

From: Theory of Knowledge by Sue Bastian
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Shared and personal knowledge

On previous page - In 2011, American jazz musician Herbie Hancock was named UNESCO Goodwill Ambassador for the Promotion of Intercultural Dialogue for promoting peace and understanding through music.

12.1 Introduction to shared and personal knowledge

The TOK subject guide observes that the verb 'to know' has two first-person forms: 'I know' and 'we know'. It suggests that these mean slightly different things. 'I know' means knowledge that is held by individuals. It could be that others have no access to this knowledge but it could also be that this knowledge is difficult to share. When this is the case, we call it *personal knowledge*. Lionel Messi possesses great personal knowledge of how to play football. It is knowledge that is difficult to share with others. He might instruct us in a training session but it is unlikely that we shall leave that session being able to play as well as Messi.

'We know' is not just a collection of a lot of 'I know' statements. Rather, it is a type of knowledge that is shaped by processes that operate at a social level. Through social interactions over time, groups establish methods for producing knowledge. These methods might include standards for the type and quality of evidence needed to establish knowledge claims or what counts as a fact, what experimental procedures to use and even what counts as a rational justification. These methods evolve over time and are not the work of a single individual but rather emerge from social interaction between a group of people, often a large one, often widely spread geographically. The recognition of the social nature of this type of knowledge is perhaps the biggest innovation of the TOK subject guide. The guide calls this second type of knowledge 'shared knowledge'.

We have seen that shared knowledge undeniably plays a very important role in our lives. In its informal form, it is the foundation for the social world in which we are embedded. We need common understandings of language, convention, and tradition in order to function socially. Social institutions structure our social lives and produce a horizon against which our lives have meaning and significance. Moreover, we rely on informal versions of AOKs such as folk physics, folk psychology, folk sociology, and folk economics to run our lives.

We have also seen that, in its formal form, shared knowledge is made up of the subject disciplines, some of which we study in the IB diploma programme. These are grouped together to form the AOKs of interest to us in TOK. Shared knowledge is something we can discuss and argue about. It is something dynamic that changes over time, responding to new methods and ways of thinking. Shared knowledge can bridge continents and cultures, and can persist over time. Individuals can help to produce shared knowledge by working on and developing knowledge that was produced long before they were born and that will, in turn, be taken further by future generations. But the contribution of individuals has to be validated by the group before it becomes shared knowledge. Shared knowledge is a huge edifice on which we are working like bees in a beehive in close cooperation over space and time.

Personal knowledge, on the other hand, has a different character. It tends to be difficult to share largely because it does not lend itself to being expressed in language. The deep knowledge possessed by the pianist Herbie Hancock or the tennis player Maria Sharapova is not something that can be easily shared or passed on. These greats of the worlds of jazz and tennis acquired their knowledge not through language but through practice – a lot of it. In his book *Blink: The Power of Thinking Without Thinking*,

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Distinguishing between shared and personal knowledge

In times gone by, the distinction between shared and personal knowledge might have been described as the difference between knowledge and skills. Being able to play jazz piano would have been classified as a skill rather than as knowledge. What might go with this way of thinking would be a hierarchy of activities, with those that are skill-based being at the bottom and those that are more knowledge-based being at the top. Such a hierarchy might be reflected throughout society: from the importance given to some subjects in school to the pay awarded to different jobs in life outside school. These hierarchies might still exist. We still use the term 'skill' when referring to certain types of manual labour and these jobs are typically at the lower end of the pay scale. The fibre-optic joiner might earn considerably less than the management consultant because one is seen as possessing a skill while the other has knowledge. But the view taken by this book is that both are knowledge.

The TOK subject guide uses the metaphor of knowledge as a map of the world, a simplified representation; it is constructed and used to solve a particular set of problems. Herbie Hancock undoubtedly has a very intricate map of the territory of jazz piano playing. He has a complex set of internal representations of the world of harmony, rhythm, melody, texture, and structure that are required to produce the sort of stunning improvised passagework that we expect from him. Maria Sharapova has a highly elaborate map of a game of tennis. She uses her internal representation to understand the strategy of her opponent and devise counter measures. She monitors the weaknesses of her opponent and uses her map to produce an effective match plan. She then uses the physical representation of the tennis court to carry it out physically in real time. These maps are often very detailed and elaborate, and deserve to be taken seriously and described as knowledge. What makes them personal is that they cannot be easily transferred to others. Table 12.1 gives a broad-brush description of the major differences between shared and personal knowledge.

Table 12.1 Shared and personal knowledge

Shared knowledge	Personal knowledge
belongs to the group	belongs to the individual
easy to communicate	difficult to communicate
produced by internal structure of AOKs analysed using the knowledge framework: <ul style="list-style-type: none"> ◦ scope and applications ◦ language and concepts ◦ methodology (including WOKs) ◦ history 	produced directly by WOKs: <ul style="list-style-type: none"> ◦ sense perception ◦ language ◦ reason ◦ emotion ◦ memory ◦ imagination ◦ faith ◦ intuition
map-like/model-like	mainly story-like
language based	non-language based
propositional knowledge	procedural knowledge
global	local
produces group perspective	produces individual perspective

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There is a natural two-way relationship between shared knowledge and personal knowledge. Talented individuals can contribute to shared knowledge through their personal abilities. We shall see below that Srinivasa Ramanujan made significant contributions to the field of number theory in mathematics through his very personal manner of thinking about numbers. But in order to count as mathematical knowledge, Ramanujan's imaginative leaps and creative intuitions had to measure up to the standards of the mathematical community. One of these standards was the insistence on formal proof – something that Ramanujan did not consider important. Only then did his personal contribution become shared knowledge.

Similarly, shared knowledge profoundly influences personal knowledge. We take shared knowledge and apply it to our own local circumstances making sense of it in our own terms. Knowledge of the shared discipline of psychology might make sense of our personal thoughts, feelings, and behaviour, and lead us to a degree of self-knowledge that would have been impossible otherwise (Figure 12.1).

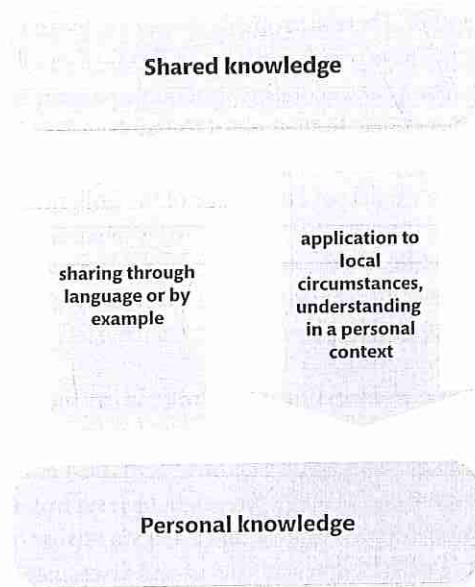


Figure 12.1 The relations between shared and personal knowledge.

We shall explore the nature of personal and shared knowledge, and the relations between them, in more detail in the sections that follow.

Exercises

- 1 Find three more examples of personal knowledge. How does the individual acquire knowledge in each of these cases? What sort of map is constructed of the world? What makes this knowledge personal rather than shared?
- 2 In a developing child, what type of knowledge might come first: personal or shared?
- 3 Is there any evidence of personal knowledge being treated differently from shared knowledge in your daily experiences at school and outside?
- 4 How should society decide how to reward the different types of knowledge in the labour market?
- 5 The knowledge that is required to run a household is often based on experience and might be for a large part personal knowledge. What are the implications of this regarding gender equality?
- 6 Look at the high school curriculum you designed in Chapter 6. What proportion of resources did you devote to personal knowledge and shared knowledge? What arguments could be used to justify the split between personal and shared knowledge?

12.2 Shared knowledge

Most of the knowledge we have discussed so far in this book is shared knowledge – being shared and shareable means that it has certain essential features. Broadly speaking, being shared lends it a degree of objectivity. It is not restricted to the experiences of individuals and is in some sense impersonal. It is knowledge that can be discussed and criticized. The criteria for validating it are available to the group. It is fundamentally systematic. There are feedback mechanisms to modify it if it doesn't do the work that is expected of it. Like any topographical map, if it does not solve the problems of navigation because it omits significant features on the ground then it has to be altered accordingly.

Shared knowledge is a collective endeavour and today this means that it involves a vast web of cooperation. Think of the sharing of knowledge that goes into building a car or a computer. There is probably no one on Earth who can build a computer from scratch. These projects rely on millions of small items of specialized knowledge. The global economy functions to connect together these disparate knowledge spaces. Even in the case of the subject disciplines we study in the IB diploma programme, they are now vast, highly specialized, and deeply interconnected. Unlike the models of knowledge of the Enlightenment, they are far too vast for any one person to master in their entirety. In some sense, a subject such as physics exists 'out there' and yet there is no single person who has access to all of it. We are living in a time of increasing specialization and, what goes with this, rapidly increasing interconnectedness.

Shared knowledge is always re-assessing itself. Built into its methods of inquiry is the possibility of critical self-examination. This is particularly true in the natural sciences but it can also be found in the arts. We are familiar with the idea of peer review of the results of a particular experimental team, but might be less familiar with the idea of a major re-evaluation of the work of this or that artist via retrospective exhibitions or radical new interpretations. These internal checks and assessments are characteristic of shared knowledge.

As we shall see, one of the features that allows shared knowledge to break out from the confines of the personal knowledge space is that it is predominantly linguistic. Shared knowledge by definition must be shareable. That requires language of some sort.

Shared knowledge produces knowledge communities. These are groups of people who are linked together through having access to a particular system of shared knowledge. For example, chemists the world over belong to a knowledge community. They share concerns, interests, concepts, methods, and they have a shared history through chemistry. If the shared knowledge is cultural, the resulting community might be an entire cultural group sharing traditions, history, language, and systems of value. Shared knowledge produces a particular group perspective – a particular view of the world through the lens of the system of shared knowledge.

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Conditions for sharing knowledge

Throughout this book, we have supposed that knowledge is, broadly speaking, a map of reality designed to solve a specific set of problems. It is then natural to ask what conditions allow this knowledge to be shared. Let us go back to an example discussed in Chapter 11 (page 336). How could local Inca knowledge of successful agricultural practice in the extreme conditions of the Andes be passed on to locations far from the capital Cuzco?

It seems that there are six main conditions that have to be satisfied in a particular case.

- 1 There are shared problems that motivate the production of shared knowledge and an incentive for sharing the knowledge in the first place.
- 2 The required knowledge exists in a form that can be transported over distance (and time).
- 3 There are technologies that can transport knowledge over distance (and time) in this form.
- 4 There are shared concepts and conventions that allow knowledge produced in one place to be understood in another.
- 5 There are shared methods for producing this shared knowledge.
- 6 There is some element of shared history that allows the knowledge in question to have a shared significance.

You will notice that these conditions correspond exactly to parts of the knowledge framework. We shall deal with each of these conditions in turn.

Shared problems and motivations

Remember our mantra: knowledge is a map of reality that is used to solve problems. The possibility of shared knowledge requires that there are shared problems whose solution motivates the production of shared knowledge.

Let us return to the example of the Inca. Agricultural knowledge in the Inca Empire is a clear example of a set of problems that might require shared knowledge. Such a huge empire can reap considerable benefits by sharing agricultural and technological knowledge. Economists call these benefits 'network externalities'. They confer advantages on larger organizations over smaller ones. Small independent communities could be at a big disadvantage compared to the Inca and would eventually come under their political control – not just because of the military superiority of the larger power but more generally because of the efficiencies gained through the bigger shared knowledge base.

But it is not just shared knowledge of science and technology that confers advantages on a group. Shared knowledge of cultural practices and traditions allows groups to build social cohesion and internal organization which are necessary conditions for the growth of a society. A bigger group probably means a group that is more able to meet the needs of its individual members and better able to convert the resources at its disposal into the things necessary for life. So the circle becomes self-sustaining.

These are strong motivations for sharing knowledge. But the opposite motivations might also apply in some situations. The competitive commercial world gives us plenty of examples where it is not in the interests of individuals to share their knowledge. Antonio Stradivari (1644–1737) knew how to build extremely good

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Personal knowledge

Personal knowledge is a personal map of reality. It differs in some important ways from shared knowledge. Because it lacks the social dimension, it lacks the complex social mechanisms for validating knowledge that are available for shared knowledge. It also lacks the breadth and depth of shared knowledge. Personal knowledge is held by individual persons with all the limitations this entails. After all, individuals only live for so long – and the knowledge of a single individual cannot compete with the breadth of the pooled experience of many. On the other hand personal knowledge has the advantage of being based on the direct experiences of the individual formed by a cluster of WOKs (Chapter 2). The subjective nature of personal knowledge can be an advantage in situations requiring a strong individual perspective. The arts are perhaps an important example here. The watered-down consensus of a committee can never replace the strong personal vision of the individual artist.

We mentioned Herbie Hancock and Maria Sharapova in the introduction. Clearly they both possess personal knowledge at a very high level. This is knowledge of how

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to do something – *knowhow* – in this case playing jazz piano and playing tennis. We are able to appreciate their personal knowledge through the end product. We are entranced by Sharapova's brand of aggressive, intelligent tennis and can appreciate its effectiveness against strong opponents. Likewise we can enjoy the intricate thread of a Hancock piano solo, at times strident, at others more thoughtful and introverted, all the while spun economically from the smallest musical raw material. The product of this knowledge is public even though the knowledge itself is very private. Using their internal maps they navigate their respective areas of expertise with great dexterity. They might not be consciously aware of these maps because through practice they have internalized them to such a degree as to render them second nature.

Here are some of the more important features of personal knowledge.

- The mental states of the individual play an important part in the formation of personal knowledge. Memory will be important and there might be a central role for the emotions, imagination, and intuition. There might be room for faith as a WOK.
- A personal map of reality will hinge on 'what it feels like' rather than a particular abstract conception of what is there. The starting point for personal knowledge is *phenomenal*, that is, it is rooted in the phenomena of human consciousness. We might call this type of knowledge *experiential* because it rests heavily on experience.
- It might be essentially inward-looking and based on personal reflection; self-knowledge is an important type of personal knowledge.
- It is more likely to be 'knowing how to do something' rather than 'knowing that such-and-such is the case'.
- By definition, pure personal knowledge is difficult to communicate, suggesting that it is a type of knowledge that is less reliant on language. It will be local to the individual rather than global knowledge.
- There will be big differences in how personal knowledge is produced. Whereas shared knowledge will require certain methods of inquiry acceptable to the relevant community of knowers, personal knowledge will be acquired through various personal WOKs listed in the TOK subject guide: sense perception, emotion, intuition, faith, memory, and imagination (Chapter 2). Reason and language will play a role but perhaps a more muted one.
- Practice and habituation will be important in the production of personal knowledge.
- Personal knowledge necessarily produces a personal perspective on the world. This is a (possibly unique) viewpoint that is coloured by the understandings that make up personal knowledge. But this viewpoint, in turn, influences the production of personal knowledge thus producing an important feedback circle (Figure 12.3).

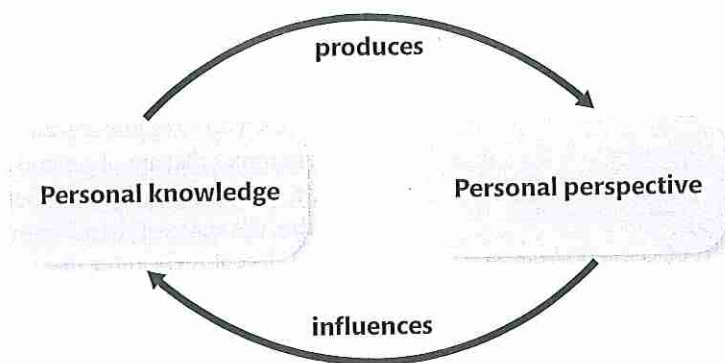


Figure 12.3 The circular relationship between personal knowledge and personal perspective.

Exercise

- 24 Think of a musical or sporting activity that you do. Are you aware of your mental map of this activity? How does one change or improve one's mental map?

Types of personal knowledge

In some sense, personal knowledge is what results if one or more conditions required for the production of shared knowledge fail. Putting it this way gives the impression that personal knowledge is a failed attempt at shared knowledge. This view is too negative and does not do justice to the richness, variety, and creativity of personal knowledge. Of course, shared knowledge has the advantage of objectivity and public procedures for checking and validating knowledge claims, these are significantly absent from personal knowledge. But precisely this lack of objectivity allows great scope for a particularly personal and idiosyncratic view of the world that is the starting point for great achievements in the arts, the sciences, in sport, and in literature. That idiosyncratic personal map of the world might well ultimately feed into shared knowledge and enrich it.

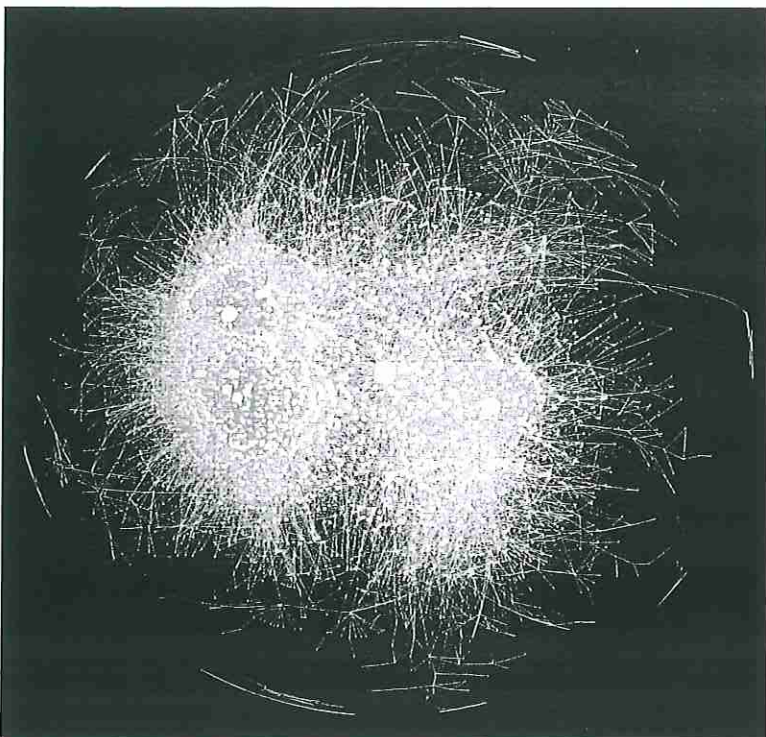
Nevertheless, for personal knowledge to remain personal there must be reasons why it cannot be shared. It must fail at least one of the six conditions for shared knowledge. We get different types of personal knowledge depending on which of these conditions is not satisfied.

Let us examine each of the criteria in turn.

- 1 ***There are shared problems that motivate the production of shared knowledge and an incentive for sharing the knowledge in the first place.***

Some knowledge does not get out into the space of shared knowledge simply because it is not of any interest to others. Knowledge to do with the minutiae of an individual's life might not be of interest to anyone so might not become shared knowledge. A good example here is the so-called 'blogosphere', that is, the explosion of digital journals or blogs set up on the internet over recent years. It was estimated in 2011 that there were around 173 million blogs on the internet posting about 1 million new articles per day. Only a tiny proportion ever get more than a handful of readers. Those that succeed do so mainly because they tap in to topics that are of general interest already – they deal with issues that already lie within the space of shared knowledge. They are less about minute details of a person's biography. There is personal knowledge in blogs that never makes it into shared knowledge space.

A global map of the blogosphere showing the density of traffic.



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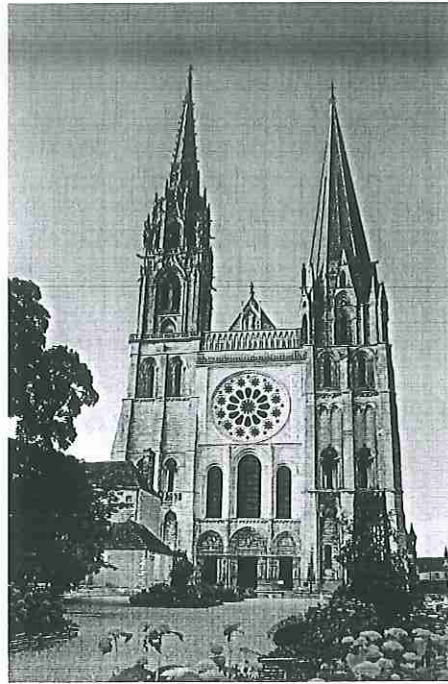
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There are also disincentives for sharing knowledge. It is clear that quite a few products of personal knowledge possess commercial value and lead to competitive advantage in the market place. Under these circumstances it would not be in the interest of the individual knower to share that knowledge with others.

Medieval master builders of Europe's fine gothic churches and cathedrals offer a good example of these forces at work. Nowadays, we tend to associate large-scale, complex projects involving large numbers of people engaged in different tasks with a master architectural plan in the form of a drawing. But in the period before the formulation of Newton's laws of statics, such plans or overviews were rare. Instead the organization of the construction process lay in the hands of a master builder. His knowledge (and in this period it would always have been 'he') would consist of methods he had learned as an apprentice to other master builders supplemented by new insights he had arrived at himself. His personal knowledge, then, was essential to the project. Much of his knowledge was geometrical; it was knowledge of the shapes that could be used in the important structural components of the building such as arches and vaulting. Often this knowledge was stored in wooden templates used to reproduce the exact geometrical forms known to be successful solutions to the engineering problems encountered in cathedral-building. It was rather *ad hoc* knowledge of a local nature based on centuries of trial and error and geometrical insight, and was completely lacking the totalizing effect of a global theory such as that of Newton. This explains the variety of architectural forms seen in the gothic buildings of Europe such as the asymmetrical façade of Chartres cathedral. The asymmetry of the towers expresses the personal knowledge of at least two different master builders.

Because they were paid many times the salary of a common stonemason, there were strong disincentives for the master builder to share his knowledge. The templates, therefore, represented the income differential between the master builder and the stonemason, and were locked away safely to avoid theft. This knowledge was personal. It was gained through a long apprenticeship. The templates which encoded it were analogue. It would be difficult to transport and copy them.



A product of personal knowledge – Chartres Cathedral.

Templates in an architectural sketchbook by Villard de Honnecourt, held in the Bibliothèque Nationale de France in Paris.

