4

Common Sense Commons

The Case of Commonsensical Social Norms

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Common sense is fundamental to humanity in two different but related ways. First, it is a basic capability essential to human flourishing.[1] It helps us effectively engage with each other and our complex world. Second, it is social knowledge, often situational and contextual. Though easily taken for granted, common sense functions as critical social infrastructure that shapes and enables various social systems, including markets. This chapter examines this special type of social infrastructure, exploring common sense in general and focusing on the subset of common sense that also constitutes social norms.

Common sense and social norms are concepts with rich histories and hotly contested meanings across different disciplines and contexts. I draw on existing literatures but do not provide a comprehensive literature review, nor do I engage debates about contested meanings of the terms. Instead, in Section 4.1, I define my terms and carefully limit the scope of my inquiry. Section 4.2 explains that commons sense, understood as a body of social knowledge about the common sense world, and commonsensical social norms are forms of social infrastructure, and like most infrastructure, these critical social resources tend to be underappreciated and taken-for-granted by users, producers, and policy-makers. Section 4.3 explores commons governance of common sense and commonsensical social norms. I examine an interesting nesting of knowledge commons: the essential "inputs" for common sense (namely, the shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs) are knowledge commons, and the shared "outputs" of common sense also are knowledge commons.

4.1 DEFINING TERMS AND THE SCOPE OF THIS CHAPTER

This chapter explores an important domain of social knowledge. I begin by adopting a definition of common sense, and then I narrow the scope of the resource set in two

[1] See Appendix.

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steps: First, by focusing on common sense solutions to everyday life problems, and second, by focusing on social norms. These steps are mainly for expository and analytical convenience. This two-tiered discussion allows me to explore each tier while making connections between them. Rather than comprehensiveness, my aim is to reveal areas deserving exploration in future research, especially systematic empirical research guided by the Governing Knowledge Commons framework (Frischmann, Madison, and Strandburg 2014).

Common sense entails shared knowledge and skills that shape how we perceive, understand, and live our everyday lives. I adopt the following perspective on *common sense knowledge* and the *common-sense world* offered by Philosopher Gerald Erion:

> A more focused notion of commons sense . . . [is] virtually universal among typical adults because it concerns an important subset of objective reality that we all live our everyday lives in, the *common-sense world*. As rough approximation, it is helpful to think of the common-sense world as the realm of familiar objects that we become acquainted with during ordinary experience. People, plants, non-human animals, and simple geographic features are all included in this world, while sub-atomic particles, neurons, and galaxies are not …. [We] can understand *common sense* itself as the base of knowledge about common-sense reality that allows each of us to survive and thrive during our everyday lives. Common beliefs about the common-sense world are the most prominent components of this knowledge base. … common sense also includes the widespread abilities that allow us to act successfully in the common-sense world.
>
> (Erion 2001: 33. italics added)

Erion explains how work in "various cognitive sciences" supports his claim that this type of common sense exists. It entails core knowledge and skills that are shared and "used by all of us (even skeptical philosophers) during our everyday lives." Language is critical to common sense both as knowledge and as skill. That is, competence in using language is a "subset of common sense" (Erion 2001: 36).

"Many cognitive scientists believe that the mind is equipped with innate intuitive theories or modules for the major ways of making sense of the world. These are modules for objects and forces, for animated beings, for artifacts, for minds, and for natural kinds like animals, plants, and minerals" and for much more (Pinker 1997: 314–315). "An intelligent system [. . .] cannot be stuffed with trillions of facts. It must be equipped with a smaller list of core truths and a set of rules to deduce their implications," which are features of common sense (Pinker 1997: 14). As Redekop (2009: 404–406) explains in the excerpt below, modern research has validated principles of common sense that Thomas Reid articulated in the late eighteenth century (see also Redekop 2020).

> Some facial expressions – such as a smile – have a cross-cultural, universal emotional meaning, pointing to the existence of what Pinker terms an "intuitive psychology" shared by all humans (Ekman 1982; Pinker 1997: 29–30, 63–64).

> Research on infants has shown that we come into the world equipped to perceive cause-and-effect relationships, and to perceive objects as continuous, bounded units that move on coherent paths, affecting each other's motion only if they touch (Leslie 1984; Leslie and Keeble 1987; Spelke 1994). Using sophisticated techniques of habituation and dis-habituation, researchers have concluded that "the idea of cause and effect lies at the heart of both commonsense and scientific thought" (Leslie and Keeble 1987: 265).
>
> We not only come equipped to perceive causality in inanimate objects, but agency or intention in animate ones (Premack 1990; Gelman and Gottfried 1996). And there is good reason to think that we come into the world predisposed to think of things (including living beings) as having essences; according to Gelman and Wellman (1991), "Young children distinguish insides of objects from their outsides, even when the two conflict, and believe that insides can be more essential to an object's functioning and identity" (239; see also Medin and Ortony 1989). Human beings are by nature essentialists; whatever its drawbacks, without the assumption that things have essences that make them what they are, we would be unable to identify and categorize complex entities.
>
> Echoing Reid, educational psychologists suggest that "Education and development is possible because of the existence of [. . .] primitive 'commonsense' categories and mental operations" in children, for example a "number sense" or the ability to judge relative magnitudes (Olson 1987: 327). Generally speaking, in contrast to previous, more empiricist and behaviorist theories, cognitive scientists now argue that "[Innate] knowledge is central to common-sense reasoning throughout development. Intuitive knowledge of physical objects, people, [numerical] sets, and places develops by enrichment around a constant core, such that the knowledge guiding infants' earliest reasoning stands at the center of the knowledge guiding the intuitive reasoning of older children and adults" (Spelke 1994: 439).

Most of us possess and use common sense and are capable of commonsensical thinking, meaning we can perceive, interpret, and understand each other and our everyday world through our senses and experiences. Yet the knowledge and skills we possess are hardly uniform or uniformly distributed. The intellectual resources vary significantly across people and communities and their shared everyday experiences. For example, members of different communities may have different common sense beliefs about what to do when one's car breaks down on the highway, how long one should wait before repeating a question, or how much to tip in a restaurant, among many other things. Some common sense beliefs conflict with each other and with scientific studies. Common sense – as I have defined it for present purposes – does not mean universal, true, or even accurate; it often is culturally contingent, varied, and mistaken or erroneous.

The definition I adopted from Erion conflicts with Plato's more restrictive definition of knowledge as "justified true beliefs." Plato was critical of the sensory

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experiences and shared public beliefs as forms or sources of knowledge. He elevated true scientific knowledge. Aristotle, in contrast, saw value in that which Plato disdained. Common sense knowledge was foundational for scientific inquiry and inductive reasoning about the world and how it worked. Take what is given – as intellectual infrastructure (see Section 4.2) – and be willing to question, test, and revise it through reasoned inquiry. Despite recurring Platonic skepticism of common sense as a genuine form or source of knowledge in modern science and philosophy, I, like many others, follow the Aristotelian view.

There is much that common sense does and can do in helping make sense of the world, yet there is much that common sense gets wrong. Again, as Redekop (2009: 408) usefully explains:

> [P]erhaps one of the most important conclusions to be drawn from a study of common sense is that while it is most useful in localized, face-to-face interactions that mirror those of our ancestral hunter-gatherer environment, it is less useful in settings which transcend that environment. As we have seen, with the rise of modern science a gulf began to open between common sense and science, and for good reason. Many of the discoveries of modern science – and particularly those that make use of advanced mathematics – contradict or go beyond common sense. Modern science has been very good at reaching beyond everyday sense experience to uncover truths that seem to go against our basic intuitions, whether we are talking about an earth in motion or the behavior of subatomic particles. We are not constituted to easily make sense of things on the scale of the very large and the very small; large numbers, time frames, and distances pose problems for us, as does the behavior of electrons and quarks (see Oppenheimer 1954, for a classic discussion of this point).

Redekop appropriately notes that scale and scope issues arise with common sense. This may be due to sensory, experiential, or social factors in the generation, curation, and sharing of common sense knowledge. Common sense often is contextual and even situational, and as such, often embedded in culture, norms, and language. One can find common sense lurking beneath the surface of many different philosophical and sociological theories about knowledge and social norms, ranging, for example, from Donna Haraway's work on situated knowledge to Helen Nissenbaum's work on contextual integrity and norms for appropriate information flows (Haraway 1988; Nissenbaum 2009). These theoretical approaches reveal how common sense, as a body of shared social knowledge, often serves as social infrastructure for market and nonmarket systems.

Common sense depends upon a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs about "the realm of familiar objects [and experiences] that we become acquainted with during ordinary experience" (Erion 2001). This statement serves as an important limitation on the scope of our definition and constitutes an important claim. To see why, suppose that one of the essential preconditions or inputs for generating

common sense is eliminated. Imagine, for example, that people in a community failed to interact with each other in a manner sufficient to generate common understandings and beliefs about their everyday lives. Maybe they are simply too busy, distracted, or entertained to take the time to discuss the many seemingly mundane aspects of their everyday lives. Bear in mind that this is just a thought experiment. The point is to show the nature of the claim: *common sense is not a given; it is contingent*. "The precursors or inputs to the creation and sharing of common sense are not stable or inevitably accessible and shared" (Frischmann and Selinger 2018: 203).

The quality of common sense as a form of knowledge depends upon the quality of accessible inputs, which typically comprise a body of shared knowledge, as well as the social processes and skills involved with its creation, curation, and distribution within a community.[2] In prior work on knowledge commons, coauthors and I use "knowledge" capaciously to capture a wide range of intellectual resources, recognizing that in many specific contexts we need to differentiate among different types of knowledge resources. In this chapter, I follow that same functional approach and treat common sense as a set of knowledge (or knowledge-related) resources. If we follow Erion and "understand *common sense* itself as the base of knowledge about common-sense reality that allows each of us to survive and thrive during our everyday lives," we have cast a rather wide net that encompasses a nearly limitless range of knowledge. After all, our everyday lives are quite varied and complicated.

To narrow the scope and identify areas where governance dilemmas arise, let us focus on the knowledge domain of problem-solving that encompasses common sense solutions to problems faced in our everyday lives. Many everyday problems involve an element of Knightian uncertainty when trying to figure out what to do (Knight 1921). Think for a moment about many of the problems you encounter daily that require you to use common sense. There are many examples, yet it can sometimes be difficult to identify one because like most infrastructural resources, common sense knowledge often operates behind the scenes, in the background, taken for granted.

Readers of this chapter in early draft offered the following suggestions of everyday problems for which common sense solutions seem appropriate:

- You run out of coffee filters and don't have time to go shopping
- You wake up in the morning with a sore back or throat
- You forgot where you left something
- You forgot someone's name or birthdate

[2] There is much more one could unpack from the history and philosophy of science, epistemology, and other fields that engage in debates about common sense. But I will spare you. (I highly recommend Redekop's book in progress, Common Sense and Science: From Aristotle to Reid.)

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What should you do in these or similar situations? Most of us rely on common sense solutions to address these types of problems. In *Re-Engineering Humanity*, Evan Selinger and I explore the following example:[3]

> Suppose Alice gets in a taxicab, gives the driver an address, and then falls asleep. Thirty minutes later, the taxicab driver wakes Alice, takes her money, and leaves immediately after she exits the vehicle. After shaking off her initial grogginess, Alice realizes the cab dropped her off in the wrong location, and she is lost. What does common sense dictate suggest she should do?

Take a moment and think about your answer. For anecdotal data, I turned to Facebook and Twitter to find out what common sense suggested Alice should do. Many commenters suggested she order a cab using Uber. Among other things, they assumed she had a smartphone and felt safe enough to use it in public. After many similar comments, one person expressed surprise that no one had suggested Alice look around and ask someone for help.

Evan and I suggest Alice should get her bearings, formulate a plan, and take action. How would she do this? Presumably by looking around, observing people, reading street signs, and so on. Her senses could provide her with baseline information that would help her evaluate her situation, options, and decide on a course of action. Based on such information about her environment, Alice could form beliefs about her safety, whether she could trust people, whether people would understand her, and so on. Assessing her present situation would include evaluating risks and uncertainties concerning her future (Knight 1921). She might be able to determine the likelihood of another taxi arriving or whether some form of public transportation was accessible nearby. She might be able to figure out her location and then formulate a plan for getting safely from there to her intended destination.

We have assumed Alice possesses the relevant situational and problem-solving common sense. What if she lacks the ability to get her bearings through the various means just described? What if she is unable to take in and translate the various cues and information? Perhaps her incapacity stems from a physical or cognitive disability. Perhaps she has never had the necessary experiences that would have led her to develop the relevant abilities. For example, perhaps her prior navigation of the world was technologically mediated and fully automated. Perhaps she was raised in a town with no street signs and thus would not think to look at street signs for location data. She might lack the relevant situational and problem-solving common sense because she has never discussed the problem of being lost with anyone else or contemplated the situation in which she now finds herself. That may seem hard to fathom but being lost may be a problem of the past, at least in the near future. After all, upon recognizing her plight, Alice need only pull out her smartphone, and she'll be on

[3] The next few paragraphs are adapted from Re-Engineering Humanity.

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her way to her intended destination. She need not ask anyone for directions, learn very much about the environment in which she finds herself, or do much planning.

Common sense may dictate using technology in one form or another – be it a map, cellphone, or smartphone. The technologies, however, are not neutral or equivalent. The degree to which a person such as Alice relies on (i) herself, her common knowledge base of beliefs, and experiences, and critically, on other human beings, rather than (ii) a technological device and system that varies quite substantially across different technologies (e.g., from map to cellphone to smartphone). The shift from (i) to (ii) is relevant and important. We might think that common sense becomes embedded in the technological devices and shifting from (i) to (ii) entails a shift in the relevant community of human beings that Alice relies on – that is, from the community of people Alice knows and shares common experiences with to the community of people behind the technological system. Either way, the shift is remarkable and worth examining. It is by no means limited to the thought experiment. One could formulate a similar thought experiment around what common sense dictates in a variety of everyday circumstances, such as when one feels a sharp pain in one's back or when there is a power outage. Doing so would lead to the same observations, shifting from (i) to (ii). The shift affects the nature of knowledge production, curation, and governance. This is an area ripe for systematic study. Though beyond the scope of this chapter, case studies using the GKC framework could focus on different examples where these shifts are taking place.[4]

Let us narrow the scope again by focusing on the intersection of common sense solutions to everyday problems with social norms. These are overlapping sets. Let us call the shared elements *commonsensical social norms*. Social norms have been studied extensively by various disciplines, including philosophy and the social sciences (for a review, see Bicchieri et al. 2018). Social norms are generally defined as the informal rules that govern social behavior. Bicchieri et al. (2018) note that some scholars focus on the *functions* of norms, for example:

> [as] efficient means to achieve social welfare (Arrow 1971; Akerlof 1976);
> [to] prevent market failures (Jules Coleman 1989), or cut social costs (Thibaut and Kelley 1959; Homans 1961);
> [as] either Nash equilibria of coordination games or cooperative equilibria of prisoner's dilemma-type games (Lewis 1969; Ullmann-Margalit 1977), [and thus, solutions to] collective action problems (Bicchieri et al. 2018).

Others put aside functionalism and focus on explaining how social norms emerge, persist, spread, or die. For example, "[n]orms are represented as equilibria of games of strategy, and as such they are supported by a cluster of self-fulfilling

[4] There is an interesting intellectual history that relates Frank Knight's work on common sense in the face of uncertainty to the Ostroms' work on shared communities of understanding. I thank the editors for this observation.

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expectations. Beliefs, expectations, group knowledge and common knowledge have thus become central concepts in the development of a philosophical view of social norms" (Bicchieri et al. 2018). Connecting both streams are those who examine *norm conformity*, that is, whether or not individuals (groups) conform to norms. For example, game theoretic accounts suggest "conformity to a social norm is always conditional on the expectations of what the relevant other/s will do" (Bicchieri et al. 2018). In a sense, norms not only specify what one person ought to do but also what one may reasonably expect others (ought) to do. Each of these foci is relevant to the study of commonsensical social norms and commons governance more generally (Frischmann, Madison, and Strandburg 2014).

Commonsensical social norms are often functional solutions to everyday social problems, including those that arise regularly in everyday market contexts. For example, consider the simple problem of an audience member who would like to interrupt a speaker to ask a question. Common sense solutions to this problem range from (i) signaling the speaker, for example, by raising your hand, to (ii) exercising restraint and waiting until the speaker has finished. The appropriateness and effectiveness of solutions vary dramatically according to the context, culture, and community. In some contexts, (i) is acceptable only for clarification questions and (ii) is the default for all other questions. In other contexts, (i) is always appropriate. It may depend upon whether the speaker is a teacher in a classroom (and what type), a public speaker in a large auditorium, an entrepreneur making a pitch to potential investors (or to their roommates). It may depend on the relationships between the speaker and audience members.

Despite the variability, these types of common sense solutions may become normalized within different contexts, cultures, and communities. In the academic context, for example, many rituals are commonsensical social norms that solve simple coordination problems. Take rituals followed during faculty workshops or meetings. These rituals vary considerably across different academic institutions and even among departments within an institution. There is no "correct" solution. What matters is that a group follows a norm and thereby adopts a solution. Though some have suggested that social norms are not planned (Bicchieri et al. 2018), adoption still may be explicit; sometimes, groups recognize, discuss, and debate options. The same analysis applies if we switch to family rituals, conventional market practices at the county fair or corner store, and a host of other everyday coordination problems that require social communications to commit to a norm.

In other cases, commonsensical social norms alleviate or even avoid more difficult collective action problems, for example, those involving prisoners' dilemmas. One relatively cheap means for avoiding tragedy of the commons dilemmas, at least in reasonably small-sized and close-knit groups, is maintaining communications and repeat interactions among members of group. Not surprisingly, social norms requiring attendance at meetings and participation in discussion or deliberation are common (sensical).

Consider a few examples related to privacy, security, and use of technology in social situations:

- *Privacy-related commonsensical social norms*:
  - Wear clothing in public.
  - Respect people's express or implied desire for confidentiality.
  - Be clear if you seek confidentiality.
  - Host of norms arguably derived from the "Golden Rule," such as
    - Don't eavesdrop.
    - Don't surveil others in private or public spaces: Don't record (or post) videos of people, don't take photos and search for them with Google, don't live-cast other people's lives without their permission.
- *Security-related commonsensical social norms*:
  - Be smart about passwords.
  - Don't click on attachments unless you know for sure what it is, who sent it, and why.
- *Commonsensical social norms regarding smartphone use in social settings*:
  - Turn off your phone in theater, classroom, and other public settings.
  - Use headphones when watching videos, listening to music, or having a conversation on public transportation.
  - Don't put your phone on the table during meal.

These off-the-cuff examples are illustrative. I list them to identify common sense solutions to both long-standing and more novel but increasingly common everyday problems. For some examples, it is contestable whether a social norm exists (yet). For example, applying the Golden Rule to an individual's use of a smartphone to surveil others in public is not necessarily normalized. I return to many of these examples below.

4.2 COMMON SENSE AS A FORM OF SOCIAL INFRASTRUCTURE

In this section, I briefly explore the infrastructural nature of common sense knowledge. This requires (at least) two conceptual tasks. First, I explain what I mean by infrastructural. Second, I apply that theory to common sense knowledge.

According to Frischmann (2012), infrastructural resources satisfy the following criteria:

(1) The resource may be consumed nonrivalrously for some appreciable range of demand.
(2) Social demand for the resource is driven primarily by downstream productive activities that require the resource as an input.
(3) The resource may be used as an input into a wide range of goods and services, which may include private goods, public goods, and social goods.

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The first criterion captures the consumption attribute of public and impure public goods (Samuelson 1954; Cornes and Sandler 1996). In short, this characteristic describes the "sharable" nature of infrastructural resources. The second and third criteria focus on the manner in which infrastructural resources create social value. The second criterion emphasizes that infrastructural resources are capital goods that create social value when utilized productively downstream and that such use is the primary source of social benefits. The third criterion emphasizes both the variance of downstream outputs (the genericness of the input) and the nature of those outputs, particularly public goods and social goods.

Applying the infrastructure criteria to intellectual resources, such as common sense, delineates a broad set of resources that create benefits primarily through the facilitation of productive activities, many of which generate spillovers – that is, benefits for third-parties not involved in the activities. The three-criteria definition of infrastructure can be reduced: Nonrival input into wide variety of outputs. This seems incredibly capacious. Intellectual infrastructure can be identified and analyzed at various levels of abstraction, ranging from the meta-cultural-environment itself to a discrete general-purpose input, such as a basic idea, to a specific expression that has broad communicative power and social meaning.

Language is an excellent example of intellectual infrastructure with strong public and social components, for language serves as the foundation for the production and exchange of knowledge and the development and operation of social systems and interdependencies. Of course, language is the basic infrastructure for social exchange in markets and nonmarkets, and as noted in the previous section, language is intimately related to common sense.

Common sense likewise qualifies as intellectual infrastructure, particularly when it is conceptualized as a body of knowledge resources used productively to explain, understand, navigate, or otherwise deal with situations people face in everyday life. Social interactions and economic transactions often depend upon countless bits of shared knowledge we take for granted, ranging from expected rituals to initiate a transaction to conceptions of what is (un)fair or (in)appropriate to the shared meaning attributed to gestures, language, and other communicative acts. Frank Knight (1921) emphasized how basic, shared classification schemes and "knowing what to do" when facing genuine uncertainty often depend upon common sense. He recognized the infrastructural nature of such knowledge and the everyday nature of such uncertainty. His early analysis influenced the Ostroms and contributed to their views on shared communities of understanding, rule-in-use, and the relationship between actions and outcomes.

Like all knowledge, common sense is nonrivalrously consumed, meaning that it is sharable and consumed at zero marginal cost. As a body of knowledge, it is generic or general-purpose and not narrowly directed toward one specific use. Like a dictionary, encyclopedia, library, or other collection of knowledge, common sense may consist of many different more specific or applied examples or entries. Even

then, the common-ness of the knowledge makes it relevant and relatable to many and thus somewhat generic. We need not choose a level of abstraction, for common sense is infrastructural at multiple levels – for example, the Golden Rule generally or applied in specific contexts.

To appreciate the infrastructural nature of common sense, it is helpful to return to the idea of a *common sense world*. In *Worlds of Common Sense: Equality, Identity, and Two Modes of Impulse Management*, Pauline Nichols Pepinsky (1994) summarizes decades of sociological and psychological research comparing the common sense worlds of Norway and the United States and examines how those worlds shape social attitudes, beliefs, values, and behavior. Persistent, salient characteristics of the environment (e.g., size, scale, and complexity of country; physical conditions; and political history) shape the common sense world, meaning the basic premises of everyday life (e.g., in Norway: everyone knows everybody else, the truth will come out, nature is close and powerful, strangers are suspect, and power seekers are not trustworthy, to name just a few mentioned by Pepinsky) as well as values (e.g., in Norway: virtues, including rational behavior, kindness, honesty, and cooperativeness, *inter alia*, and vices, including impulsivity and loss of emotional control, arrogance and pride, pretense and deception, and exploitation of others, *inter alia*). Pepinsky examines how the common sense worlds shape basic social norms (e.g., in Norway: basic general rule that "no one is better than anyone else" and series of corollaries, such as "avoid making a fool of yourself before others," "think before you speak," and "avoid risk taking"). These commonsensical social norms feed into and become a part of Norwegians' common sense world. The shared body of social knowledge is infrastructural, cultural, and environmental. (Compare Frischmann 2007, 2012 on cultural environment as intellectual infrastructure.)

As a predominantly social infrastructure, common sense knowledge, including commonsensical social norms, often is produced, curated, sustained, and disseminated in social systems that are nonmarket and nongovernment. Families, clubs, communities, and other social groups produce common sense solutions to problems faced in members' everyday lives. Yet in everyday life, actions and interactions in market and political contexts also contribute to the production and distribution of common sense.

There are strong interdependencies among different social systems (market, government, social). People live their everyday lives in environments shaped by all of them, at times moving among these systems and at times directly engaged in all of them. These social systems depend heavily upon the common sense world as social infrastructure. For example, in Norway and the United States, different ideologic orientations toward the role of government and markets in society, reflected in and derived from the different *common sense worlds*, shape how people interact with those social systems (Pepinsky 1994).

At a much more practical level, markets depend on many commonsensical social norms that coordinate behavior and facilitate transactions. For example, similar to

the earlier discussion of interrupting speakers, there are plenty of common sense solutions to everyday commercial problems – such as tipping – that vary across contexts, cultures, and communities. Naming and other classification systems are another example (Knight 1921).

The supply and demand logics of market and political systems are not what fundamentally drive the production, sharing, and use of common sense knowledge. People do not manifest their demands for common sense knowledge through prices or votes; entrepreneurs and politicians typically are not competing to supply people with the commons sense solutions they need – if anything, quite the opposite. Yet, as Kuchař (2016) suggests, entrepreneurs might need to propose novel common-sense interpretations and classifications to justify interactions that would otherwise not have been legitimate. Such entrepreneurial epistemic action seems to work with and within the social production model I have suggested. Common sense is produced socially (or jointly) as people communicate with each other about their everyday lives and experiences, including their success and failures in addressing familiar problems. Dekker and Kuchař (2019) relate this to the more conventional economic idea of joint production (see also Cornes and Sandler 1996).

This matters for a few reasons. First, it means that we need to understand how the social systems work to generate common sense knowledge. I have said some and will say some more about this, but I highlight it in this chapter mainly to flag it as an interesting area for further research. Second, we need to appreciate how social systems interact with market and political systems. There are advantages and disadvantages to each in addressing a variety of social issues, but as the series of arguments in Appendix suggested, I wonder whether the market for supposedly smart technological solutions to many of our everyday problems may have a detrimental impact on individual and social capabilities for common sense (e.g., common sense thinking as well as socialization). Third, we need to appreciate how much of the infrastructural value of common sense knowledge is not captured by those producing or disseminating it. There are significant spillovers from its use, yet that does not mean there is a market failure or need for government to intervene and fix something. The flow of externalities can be a social boon.

I do not mean to overstate the third point, however. On the one hand, some value from producing, curating, and disseminating common sense knowledge is captured. Effective commonsensical social norms generate direct benefits for the group via cheaper and more effective cooperation and social coordination. Further, reputational benefits have long been attributed to wise people within communities (e.g., a family, tribe, or village). Reputed wisdom often is based on trusted competence grounded in experience (rather than intellectual prowess or analytical capacity); of course, there are other reasons and factors to consider (e.g., power).

On the other hand, social systems and common sense can fail and lead to negative externalities as well. In fact, social systems can fail in various ways that are analogous to market failures. For example, socially valuable common sense

knowledge may not spread as widely as it could or should. There may be various explanations for this, but one reason might be that a social group that arrives at a decent common sense solution to an everyday problem may have little incentive to share the knowledge beyond the group. This may explain why there is market demand for "life hack" books, articles, websites, and so on that collect such knowledge and distribute it more widely.

Plus, common sense can be biased and wrong. It can conflict with scientific evidence, and it can lead people to make terrible decisions. For example, in some communities, it may be common sense that vaccination leads to autism or some other malady, and so community members may refuse to get vaccinated. Yet this erroneous belief contradicts scientific evidence and can harm community members and others.

4.3 GOVERNANCE OF COMMON SENSE

In this section, I explore commons governance of common sense. This is a difficult task. It feels odd to talk about *governing* common sense. There doesn't seem to be an explicit or even implicit institutional framework, but that is only because common sense is so broad a set of knowledge and so ubiquitous yet variable across contexts. Can we really say that common sense worlds are governed? Of course, we can, although the modalities of governance run the gamut. The governance, like the knowledge, is contextual, social, and contingent upon the communities within which the knowledge is generated, cultivated, and shared.

Commons is a mode of governance for resources that can be especially attractive for infrastructural resources (Frischmann 2012). It usually entails governance of, by, and for the community. A core principle is sustainable sharing on nondiscriminatory terms within the community (Frischmann, Madison, and Strandburg 2014). With respect to infrastructure,[5] this usually means nondiscrimination among users and uses, and the corresponding preservation of equality and general purposiveness. The basic functional idea is to leverage nonrivalry and the sharable nature of the infrastructure (first criterion) to sustain the general-purpose nature of the infrastructure and support the wide range of user activities that generate private, public, and social goods (second and third criteria). In an important sense, commons governance engineers a degree of freedom for community members to decide for themselves about how to use shared resources. Frischmann (2012) explains how commons management insulates resource users from the logics and demands of market and political systems.

Common sense is, by definition, knowledge shared among members of the community. But it is not clear that such sharing incorporates nondiscrimination

[5] The defined community may be the public, in which case commons management converges with open access. The community might also be more limited in scope, in which case there may be members and nonmembers. See Frischmann (2012); Frischmann, Madison, and Strandburg (2014).

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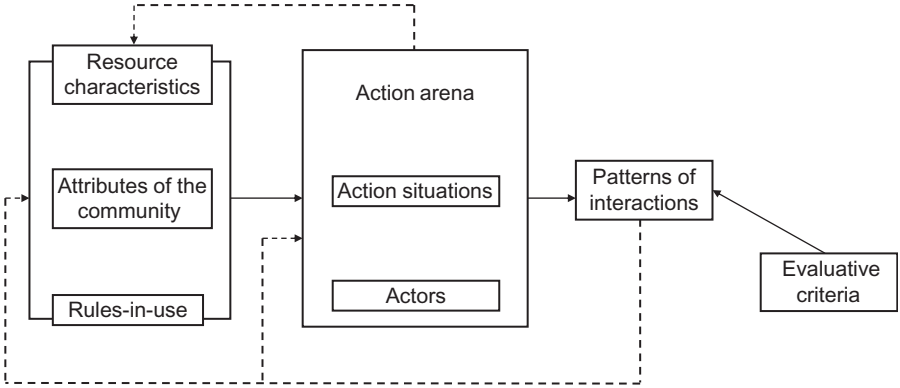

FIGURE 4.1. Governing Knowledge Commons framework

in a meaningful way. Moreover, common sense often implies a specific use rather than expanding members' freedom or range of choices. Commonsensical social norms regulate behavior, after all. But commons governance is more relevant to an examination of how community members produce and share common sense knowledge and how they participate in generating and normalizing what come to be commonsensical social norms.

We can identify different "action arenas"[6] (stages) where commons governance plays a role in the emergence, persistence, and diffusion of common sense knowledge in general and commonsensical social norms in particular. For those less familiar with the Governing Knowledge Commons framework, consider the following diagram (Figure 4.1).

According to Sanfilippo, Frischmann, and Strandburg (2018: 122–124):

> An action arena is simply a recurring type of situation in which community actors interact with one another. Interactions in an action arena produce outcomes, denoted here as patterns of interaction, which can then be evaluated according to some community or socially generated criteria …. [R]esource characteristics, community attributes (including members and roles), and a set of governing "rules-in-use" are inputs to an action arena. Patterns of interactions accumulate, feeding back to create new action situations and influencing resource characteristics, community attributes, and rules-in-use. Knowledge resources are often produced and defined by the community. The knowledge outputs of some knowledge commons action arenas must themselves be managed by the community and may be inputs to further knowledge production …. The "action arena" concept is flexible and can be applied at a variety of levels of generality, depending upon the question of interest to the analyst. The GKC framework thus facilitates examination of resource sharing in dynamic local settings, as well as in broad contexts, and permits study of the ways in which such local settings may combine and nest within a hierarchy of increasingly broad settings in between.

[6] On action arenas, see Ostrom (1990); Frischmann, Madison, and Strandburg (2014).

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Here, for purposes of illustration,[7] I focus on the action arena concerning knowledge generation, including experimentation, innovation, and communication, by community members within the relevant social context (system). Success – meaning *only* the emergence of common understandings, beliefs, and possibly norms and not necessarily good ones – depends on a shared core knowledge base, language, and social interactions sufficient to generate commonality or acceptance. Within this action arena, commons governance involves sharing core knowledge and opportunities for meaningful social interaction. Commons may be less relevant in hierarchical social arrangements where, for example, access to knowledge is restricted to a few.

At a high level of abstraction, our common sense worlds are open and shared, even if culturally contingent. We internalize social attitudes, beliefs, and values as we live our lives with others (Pepinsky 1994). But the more relevant action arenas are often situational and contextual (Haraway 1988; Nissenbaum 2009). Consider, for example, the emergence, persistence, and diffusion of the privacy-related commonsensical social norms noted above. Some, such as the privacy norm of wearing clothing in public, are quite old and widespread. Others are contingent, varying across contexts and still emerging or otherwise being shaped by new technologies. For example, digital networked technologies afford users, service providers, governments, and others incredible surveillance capabilities. Commonsensical social norms regarding when and how to use such capabilities depend upon shared understandings and beliefs about what is appropriate (Nissenbaum 2009). Schools, homes, businesses, and other social contexts, including virtual contexts such as social media platforms or online games, serve as action arenas within which such understandings, beliefs, and norms are (re)negotiated. Frankly, the same can be said about commonsensical social norms regarding smartphone use in social settings. It would be inaccurate to suggest that all the action arenas follow commons governance principles. Some do, and some do not. Using the GKC framework to study emerging privacy norms across contexts is a promising research area (Sanfilippo, Frischmann, and Strandburg 2018).

New technology not only leads to (re)negotiation of commonsensical social norms, but it also can be a substitute (see Appendix). Recall the earlier discussion of Alice exiting the taxi at the wrong location. I identified a few ways in which Alice might come to lack the relevant situational and problem-solving common sense. Most involved her lack of access to experiences or social interactions necessary to develop relevant skills and knowledge. As a thought experiment, imagine a world where continuous reliance of geotracking and mapping technologies alleviate any need to develop the commonsensical skills or knowledge. This would be a different common sense world than one without ubiquitous tracking.

Core knowledge essential to developing common sense is not always controlled by the community. It may come from external sources. Thus, diffusion of knowledge and norms across communities and contexts is an important dimension to study. Consider,

[7] For the sake of brevity, I will not explore action arenas concerning persistence and diffusion. This would be a ripe area for future work employing the GKC framework.

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for example, the security-related commonsensical norms noted earlier. What does common sense suggest about choosing security passwords? Be smart. OK, fair enough. But what exactly does that mean? For most, common sense indicates one should not use "password" or "qwerty" or one's name as a password; those passwords are easily guessed by another person. But what about "1orangePotato"? No person would guess this password, right? Is it a smart password? No, it is not, but not because another person could easily guess it. It is a bad password because it is easily "guessed" by a bot (a computer program).

What "being smart" about choosing passwords means may seem like common sense for some but not for others. It depends upon one's experience and the communities to which one belongs. Many folks chastise others for lacking common sense about choosing passwords, but those "in the know" typically have specific substantive knowledge, relevant experience, and/or access to community knowledge. *Many people do not have access to the necessary inputs*. For example, some people do not anticipate bot adversaries when choosing passwords, and thus, for them, common sense might support the conclusion that "1orangePotato" is a smart password. For that to change, diffusion of knowledge (e.g., facts about bot adversaries) across communities is necessary.

As security researchers at Carnegie Mellon emphasize, the "first step in evaluating the security of a password is to understand the threat model" (Ur et al. 2012). Critically, and perhaps counterintuitively, being smart about choosing passwords is more nuanced than common sense may imply. In fact, some apparent common sense solutions to the increasingly everyday problem of password management may do more harm than good. For example, common sense suggested people should frequently change their passwords to improve security; to normalize the practice, some employers nudged and others required employees to change passwords on a periodic basis. According to security experts, however, this practice is actually counterproductive (Goodin 2016).

Commons governance of common sense is often more about governing the community and social systems within which common sense knowledge is generated, shared, cultivated, and disseminated than about governing the body of knowledge itself. A key premise is that common sense in general and commonsensical social norms in particular are social constructions generated by humans, and thus, a key aim of commons governance is to sustain some participatory role for people.

***

Common sense is socially valuable as a means for cheaply and effectively solving many problems of everyday life. It is social infrastructure for everyday market transactions and social interactions. But there is much more to common sense than problem-solving. Participating in the social processes associated with common-sense-making generates spillovers to the community through learning and socialization. People share experiences, problems and solutions, and as a social practice, this can strengthen bonds within a community and sustain social capital. But participation is not guaranteed. It depends on, among other things, access to essential resources and opportunities, and this need, in turn, may give rise to social dilemmas and social demand for community governance.

Appendix

In *Re-Engineering Humanity*, Evan Selinger and I suggest there's a risk that our common-sense-making capability and common sense itself could be reduced or depleted if we outsource various thinking tasks to supposedly smart digital tech or if our access to and use of the essential "inputs" (noted in the main text) are constrained. I do not engage these arguments in this chapter because my focus is on the resource conception of common sense rather than the capability conception. Here I briefly explain.

Consider the following set of arguments:

1. Humans face common problems in everyday life ("everyday life problems").
2. Humans develop and rely on common sense solutions to everyday life problems.
   a. Developing common sense solutions necessarily depends on a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs.
   b. Developing common sense solutions depends on experimentation and social innovation.
3. Humans develop technology to solve problems.
   a. Developing technology to solve a problem depends on knowledge, experimentation, and innovation, but not necessarily on a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs.
4. Some technology solves everyday life problems.
5. If technology solves an everyday life problem (more efficiently than existing common sense solutions) then humans will not (are less likely to) develop common sense solutions to that problem.

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6. If technology solves all everyday life problems, then humans will lack common sense (or a subset of common sense that concerns problem-solving).
7. Humans without common sense are indistinguishable from machines, at least in one important respect.

The first four statements are uncontroversial. The same is true for the soft version of the fifth statement (read with the parentheticals). The stronger version of the fifth statement is questionable. Surely humans may continue to develop common sense solutions to everyday problems for which there is a technological solution; it is just a cost–benefit calculation.

The sixth statement, however, requires more explanation. The idea that technology will eliminate the need for common sense solutions to everyday problems may seem far-fetched, mainly because it is hard to believe that technology can so comprehensively address human needs. Moreover, perhaps technological solutions to present-day everyday life problems merely shift the demand curve, making a range of problems that were more extraordinary less so and thus potentially amenable to common sense solutions. There also is an intermediate step missing between the fifth and sixth statements; something that would explain the aggregation of incremental substitution of technology for common sense.

These arguments endorse a particular notion of common sense, explained in Section 4.1, and they also suggest a potential zone of conflict between common sense and technology as well as some deeper concerns about humanity. The zone of conflict is a potential source of social dilemmas where commons governance plays an important role.

REFERENCES

Akerlof, George A. 1976. "The Economics of Caste and of the Rat Race and Other Woeful Tales." *Quarterly Journal of Economics* 90 (4): 599–617. DOI: https://doi.org/10.2307/1885324.

Arrow, Kenneth J. 1971. "A Utilitarian Approach to the Concept of Equality in Public Expenditure." *Quarterly Journal of Economics* 85 (3): 409–415. DOI: https://doi.org/10.2307/1885930.

Bicchieri, Cristina, Ryan Muldoon, and Alessandro Sontuoso. 2018. "Social Norms." *The Stanford Encyclopedia of Philosophy* (Winter 2018 Edition), edited by Edward N. Zalta.

Coleman, Jules L. 1989. "Afterword: Rational Choice Approach to Legal Rules." *Chicago-Kent Law Review* 65 (1): 177–191.

Cornes, Richard, and Todd Sandler. 1996. *The Theory of Externalities, Public Goods, and Club Goods* (2nd ed.). Cambridge: Cambridge University Press.

Dekker, Erwin, and Pavel Kuchař. 2019. "Lachmann and Shackle: On the Joint Production of Interpretation Instruments." *Research in the History of Economic Thought and Methodology* 37B, 25–42. DOI: https://doi.org/10.1108/s0743–41542019000037b005.

Ekman, Paul. 1982. *Emotion in the Human Face*. Cambridge: Cambridge University Press.

Erion, Gerald. 2001. "The Cartesian Test for Automatism." *Minds and Machines* 11 (1): 29–39.
Frischmann, Brett M. 2007. "Cultural Environmentalism and the Wealth of Networks." *University of Chicago Law Review* 74: 1083–1911.
2012. *Infrastructure: The Social Value of Shared Resources*. New York: Oxford University Press.
Frischmann, Brett M., and Evan Selinger. 2018. *Re-engineering Humanity*. Cambridge: Cambridge University Press.
Frischmann, Brett M., Michael J. Madison, and Katherine J. Strandburg, Eds. 2014. *Governing Knowledge Commons*. Oxford: Oxford University Press.
Gelman, Susan A., and Gail M. Gottfried. 1996. "Children's Causal Explanations of Animate and Inanimate Motion." *Child Development* 67: 1970–1987.
Gelman, Susan A., and Henry A. Wellman. 1991. "Insides and Essences: Early Understandings of the Non-obvious." *Cognition* 39: 213–244.
Goodin, Dan. 2016. Frequent Password Changes Are the Enemy of Security, FTC Technologist Says, ars technica (August 2, 2016), https://arstechnica.com/information-technology/2016/08/frequent-password-changes-are-the-enemy-of-security-ftc-technologist-says/.
Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14 (3): 575–599.
Hausman, Daniel M. 2008. "Fairness and Social Norms." *Philosophy of Science* 75 (5): 850–860. DOI: https://doi.org/10.1086/594529.
Homans, George C. 1961. *Social Behavior*. New York: Harcourt Brace and World.
Knight, Frank H. 1921. *Risk, Uncertainty and Profit*. Chicago: University of Chicago Press.
Kuchař, Pavel. 2016. "Entrepreneurship and Institutional Change." *Journal of Evolutionary Economics* 26: 349–379. DOI: https://doi.org/10.1007/s00191-015-0433-5
Leslie, Alan M. 1984. "Spatiotemporal Continuity and the Perception of Causality in Infants." *Perception* 13: 287–305.
Leslie, Alan M., and Stephanie Keeble. 1987. "Do Six-Month-Old Infants Perceive Causality?" *Cognition* 25: 265–288.
Lewis, David. 1969. *Convention: A Philosophical Study*. Cambridge, MA: Harvard University Press. DOI: https://doi.org/10.1002/9780470693711.
Medin, Douglas L., and Andrew Ortony. 1989. "Psychological Essentialism." In *Similarity and Analogical Reasoning*, edited by Andrew Ortony and Stella Vosniadou, 179–185. New York: Cambridge University Press.
Nissenbaum, Helen. 2009. *Privacy in Context: Technology, Policy, and the Integrity of Social Life*. Redwood City, CA: Stanford University Press.
Olson, David R. 1987. "Schooling and the Transformation of Common Sense." In *Common Sense: The Foundations for Social Science*, edited by Frits van Holthoon and David R. Olson, 327. Lanham, MD: University Press of America.
Oppenheimer, J. Robert. 1954. *Science and the Common Understanding*. New York: Simon and Schuster.
Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
Pepinsky, Pauline N. 1994. *Worlds of Common Sense: Equality, Identity, and Two Modes of Impulse Management*. Westport, CT: Greenwood Press.
Pinker, Steven. 1997. *How the Mind Works*. New York: W. W. Norton.
Premack, David. 1990. "The Infant's Theory of Self-Propelled Objects." *Cognition* 36: 1–16.
Redekop, Benjamin W. 2009. "Common Sense in Philosophical and Scientific Perspective." *Management Decision* 47 (3): 399–412. DOI: https://doi.org/10.1108/00251740910946679
2020. *Common Sense and Science: From Aristotle to Reid*. London: Anthem Press.

Samuelson, Paul A. 1954. "A Pure Theory of Public Expenditure." *Review of Economics and Statistics* 36: 387.
Sanfilippo, Madelyn R., Brett M. Frischmann, and Katherine J. Strandburg. 2018. "Privacy as Commons: Case Evaluation through the Governing Knowledge Commons Framework." *Journal of Information Policy* 8: 116–166.
Spelke, Elizabeth. 1994. "Initial Knowledge: Six Suggestions." *Cognition* 50: 432–445.
Thibaut, John W., and Harold H. Kelley. 1959. *The Social Psychology of Groups*. New York: Wiley.
Ullmann-Margalit, Edna. 1977. *The Emergence of Norms*. Oxford: Clarendon Press.
Ur, Blase, Patrick G. Kelley, Saranga Komanduri et al. 2012. "Helping users create better passwords." USENIX. www.usenix.org/system/files/login/articles/login1212_ur.pdf.