# **AI & SOCIETY**

# The Role of "Craft Language" in Learning "Waza"\*

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Abstract. The role of "craft language" in the process of teaching (learning) "Waza" (skill) will be discussed from the perspective of human intelligence.

It may be said that the ultimate goal of learning "Waza" in any Japanese traditional performance is not the perfect reproduction of the teaching (learning) process of "Waza". In fact, a special metaphorical language ("craft language") is used, which has the effect of encouraging the learner to activate his creative imagination. It is through this activity that the he learns his own "habitus" ("Kata").

It is suggested that, in considering the difference of function between natural human intelligence and artificial intelligence, attention should be paid to the imaginative activity of the learner as being an essential factor for mastering "Kata".

Keywords: Waza; Skill; Craft language; Kata; Katachi; Habitus; Human intelligence; Artificial intelligence

## Introduction

The purpose of this article is to discuss the role of "craft language" often used in the process of teaching and learning a skill of Japanese traditional performance, and also to suggest some essential points of natural human intelligence, which we should not overlook when we consider the problem of artificial intelligence.

First of all, I shall define the terms, "Waza" and "craft language". By the term "Waza", I mean a skill of Japanese traditional artistic performances such as Japanese dancing, Noh play,<sup>1</sup> or Kabuki play.<sup>2</sup> ("Waza" may also refer to traditional martial arts such as Karate,<sup>3</sup> Judo,<sup>4</sup> or Kendo<sup>5</sup>; surely we recognize that these have a common cognitive process in the learning with artistic performance. But in this article, I will focus the discussion on the nature of artistic performance.) And, by the term "craft language", I mean a special metaphorical language which is often used in the process of teaching a skill such as Japanese traditional performance, "Waza", different from a descriptive or a scientific language.

<sup>\*</sup> This article is a modified English version of Chapter 5 of my book *Waza kara shiru* (Learning from Skill), Tokyo University Press, 1987, pp. 93–105.

## The Goal of Learning "Waza" – "Kata" and "Katachi"

The skill of Japanese traditional performance, "Waza", has generally been construed such that it can not be taught scientifically and a learner can master it only through the activity of imitating and repeating what his teacher does. We have regarded the process of learning "Waza" as so mysterious that the people outside the world of "Waza" cannot understand it, and that we can not describe it objectively as a cognitive process. We sometimes call that way of learning "stealing in secret", *nusumu* in Japanese. In this article, I will try to make clear what the learner is supposed to "steal" from his teacher and how that "stealing" can be done successfully.<sup>6</sup>

We may point out that one distinctive feature of learning a skill of Japanese traditional performance is that the ultimate goal any learner tries to attain is mastering "Kata", not "Katachi". "Kata" and "Katachi" sound very similar in Japanese as you can tell and they are often confused in speech. But, in fact, these concepts are completely different and without making clear the distinct meaning of each we can elucidate neither the teaching and learning process of "Waza" nor the role of craft language, which works effectively in the process of teaching and learning "Waza".

"Katachi" is an apparent physical form of action shown by the peformer of a certain "Waza", which may be decomposed into parts and described as a sequence of procedures. For example, in the case of Japanese traditional dancing, some well-known works such as "Kikuzukushi" or "Shiokumi" can be decomposed into parts of action which can be described as a sequence of procedures by scientific language.

On the contrary, "Kata", which has been regarded as the ultimate goal of the learner to attain in learning "Waza", is not a simple collection of parts of action like "Katachi", but an artistic and personal expression of "Katachi" bearing the meaning connected with a socio-historical factor of the world of a certain "Waza", which is supposed to be mastered through the activity of imitating and repeating superficial "Katachi" with great pains.

In considering the critical difference between these two terms, it might be helpful to introduce and examine the concept "habitus", which is used by a French sociologist, Marcell Mauss (1950), in his book *Sociologie et Anthropologie*. He proposes a theory of anthropology through the analysis of physical actions man shows differently depending on the difference of culture. In discussing it, he introduces the term "habitus" as a central concept in his theory. He explains it as follows:

He insists that everyday physical actions such as eating, sleeping, walking and taking a rest, which have generally been considered just biological or physiological behaviour of man, involving no intentional teaching and learning process, do

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<sup>&</sup>quot;Je vous prie de remarquer que je dis en bon latin, compris en France, [«]habitus[»]. Le mot traduit, infiniment mieux qu' [«]habitude[»], l'[«]exis[»], l'[«]acquis[»] et la [«]faculté[»] d'Aristote (qui était un psychologue) . . . Ces [«]habitudes[»] varient non pas simplement avec les individus et leurs imitations, elles varient surtout avec les sociétés, les éducations, les convenances et les modes, les prestiges. Il faut y voir des techniques et l'ouvrage de la raison pratique collective et individuelle, là où on ne voit d'ordinaire que l'âme et ses facultés de répétition."<sup>7</sup>

have, in fact, a socio-historical background unique to a particular culture, and that the rational cognitive process (*raison practique*) can be recognized in the learning of such kinds of action. He makes a clear distinction in the concept of "habitus" from that of "habitude (habit)". He seems to interpret the concept as a "higher grade disposition",<sup>8</sup> to use Gilbert Ryle's phrase, which can be mastered through the activity of "training" (the rational cognitive activity), whereas "habitude (habit)" is a "single-track disposition"<sup>9</sup> which can be mastered through the drill. In short, "habitus" is a composition of the parts of action disconnected from the culture or situation, but it is the culture-laden form of action, in other words, culture or situation-laden "Katachi". A new member in a certain culture begins to imitate with adoration what his elders successfully show in a certain situation, and as he does so, he gets to master a certain type of acting to such an extent that he can produce it without much consciousness.

Mauss points out the necessity of considering the human physical actions from not only the physiological, but psychological or sociological point of view. That is to say, "habitus", culture or situation-laden "Katachi" should not be considered as something that can be learnt only by imitating the apparent form of action independent of the context, but as something that is mastered only through committing himself to or indwelling inside a certain culture or situation, thereby getting to grasp the situational meaning of "Katachi" with a sense of reality. I believe, this concept of "habitus" well expresses the nature of "Kata", which is the ultimate goal for the learner to achieve in learning "Waza".

The most important matter for the learner in learning "Waza", is not the perfect reproduction of "Katachi" as a physical form of action, although it is true that he has to begin his learning by imitating and repeating "Katachi", but to "habitusize" "Katachi", in other words, to automatically reproduce "Katachi" as well as grasping the meaning of it connected with a socio-historical factor of the world of a certain "Waza", by himself with a sense of reality. Concerning the mastery of Noh play, Zeami<sup>10</sup> says that there would come a state for the learner, who has been engaged in imitating and repeating "Katachi", such that the consciousness with which he tries to imitate "Katachi" disappears all of a sudden. He calls such a state "Ushu-fu", while the state the learner devotes himself to imitating and repeating the form of action as "Mushu-fu".<sup>11</sup> It is the state of "Ushu-fu" that both the teacher and the learner should make efforts to attain in the end of teaching and learning, through committing to and indwelling in the world of "Noh", for instance. In this sense, old Japanese sayings on mastering "Waza", such as "Enter into katachi first, and then get out of it" and "Get accustomed to it rather than be taught" well point out the importance of mastering "habitus" as the end of learning.

## How can "Kata" be Mastered?

If the ultimate goal of learning "Waza" is mastering "Kata", "habitus", which is not a simple automatic reproduction of the form composed of parts of physical action, then, how can it be mastered? Speaking from the point of view of the teacher, how can the teacher transmit his "Kata", not "Katachi", to the learner effectively?

I mentioned before that the learner in a certain world of "Waza" can master "Kata" through the activity of imitating and repeating "Katachi", by committing himself to or indwelling inside the world in question, just as a new member of a culture gets to learn a particular form of action by living together with other elder members, thereby getting to grasp the situational meaning of "Katachi" with a sense of reality. In addition to this process of indwelling in the world of a certain "Waza" on the part of the learner, there is what can be described as an intentional act in the teaching of "Kata", which there is not in "Katachi".

Here, we have to pay attention to the special metaphorical language which is often used in the process of teaching and learning "Waza". For example, in the case of Japanese traditional dancing, there is a form where a performer holds his right hand up with a fan. To make the learner master this form, the teacher says while showing him this form, "Hold your right hand up just as if you were trying to catch snow falling down from the sky", instead of saying "Keep your right hand up exactly at an angle of 45 degrees". Or to make the learner understand the tempo of a performance, he says "Store it, store it!" (*Tamete, tamete*) rather than saying "Keep the same form for 5 and a half seconds.

Nakamura Utaemon V,<sup>12</sup> recalls the method of teaching he had received from Ichikawa Danjuro IX,<sup>13</sup> as follows:

"I remember that the characteristic of Dajuro's teaching was that he only made keypoints rather than teaching the details of 'Katachi'. Once, he said to me when I had trouble in speaking one of my lines, 'Speak not with your mouth, but with your stomach!.' When I first heard that remark I did not understand what he was saying, but I finally realised that what he meant was that I had to notice the importance of speaking the lines only to the opposite actor. My problem was that I had tried to speak the lines to the audience so loudly that all of them could hear my voice.'<sup>14</sup>

Nakamura Kanzaburo XVII<sup>15</sup> also recalled the Onoe Kikugoro's VI ways of teaching:<sup>16</sup>

"Kikugoro was superb at teaching and I learned a lot from him. When I played the role of Rikiya in 'Chushingura',<sup>17</sup> he made a good suggestion about how I could perform in the scene where Rikiya was waiting for his father Yuranosuke coming from 'hanamichi'.<sup>18</sup> He said to me, 'Why don't you open a hole in the curtain ("agemaku") at 'hanamichi' and try to see Yuranosuke through it.' Using his suggestion, helped me to play my role successfully."<sup>19</sup>

One common feature of the above examples, is that the teachers intentionally used metaphorical expressions in the process of teaching even in cases where they could express what they wanted to say to their learner in a descriptive language. For instance, Danjuro could have said, "Speak the lines less loudly than before", instead of saying, "Speak not with your mouth, but with your stomach". Also, Kikugoro could have said "To play the role of being anxious about coming of his father Yuranosuke, stare at the corner of 'hanamichi' or in the direction of the curtain." What was the practical intention of their using such metaphorical expressions in teaching?

In considering the above question, it is worthwhile citing here the analysis of jargon by Vernon Howard in his book *Artistry*. He classifies jargon into three types; theoretical jargon, gratuitous jargon, and technical jargon. He says:

"theoretical jargon consists of a set of neologisms especially coined for highly specialized theoretical concepts such as 'positron', 'valence', 'positive and negative reinforcement', 'gross national product'

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and the like. Gratuitous jargon is the sort afflicting such fields as politics, education and popular psychology – terms such as 'developing nation', 'underachiever', 'transactional analysis'. Technical (or practical) jargon . . . consists of a mostly ad hoc selection of metaphoric usages of terms and phrases borrowed from ordinary discourse, the special meanings of which are drawn from aspects of the skilled activities in question. The singer's vocabulary of 'registers' and 'breaks,' of 'chest' and 'head' voices, 'cover', 'placement', and 'support' to mention just a few conspicuous items, is an excellent source of examples of technical jargon."<sup>20</sup>

According to Howard:

"the technical jargon is an action-directed language that aims to direct, discriminate, identify and classify sensations and behaviour considered in one way or other to be essential to the correct development and deployment of a skill.... This feature is consistent with the primary aim of such discourse, which is to induce the relevant perceptions and actions and only secondarily to describe and explain them – whereas in science the primary aim is precisely to describe and explain, not to induce in the sense 'to provoke'."<sup>21</sup>

Howard calls this kind of jargon, which is often used in the process of teaching of a certain skill, "craft language".

The examples of using metaphorical expression in teaching the learner an appropriate form as I cited before, might be considered those of "technical jargon" by Howard. The teacher's purpose of using craft language is not to describe or explain the form he wants to transmit to the learner, but to provoke the same sensation as he has in the body of the learner through his imagination. And it is not until the same sensation is provoked in the body of the learner that he can grasp the meaning of "Katachi", in other words, master "Kata" beyond the activity of imitation of "Katachi". This is exactly the state of being habitualized, "Ushu-fu" by Zeami. It was the very "Kata", not superficial "Katachi", that both Danjuro and Kikugoro wanted to transmit by using craft language intentionally.

# The Effect of Using "Craft Language" from the Point of View of Mastering "Kata"

Why can craft language so effectively induce or provoke sensation in the learner's body? Why can a metaphorical expression work more effectively than a descriptive one when the teacher wants to transmit "Kata" to the learner? To inquire into this problem. I would like to quote the analysis of the metaphor done by Hugh Petrie.

According to Petrie, a metaphor has two aspects, that is, "comparative" and "interactive". He says:

<sup>&</sup>quot;one and the same metaphor can be comparative and interactive, depending on the point of view taken. An educational metaphor like, 'The atom is a miniature solar system,' is probably a comparative metaphor from the point of view of the teacher. The teacher already knows both about the solar system and about atoms and is relying upon the similarity between them which already exists in our collective understanding. But from the point of view of the student just beginning atomic physics, the metaphor, assuming it is successful, will be interactive. It will (help) create the similarity for the student... Thus, the fact that the metaphor can be interactive for the student is crucial. For it may provide a way of understanding how the student's modes of representation and understanding can be changed, although granting that experience is dependent of a particular mode or scheme of understanding."<sup>22</sup>

The effect of craft language, to provoke a certain physical sensation in the learner's body, is grounded on the interactive aspect of a metaphor. The teacher who already knows the similarity between the metaphor and the form which is supposed to be mastered by the learner, has the intention of encouraging the learner to imagine and discover the similarity between the metaphor and the form to be mastered by himself.

Now, let us go back and consider the case of Japanese dancing. For example, receiving a metaphorical suggestion like "Act as if you are catching snowflakes falling down from the sky", may confuse the learner at first, but he may begin to imagine the scene of snow falling on a cold day, and to compare the image of catching snow with his hand with the knowledge he has stored so far through committing himself to the world of Japanese traditional dancing. And in that process of comparison between the two through his imagination, he gradually discards inappropriate properties of snow such as "white", "cold", or "melting" which have nothing to do with the dancing form itself. And he would finally reach an appropriate property of snow, which is exactly similar to the form his teacher implies. He finally understands that "lightness" or "fragileness" of snow must be the one he is supposed to express in the form of holding his right hand up. To catch snowflakes with his hand, he has to hold out his hand as gently as possible, otherwise it will surely fly away from his hand. He is convinced that though he needs to hold out his hand, it is not enough that he mechanically does so. What is important is how he holds out his hand.

As soon as he can understand what the metaphorical expression practically implies, he also can get the same physical sensation as his teacher has, in his own body, and can simultaneously grasp the meaning of "Katachi" with a sense of reality, that is to say, he can master "Kata". By intermediating craft language which has the effect of encouraging the learner to activate his creative imagination, the teacher can effectively transmit "Kata" to him. In this sense, the activity of imagination on the part of the learner, which is encouraged effectively by craft language, is an indispensable factor for mastering "Kata", not "Katachi". It is this activity of imagination that a teacher's intentional use of craft language, rather than a descriptive one practically aims for. The teacher knows from his experience that for the learner to master "Kata", he has to inquire into the appropriate form and to grasp the meaning of it by himself through activating his imagination, and that a descriptive or a scientific language does not work effectively for that purpose.

However, there is one thing we have to keep in mind in considering the effect of craft language. That is, it is not always the case that any learner, whether novice or expert, who receives metaphorical suggestions can activate his imagination. To be able to do this, he has to have already stored, both implicitly and explicitly, the knowledge about not only "Katachi", but also its socio-cultural background through committing himself to or indwelling in the world of a certain "Waza" by the time he receives such a metaphorical suggestion from his teacher. Without such knowledge, he can only imagine what the metaphorical statement literally means and he will never be encouraged to activate his imaginative activity such as comparing the literal meaning with the form he is supposed to master, and he will stay in the state of "Mushu-fu" forever.

It follows that craft language works effectively only when the learner has already been engaged in the activity of imitating "Katachi", indwelling inside the world of a certain "Waza". To those who are outside the world or have not stored enough knowledge yet, craft language means nothing or is just awkward expression at best.

## Conclusion

Let me sum up what I have discussed so far.

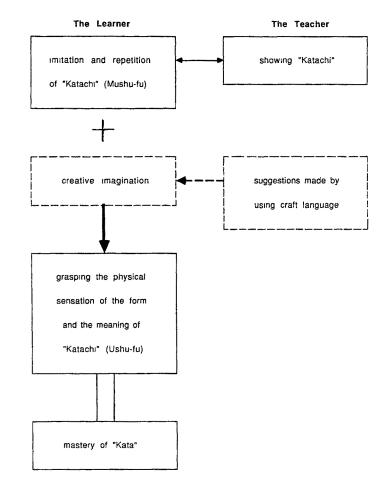
Concerning the aim of teaching and learning "Waza", the process of teaching and learning a skill of Japanese traditional performance has been considered so mysterious and closed that the people outside the world of "Waza" hardly understand what happens there. But, in fact, what both the teacher and the learner aim for at the end of the teaching and learning is the mastery of "Kata", not "Katachi". "Kata", as distinct from "Katachi", can well be explained by introducing a sociological concept "habitus" which is a cultural or situational "Katachi". It is "Kata", "habitusized katachi", that the learner should make efforts to master through the activity of imitating and repeating the form his teacher shows. That is exactly what the learner should "steal in secret (*nusumu*)" from his teacher.

Concerning the way of how to get to the stage of mastering "Waza", in addition to the factor, on the part of the learner, of imitating and repeating "Katachi" through committing himself to or indwelling in the world of a certain "Waza", we can recognize the role of a special metaporical language intermediating in the process of teaching, different from a descriptive or a scientific one, which I here called "craft language" according to Howard. The teacher often uses craft language in the process of teaching as it effectively enables the learner to master "Kata" by encouraging him to activate his creative imagination. Through the activity of imagination as is shown in the above examples of Japanese dancing and Kabuki play, he can finally experience the same physical sensation that his teacher has and wants the learner to master in his own body. That is to say, through that activity, the learner is able to grasp, with a sense of reality, the meaning of "Katachi" he is imitating.

This process of mastering "Kata" might be drawn as shown in Fig. 1.

As this figure shows, the perfect reproduction of "Katachi" (the state of "Mushu-fu") can easily be learned through following a sequence of procedures of "Katachi" shown by the teacher, but in order for the learner to get to the state of mastering of "Kata", he has to activate his creative imagination while he is following a sequence of procedures of "Katachi", and to grasp the meaning of it by himself. Craft language effectively encourages the learner to activate his imagination, thereby enabling him to grasp the meaning of "Katachi" which is the mastery of "Kata".

Finally, I would like to say something about what the above discussion suggests concerning the general problem of human intelligence. What I intended in the discussion in this article, as I mentioned in the beginning, is not only to elucidate the cognitive process of learning a skill of Japanese traditional performance,





"Waza", but also to propose a new perspective, on the study of human intelligence, which has not been shed light on from the scientific point of view. Such areas as cognitive science, philosophy, psychology and AI which share the concern with human intelligence have tried to inquire into the nature of human intelligence, and in fact remarkable results have been attained especially in the area of AI today. However, although I approve of their far from small contribution to the study into intelligence, I can not hide my dissatisfaction with it from the point of view of not "artificial" but "natural" human intelligence.

As Dreyfus and Dreyfus state in Mind over Machine:

"Computers could then follow such rules or programs to deduce how those facts affect each other and what happens when the facts change. In this way computers came to be used to simulate logical thinking. We shall call computers used in this way 'logic machines' or 'inference engines'."<sup>23</sup>

<sup>&</sup>quot;The computer, if used to simulate logical thinking, can only make inferences from lists of facts. It's as if, in order to read a newspaper, you had to spell out each word, find its meaning in the dictionary, and diagram every sentence, labelling all the parts of speech. Brains don't seem to decompose either language or images this way, but logic machines have no choice. Being unable to make inferences

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from images, they must decompose them into the objects they contain and into descriptions of those objects in terms of their features before drawing any conclusions".<sup>24</sup>

Today's computer seems to stay at the level of functioning as an analytic apparatus, that is, so to say, to stay in the stage of following "Katachi". According to the above discussion where the ultimate goal of learning "Waza" is inseparable from the matter of mastering "Kata", we cannot help concluding that human intelligence cannot satisfactorily be described as the kind that makes logical inferences by following the descriptive rules or procedures correctly, but it also involves the activity of imagination which effectively encourages our thinking. Now why should we pay attention to the aspect of human intelligence which cannot be described by descriptive rules or procedures as is shown in the above examples of learning "Waza"? If human intelligence is of the kind which can also be facilitated by such tacit factors (behind the explicit learning procedures) as commitment to the situation or creative imagination urged by craft language, we have to seriously consider the nature of such tacit factors. We should examine the meaning of human commitment to the situation or the meaning of the imaginative activity in understanding, and then consider how we can possibly apply it to the study of intelligence, whether "human" or "artificial".

The points I have proposed in this article are, in this sense, not domain-specific to the learning of Japanese traditional performance, and I am convinced that they might also be suggestive when we discuss what the nature of human intelligence really is.<sup>25</sup>

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