Countless books on interdisciplinarity have been published over the last 50 years. The Policies and Politics of Interdisciplinary Research by Severine Louvel, however, is of a different kind. Here, the author departs from both the celebratory literature on interdisciplinarity and the abundant ‘how to’ instructional reports on recommendations for successful interdisciplinary research centres and training programs. Instead, Louvel offers a critical perspective that will undoubtedly be of interest to STS scholars. She makes an original contribution to the literature on interdisciplinarity by examining the emergence and institutionalisation of nanomedicine in France and the United States.

Louvel's book comprises seven chapters, each of which examines key settings where interdisciplinary policies and knowledge politics intermingle. These settings (chapters) include funding programs and their impact on interdisciplinary groups; peer-reviewed journals; university research hubs; discourses around interdisciplinary research; the relationship between established disciplines and the nascent nanomedicine field. The book as a whole serves as a thematic exploration of the institutionalisation of nanomedicine rather than a sequential development of an idea; therefore, individual chapters can be read as part of the collection or independently.

The richness of Louvel’s book precludes from trying to thoroughly address every aspect in this review. I will thus focus on the chapters making key contributions to the understanding of interdisciplinarity; specifically the ones that I found the most fascinating from my own standpoint (i.e. as a sociologist of knowledge interested in the relationship between disciplines and interdisciplines and in the rhetoric around interdisciplinarity).

Louvel’s analytical ground is at the crossroads of science studies and the political sociology of science. She focuses her attention on the politics behind interdisciplinary policies. She frames interdisciplinarity as a mode of knowledge production socially constructed by organizations, actors, interest groups, etc., each with their unique vision, goal, and level of power. Louvel argues that current policies are creating a new sociopolitical order in academia, resulting in a redistribution of power between stakeholders. As she puts it, her goal is "to contribute to the critical studies of interdisciplinarity by investigating the economic, political and sociocultural purposes underlying interdisciplinary policies" (p. 16). Building on Frickel and Moore’s (2006) influential book, The new political sociology of science, the premise underpinning her work is that the understanding of science—and thus interdisciplinarity—needs to take into account the interplay between internal and external forces to the scientific field. Dissociating the scientific field from its social environment can only yield a partial understanding.

Louvel's book builds on a vast body of work on disciplines and interdisciplinarity. In the Introduction and Chapter 1, she brilliantly summarizes ongoing debates. The scope and depth of Louvel's synthesis is worth mentioning. Her analysis is comprehensive such that even well-versed
scholars in interdisciplinary studies will undoubt-
edly benefit from the new light she casts on extant
work. Novices will gain a reliable and thoughtful
introduction to the most pertinent STS and socio-
logical literature on interdisciplinarity published in
recent years.

In Chapter 2, Louvel perceptively demonstrates
that the institutionalisation of nanomedicine as an
interdisciplinary field does not necessarily imply
the elimination of boundary work or divisions
between research groups. Scientists from different
disciplines navigating their career within nano-
medicine each pursue various interests and career
goals. As she emphasises, if researchers in nano-
medicine wish to "foster shared commitments
toward interdisciplinarity and promote it as a
whole" (p. 29), they also seek to differentiate them-

of internal struggles for authority and recognition
between research groups—thus relocating existing
boundaries and creating new ones.

A second key argument developed by Louvel is
that an interdisciplinary research field can flourish
with the support of disciplines. Contrary to the
commonly held position according to which
disciplines and interdisciplinary research are anti-
thetical—the latter being often seen as a mode
of knowledge production freed from the former—
Louvel shows that this is not necessarily the case.
She cogently articulates this idea in Chapter 6.

The institutionalisation of nanomedicine
research followed two different paths in France
and United States, but in both countries estab-
lished disciplines and departments were vital to
its development. They provided organisational
stability, student enrolment, faculty positions,
and research spaces. In the United States, nano-
medicine was housed within graduate research
programs in the newly created departments of
biomedical engineering. In France, in the absence
of powerful biomedical engineering departments,
nanomedicine found its institutional home in
departments of physical sciences and pharmaceu-
tical sciences.

As Louvel rightly contends, disciplines and
departments are often portrayed as being rigid
and exclusionary (see for example Crow and
Dabars, 2014). These traits arguably preclude
them from being able to accommodate the organ-
isational flexibility required by interdisciplinary
research. Louvel's findings, however, suggest that
this view needs to be reconsidered. Both in France
and United States, the connection between
established disciplines and the emerging field of
nanomedicine were synergistic and profitable to
both. In France, by creating a new academic space
for scientific discovery, nanomedicine provided
established disciplinary departments a renewed
identity that proved instrumental for acquiring
national visibility at the university level. Nano-
medicine researchers, in return, gained access to
a steady flow of graduate students. In the United
States, a similar synergistic relationship occurred;
nanomedicine mobilized the national reputation
of biomedical engineering departments into a
higher profile for itself. In turn, its association with
these departments helped them to stand out from
their competitors within the scientific community.
Louvel's book should be read as a thorough examination of the institutionalisation of nanomedicine in France and the United States and, more broadly, as an essay on the complicated relationships between disciplines and interdisciplinary research fields. At the end of the book, readers will know more about nanomedicine and its development within the academic field. They will likely also appreciate how Louvel shakes up many of the taken-for-granted assumptions and unproven facts about disciplines and interdisciplinarity.

References


