Research Article **Open Access**

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The role of subjectivity: Response to Noriyuki Inoue

DOI 10.1515/ijtr-2016-0004
received April 2016; accepted June 2016

Abstract: This paper offers a response to Dr Noriyuki Inoue's article published in this issue of the International Journal for Transformative research, entitled The role of subjectivity in teacher expertise development: Mindfully embracing the "black sheep" of educational research. Inoue freely uses the terms 'subjectivity' and 'objectivity'; but referring to findings from quantum physics and consciousness studies, both of which challenge the view that it is possible to observe a world that exists independently of the observer, I ask whether the Japanese concepts of jikkan and ba actually also suggest that it is not possible to separate and define subjective and objective dimensions of reality.

Keywords: Consciousness; Subjectivity; Objectivity; *Jikkan; Ba*

1 Introduction

In his very interesting paper, Dr Inoue suggests that the principle of objectivity is emphasised in educational research within western cultures. Inoue claims, however, that many research projects, and in his specific case, research into the mentoring of teachers' practice improvement, requires us to include the subjective dimension of teachers' lives into the research, including their intuition and personal meaning-making.

To support his argument, Inoue provides case studies of three teachers who are in their first or second year of teaching, and are working with an advisor who is mentoring them, using action research as the means of reflecting on and making changes to their practice. Each teacher has a similar experience: they begin their teaching with a particular belief or approach which informs their work; for example one teacher responds to behavioural problems by ignoring bad behaviour, and rewarding good behaviour, with the aim of increasing the levels of good behaviour. When the initial strategy does not work, the teacher reflects with the advisor as to what is going wrong, and together they plan a different strategy. In each case, as a consequence of this process, the outcome is a positive one: for example, in the situation just described, the teacher tried asking all students to set their own behavioural goals, and on a daily basis to reflect on whether they had achieved their goals, including thoughts about what their learning had been from the experience. As a consequence, behaviour in the classroom substantially improved, influenced by a process which the teacher experiences as a transformative shift in her subjective understanding of her practice, which leads to a change in her actual practice in the classroom.

Inoue identifies four key themes which contribute to understanding the role that subjectivity plays in the action research process. Firstly, those issues that the teachers subjectively felt to be important affected their teaching strategies, even though they had no evidence that those strategies would work. Secondly, when the initial strategies did not work, their subjective perspectives guided the action plan that they chose. Thirdly, although they each initially experienced failure in the first phase of their action research, their commitment to their teaching provided them with the motivation to find ways to handle the difficulties and challenges. Finally the ways that they reconceptualised their teaching were highly personalised and not able to be predicted.

Inoue introduces the Japanese term '*jikkan*' as a way of describing the subjective feelings of the teacher that influenced their practice, which he translates as 'gut-feeling'. He suggests, then, that there are two dimensions to the research process: firstly, that of '*jikkan*' which is responding to one's gut-feeling at various stages of the research;

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and secondly, the objective methods of data collection and analysis. He states that "In the traditional Western epistemology, objectivity and subjectivity are seen to be antithetical to each other." (p.9) His contention is that subjectivity and objectivity should be mutually informing: 'Teachers should mindfully "dance" between the subjective world and the objective world to move forward in their endeavors' (p.10).

Finally, he argues for the importance of 'intersubjectivity', which in his research takes place when both the teacher and the advisor share their respective subjective experiences and views. This can contribute to achieving what the Japanese term '*ba*' – a 'socio-personal, organic communicative space for co-constructing a new understanding with others' (p.11). In this intersubjective space, new knowledge can be created; and in the case studies of the three teachers, Inoue claims, the experience of *ba* was influential in the teachers to address their respective challenges, and find an effective means of improving their professional practice.

In reading Inoue's paper, I was struck by his distinction between subjectivity and objectivity, and his apparent assumption that it was possible to be 'objective' in educational research. My own work, informed by findings from quantum physics and consciousness studies, suggests that such a distinction does not reflect the nature of reality. However, I would support his contention that intersubjectivity is an essential condition for knowledge.

2 Objectivity and subjectivity in western academic research: overview

In my own writings, I am challenging the dichotomy of 'objectivity' and 'subjectivity', suggesting that all human perception is subjective in nature (Walton 2016). What is considered to be 'objective' knowledge can be shown to be the outcome of intersubjective agreement, rather than presenting truths about a reality that exists independently of the observer.

I suggest that the belief in objectivity is based on the phenomenal successes of Newtonian science in producing technological advancements that can be analysed, predicted and controlled through mathematical calculations that remain the same, irrespective of the individuals making those calculations. The assumption then, has been that all knowledge about the world, including the behaviour of human beings, can be understood 'objectively', in the sense that truths exist, the nature of which is not influenced by the actions of the researcher.

Qualitative research methodologies arose as a challenge to methodologies based on the ideology of objectivity, due to a recognition that subjectivity cannot be avoided. The perceptions of researchers are relative to the context in which the researcher is working, and hence the subjectivity of both the researcher and those being researched is integral to any conclusions drawn.

However, the understanding of 'subjectivity' in this context is generally interpreted to be the expression of the thoughts and feelings of the individuals concerned. I argue that it is not sufficient to just recognise the subjectivity involved in any research. If we are to gain more knowledge about its nature, there needs to be an exploration of the source of subjective experiences.

To support my argument, I draw on debates, findings and evidence from both quantum physics, and contemporary work in consciousness studies.

3 Quantum physics

A fundamental challenge to the possibility of an objective reality that exists independently of the observer comes from quantum mechanics, a branch of physics that has been in existence since the beginning of the 20th century. However its implications for our understanding of reality are as little understood now as they were 100 years ago.

A significant possibility that has emerged from quantum physics is that, contrary to the view held by most classical scientists, matter may not be the primary constituent of the universe. Popular opinion in western culture, influenced by Newtonian science, is that the universe is created out of the building blocks of atoms. An implication of this is that consciousness emerged at a later stage of the evolutionary process. However experiments that have taken place in quantum physics challenge this view, and suggest that consciousness plays a central role. It has been unequivocally demonstrated that the presence of an observer, and the questions that are asked, influence the nature of reality that emerges.

To emphasise the key differences between the two different viewpoints: a researcher who adopts a scientific materialist worldview sees the brain as being the originator of consciousness; and all our human experiences of consciousness, including our inner thoughts, feelings and intuitions, will eventually be explained by understanding how neurons in the brain interact. However quantum physics suggests that consciousness may have a universal

presence, and may influence all events and behaviours that take place in the physical domain.

Two important experiments in quantum physics provide evidence of a more primary existence for consciousness than is generally considered possible within cultures who perceive consciousness as a property of matter.

The first test is generally called the 'double-slit experiment', where photons are emitted from a point, and appear either as waves or as particles depending on the nature of the observation that is taking place. In classical physics, it would not be possible for something to behave both as a wave and a particle, as these would be mutually exclusive events. However in quantum physics, in what was termed by Bohr (1928) as the 'complementarity principle', reality presents both as particles and waves, with the nature of observation determining which manifests at any point in time. The double slit experiment (see https://www.youtube.com/watch?v=Q1YqgPAtzho) shows that the consciousness of the observer influences the behaviour of the photon, suggesting that the mental and physical dimensions of reality are inextricably interconnected in as yet unexplainable ways.

The second key experiment provides evidence of 'non-locality', in which two particles which have been together, and are subsequently separated, continue to be instantaneously responsive to each other across space, in ways that defy our conventional knowledge of how the world works. (Aspect et al 1981; Mastin 2009). It is as though each particle is experiencing a form of consciousness, and, having been in relationship with the other, 'knows' what is happening and is responding accordingly; again, to the complete mystification of traditional science.

The significance of these experiments is the need to develop a worldview that helps to make sense of these findings. One proposed theory is that consciousness does not just reside in the brain; but that there may be a reality that exists beyond the material world. The rapidly growing area of consciousness studies includes exploration of this theory and its implications for how we understand and live our lives.

4 Studies in consciousness

The idea that consciousness is not dependent on matter for its existence has been discussed throughout the intellectual history of the Western world. For example, Immanuel Kant (1724-1804) explored the notion of 'transcendental consciousness' within his philosophical writings, which included his view that knowledge often has its origins in intuitive sources. William James (1842-1910), an American psychologist and philosopher, explored in depth the phenomenon of consciousness, challenging the materialist explanation for its existence.

The nature of the relationship between consciousness and matter has not been determined, due to lack of evidence to determine whether matter generates, or is generated by, consciousness. However, the influence of Newtonian science within the western world, with its assumption of the material basis of the universe, has led to a situation where a belief in the primacy of matter is generally taken for granted in the mainstream academic world.

This assumption is so powerful, that it is not seen to be a necessary focus for discussion in educational research. For example in academic books which are read by university students, in which different ontologies for different research paradigms are identified and discussed, (e.g. Denzin and Lincoln 2011; Bryman 2015), there is no discussion as to the nature of consciousness. In positivist research paradigms, it is assumed that the consciousness of the researcher does not influence that which is being researched. In interpretivist paradigms, although the subjective nature of consciousness is assumed, the implication appears to be that it is created by the brain, and there is no deeper source of reality which can potentially be accessed.

In fact, in wider academic research, including in the physical sciences, there is no clear understanding of the nature or origins of consciousness; it remains one of the areas which scientists have had least accomplishment in investigating. Although it is a common aspect of all human experience – and indeed both the writing and the reading of this paper is only possible because of the consciousness of the individuals involved – there has been no success in achieving an agreed definition. When consulting dictionaries, there is a circularity of definition that leaves ultimate meaning unexplained. For example, in the Oxford English Dictionary, the word **consciousness** is defined as 'the state or faculty of being *conscious*'; conscious is 'having internal *perceptions* or consciousness'; perception is 'to become *aware* of, conscious of; and **awareness** is 'the quality or state of being aware; consciousness.

Guzeldere identifies the difficulties in forming a definition:

> The phenomenon of consciousness does not have clear-cut boundaries, and its complex structure does not admit any easy formulation. Even if it is in principle possible to invent a 'consciousness monitor,' a device that would 'detect' the physical

> signs of the presence of consciousness, no such technology is anywhere in sight, as it is not even known what exactly is to be measured.
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> The root of the problem lies deeper than the inadequacy of the technology, or the lack of sufficient data, however. What seems to be critically lacking is also a solid theoretical framework to ground and facilitate the experimental research. For example, there is really no established consensus, even in the medical field, as to what should count as the criteria of consciousness, to demarcate the domain of the conscious from that of the unconscious or the nonconscious. The problem with building a consciousness monitor is not confined to a lack of sufficiently fine-grained measuring instruments; it ultimately has to do with not knowing where to begin measuring, and where to end up with measured quantities.
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> To make things worse it is not clear whether everyone means the same thing by the term 'consciousness', even within the bounds of a single discipline. There is considerable variation in people's pre-theoretic intuitions, for instance in regard to what kinds of organisms or systems, and under which conditions, consciousness can be attributed. ...How many senses of consciousness are there, and how are we to taxonomise them?
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> (Guzeldere 1995: 30-31)

In other words, scientists and other academics have no explanation for consciousness. There is no instrument that is capable of measuring it; and so far it has not been possible to tell where it is present or absent. It may be possible that there exists a 'universal Consciousness' from which has emerged all forms of existence including human life, a view supported by many spiritual traditions; or consciousness may be a byproduct of the brain, as many scientists believe. I would suggest that, with no incontrovertible evidence to support one view over the other, educational researchers should remain open to the nature of consciousness and the different possibilities of its origins.

5 Questions to Noriyuki Inoue

It is in this context that I should like to respond to Dr Inoue's writing, and to ask him some questions, seeking clarification of his thinking and ideas, and the worldview in which they are located.

In Inoue's paper, he talks about the Japanese terms *jikkan;* and states that the direct translation of j*ikkan* is 'real sense' or 'substantial feeling'. I am interested to know about the perspective that informs these ideas. Is the materialist perspective as dominant in Japanese culture, or is it informed by a view of consciousness that is more receptive to an acknowledgement of deeper sources of experience than is the case within western educational research? On my reading of what Inoue has written, it appears to me that there is scope for an expanded view of reality in the culture which he is representing, which would be more open to an exploration of some of the ideas I am exploring.

Following on from this, I am then wondering about the basis of differentiating between 'subjective' and 'objective' knowledge. Is this differentiation accepted within a Japanese research culture, or is this largely an unquestioned transfer of concepts from western paradigms? If the latter is the case, is Inoue – like myself – trying to find a way of interpreting his own experience, where subjective worlds access deeper sources of reality, and hence the individual has available sources of information that lie within what Carl Jung (1961) might call 'the collective unconscious'?

In essence, what I am asking is: is the separation of subjective and objective knowledge a reflection of the Japanese culture, or does he feel that he needs to talk about this separation because he is writing to a largely western audience?

Secondly, how does Inoue respond to my proposal, supported by evidence from quantum physics and consciousness studies, that there is no such thing as an objective reality independent of the observer; and would an acceptance of this alternative worldview make it easier for him to explain and justify the influence of subjective worlds on the teachers' experiences?

Finally, my view is that when a group of people gather together and share their ideas and experiences in ways that include deep listening to each other, with each one having sufficient trust to talk about all aspects of their experiences, emotional and spiritual as well as practical and intellectual, they often experience a 'transformation of consciousness' (Walton 2008: 251). They feel that this experience requires a more profound explanation than is provided when it is perceived that they have each just exchanged the 'contents of their brains'. It seems to me that the Japanese concept of *ba* suggests the requirement for a similar profound explanation – would Dr Inoue agree?

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