

Introduction to Part II. Mechanisms and context underlying social inequalities in cancer

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Part II contains six chapters concerned with mechanisms and context underlying social inequalities in cancer. The foci of these chapters range from theoretical frameworks engaging with biological embodiment of injustice across the life-course to global and national economics, policies, and law. To understand what unifies these diverse chapters, and also where they differ, it is worth stepping back to consider the meanings of the words *mechanism* and *context*.

Start with *mechanism*. The word conjures up images of machines with many interacting complex parts, in which the movement or action of one component causes the movement or action of another. These series of actions – mechanisms – are intended to produce desired effects, via processes engineered to be precise and consistent. Deeply anchored in human design, this notion of mechanism systematically ties together structure and function, the relationships among parts and purpose in space and time, and hence cause and effect (OED, 2018). Yet, curiously, mechanism can equally refer to causal relationships occurring in natural systems that exist (and, in the case of biological organisms, have evolved) without human design, constituting “an ordered sequence of events involved in biological, chemical, or physical processes” (OED, 2018). Despite starkly different teleological assumptions (i.e. effects produced for a human-made purpose versus produced without human conscious design) – and as testament to the ever-important role of metaphor in both description and scientific explanation (Soskice and Harré, 1995; Ziman, 2000; Krieger, 2011) – the word *mechanism* nevertheless manages to elide these differences, and invites people to think of both human-designed mechanisms and natural complex systems as “a system of mutually adapted parts working together in a machine or in a manner analogous to that of a machine” (OED, 2018). Left unmentioned is the possibility that components of systems can work against each other, in antagonistic relationships.

Context has an equally provocative etymology. It is derived from the Latin word “contextus”, meaning connection, and originally referred to that which was “woven together” and thus “connected” (OED, 2018). First framed in literary terms, context referred to “the

part[s] which immediately precede or follow any particular passage or ‘text’ and determine its meaning” (OED, 2018). Usage has since expanded to refer, abstractly, to the circumstances in which events occur (OED, 2018).

In the case of social inequalities in cancer, the issues of mechanism and context thus necessarily confront questions of agency and accountability, referring to both who and what are responsible for these mechanisms and contexts that produce inequalities, and who needs to do what to rectify them. If, however, context is akin to a web that is woven, and mechanisms are the causal processes comprising the strands of the web, then – revisiting the question I posed back in 1994 about epidemiology and the web of causation, that is, has anyone seen the spider? (Krieger, 1994) – it is fair to ask: who is (are) the weaver(s), and to what end? Could alternative patterns be created? And, in both cases, at what costs to whom? I urge you, the reader, to keep these questions in mind as you critically engage with the chapters in this part. Whether the mechanisms involve societal or biophysical systems or both, in the case of social inequalities, past and present actions by people shape the societal context. Stated another way, injustice is produced by people: there is no *deus ex machina*. The fundamental question remains: is it acceptable for some to thrive at the expense of others?

References

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