

A Contextualist Approach to Health Economics*

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Abstract

This paper departs from the standard abstract economics approach to health economics to develop a specifically contextualist approach to the subject emphasizing social and historical circumstances affecting health provision. Following Polanyi, it sees the economy as socially embedded and economic relationships as social relationships. The paper critically examines Grossman's natural science utility maximization explanation of people's demand for health and health care, and advances an alternative social science account using a two-way analysis between micro level social relationships and the macro level organization of health in society. Three significant trends affecting the future of health systems are discussed. The paper closes with comments on the influence of psychology in the form of behavioral economics on the future development of a contextualist approach to health economics.

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Contextualism or a contextualist approach to economics is grounded in the idea that how the principles governing economic relationships operate depends on the social context and historical circumstances in which they operate. This understanding dates back to the thinking of classical political economy and received particularly strong expression in original institutionalist thought. We may be able to speak abstractly about those principles, and isolate them as an object of formal investigation, but to understand the essential question regarding how they operate in the world we need to see them at work in concrete circumstances (Goldschmidt, Grimmer-Solem,

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and Zweynert 2016). Karl Polanyi's ([1944] 1975) ontological characterization of the relationship between society and the economy explains this in terms of the economy's social embeddedness. Society is the broader reality and the economy is a domain within this broader reality. Economic relationships are only one kind of social relationship, and thus are embedded in social relationships, rather than the reverse. Thus, social relationships are not reducible to economic relationships (as thought by some mainstream economists), but are rather framed by social relationships.

Accordingly, while we may isolate economic relationships in order to investigate their abstract properties, to understand how they operate in the world, and to have a realistic economics, we must explain how they interact with a multitude of different types of social relationships. To be clear, this is not just a matter of applying a given set of economic principles to different contexts, since this suggests that as abstract principles they remain unchanged across their different applications, and thus work in basically the same way in every circumstance. Rather, to the extent that we can isolate economic principles, this isolation is temporary and needs to reflect their historically contingent character (Hodgson 2001). To say that economic relationships are embedded in social relationships rather than the reverse is also to say that economic relationships depend upon and are affected by the social relationships that frame them. In the language of performativity (Boldyrev and Svetlova 2016), economics performs the world when it is used to explain it, but reflexively speaking the world also performs economics when we learn about it from its application – a two-way street, in which they both constantly evolve together.

Thus, a mistaken view of the application of economics to the world is the 'one-size-fits-all' view. Methodologically, it assumes:

a *natural science model* of economics – the idea that economics' object of investigation is unchanging just as the laws of nature are unchanging in the natural sciences [as opposed to] a *social science model* of economics – the idea that economics' social world object of investigation makes it a science that evolves together with the evolution of the world it investigates (Davis 2018, 509).

Yet in mainstream health economics, this natural science model view of economics predominates. Its anchor is arguably Michael Grossman's highly influential neo-classical utility maximization explanation of people's demand for health and health care that was instrumental to the development of the mainstream field of health economics (Grossman 1972a; 1972b). Thus, to develop an alternative contextualist health economics, this paper begins in Section 1 by reviewing Grossman's approach in order to illustrate its underlying methodology, namely, that application of economic principles to health assumes that a given set of abstract principles can be applied to any and all contexts, or one-size-fits-all.

Section 2 then goes on to set out an alternative, contextualist approach to health economics that employs a social science model of economics. On this view, people's demand for health and the provision of care depends on relationships between care

providers and care recipients that need to be understood in connection with the nature of the concrete circumstances in which care is provided.

Section 3 shifts from this micro level analysis to the macro level to discuss how the social organization of health reflects and acts on relationships determining the provision of health care and medical care. We argue that a contextualist approach to health economics employing a social science model of economics involves not only a two-way street between economic principles and their contexts of application, but also a two-way street between micro level social relationships and the macro level organization of health in society. In doing so, we note the distinction between health care and medical care. The latter is a particular manifestation of the former in that it is organized around the medical professions in the provision of various forms of treatments and care, such as acute, preventive and palliative, *inter alia*. Health care extends beyond medicine to include all sorts of activities and organizations engaged with the promotion of health and/or the prevention of harm. Thus, health and safety at work initiatives and policies, the prohibition of smoking in public places, and road side crash barriers are particular examples of health care. Some health economists readily acknowledge these distinctions (see for example, Grossman 1972a; Hurley 2000).

Section 4 identifies three significant trends affecting the future of health systems – (1) the aging of populations across countries creating increased need for health care, (2) a high degree of social and economic inequality, and (3) the emergence of new technologies likely affecting health care – and then discusses how they each might affect health care provision according to the mainstream and contextualist approaches to health.

Section 5 concludes the paper by briefly commenting on the recent influence of other social science disciplines on economics, particularly psychology in the form of behavioral economics, and what this might mean for the development of a contextualist approach to health economics.

1. The Methodological Assumptions of Grossman's Demand for Health Model

Grossman's PhD in economics, in which his influential demand for health analysis was originally developed, was supervised by Gary Becker, who pioneered the neo-classical, utility maximization approach to explaining non-market social relationships in market-based terms (Grossman 1972a). Health and its provision had traditionally been explained and evaluated in non-market terms, and thus reflected the medical expertise and experience of doctors and other health professionals, but Grossman replaced this explanation by supposing that there exists a demand for health derived from utility maximizing individuals' market demand for health care services. Similarly, Grossman identified distinctions between health and medical care, both of which he viewed as derived demands. As a demand derived from market demand,

health thereby became a commodity, if in an indirect sense, but nonetheless implying that it ought to be explained by the same principles used to explain all other commodities. Thus, *contra* Polanyi, Grossman adopted the view that economic principles subsume social ones or that, via the idea of derived demand, the latter are ultimately reducible to the former.

In addition, Grossman differentiated between the (derived) demand for health as a “consumption commodity” and its (derived) demand as an “investment commodity.”

Health is demanded by consumers for two reasons. As a consumption commodity, it directly enters their preference functions, or, put differently, sick days are a source of disutility. As an investment commodity, it determines the total time available for market and nonmarket activities (Grossman 1972b, 225).

Whereas doctors and other health professionals had understood health in terms of the physical, emotional, and psychological needs of individuals and their families, Grossman’s approach replaced these sorts of considerations with ones specific to these two sorts of choices people make in markets. On the one hand, health as a consumption commodity became merely one more way people sought to increase utility. That is, there is nothing distinctive about health in how people live their lives. On the other hand, health as an investment commodity became only one more source of human capital that people accumulated in an effort to maximize utility over their lifetimes. Health, then, is not a need because we can trade it off against other forms of human capital. Indeed, the concept of need ceases to have meaning in the human capital framework. In both cases, utility analysis made no special use of the types of considerations that had traditionally been associated with human health since utility satisfaction was a generic state of the individual.

Indeed, Grossman goes further. His model indicates that lifespan is endogenous to the utility maximization decision. As health is an investment good, there are costs associated with investment as well as an expected flow of benefits, such as the ability to work and the income derived from this. Thus, for Grossman, the individual is not merely a consumer of health, but a producer, or at least a co-producer of health. Yet, with aging the costs of investing in health rise as Grossman assumes that aging is analogous to increasing depreciation of capital stock, and moreover that there are diminishing marginal returns from investment, since there is an upper limit in any year of 365 healthy days. Thus, as the costs of investing in health rise, the net benefits of doing so decline. Eventually, according to the model costs will rise to such an extent that the “death stock” is optimal. Therefore, under the model’s conditions it becomes rational for an individual to die. As Grossman expresses:

“If [depreciation] grows continuously with age after some point in the life cycle, persons would choose to live a finite life” (*ibid.*, 238).

On this argument, there are fewer incentives for the poor to invest in their health, as the expected flow of benefits are comparatively lower than may be expected for a

richer individual. Grossman thus predicts that poorer people will have a shorter lifespan than the rich, *ceteris paribus*, and that this is entirely rational.

From a contextualist economics perspective, this perfectly illustrates a methodological one-size-fits-all approach since it assumes that utility maximizing individuals behave in the same way in any and all circumstances. No matter what the subject at hand or what the domain of application, individuals always behave in a utility maximizing way, and no other factors enter into explanations of their behavior. Note, then, that since the theory of utility maximizing individuals is axiomatically grounded in a set of formal assumptions governing the nature of preferences, it is possible to identify the specific grounds this approach relies upon. Not surprisingly perhaps, the most important of these from our point of view are the theory's independence assumptions which explicitly rule out people having context-dependent preferences.

In the case of standard riskless choice utility theory this takes the form of the 'independence of irrelevant alternatives' axiom (IIA), and in the case of expected utility theory used for explaining risky choice this takes the form of the 'independence axiom' (IA) or the sure-thing principle. Without going into detail regarding their logical representation, it can still be said that both axioms, or the independence axiom in either form, assure that individuals' preferences are context-independent, meaning that if a person prefers one thing to another, the introduction of some third thing that might be chosen – a change in the context of choice – does not alter the original preference. For example, suppose a person prefers house #1 to house #2, but then sees house #3 whose comparison with #2 and #1 somehow makes #2 look better than #1. (Essentially the person sees features of the original two houses only made apparent when the third house is introduced.). Then the person prefers house #2 to house #1, reversing their previous preference for #1 over #2. However, to say preferences must be context-independent rules out such possibilities. In effect, people's preferences are subjectively hard-wired in such a way that nothing they might learn about the world can overturn them. That is, choice is entirely subjective and uninfluenced by the world.

Yet, this example surely reflects how people often behave in the real world, since people commonly revise their preferences upon encountering new objects of choice when they deliberate over their choices. That is, people's preferences are context-dependent rather than context-independent. This then implies that utility maximization is influenced by its context of application such that two factors determine what choices people make, or, their own preferences and the world co-determine their behavior. It follows that the only way in which the independence axioms can be defended is to artificially take people out of the world they occupy in which their experience continually changes and creates new possibilities. This approach can only be justified if one supposes that theory is unaffected by its application to the world – the natural science model of economics and one-size-fits-all view. It seems fair to conclude, then, that the one-size-fits-all methodological approach does not realistically capture human behavior as we generally understand it. Let us turn, then, to a

contextualist, social science model of economics approach to health to understand how people seek health care and how health systems respond to this and provide it.

2. An Alternative Contextualist Approach to Health Economics

Daniel Hausman argues in *Valuing Health* (2015) that people do not always know what makes them better off, often have false beliefs and lack information and knowledge about what makes them better off, and may rely on various behavioral decision heuristics that are not of benefit. The Grossman model with its commitment to a rational choice view of utility maximization neglects these problems, and consequently over-estimates individuals' ability to choose as they might wish. Indeed, Gavin Mooney (2009) contends that Grossman's approach encourages a narrow focus on measuring "health," which provides a false prospectus in that it is based on socially atomistic individuals' optimization calculations. Moreover, as both Kenneth J. Arrow (1963) and Geoffrey Hodgson (2008; 2009) argue, there is an important involuntary and unknowable dimension to needing health, or more specifically, medical care.

How, then, might attention to the context of choice and understanding choice as context-dependent show how people may strengthen these abilities and be more likely to make choices that make them better off? More specifically, what is it that the context of choice contributes to explaining how people make choices about their health?

There are many ways, of course, in which the context of choice might be explained since the idea of context itself is *per se* quite broad. Yet if human society can be understood as being constituted out of many kinds of social relationships, then first and foremost context, or rather social context, concerns what sorts of social relationships people occupy, and thus how their social relationships contextualize and influence choice. To capture this, in *Health Care Economics* (Davis and McMaster 2017) we treat the choices people make regarding their health as inherently relational in nature. By this we mean that individuals make choices in close conjunction and in interaction with others with whom they share some sort of relationship, as in the doctor-patient relationship. People still make individual choices in such relationships, but they are different in nature from those in which interaction with others occurs in a more arm's length way, such as in most commercial transactions.

The issue then becomes: what does making choices in close conjunction with others involve, and how does it strengthen people's ability to choose as they might wish? To answer this, we modify the standard neoclassical principal-agent account in which individuals make arm's length choices in interaction with others. On the standard view, people make such choices when one person is an agent for the other, the principal. For example, if we apply to this health care, a doctor would be an agent of a patient, and be expected to act in the patient's interest. However, this analysis of the doctor-patient relationship does not address Hausman's problem, because the prin-

cial/patient rarely understands the scientific basis for what the agent/doctor recommends, so it remains quite possible that care therapies will still not make the former better off as they might wish. That is, when there are significant asymmetries in information, principals find it difficult to avoid making poor choices about agents and accordingly about what makes them better off.

The solution to this dilemma, we argue, is to modify the standard principal-agent relationship by making it bi-directional rather than one-directional, such that the patient and the doctor both act as principals and agents (Davis and McMaster 2015, 11 ff). That is, we add a second principal-agent relationship to the one above such that the patient is also the agent of the doctor to capture the relational character of the their interaction. Practically speaking, the doctor needs the patient to act in ways that actualize the therapies recommended, or otherwise those therapies may fail. Asymmetric information is again the problem to be dealt with since the doctor lacks knowledge about the patient (just as the patient lacks knowledge about regarding the scientific basis for what the doctor recommends).

The immediate motivation for this modification of the standard principal-agent relationship is Hausman's problem, which is essentially an asymmetric information communication problem, but the deeper motivation is the need to recognize how the provision of health care is highly context-dependent, where this involves social relationships whose overall object is the provision of care. When we see the principal-agent relationship as a two-way street, not only is communication enhanced in a reciprocal way as doctors and patients share and evaluate care therapies, but the reciprocity they establish in these terms transfers naturally to their regard for one another. We explain this latter dimension of the two-way street case in terms of the difference in motivation it allows for compared to the standard agency case.

In the standard principal-agent relationship, doctors are not motivated by any 'intrinsic concern' they have for their patients but are instrumentally motivated in that acting as agents of their patients their goal is to maximize their own utility. An 'intrinsic concern' only exists when one's own well-being is secondary or somehow irrelevant to how one acts. Doctors of course could be utility maximizers and also 'genuinely' care for their patients should they possess altruistic preferences toward their patients. Yet 'genuinely' caring for them, when this is instrumental to one's own utility maximization, still falls short of an 'intrinsic concern' for others. Indeed, on the standard view, altruistic preferences count as externalities, not something essential to that relationship, but rather an accidental feature of it. What is necessary to the doctor-patient interaction is that the doctor deliver the health care services demanded by the patient. Any concern for the patient is independent of this and unnecessary to their transaction.

In contrast, we argue that the two-way street case not only solves the information problem but is also capable of explaining circumstances in which doctors exhibit a non-instrumental, intrinsic concern for their patients (such as expressed in the ancient Hippocratic Oath), while similarly patients develop respect and trust for their

physicians, including doctors, nurses, and related professional staff. The two-way street case, that is, is meant to illustrate how the context in which health care is provided can be framed in such a way that doctors and patients are motivated to have a shared regard for each other and provide health care on that basis. Care then becomes an ‘intrinsic concern’ instead of a means of utility maximization. Rather than framing care as a market relationship, care is seen as a social relationship determining the nature of the doctor-patient interaction.

We recognize, of course, that the provision of care can also be socially organized and institutionalized in such a way that social context does not matter, so that, following Grossman’s context-independent approach to health, market relationships operate in health and medical care in the same way as they do elsewhere in society. This seems to be the case with much of the provision of care in more market-based health care systems such as the United States. Yet we believe that health care systems that ignore context-dependence and reduce interactions between care providers and care recipients to arm’s length commercial sorts of transactions are inconsistent with the nature of the social relationship involved in the provision of health care. Consider again the idea of a bi-directional principal-agent relationship between doctors and patients in connection with their respective intentions towards care.

In the standard principal-agent relationship, doctors diagnose patients’ health needs and, as their agents, adopt therapies intended to improve their patients’ health. It is assumed that the doctor’s intention must also be the patient’s intention, because the doctor is the patient’s agent. Yet if the doctor is only the patient’s agent, the patient is still free to ignore what has been recommended (as for example, may occur in a recommendation to stop smoking, exercise more, or change one’s diet). In effect, the provision of care may break down since both still form individual intentions as independent utility maximizing individuals. However, we can also see the doctor-patient relationship as one in which they make choices in close conjunction with one another. Then if the patient is also an agent of the doctor, as we argue, their communication regarding therapies is likely to converge on one in which they develop shared intentions regarding that therapy instead of paired individual intentions about what the doctor recommends.

Shared intentions, in terms of how language works, are intentions expressed in first person plural terms when people say such things as ‘we intend to do x ’ (e. g., cf. Gilbert 2009). They occur commonly in social contexts where people have regular contact and communication, such as doctor-patient relationships, since proximity to others cause them to form shared expectations that provide the basis for shared intentions. Essentially, proximity creates conditions in which people both trust their belief that they agree with others and also trust their belief that others agree with them. Reinforcing this is any institutional apparatus supporting their regular contact and communication, whether this involves customary practices, legal constraints, or accepted norms regarding people’s regular interaction. Thus, the provision of care in most countries occurs in well-developed systems with rules and guidelines which

contribute to determining the context in which care health is provided, and people make choices in conjunction with others.

Our central argument then, is that a contextual approach to health depends on building and reinforcing social relationships between care givers and care recipients, and this makes it possible to elevate care in the sense of ‘intrinsic concern’ as the basis for their interaction. Care as a normative principle has little place in standard economics which prescribes that people act in their own interest. But in our view care as a principle is constitutive of many social relationships. Thus, social relationships are heterogeneous with some occurring in an arm’s length way and others involving close personal relationships. We turn, then, to what this implies about entire health care systems.

3. Contextualist Health Economics at the Macro Level

We claimed at the outset that a contextualist approach to health economics that employs a social science model of economics utilizes not only a two-way street analysis of economic principles and their contexts of application, but also a two-way street analysis of micro level social relationships and the macro level organization of society. In this section we focus on how the macro level links to the micro level. To say, then, that there is a two-way street between the micro and macro levels of the economy is to say that each conditions the other. Social practices regarding health provision are both conditioned by the social organization of health care in large, usually national health care systems, but also affect how those systems are organized.

How this interaction plays out in particular health care systems, then, can be explained in terms of whether the overall organization of health care is framed by a context-dependent, social science model of economics or framed by a context-independent, natural science model of economics. That is, we face two, broad scenarios regarding the overall provision of health distinguished by their underlying economic thinking: one set out by Grossman interpreting health as a market demand, and one set out by a contextualist economics explaining health in terms of social relationships. First we discuss (i) the market-based view of health care systems, and then (ii) discuss the contextualist approach to health care systems.

3.1 The Overall Organization of Health Care in the Market-Based Approach to Health

We saw in the Grossman model that the provision of health and medical care is modelled as a commercial transaction that occurs in an arm’s length manner like other market transactions. This not only makes social relationships unimportant to explaining health care, but it also depersonalizes doctors and patients (Davis and

McMaster 2007) who take on generic roles of suppliers and demanders just as they would in any other sort of market transaction. Depersonalization means that the (health) characteristics of the demander (patient) are understood as (health) characteristics representative of all similar demanders (patients), while the services (health therapies) supplied are understood as those that would be recommended for all similar demanders (patients) in similar circumstances.

We argue, then, that the risk that this conceptualization of health care runs is that it lends itself to adopting a natural science biomedical approach to health (Davis and McMaster 2015, 23 ff). The biomedical approach has been highly influential in Western medical thought (cf. e.g., Freidson 1970; Engel 1977; Wade and Halligan 2004; Groopman 2007). It explains illness and health problems as manifestations of malfunctioning biological or biochemical processes in the human body.

Every specific case of disease expression in an individual patient is understood in biomedicine as an objective, clinically identifiable part of material reality Even if the disease is outside of patient awareness and consequently the patient suffers no experiential symptoms ... the physical existence of the disease as an isolatable part of nature is accepted (Singer 2004, 9).

That is, illness and disease are essentially independent of social context both in regard to their causes and in regard to their possible treatment. Since people are understood strictly as physical organisms, anything they might report about their health only acts as an indicator of a biological or biochemical process occurring in the body.

Methodologically speaking, a strict biomedical approach therefore brackets off the allowable domain of investigation for the causes of illness and disease.

[Biomedicine is] *reductionist* ... [in] that all behavioral phenomena of disease must be conceptualized in terms of physiochemical principles; and ... *exclusionist* ... [in] that whatever is not capable of being so explained must be excluded from the category of disease (Engel 1977, 130).

Thus, what gets lost in a strict biomedical approach to health is how social factors contribute to illness and disease. Yet there now exists a considerable literature from epidemiologists and public health professionals (e.g., Engel 1977; Syme 2007; Krieger 2012) criticizing a narrow biomedical approach and examining how social factors combine with physical ones in causing disease and illness. In general, social factors may be environmental, as are associated with a person's physical location, such as the effects of poverty on the health of individuals living in unhealthy areas and near dangerous types of production, or specific to certain social groups in a population, as when social inequality imposes specific health burdens on some individuals and not on others, such as particular health problems minority populations experience.

The biomedical approach also tends to conflate health care with medical care, where medical care is seen through a Cartesian lens as treatment of the human body as a broken machine. Similarly, as Mooney (2009) compellingly argued, standard health

economics is also inclined to conflate health and medicine, despite Grossman's (1972) and Arrow's (1963) acknowledgement of potential distinctions. For Mooney, health economics focusses on the medical, overlooking the social dimension of health. Indeed, there are many things that contribute to health that go beyond medical care. For example, in public health programs, road safety, anti-smoking campaigns, sexual practices education, etc. are all seen as affecting health. Of course, we certainly do not underestimate or denigrate the advances in medical care made in the last century and their contribution to improving health. But this remarkable success also tends to reinforce the idea that the cause of ill health lacks any significant social dimension.

Again, then, we see one-size-fits-all thinking at play. The idea operating here is that since people all share a human physical nature, health care has that as its principal object. It can be allowed that disease and illness affect people differently. Yet on this view variations in disease and illness across people can still be explained in terms of differences in human physical constitution, and then represented statistically in terms of distributions of disease and illness incidence that make no reference to individuals' social locations or social factors that might influence disease and illness. Compare, then, the alternative sort of thinking regarding how health systems may be organized associated with a contextualist approach to health that takes social factors affecting health into account.

3.2 The Overall Organization of Health Care in a Contextualist Approach to Health

A contextualist approach to health builds health systems in a bottom-up way by organizing them around multiple sets of local relationships between health providers and health recipients. The market-based approach to health systems with its one-size-fits-all methodology works in a top-down manner in that the provision of health operates on the same basis everywhere throughout society in essentially the same way, so that health systems simply universalize one single type of micro level health relationship. In contrast, a contextualist approach preserves social differences between groups of people, whether by regions and physical location or according to differences between communities and social groups, in order to tailor health care to people's specific health needs. That is, rejecting the mainstream depersonalization of health, it also decentralizes health systems by recognizing social differences rather than homogenizing people and suppressing those differences.

Decentralizing and personalizing health care, then, influences how health care system resources are allocated. Failure to recognize differences between people by physical and social location may bias this allocation in ways that make it less effective in addressing overall health needs. Consider, for example, urban-rural differences within societies, which most societies exhibit. On the one-size-fits-all view, it is easy to argue that health care in larger, urban population areas should be prioritized on the grounds that more people are involved and on the assumption that what is learned

there readily transfers to people in rural areas. This presupposes that people in urban and rural locations are essentially the same, that (proportionately) the same care will get provided in rural areas, and thus that the same kind of health care is appropriate to both. Yet if health needs differ by location, then different types of locations should not be treated in the same way, particularly when this ignores unique health issues associated with some locations and not others. It may be the case that individuals in rural areas have different types of health needs and perhaps in certain circumstances even more severe ones. Similarly, consider social group differences within any given area, particularly where some social groups are large and influential and other social groups are comparatively small and less influential. The one-size-fits-all reasoning again may mistakenly lead to an allocation of health resources that neglects smaller groups' health needs where certain health needs are specific to certain social groups.

We argued that decentralizing health care in a contextualist manner, where doctor-patient relationships are closely tied to the particular individuals involved, increases the likelihood that patients' specific needs are the doctor's concern. That is, decentralization goes hand in hand with personalizing health care. Advances in medicine are obviously still important to the diagnosis of disease and illness and the therapies adopted, but which advances are relevant to particular individuals is more likely to be determined in the concrete circumstances in which care is provided. This allows for medicine with its biomedical emphasis and social factors to both determine the nature of care. More strongly, following Polanyi, a co-determination, contextualist approach means social relationships encompass economic ones rather than in the market-based approach the former being reduced to the latter. Not only are economic principles integrated with their application, producing a social science model of economics, but micro level social practices in providing care are integrated with the macro level social organization of health systems. We believe, then, that this dual integration is important as societies deal with three long run trends facing health care in the future, to which we turn in the next section.

4. Three Significant Trends Affecting the Future of Health Care

The three trends we see as likely to affect the provision and nature of health care in the future are: (1) the aging of populations across countries creating increased need for health care, (2) a continuing high degree of social and economic inequality in most societies, and (3) the emergence of new technologies affecting health care. All three constitute challenges to the organization of health care on both the micro and macro levels. Below we compare how market-based and contextualist approaches to health might address them.

4.1 The Aging of Populations and an Increased Need for Health Care

The aging of populations, associated with increased life expectancies and declining birth rates, couples an increased need for health care with relatively fewer individuals providing health care since older age individuals need more care and younger age individuals are a smaller share of the population. In effect, the social burden of health care can be expected to rise with populations' rising average age (and increasingly inverted population pyramids). To some extent, increases in the number and labor force share of individuals entering the health professions could offset the effects of this trend, though it is empirically unclear by how much. Also, new health technologies could also increase provision of care, though again by how much is empirically unclear. (We turn to other consequences of new technologies below.) In any event, whether or not an increased need for care is offset in either way, the aging of populations means societies will still need to devote an increased share of resources to health care at the expense of other social concerns.

For a market-based approach to health, then, as with other important adjustments to social changes affecting markets, changes in relative prices are expected to bring about changes in behavior until market equilibria are restored. In this case, an excess demand for health services, given the supply of those services, should accommodate population aging. If the speed of adjustment is slower than socially desirable, then governments can adjust market incentives, for example, by subsidizing the training of health professionals. However, nothing in this sort of response addresses the depersonalization problem discussed above, though it can be argued that this issue is likely to become increasingly important in the case of older age individuals whose physical health problems can be increasingly interconnected with emotional and psychological ones associated with late life. That is, the market-based response ignores the quality of care issue.

In contrast, a contextualist approach to health, because it emphasizes social relationships, has the potential for making an 'intrinsic concern' for older age individuals central to the provision of health care. To the extent that increased numbers of younger individuals enter the health care professions and new health technologies increase health services, these responses could be built around a social model of care that emphasizes the importance of personalizing care relationships. Adjusting incentives for those entering the health professions then becomes less a matter of instrumentally targeting their individual utility and more a matter of promoting the idea of entering caring professions. Again, we emphasize changing motivations and elevating care as a normative principle in health care.

Yet, the presumed relationship between an aging population and an increased demand for medical care is open to challenge. Indeed, we believe that there is an argument that the framing of the relationship between age and medical care is misleading. Aging is not only a biological reality; it is also a social one (Dugger 1999; Jackson 2001). The process of aging does not necessarily imply a straightforward

relationship between aging and ill-health. Social context matters. The twentieth century instructs us that in many parts of the World, diseases of wealth, such as coronary conditions and diabetes have replaced infectious diseases as causes of mortality and morbidity (for example, World Health Organization, 2018). It has been long recognized that increases in the human life span are primarily associated with improved living conditions and public health measures (Doyal and Gough 1991). Accordingly, there may be a distinction between physiological aging and age-related diseases (Jackson 2001). Age-related physical and mental decline may be related to social influences, such as poverty. As Jackson concludes: “The age-physical decline connection is by no means universal, natural and preordained” (*ibid.*, 197).

4.2 High Levels of Social and Economic Inequality

Income and social inequality has increased significantly since the 1980s in most countries (Deaton 2013; Wilkinson and Pickett 2010; 2019). One consequence of this is that health care provision has become increasingly unequal in that higher income individuals generally receive more and better care than lower income individuals. For instance, the US medical system centers on the elderly wealthy. Despite allocating the highest proportion of national income to health care expenditure, the US has one of the highest infant mortality rates in the OECD (America’s Health Rankings 2019). Moreover, given how economies seems to be evolving, there is little reason to expect inequality to fall by much in the future (Milanovic 2016). Thus, it is reasonable to expect that many societies will see the emergence of two-tier health care systems with different levels of care for different individuals according to income.

In a market-based approach to health care, changes in inequality are a product of the evolution of markets, and little can be done to change this. For example, if technological change is labor-saving, then markets will simply reflect this. Or, if globalization tends to reduce average wages across the world, thereby raising high incomes and reducing lower incomes, this is simply how markets adapt to change. That is, high levels of inequality are a ‘natural’ consequence of the way in which markets are currently evolving. This means that social policies that aim to address high levels of inequality can at best only ameliorate it. Or, their unintended consequences of market interventions could ironically even further worsen it. This means that for the foreseeable future we should indeed expect health care systems to provide different levels of care for different individuals.

However, this is not what a contextualist approach to health care foresees. Medical care systems in most societies are built around social insurance programs meant to work in considerable independence from markets and equalize access to care. They are not entirely immune to market processes, but can be designed to minimize the effects of changes in markets upon the provision of care. Doing this elevates care for individuals as a social principle and subordinates uneven gains to individuals generated in markets. Contrary to the view that inequality is a ‘natural’ consequence of

how economies develop, a contextualist approach assumes that how societies develop is determined by social choices, not collections of individual choices.

4.3 The Emergence of New Technologies Affecting Health Care

There are so many new technologies affecting health care that it is difficult to assess their overall impact on health. We set aside, however, two types of technology change potentially affecting health care: whether new technologies might improve health quality, since this is beyond our expertise, and whether new technologies – such as data processing advances that reduce administrative costs – will lower or slow the rate of growth of the overall cost of health care, since the many factors involved make this issue difficult to evaluate. Our focus instead is only on the ability of societies to provide care, especially given the demographic issue above. Thus, our issue is whether new technologies are likely to increase or decrease the actual provision of care, especially for older age individuals, when population rising average ages are likely to be accompanied by relatively fewer individuals providing health care.

The market-based approach, then, offers fairly clear guidelines regarding how this issue might be addressed. The way the price mechanism works in this connection as in others is that if labor shortages cause the price of (health care) labor to rise relative to that of new technologies that might substitute for this labor, then labor-saving technology change should be expected and promoted as a cost-effective solution to the problem. Since this would likely alter the character of care, as people would have a greater interface with a non-human provision of care, how the market evolves would, and should on this view, determine in large part how the nature of health care evolves.

However, this sort of development would be contrary to the normative stance in a contextualist approach to health care. If on that view the goal is to build health care provision around sets of relationships between health professionals and patients, then it seems that substituting capital for labor makes only health care increasingly impersonal. This need not be an inevitable outcome. Jamie Morgan (2021), for example, considers the social and legal complexities of increasing recourse to artificial intelligence in social care. Morgan observes that with an aging population, more people will require task support in their everyday lives and companionship. Loneliness and isolation are identified as a key issue impacting wellbeing and health. What Morgan terms as “relational goods,” which are created and nurtured by relations between people and involve trust, cooperation, and so forth may be subject to change through our changing relationship with things in the form of artificial intelligence. For instance, if machines enable us to retain a sense of autonomy and hence dignity, and ensure that we are able live for longer in our own homes, then what are the properties of our relationships to these machines? This goes beyond the simple strictures of market-type relations in that there is a new form of dependency between the individual and machine(s). For instance, will robotics generate the prospect of some form of

companionship that is currently not evident for many elderly people living alone? Is it possible to reproduce relational goods between human and machine? Moreover, if an individual is suffering from Alzheimer's disease, and is cared for by a machine, what is their legal relationship? Does the machine bear legal responsibility?

At another level, if technology enables the substitution of capital for labor in administrative functions, might this foster the opportunity for new health roles supporting the provider-patient relationship itself. To do this would require making the care relationship rather than the market process central to thinking about health care. A contextualist approach potentially does this by arguing that social relationships frame market relationships. So, it is not inevitable that health care become more impersonal. How the nature of care evolves again depends on social choices.

5. The Influence of Other Social Sciences on Economics

We close this paper with a brief comment on how economics itself might change in the future. Using the past as our guide, one factor influencing the recent development of economics is the increasing influence of other social science disciplines on economics. Much discussed, of course, is psychology's influence on rational choice theory associated with the development of behavioral economics, which we emphasize here since psychology's concern with the emotional and psychological well-being of individuals is quite consistent with a contextualist approach to health economics.

Behavioral economics' impact on economics is of course closely tied up with its challenge to rational choice theory. Rational choice theory explains choice in terms of costs and benefits as if people are solely motivated to implement an abstract logic of calculating net gains in every possible choice setting. The criticism of this view famously advanced by Daniel Kahneman and Amos Tversky (1979) was that all choices are made from some perspective or that all choices are reference-dependent. Reference-dependence is a broad idea that can accommodate all sorts of ways in which people's choices occur in a social and temporal context. Indeed, reference-dependence is just the principle of context-dependence that constitutes the foundation of a contextualist economics.

However, beyond the importance of context, Kahneman and Tversky also argue that individuals exhibit an asymmetric response to risky circumstances, or that they are risk-avoiding and security-preferring. We interpret this to mean that generally people are sensitive to their vulnerabilities in life, for example, in terms of the subject of this paper, sensitive to their health vulnerabilities. What Kahneman and Tversky and behavioral economics have effectively done in regard to health economics and our thinking about health, then, is begin to make concern for the person central – or make the issue of care for the person central. If a market-based approach to health makes the

way markets work the chief determinant of health care, this influence that psychology has had on recent economics shifts our priority back to human individuals.

Our general argument, then, about the increasing influence of other social science disciplines on economics is that their overall orientation on economics is like that of psychology. While they differ according to their respective organizing principles and subjects of investigation, what they share with each other and with psychology is their rejection of the idea traditionally specific to economics that one over-riding natural logic, as associated with the operation of the market, ultimately fully determines human affairs – that is, they reject the natural science model of economics. Thus, though economics has maintained a relatively isolated status as a social science for much of the last century, the current changes in economics associated with its increasing connections to other social sciences and greater interdisciplinarity suggest that this status is changing.

One important way, then, in which we see a contextualist economics contributing to this change is in regard to its openness to a multiplicity of motivations people exhibit. Rather than assuming an exclusively instrumentalist, means-ends utility maximizing behavior, a contextualist economics allows for the development of explanations of a wide variety of ways in which people interact with each other depending on the context at hand. In the field of health in particular, we believe this includes an ‘intrinsic concern’ for those receiving care consistent with the Hippocratic Oath. A contextualist health economics, then, can play a particularly important role in advancing a contextualist economics since it can make an important contribution to the way in which economics in general addresses the needs and well-being of people.

References

- America’s Health Rankings. 2019. “International Comparison.” Accessed September 1, 2020. <https://www.americashealthrankings.org/learn/reports/2019-annual-report/international-comparison>.
- Arrow, K. J. 1963. “Uncertainty and the Welfare Economics of Medical Care.” *American Economic Review* 53 (5): 941–73.
- Boldyrev, I. and E. Svetlova, (eds.). 2016. *Enacting the Dismal Science: New Perspectives on the Performativity of Economics*. London: Palgrave Macmillan.
- Davis, J. B. 2018. “Agent-Based Modeling’s Open Methodology Approach: Simulation, Reflexivity, and Abduction.” *Oeconomia* 8 (4): 509–29.
- Davis, J. B. and R. McMaster. 2007. “The Individual in Mainstream Health Economics: A Case of *Persona Non-grata*.” *Health Care Analysis* 15 (3): 195–210.
- Davis, J. B. and R. McMaster. 2015. “Situating Care in Mainstream Health Economics: An Ethical Dilemma?” *Journal of Institutional Economics* 11 (4): 749–67.
- Davis, J. B. and R. McMaster. 2017. *Health Care Economics*. London: Routledge.

- Deaton, A. 2013. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton: Princeton University Press.
- Doyal, L. and I. Gough. 1991. *A Theory of Human Needs*. London: Palgrave Macmillan.
- Dugger, W. 1999. "Old Age Is an Institution." *Review of Social Economy* 57 (1): 84–98.
- Engel, G. L. 1977. "The Need for a New Medical Model: A Challenge for Biomedicine." *Science* 196 (4286): 129–36.
- Freidson, E. 1970. *Professional Dominance: The Social Structure of Medical Care*. New York: Atherton Press.
- Freidson, E. 1970. *Professional Dominance: The Social Structure of Medical Care*. New York: Transaction Publishers.
- Gilbert, M. 2009. "Shared Intention and Personal Intentions." *Philosophical Studies* 144 (1): 167–87.
- Goldschmidt, N., E. Grimmer-Solem, and J. Zweynert. 2016. "On the Purpose and Aims of the Journal of Contextual Economics." *Schmollers Jahrbuch – Journal of Contextual Economics* 136 (1): 1–14.
- Groopman, J. 2007. *How Doctors Think*. Boston: Houghton Mifflin.
- Grossman, M. 1972a. *The Demand for Health: A Theoretical and Empirical Investigation*. New York: Columbia University Press.
- Grossman, M. 1972b. "On the Concept of Health Capital and the Demand for Health." *Journal of Political Economy* 80 (2): 223–55.
- Hausman, D. 2015. *Valuing Health: Well-being, Freedom, and Suffering*. Oxford: Oxford University Press.
- Hodgson, G. M. 2001. *How Economics Forgot History: The Problem of Historical Specificity in Social Science*. London: Routledge.
- Hodgson, G. M. 2008. "An Institutional and Evolutionary Perspective on Health Economics." *Cambridge Journal of Economics* 32 (2): 235–56.
- Hodgson, G. M. 2009. "Towards an Alternative Economics of Health." *Health Economics, Policy and Law* 4 (1): 99–114.
- Hurley, J. 2000. "An Overview of the Normative Economics of the Health Sector." In *Handbook of Health Economics*, Vol. 1, edited by A. J. Culyer and J. P. Newhouse, 55–118. Amsterdam: Elsevier.
- Jackson, W. A. 2001. "Age, Health and Medical Expenditure." In *The Social Economics of Health Care*, edited by J. B. Davis, 195–218. London: Routledge.
- Kahneman, D. and A. Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* 47 (2): 263–92.
- Krieger, N. 2012. "Who and What is a 'Population'? Historical Debates, Current Controversies, and Implications for Understanding 'Population Health' and Rectifying Health Inequalities." *Milbank Quarterly* 90 (4): 634–81.
- Milanovic, B. 2016. *Global Inequality: A New Approach for the Age of Globalization*. Cambridge, MA: Belknap Press.
- Mooney, G. 2009. *Challenging Health Economics*. Oxford: Oxford University Press.

- Morgan, J. 2021. “Artificial Intelligence and the Challenge of Social Care in Aging Societies: Who or What Will Care for Us in the Future?” In *Post Human Futures: Human Enhancement, Artificial Intelligence and Social Theory*, edited by M. Carrigan and D. V. Porpora, 92–116. London: Routledge.
- Polanyi, K. (1944) 2001. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.
- Singer, M. 2004. “The Social Origins and Expressions of Illness.” *British Medical Bulletin* 69 (1): 9–19.
- Syme, S. L. 2007. “The Prevention of Disease and the Promotion of Health: The Need for a New Approach.” *European Journal of Public Health* 17 (4): 329–30.
- Wade, D. T. and P. W. Halligan. 2004. “Do Biomedical Models of Illness Make for Good Healthcare Systems?” *British Medical Journal* 329 (7479): 1398–401.
- Wilkinson, R. and K. Pickett. 2010. *The Spirit Level: Why Equality is Better for Everyone*. London: Penguin.
- Wilkinson, R. and K. Pickett. 2019. *The Inner Level: How More Equal Societies Reduce Stress, Restore Sanity and Improve Everyone’s Well-Being*. London: Penguin.
- World Health Organization. 2018. “World Health Statistics 2018.” Accessed December 2, 2020. <https://www.who.int/docs/default-source/gho-documents/world-health-statistic-reports/6-june-18108-world-health-statistics-2018.pdf>.