of how rice planting is like. Therefore, he chose to engage in the open process of doing everything with his own hands and body, from growing seedlings, ploughing, rice planting, and weeding, seeing where it might lead him. While he might end up reaching the same ‘position’ as others, he might not, and either way, he will have learned a lot by ‘walking the winding road’. This learning process is not guided by an organized, methodical progression, following a preset plan; nor is it about developing a reasoned discourse or elaborating tools of abstraction (see [65] p. 65). The farmers do not look for certainty or construct idealizations through the mind, they do not focus on standardization and repeatability. They do not try to control the process or strive for a specific outcome. Rather, it is processual, and it is about engaging with the individual and singular in each situation, which above all requires receptivity [65] (p. 47).

The bodily senses play a key role in this receptivity. Similar to the nose of perfume-makers who learn to distinguish different smells, the farmer learns to distinguish different colors of the leaves of the rice plants, recognize differences in the shape of rice plants, and see how the soil microbiome changes after they stop using chemicals:

*I had been buying rice seedlings from JA. I started growing my own seedlings 11 years ago, when I have decided to grow organic rice. Through growing from seeds to harvest, I feel that I am taking care of my own children. I realized that what I am doing right now was normal 60 years ago, it was not so special at that time, but right now it is so rare to do it this way. And the soil changes, I recognized that there are so many animals, like micro-animals, I noticed the increase of those animals in my field.* (Ikeda, a farm successor, 40+ years of faring)

Learning to be affected is a dynamic process, where the bodymind learns to register and becomes more sensitive to the plants, the microorganisms, the soil, and the weather. The body develops in what it can do, in how it can be affected, in its ability to discern
more and more subtle differences and understand how they are interrelated. Ingold ([31], building on [79]) argues that to perceive is a fine-tuning, a sensitization of the entire perceptual system—the brain and receptor organs along with the neural and muscular linkages—to particular features of the environment. In other words, the bodymind learns to resonate with the properties of the environment. Learning to be affected thus means that the perceptual system is increasingly attuned to its environment, being able to pick up critical features that were previously missed.

Importantly, each farmer might well learn to register differences. Indeed, these are constructed in the process, not predefined. There does not exist a fixed set of differences that needs to be acquired over time. It is about progressively developing one’s bodymind, which learns to resonate, to be affected, and moved by new differences it can now register, and which enables an open becoming. Be it Nagamo who pointed out that he needs to ‘walk the winding road’ himself or Yoshida who pointed out that ‘probably after 2–3 years, what I have learnt from books and my mentor will be more in the body’, they both indicate that this is an individual process, where information enables one to pay attention differently, developing the senses, which feeds back on enabling to make sense of new differences, constructing new relations, generating a new understanding, and enabling a different becoming. Indeed, Shibata’s ability to be ‘shocked by the view’ required a sensitivity that enabled the holy basil to affect him in this very specific way and enabled the specific interaction between his bodymind and the basil, at that moment, to open a bifurcation toward a new future.

Experimenting with alternative practices is therefore not about ‘being’, but about engaging in an ongoing, open process of becoming. As Deleuze and Guattari [27] (p. 293) clarify, “a line of becoming has neither beginning nor end, departure nor arrival, origin nor destination . . . A line of becoming has only a middle”. For the interviewed farmers in Echigo-Tsumari, becoming-with rice is not about changing from one set of cropping practices to another, but a continuous process of transformation, shaped by acting in a specific yet ever-changing environment and by the ability of the bodymind to be affected by it. As Tanaka’s statement that ‘something did not feel right’ indicates, the process experimenting to identify cropping practices that ‘feel right’ is closely tied to learning to be affected by the rice plants, to allowing the bodymind to resonate with the growing rice plants and the evolving paddy field.

The open process of becoming-with rice contrasts with the understanding that there is a permanent, definite reality ‘out there’, some ‘objective truth’, and some abstract, rational knowledge to be distilled, allowing one to define the ‘optimal’ cropping practice. The world is not fixed; nor is the bodymind static. Honing senses is then less about becoming sensitive to ‘facts’, to some predefined reality that exists in the world, and more about identifying ever more options. For “learning to be affected means exactly that: the more you learn, the more differences exist” [28] (p. 213). The more differences one is able to perceive and make sense of, the more possibilities are apprehended, the wider one’s repertoire of actions.

5. Conclusions

In this paper, we contribute to the questioning of the dominant western view that presents farmers as rational, autonomous, independent individuals, as imposing their will on a passive object-world, controlling plant growth through targeted nutrient application and weed management. We argue that being a farmer is not just about having different values and learning to master the technicalities of crop production practices. Shifting from a one-sided focus on the mind to integrate the body, we conceptualize the farmer as a body-in-the-field.

Based on examples from the interviewed farmers in Japan, we showed that the minds of the farmers do not work in isolation of their bodies and that the body is not a passive object on which the mind imposes its will. Indeed, what is felt by the body affects the mind, just as mental concepts affect what a body can sense and feel. Thus, when farmers speak of an active body, it may be more than the casual use of colloquial expressions. It may well
be a pointer toward a different apprehension of the world, a different way to make sense based on different sensibilities and an open engagement with the material world.

By focusing on the somatic, the body as a site of interaction with the material world comes to the forefront. With it comes the process by which human and nonhuman bodies interact, affect each other, and constitute reciprocal relations. These relations are developed not just because the body is active and has the capacity to form these new relations; they are also developed because nonhuman bodies such as the rice plants are able to affect the bodymind. This challenges the notion of an inert, passive, malleable word onto which the farmer impresses her or his interests. Rather, crops are agentic, able to affect the bodymind.

In this reciprocal process where nonhuman bodies interact with the bodymind, they strengthen its sensibilities and its ability to sense and to make sense. The bodymind is in a process of becoming, responsive, relational, and affecting as well as affected by the crops. Farmers thus engage in an open process of becoming-with an ever-changing environment, enabled by different sensibilities toward nature. This sensibility opens new ways to become and enables new imaginations, reinforcing the possibility that things could be otherwise. As farmers engage with nature, as they acknowledge a distributed agency, a different, a more collaborative ethical imperative emerges. This may well promote responsibility and enable new political possibilities to emerge.

Because of the specific focus on alternative farmers in the Echigo-Tsumari area, this research provides some insights of how farmers engage in farming with the body. It seems promising to further explore the affective and embodied aspects of farming in a future study of farmers. More research could be conducted to examine whether and how different factors, e.g., gender, farming experiences, and types of farming practices, influence the bodily experiences of farmers.

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