

This is a section of [doi:10.7551/mitpress/14648.001.0001](https://doi.org/10.7551/mitpress/14648.001.0001)

Ownership of Knowledge

Beyond Intellectual Property

Edited by: Dagmar Schäfer, Annapurna Mamidipudi, Marius Buning

Citation:

Ownership of Knowledge: Beyond Intellectual Property

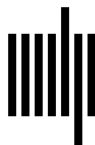
Edited by: Dagmar Schäfer, Annapurna Mamidipudi, Marius Buning

DOI: 10.7551/mitpress/14648.001.0001

ISBN (electronic): 9780262374644

Publisher: The MIT Press

Published: 2023



The MIT Press

**A READER'S GUIDE TO OWNERSHIP OF KNOWLEDGE:
DIAGRAMMATIC CHAPTER**

Vivek S. Oak, Jörn Oeder, and Annapurna Mamidipudi

This chapter aims to clarify the processes of manipulations that are involved in splitting and fixing the kn/own/able. In the first part, we trace the sequence of movements in time and space that allows the *illusion* of the separation of knowables from ownables to exist, both temporally and spatially—that is, the splitting and fixing. Next, we show the step-by-step construction of a new framework, *the grid*, as an analytical tool to study the cases in this book. Finally, we offer a how-to guide to unveil efforts to fix this split, which we show through the application of these analytical methods to four distinct cases—as seen in the chapters by Jackson, Leach, Bolton, and Slaton. This step-by-step guide unveils the major characteristic of our modern regime of knowledge ownership—in which science and technology define the highest echelon of reliable knowing, and law defines the dominant form of rightful owning. This regime is a fragmentation of knowing and owning carried out by actors to carve out knowables and ownables in the domains of epistemology, society, and economy.

SPLITTING

From the viewpoint of a complex reality of kn/own/ables, the fragmentation—or *false* pluralization—of the kn/own/able is a supplementary but *illusory* reality generated by “splitting” the kn/own/able into the knowable and the ownable. The split allows actors to set events on a causal, unidirectional time. This is different from the reality of a plural, nonlinear, and multidimensional universe of ownership of knowledge. What is illusory about this reality is not the actual power of exerting ownership of knowledge through science and law; it is the notion that applying property rights to knowledge could be the prime, or even *only* method in our modern world that can tie knowing and owning together in a “fair” and “just” way, and that it can do this while sustaining and expressing the plurality and selfhood of the knower and enabling society at the same time to

access this plurality. This illusion is necessary to obscure the underlying paradoxical nature of owning knowledge—namely, that it is inseparable from knowing—and of the kn/own/able that exists in a continuous and dynamic “back and forth” with the un-kn/own/able.

THE OPERATION OF SPLITTING

The three triads Different practices, instantiations, and domains of the kn/own/able are identified separately (see the triads at the top of figure 11.1), so that actors can activate one or the other. Once treated as separate, they can be made to work hierarchically rather than on equal terms. This is different from Cook Ding’s world, where he can legitimately assert having—or owning—knowledge because he is able to employ all three practices simultaneously. Any ownership claim that consists of fewer practices not only is a minor form of knowing or not-knowing, it also markedly results in power hierarchies.

Temporal split (step 1) Time comes in. Owing to the fact that the distinct practices of naming, performance, and use can be actuated asynchronously (nonsimultaneously) on words, bodies, and objects, it is possible for actors to create a linear timeline of distinct moments when each practice acts on a material instantiation as a practice of either knowing or owning (as indicated by moments T_1 , T_2 , and T_3 in figure 11.1)—for example, defining the moment when an actor invents a formula as a moment of knowing, and the moment of receiving the patent as the moment of owning that knowledge. This is different from the situation of Cook Ding, whose acquiring of the knowledge of “the Way” is not fixed in distinct moments of singular practice, but always fluidly moving between all three and always needing all three to be valid and legitimate.

Spatial split (step 2) Space and materiality come in. As words, bodies, and objects are in fact separate entities, actors can identify particular instantiations exclusively as either a knowable or an ownable. The spatial split of words, bodies, objects is made into a splitting of knowing and owning. For example, the formula is knowable and the patent is ownable.

Actors employ this spatial [or material] split, now abstracted along the timeline, by privileging different moments—as moments of owning or knowing a particular material instantiation—to make claims or manipulate knowledge ownership.

FIXING

We use the word *fixing* to indicate a process in which an attempt is made to staple the seemingly irreversibly fragmented kn/own/able [separated as knowable and ownable]

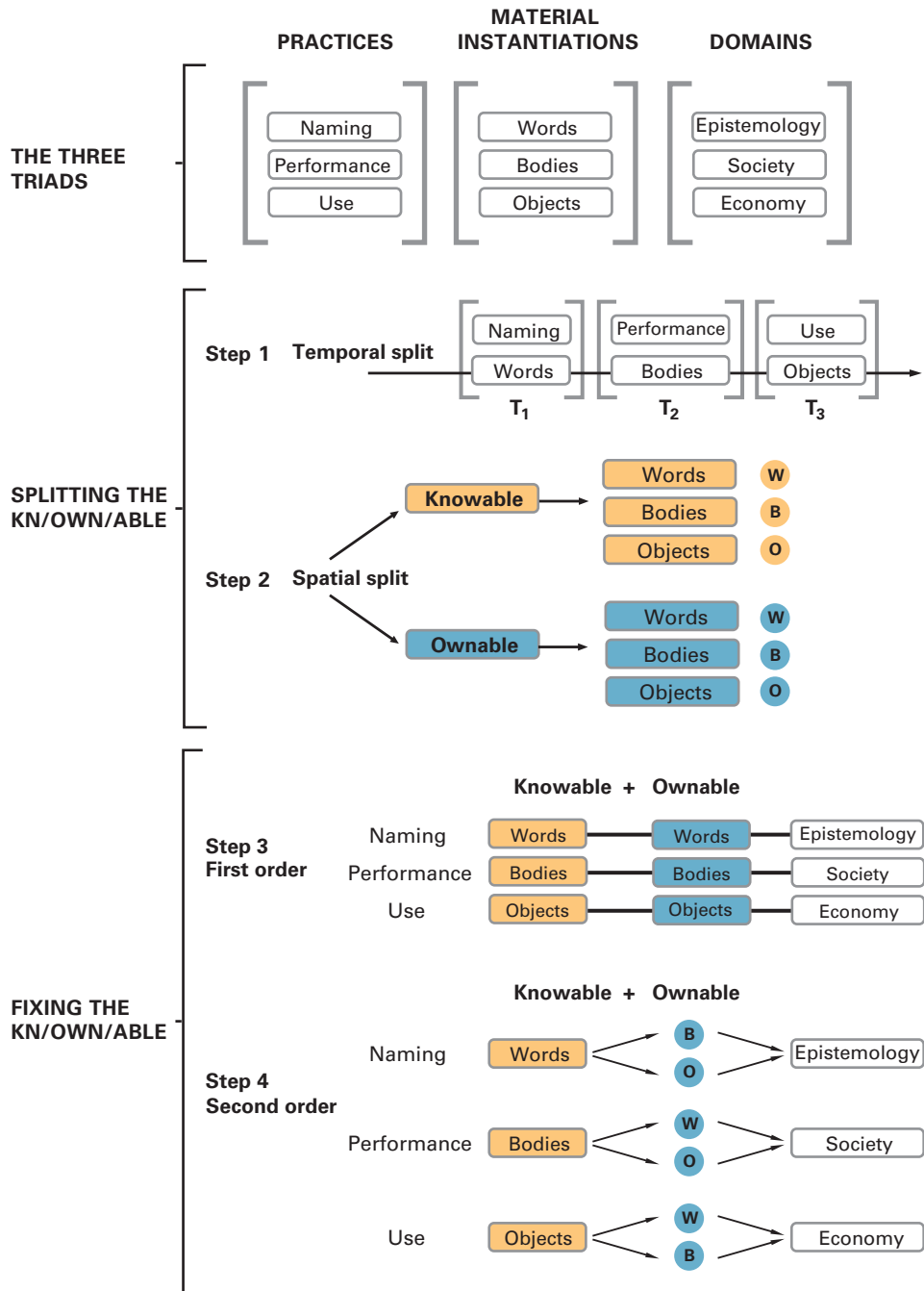


Figure 11.1

The spatial and temporal splits and how they are fixed.

back together again. In order to do so, the actor will need to once again fix knowable and ownable together in material instantiations that they can use to claim knowledge ownership. The emphasis on “seemingly” is important simply because actors identify ownership in social, material, and epistemic domains as irreversibly fragmented because it is this operation that enables them to manipulate the ownership of knowledge.

Between the three practices of naming, performance, and use and the three material instantiations, nine possibilities of fixing the ownership of knowledge can exist.

The first order is about the three primary relations between practices and materials—that is, in a first-order relation, an actor can employ a single practice in order to assert ownership and will only need one (see figure 11.2). Words can be named, bodies can perform, and objects can be used in order to claim ownership. This first order affords the most stable fixing of knowing and owning, and among the first-order relations of material practice-instantiations to claim knowledge ownership, the performing body is the most important one because there cannot be any human action without a performing body. The stability of the first order is primarily a result of practice and material instantiation for both knowing and owning being the same in these cases; and to a lesser degree, the affinity of the practice to the material instantiation is defined or perceived as exclusive, so that naming concerns only words and performing concerns only bodies. The fixing addresses the most obvious manipulation of combining knowing and owning to fix ownership domains—that is, through naming words to own knowledge in the domain of epistemology, through performing bodies to own in the domain of society, and through using objects to own in the domain of economy.

We introduce the remaining six relations as second-order relations. In each of these, actors assert ownership by employing more than one practice—for example, naming a performing body “inventor” or “tanner.” Finally, the domain of legitimate ownership is determined by the material instantiation that is employed by the actor to assert ownership; for example, if a word is chosen as the material instantiation, then ownership can be claimed epistemically.

THE OPERATION OF FIXING

The first order (step 3) The initial set of triads is realigned to a new set. We call this a realignment because previously the triads were ordered to keep the practices clustered together. The material instantiations of word, body, and object are always at play, so that knowledge ownership could be claimed across all three domains, not just epistemology. This is modified to establish a new set of triads, each one a singular material-practice-domain. This is one of the effects of the process of manipulation. It is also one

First-order relations	Second-order relations
Naming in WORDS	Naming (in words) the performing BODY
	Naming (in words) the used OBJECT
Performing BODIES	Performing the named WORD
	Performing the used OBJECT
Using the OBJECTS	Using the named WORD
	Using the performing BODY

Figure 11.2

Defining first- and second-order relations through practice-material instantiation relations.

of the significant components in the construction of the illusion of the separation of knowing and owning.

The second order (step 4) Second-order manipulations are the key to reclaiming ownership of knowledge in bodies and objects shattered by the fragmentation. When the practice and the material instantiation are not of the same nature, we can see how knowledge ownership is “fixed” through second-order manipulation. In second-order manipulation, two practices and two material instantiations are activated in fixing knowledge ownership. Here it becomes possible for one practice to act on the second material instantiation; that is, it becomes possible to name [in words performing] bodies, or to name [in words the use of] objects. The domain of ownership is based on the knowing practice; in the first case, through performance of naming words, knowledge is owned in society, and in the second case, through use of named words, knowledge ownership is fixed in the domain of economy.

Exploiting the power of the split by *stapling* together the fragmented knowable and ownable to fix knowledge ownership, we now arrive at the final formulation of a regime of knowledge ownership. From a formerly indivisible, coherent, and pluralist universe of kn/own/ables in which the ownership of knowledge applies syncretically across practices, domains, and materials, the exploitation of splits and their subsequent manipulation via inversion of the triads and fixing leads us to an enclosed, linear, and

homogenous regime of knowledge ownership. This regime is carved up into hegemonic fiefdoms by the actors who exert power and authority in particular domains, thus creating multiple new ones in which knowledge can be owned differently, such as science, technology, philosophy, law, and ritual, among others. This leads to the creation of epistemic, social, and economic spheres of knowledge ownership that are amenable to manipulation by powerful actors within those domains. For example, most people would agree that they own their bodies and the knowledge that their bodies bear. However, when scientists extract genetic information from bodies and corporations convert that into transactable forms of intellectual property, which is then recognized as the only valid ownership of such knowledge, the formerly indivisible ownership that had previously existed across all domains is reduced solely to the economic domain, and thus alienated from the body that bears it.

The natural result of these enclosures is the creation of actors who primarily identify themselves in terms of the domains that they acquire power in. Thus, as legitimate forms of knowledge ownership, we have scholarship that is primarily epistemic, performance that is primarily social, and finally, use that is primarily economic, as legitimate forms of knowledge ownership.

THE GRID: WHAT IT IS AND HOW TO USE IT

We propose the grid as an analytical tool to dissect the process of manipulations involved in the assertion of knowledge ownership and thus make it visible. This is a framework in the form of a grid composed of a set of columns and rows. The columns are formed by the three legitimate domains of ownership claims. The rows are formed by the three primary practices that are attached to each of the domains. The columns and rows intersect to form a set of nine cells, with each cell representing a specific combination of material instantiations (that make up a particular case). This set of nine cells, together with the row and column titles, makes up the entirety of this grid (figure 11.3).

The structure of the grid makes obvious when other terrains, such as ethics or environment, present themselves as domains although they are not. We then see that these terrains are in fact merely the outcome of complex manipulations of the kn/own/able on the level of domain-practice relation. For example, the environment is made into a not-ownable domain that can be known by naming but cannot be known by (human) use or through performance.

It is crucial to keep in mind that as soon as the perspective (i.e., the actor under observation in step 1) changes, the outcome of the analysis will be different. But this is

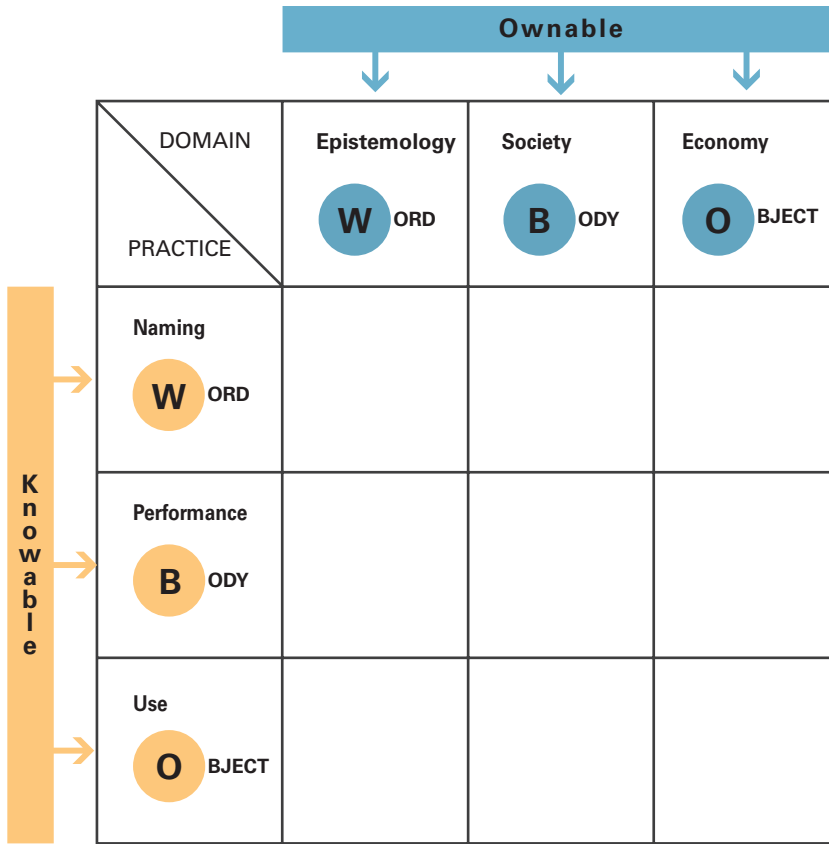


Figure 11.3
The grid for splitting.

a good reminder of why conflicts occur in the first place, and we hope this will encourage readers to use this framework and method beyond the boundaries of this book.

The grid serves two purposes:

1. It offers a sequential method to the reader to examine each case, and an alternative view of the manipulations involved in the assertion of knowledge ownership.
2. Once we define the domains and practices, particular combinations of material instantiations (each corresponding to a distinct case) emerge. These show us the nature of the kn/own/able or knowable+ownable in its specific location, and thus the reader can see the positions that these cases occupy relative to each other. For example, in moving along the diagonal from Slaton's case to Brokaw's case, a decline in the acceptance of the knowledge ownership claim is observed.

Splitting Knowing and owning are split in the dimensions of time and material instantiations as knowables and ownables. We draw them along the two axes. As a result of the spatial split, word, body, and object are separated along the lines of naming, performance, and use, which we indicate as rows in the table (indicating practices of knowing). Along the columns, we show how they are separated into the domains of ownership of epistemology, society, and economy. The downward arrows indicate the direction in which the ownable material instantiation propagates through the grid, and the horizontal arrows indicate the direction in which the knowable material instantiation propagates.

Fixing The authoritative instantiations of ownership in their respective domains propagate vertically through the columns into individual instances. Similarly, the authoritative instantiations of knowledge in their respective domains propagate horizontally through the rows into individual instances, thus forming the individual cells above. In each of the nondiagonal cases, knowing and owning is split, thus demonstrating the operation of second-order relationships that are always defined by two distinct material instantiations. The “+” indicates the act of fixing, where actors are compelled to create the illusion of attaching the knowable material instantiations to the ownable material instantiations to bring legitimacy to knowledge ownership (see figure 11.4). The violence of this act lies in the fact that this creation of knowledge ownership only works to serve the interests of its creators, while it denies the nature of the kn/own/able.

To complete the triad (and because word-body-object are always working together), we add the subordinated material instantiations for each case and arrive at the final iteration of the grid that introduces the cases in this volume. This shows the respective roles (as owning, knowing, and subsidiary) of each material instantiation for each of the nine cases (see figure 11.5).

Finally, when we analyze these cases through the conceptual two-dimensional axes of tacitness and alienability (as discussed in chapter 1, where they are shown to misrepresent how knowledge is and can be owned), we can see that they are ordered in the following way: first, knowledge is classified as tacit or explicit; then, ownership can be alienable or inalienable—that is, knowledge ownership is treated on the same terms as property ownership.

All of the cases presented in the book cluster along these principles into one of the four quadrants of the resulting grid. The majority of the cases belong to the category of inalienable ownership and tacit knowledge.

Here we introduce the axis of tacitness along knowing practices and the axis of alienability along owning in domains to the grid. These axes divide the grid into four quarters, as shown in figure 11.6.

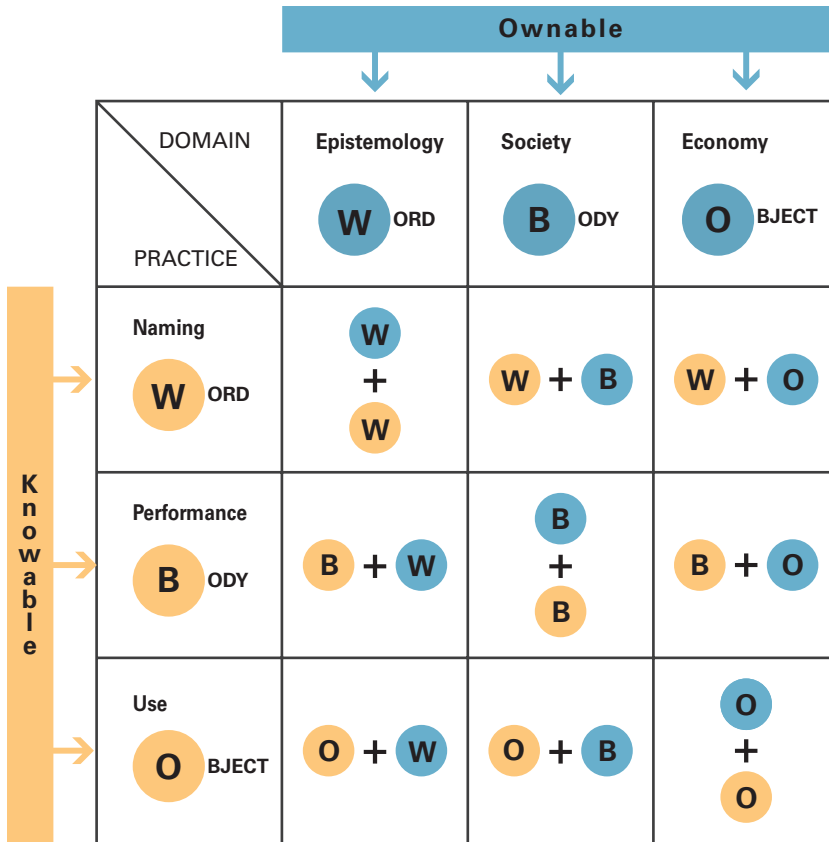


Figure 11.4
Fixing the split.

Science distinguishes between words, bodies, and objects as knowables, the first as bearing explicit knowledge and the other two as bearing tacit knowledge. The top half of the grid is made of knowables that are epistemic, and the bottom half is made of knowables that can perform and be used, but are not epistemic.

Law distinguishes between words, bodies, and objects as ownables. In the first case, top left corner, we find knowledge as alienable property that is ownable (words) and knowledge as inalienable property that is not ownable (bodies and objects). Hence, the left side of the grid is made of ownables that are ownable in the domain of epistemology, and the right side of the grid is made of ownables not ownable in the domain of epistemology.

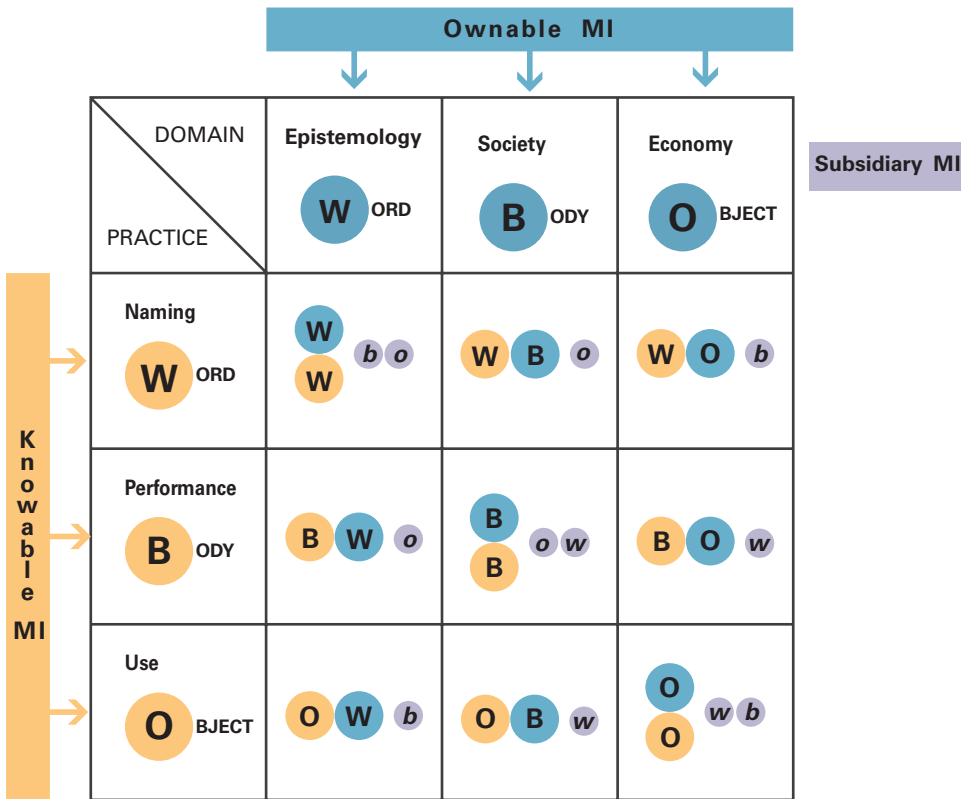


Figure 11.5

The combinations of material instantiations (MI) for each case.

The grid is now divided into four quadrants based on the interaction of the tacitness of knowledge and the alienability of knowledge ownership. We now propagate the grid with the material instantiations notated as WBO to show how knowables and ownables are fixed through actors fixing the domain-practice relations. In the top left quadrant, for example, the practice of knowing is naming, so the knowable is the word (W)), in orange. The domain of owning knowledge is epistemology, so again, the ownable is the word (W), in blue. The subordinated material instantiations are then body and object (bo), in light purple.

We now reintroduce our cases to the grid (see figure 11.7), to show how actors *fix* knowables and ownables to assert ownership of knowledge. Explicit knowledge as knowable, fixed to alienable property as ownable, is the benchmark for establishing

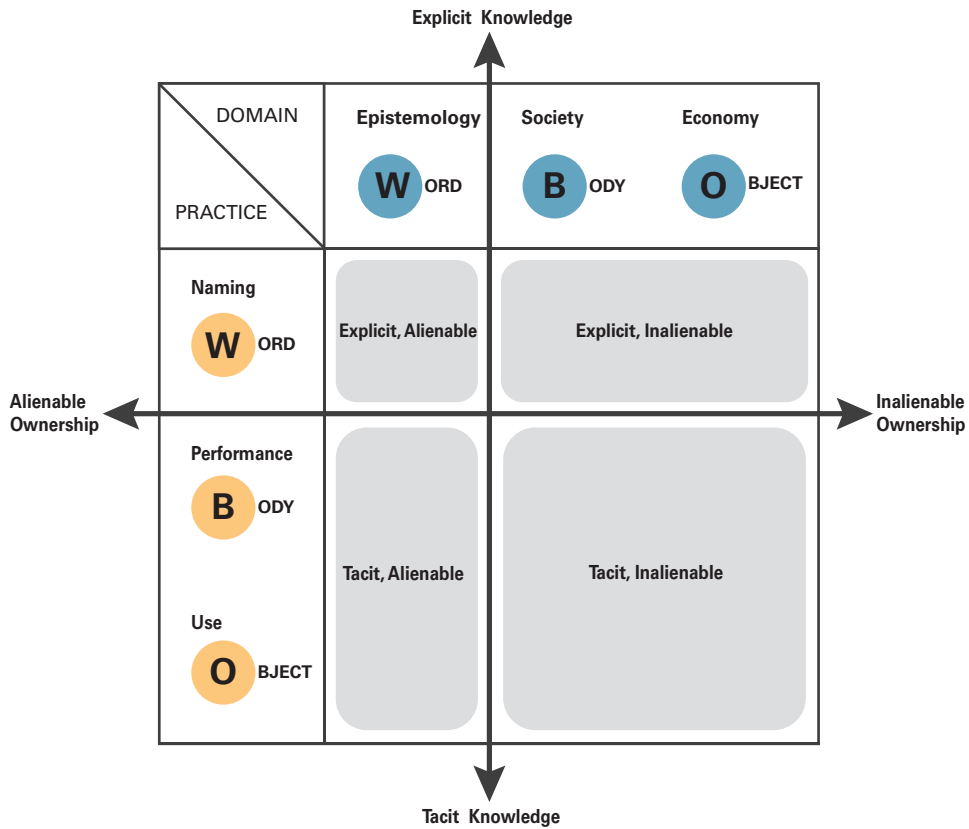


Figure 11.6

Axes of tacit/explicit knowledge, and alienable/inalienable ownership imposed by the science-law relation on the grid.

ownership of knowledge in the domain of epistemology. In the grid, it is the top left quadrant. Where either the knowable is tacit or the ownable is inalienable, as in the other three quadrants of the grid, the fixing of knowable and ownable becomes a form of ownership of knowledge subordinate to that benchmark.

Figure 11.8 represents a “constructed” reality of power relations where knowledge and its ownership appear as separate and divisible and can be structurally analyzed as an inversion of nature, where originally knowledge and ownership are always present together and indivisible as kn/own/ables. In reality, though, each of these material instantiations, practices, or domains can be known or owned because of the mutual

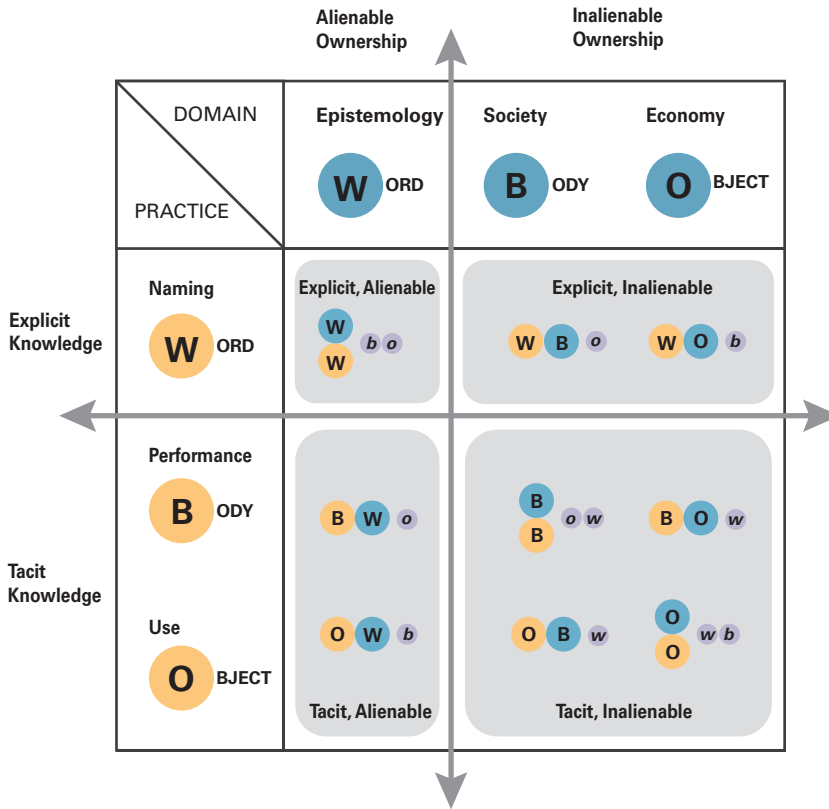


Figure 11.7

Proliferating the quadrants with the WBO notations signifying fixing of ownables and knowables.

conditioning—that is, there is a predetermined reality of kn/own/ables because the gene’s product, while yet unknown, is defined as ownable in the domain of economy, or because Carnatic musicians can only own their knowledge through performance in the domain of society, the possibilities for ownership are limited.

This final analytical step leads to the conclusion that the modern regime of knowledge ownership creates an inverted view of the kn/own/ables, by splitting a complex reality into fragments that have to be fixed through the construction of an illusion. Thus, we arrive at an inversion of nature where the illusion holds more power than the reality that it claims to represent. When this inversion is studied as an issue of discourse, as it is by major sociologists of knowledge, the illusion is maintained rather than exposed.

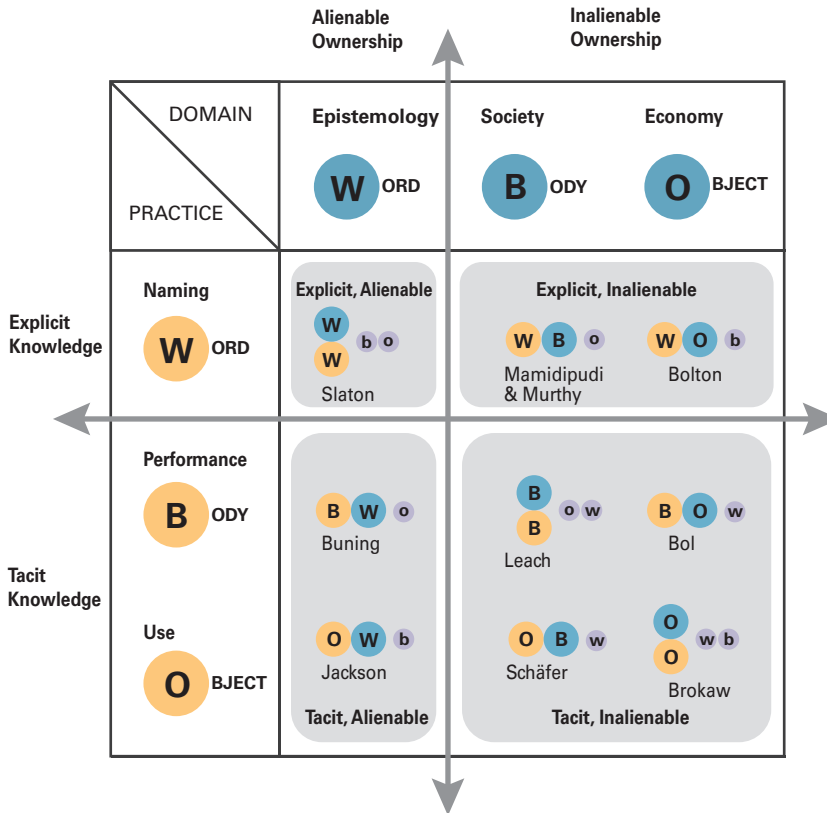


Figure 11.8
Overlaying the quadrants and notation with cases to analyze hierarchy of knowledge ownership.

USING THE GRID: FOUR CASES

We now show how the grid provides a heuristic technique to analyze the cases described in the chapters by Leach, Jackson, Bolton, and Slaton. These cases exemplify how domains and practices are operationalized in conjunction to provide legitimacy for ways of knowing and owning. The reader may want to keep in mind that in our framework, a particular area of human activity qualifies as a domain of knowledge ownership under specific criteria. First, it can be uniquely attached to a human practice that can be used to assert ownership in that domain. Second, domains and practices are constructed as pairs—for example, the practice of performing is employed by actors to establish ownership in society. Third, for a set of domains to be usefully employed

in analyzing the ownership of knowledge, they have to be analytically mutually exclusive and nonoverlapping. The domains we have identified span the entirety of human experience and thus are—analytically speaking—sufficiently distinct, expansive, and comprehensive to explain the ownership of knowledge. Finally, in every case, we find that each of the three domains is primarily anchored in a specific material instantiation that alone is capable of bearing the knowledge and its ownership. For example, in the domain of epistemology, words are always present as the sole material instantiation that can bear the ownership of knowledge.

We use shading to indicate the two distinct movements—horizontally, the knowable material instance is colored orange, and vertically, the ownable instance is colored blue. The intersection of both defines the complete set of material instantiations that make up the knowledge ownership claim for that case.

How to use the grid to analyze a case of knowledge ownership:

1. *Identify the actor* who is making a persistent and legitimate claim of knowledge ownership. In Myles Jackson's case, it is the computer scientist. In James Leach's case, it is the Reite community. In Lissant Bolton's case, it is the museum curator. In Amy Slaton's case, it is the educational system.
2. *Identify the material instantiation* through which knowledge ownership is claimed—that is, which material instantiation is known and what is owned. For example, in Myles Jackson's case, the knowable for the computer scientist is the gene, the object, and the ownable is the patented current and future uses of the gene (naming of the use of the object). In James Leach's case, the kn/own/able is the performing bodies of the Reite people. In Lissant Bolton's case, the knowable is the named (labeled) object, as word, and the ownable is the exhibit itself, the object. In Amy Slaton's case, the knowable is the knowledge explicated as words in the classroom and the ownable, again, is words in the form of grades or certificates received by the student.
3. *Allocate the practice as per the knowable material instantiation*—that is, if it is word, it is naming; if it is body, it is performance; and if it is object, it is use. In Myles Jackson's case, the knowable is the applications of the gene, hence the practice of use is deployed. In James Leach's case, since the kn/own/able is a collective body, the practice is performance. In Lissant Bolton's case, the knowable is the label of the Vanuatu object, and thus the practice of naming is deployed. In Amy Slaton's case, the practice of naming is deployed by the student in acquiring the knowledge.
4. *Finally, identify the legitimate domain of ownership* based on the ownable material instantiation—words indicate epistemic ownership, body indicates social ownership, and objects indicate economic ownership. In Myles Jackson's case, the ownable is

the sequence itself, thus the legitimate domain of ownership is one of epistemology, the gene; in James Leach's case, the kn/own/able is the collective Reite body, and hence the ownership is in the social domain; in Lissant Bolton's case, the ownable is the Vanuatu object, which is owned in the domain of economy; in Amy Slaton's case, the ownable is the grades received that permit the student to claim epistemic ownership of their knowledge.

In Myles Jackson's case (see figure 11.9), mapping the gene as a sequence using computer science is sufficient to claim ownership of the future potential use of the gene as

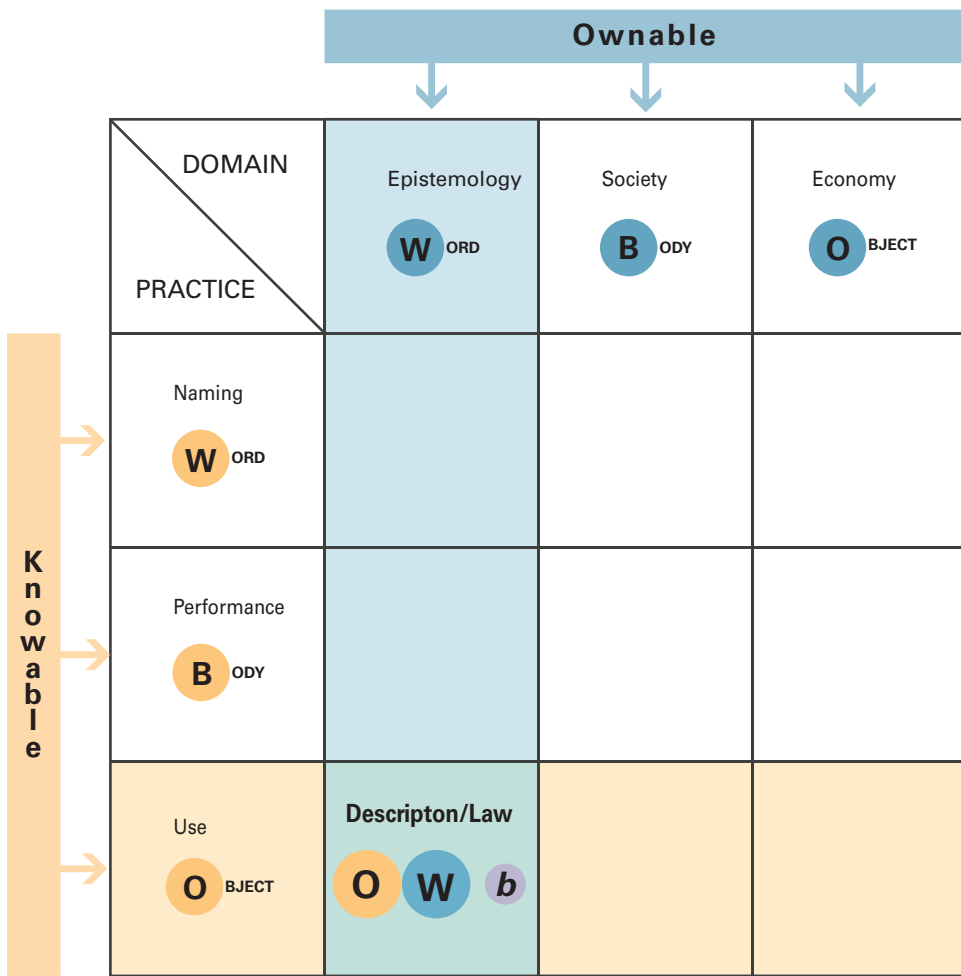


Figure 11.9
Locating Myles Jackson's case in the grid.

patented and legitimized in law, where all current and future uses are made ownable via the patent, which is owned via the material instantiation of the word (i.e., the patent). The knowable, however, is the gene itself, as an object that is being mapped or sequenced. This also illustrates a different kind of manipulation—a movement from scientific ownership that is exercised via named knowledge that has been discovered to legal ownership that is exercised via an assertion of all possible use, both the discovered and the yet to be known.

In James Leach's case (see figure 11.10), we have an intact *kn/own/able*. It is embodied in a people that both know and own their knowledge as relationships. By virtue of these relationships, individuals, as members of the community, have a legitimate right to demand access to the knowledge that only becomes emergent through these relationships. The knowledge itself is held by the bodies but it can be legitimately acted on only by activating the relationship. The true performance of the relationship enforces a *joint* activation of the knowledge. That is why when knowledge is illegitimately acted on, the result cannot be owned in the social domain (although the results of such illegitimate acts may be irreversible), which is the legitimate domain of ownership in Reite society. Those who do act on knowledge illegitimately are disowned. This case represents the only unfragmented operation of the *kn/own/able* in this book and thus occupies the center of the grid.

Working backwards from the location, we can see that if we were to analyze the *kn/own/able* as knowable and ownable in our analysis, knowing is always performed, and social relations are owned mutually and reciprocally. Thus, when this regime interacts with the science-law regime, the top left cell where science and law dominate, naming and property ownership are imposed on this regime. Then, in this encounter, since the collective body of the Reite people neither name nor own their knowledge as property, they become completely disenfranchised as knowledge owners in a modern regime that operates on a different notion of science and law. Here it becomes very clear why the grid is useful for disentangling illegitimate ownership claims.

In Lissant Bolton's case (see figure 11.11), the curator is the actor, so the grid is applied from their point of view. Because the case takes place in the domain of economy, the ownable is the museum exhibit, since one way or another, the museum has acquired the object. The knowable is the labeled use of the exhibit. Now the second order is activated. The practice of naming is one of labeling the objects as museum exhibits—labeling being used as a pointer to a reductionist act of naming. Distorting the naming practice to one of labeling reduces the possible multitude of uses of the object to the singular one of being a museum exhibit, which is done by the actor, the curator. The activation of the second order via the practice of naming (distorted

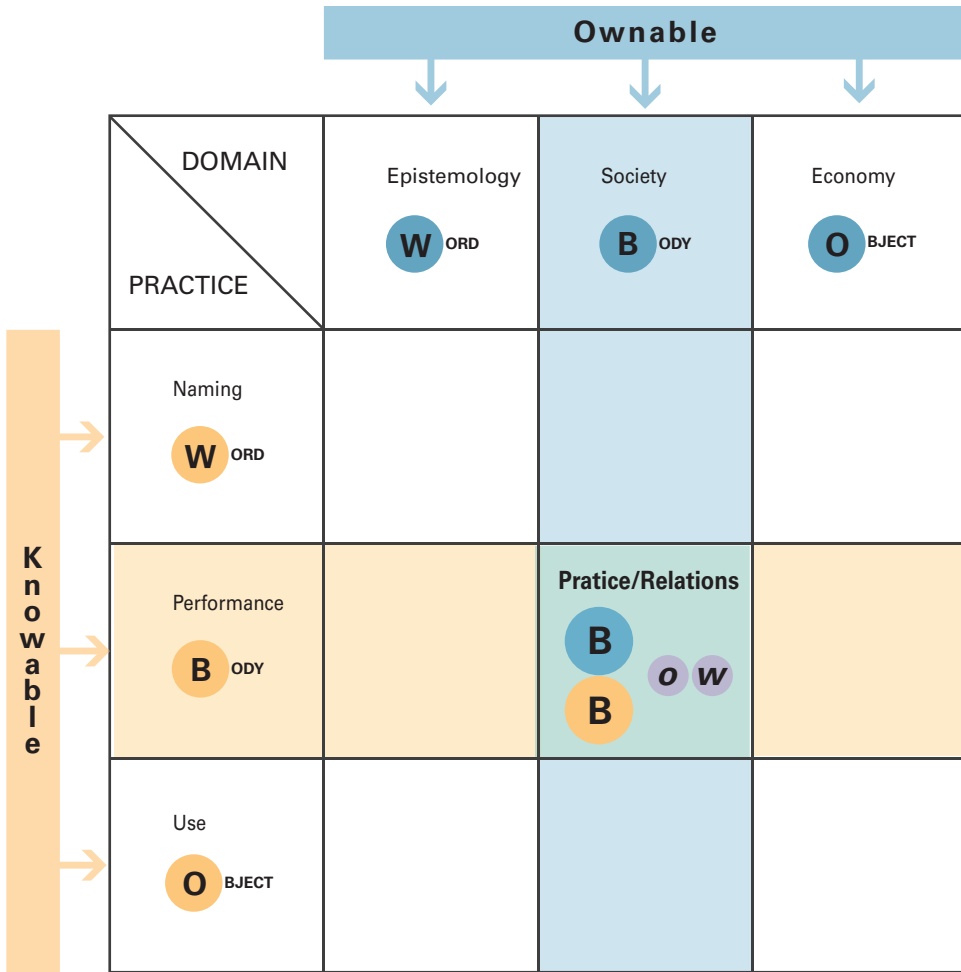


Figure 11.10
Locating James Leach’s case in the grid.

as labeling) outright annihilates all other possible uses of the object. So, one could say, the object is colonized by this annihilation of any other possible use, especially the uses it originally had.

In this case, the knowable is the named object drawn on the graph paper at the conclusion of the experiment. The ownable is the name of the student affixed to this graph paper. On the basis of this ownable, the educational system sorts the student into

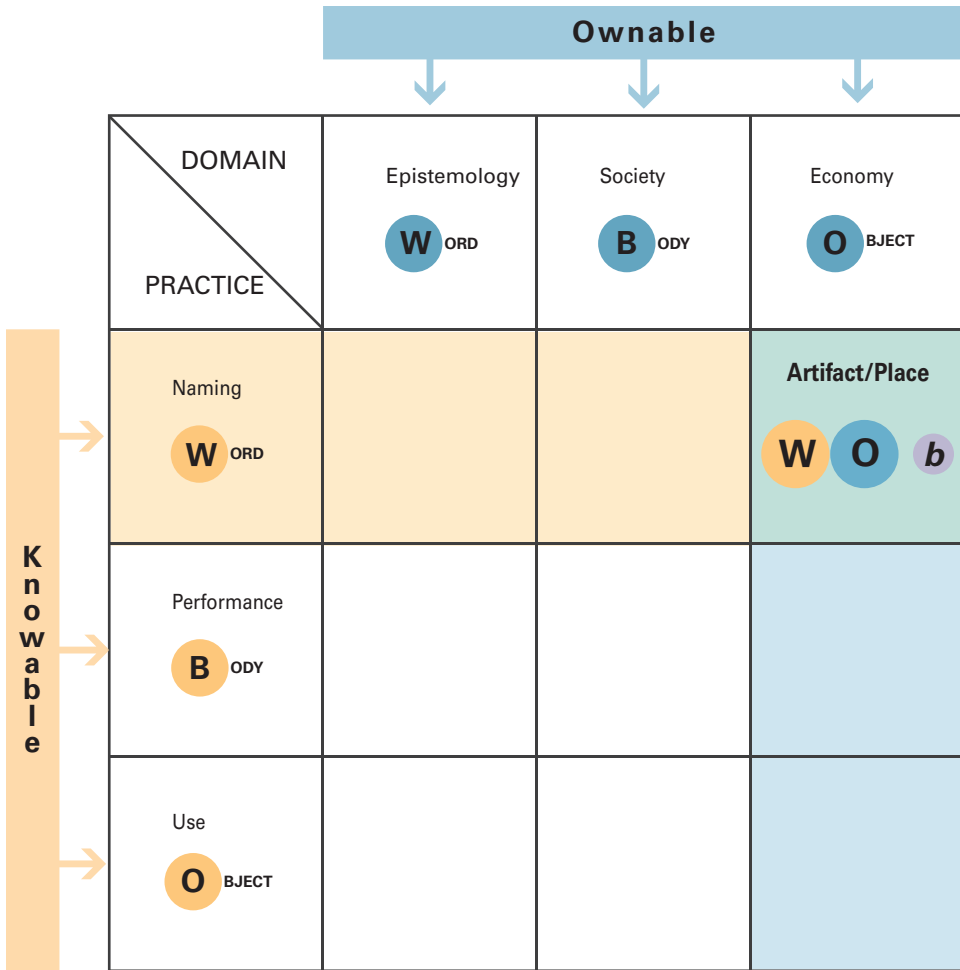


Figure 11.11
Locating Lissant Bolton’s case in the grid.

one of two classes (knower, not-knower). The sorting step then determines the future trajectory of the student through the subsequent educational levels.

Amy Slaton’s case (see figure 11.12) is unique because it deals with the negative case of knowing and owning—that is, the systematic production (and subsequent labeling) of students as not-knowers, which disowns them from knowledge. This case serves to reinforce a unique point that actors can use the space of the not-kn/own/able that exists outside the grid to further alienate knowledge from its ownership.

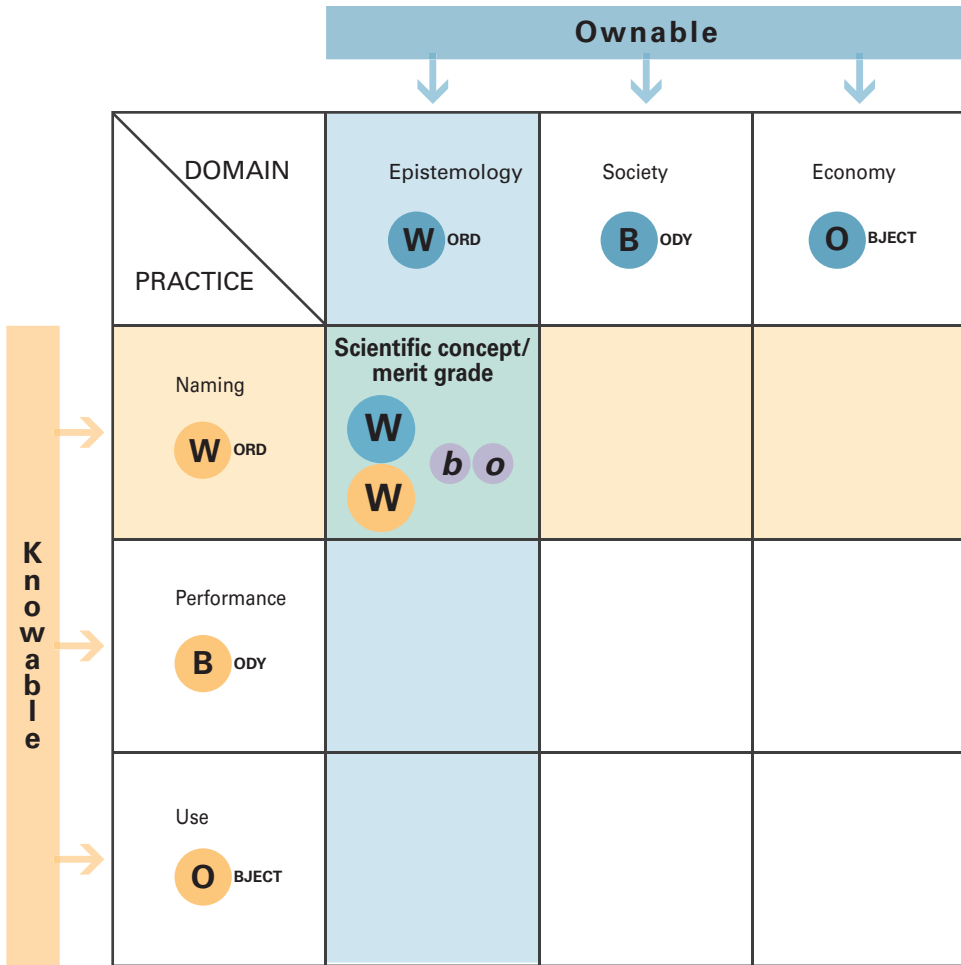


Figure 11.12
Locating Amy Slaton’s case in the grid.

CONCLUSION

We have concluded this book with this diagrammatic analysis to help the reader see the effects of mutual conditioning that occur because the reality of the kn/own/able is denied. As a last step, we wish to emphasize that the grid is also helpful in demonstrating that in addition to the domains we have presented, there are other terrains that seemingly present themselves as domains, but either they do not cover an entire practice or they leap across domain boundaries (e.g., ethics or environment).

Assuming that knowledge can be owned purely as property, or that ownership can only follow from naming, often results in the creation of hierarchical orders of ownership claims. Thus, for example, epistemic claims are often thought to be foundational even when social or economic claims of knowledge ownership are made. We live in a world of science and law, in which knowledge is primarily owned by naming. What cannot be named, cannot be known and thus cannot be owned. The exception, such as James Leach's case in this book, proves the rule; or rather, it reveals the operation of the rule, as it makes the kn/own/able in its indivisible state visible to those who have forgotten this possibility. When we live in the world of the kn/own/able, we can accept that Reite gardeners, who perform their knowledge, enjoy a universally valid ownership of knowledge.

ACKNOWLEDGMENTS

The European Research Council project PENELOPE (ERC funding HORIZON 2020 number 682711) at the Deutsches Museum in Munich and the Deutsche Forschungsgemeinschaft (DFG) project 435681850 at the Technische Universität Berlin have supported Annapurna Mamidipudi's research into ownership of knowledge in craft and hand weaving. She is grateful to the PIs of both projects, Ellen Harlizius-Klück and Friedrich Steinle for taking a leap of faith into the world of traditional Indian crafts and immersing themselves in understanding its naming, performance, and use in modern times.

© 2023 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-ND-NC license.

Subject to such license, all rights are reserved.



Subject to such license, all rights are reserved.

Co-funded by the ERC project “Before Copyright: Printing privileges and the politics of knowledge in early modern Europe,” funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Council. Neither the European Union nor the granting authority can be held responsible for them.



This book was set in Stone Serif and Futura by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Schäfer, Dagmar, editor. | Mamidipudi, Annapurna, editor. | Buning, Marius, 1979– editor.

Title: Ownership of knowledge : beyond intellectual property / edited by Dagmar Schäfer, Annapurna Mamidipudi, and Marius Buning.

Description: Cambridge, Massachusetts : The MIT Press, [2023] |

Series: Inside technology | Includes bibliographical references and index.

Identifiers: LCCN 2022038290 (print) | LCCN 2022038291 (ebook) |

ISBN 9780262545594 (paperback) | ISBN 9780262374637 (epub) |

ISBN 9780262374644 (pdf)

Subjects: LCSH: Knowledge management. | Intellectual property.

Classification: LCC HD30.2 .O926 2023 (print) | LCC HD30.2 (ebook) |

DDC 658.4/038—dc23/20220811

LC record available at <https://lcn.loc.gov/2022038290>

LC ebook record available at <https://lcn.loc.gov/2022038291>