Daniel Bell, Social Forecasting, and Science Fiction

Sean Seeger and Daniel Davison-Vecchione

This article argues that the work of the sociologist Daniel Bell can help to clarify science fiction's relationship to the future by (1) distinguishing between social forecasting and the prediction of future events; and (2) showing how social forecasting and science fiction can both provide a more or less plausible imaginative frame for raising, exploring, and making sense of the "agenda of questions" that a future society is liable to confront. It goes on to argue that science fiction takes social forecasting a step further than Bell through its awareness of how such forecasting can bring about change in the present. This article therefore identifies one way in which sociology and science fiction can be mutually beneficial without reducing one to the other.

Introduction

A commonplace of science fiction studies is that science fiction is not really about the future, but rather about the present. Instead of speculating about what the future will be like, sf projects futuristic scenarios to comment on the world inhabited by the author and their readers.[1] As Peter Fitting puts it, "[s]cience fiction's specific ability is not so much to predict the future [...] but to show our own present through a particularly effective distorting lens" (144). Theorists and authors of sf have drawn out some nuances and implications of this basic conception. For instance, Ursula K. Le Guin acknowledges that "extrapolation is an element in science fiction," but still asserts that "the 'future' […] *cannot* be predicted" and that "science fiction isn't about the future" (46–48). Carl Freedman points to how a science-fictional world's difference in time or place from our own is "contained within a cognitive continuum with the actual" (232). Nevertheless, he also adheres to the consensus view. Perhaps the most sophisticated treatment of the idea is that of Fredric Jameson. At the heart of Jameson's account of sf is his suggestive claim that it is one of our best means for understanding the present:

> [T]he most characteristic sf does not seriously attempt to imagine the "real" future of our social system. Rather, its multiple mock futures serve the quite

different function of transforming our own present into the determinate past of something yet to come. It is this present moment—unavailable to us for contemplation in its own right because the sheer quantitative immensity of objects and individual lives it comprises is untotalizable and hence unimaginable, and also because it is occluded by the density of our private fantasies as well as of the proliferating stereotypes of a media culture that penetrates every remote zone of our existence—that upon our return from the imaginary constructs of sf is offered to us in the form of some future world's remote past, as if posthumous and as though collectively remembered. (288)

In other words, sf enables us to see our own moment from the vantage of a future time, even if that "mock" future exists only as a convenient placeholder rather than as a realistic projection of coming events. The passage's overall emphasis lies not on the present's causal relationship to the future but rather on the *retrospective* quality of the present's re-presentation. Here the future is understood as the formal device by means of which the present is historicized, thereby reactivating the historical sense suspended under late capitalism. Jameson's point is not that, given some present, some particular future is likely to issue from it. Rather, it is that, by taking a retrospective approach to the present, it becomes possible to inhabit the present *as a moment within history*. If changing the world requires a prior awareness that we inhabit a contingent historical process open to redirection and intervention, engagement with sf, Jameson suggests, offers one potential starting point. Additionally, the passage indicates that, for Jameson, current conditions leave us unable to recognize totality, which rules out prediction and—in turn—any serious attempt to envisage our society's actual future.

Like most sf theorists, the American sociologist Daniel Bell accepts that "[t]he prediction of events is inherently difficult" (*Post-Industrial Society* 4). Like Jameson, Bell suggests that the fragmentation that characterizes contemporary society prevents us from grasping it holistically (*Cultural Contradictions* 10). Unlike Jameson and most sf theorists, however, Bell believes that we can nevertheless employ speculation to say something meaningful about the future. He does so by distinguishing prediction from what he terms "forecasting" (205). This suggests that, contrary to the consensus view, sf *can* retain some relation to possible futures.

This article places Bell's "social forecasting" in dialogue with sf. It argues that Bell's distinction between prediction and forecasting can help to clarify sf's relationship to the future. Specifically, social forecasting and sf are both forms of speculation concerned with general enabling conditions rather than contingent events. The article goes on to argue that sf takes social forecasting

one step further because, compared to Bell, sf writers are keenly aware of how such forecasting can bring about change in the present, which might be due in part to sf's estranging effect.[2] This discussion is significant for three reasons. Firstly, it reconnects sf to futurity in a way that helps explain how readers find anticipatory power in sf without needing to believe that "the future" as such is knowable.[3] Secondly, by providing a possible answer to how sociology and sf can be mutually beneficial without reducing one to the other, it adds to a growing vein of scholarship on the connections between social science and speculative literature.[4] Thirdly, by exploring the surprising affinities between the "New Wave" sf writers of the 1960s and 1970s, who are generally associated with political radicalism, and Bell, who was often characterized (to his annoyance) as a neoconservative,[5] it answers recent calls by humanities scholars and social scientists to give Bell's ideas the nuanced and serious attention they deserve.[6]

Prediction, Forecasting, and Social Frameworks

In Bell's vocabulary, prediction involves claiming to know what is going to happen, whereas forecasting describes how "structural contexts" with a high degree of continuity are *liable* to unfold (*Cultural Contradictions* 205). Prediction deals with "point events": who will win an election, who will win a war, etc. Prediction is inherently difficult because such events are "the intersect of social vectors"—forces, interests, and so forth (*Post-Industrial Society* 4). While one can to some extent assess these vectors' individual strengths, one cannot predict their exact combination and outcome. In Bell's words, "one can deal with conditions, but not precipitating factors; with structures, not contingencies" (*Cultural Contradictions* 205).

Bell can therefore agree with sf theorists that sf cannot predict in the narrow sense. Nevertheless, his prediction/forecasting distinction implies that prediction is not all there is to "foreseeing" the future. This bears directly on how we understand sf, which in light of Bell's work may be redescribed as an imaginative form of social forecasting. By prioritizing structures over contingencies, Bell helps us to see that even works of sf that appear to center on contingent events may in fact be more concerned with structures. In the case of post-apocalyptic sf, for instance, the apocalyptic event may serve to reveal the social and institutional structures that impede an adequate response to the event when it occurs and/or give certain sections of the population a higher chance of survival than others. Much of the interest of such fiction lies in

seeing what structures arise in the new, post-apocalyptic social context, which aspects of the pre-apocalyptic society survive, to what extent pre-existing values and priorities are retained, and so forth. Emily St. John Mandel's novel *Station Eleven* (2014), for example, may appear to be about a pandemic and "the end of the world." More closely considered, however, it is arguably about the nature of social relations before and after the event. More specifically, the novel shows how ingrained individualism worsens the post-apocalyptic conditions and that a renewed society is only possible after new forms of communality are created.

Out of the three forms of social forecasting Bell identifies, the most important is the projection of "changes in major social frameworks" (*Post-Industrial Society* 7).[7] This concerns either recurring phenomena or persisting trends. We focus here on the latter because of its relevance to sf. In Bell's words, "[s]ocial frameworks are the structures of the major institutions that order the lives of individuals in a society: the distribution of persons by occupation, the education of the young, the regulation of political conflict, and the like" (8–9). Notable examples of forecasts concerned with changes in social frameworks include Bell's work with the Commission on the Year 2000, initiated in 1964 by the American Academy of Arts and Science, which explored such issues as the social impact of the computer and genetic engineering, and his 1973 book *The Coming of Post-Industrial Society*, which is subtitled *A Venture in Social Forecasting* and considers the rise of abstract, codified knowledge and the shift from a goods-producing to a service economy.

Crucially, one need not discern an exact trajectory in the kinds of persisting trends that produce changes in social frameworks. Rather, social forecasting offers a *plausible* projection from a set of starting points. To be sure, this plausibility is relative, contextual, and constrained by historical circum-stances, but this does not undermine the possibility of forecasting, which need only be *more or less* plausible. To illustrate this point, we may turn to Bell's article "The World and the United States in 2013" (1987), in which he considers structural changes in US and world society, using the "conceit" of projecting forward to the then-future year 2013. Rather than attempting to *predict* what will happen in 2013, Bell's forecast seeks "to provide a framework for analysis"—that is, the resources needed for plausible speculation about US society in the twenty-first century (1). One structural change Bell forecasts is that "[c]ommunications networks, interactive in real time, with bursts of data speeding thousands of miles, [would] mean the breakup of old geographical habits and locations" (11–12). One cannot conclude from this that Bell "predicted," say, Google or Zoom. Bell's article does, however, provide a

general set of parameters within which to think about what has since come to be known as "the network society."

Here it is worth elaborating on Bell's idea of changes in social frameworks because it shows great promise as a contribution to sf studies. As Bell puts it, social frameworks "form the matrix of people's lives" in a given society, structuring how people live, work, and relate to one another (4). Bell sees social frameworks as intellectual devices one uses to understand "how a society hangs together" by looking for "the *organizing* frame around which the other institutions are draped, or *energizing* principle that is a primary logic for all the others" (*Post-Industrial Society* 10). Examples of major changes in social frameworks include those "from a rural to an urban society, from an agrarian to an industrial economy, [and] from a federalized to a centralized political state" (9). As social frameworks are structural and therefore "crescive and difficult to reverse," one can more readily identify them, even if, rather than directly reflecting reality, the framework imposes a logically ordered conceptual schema onto a flux of events and web of relations that cannot be known simply by observation (9).[8] The large scale of these structural changes means one cannot discern "the exact details of a future set of social arrangements" (*Post-Industrial Society* 9).[9] Instead of predicting the future, social frameworks allow us to "identify an 'agenda of questions' that will confront the society and have to be solved" (9). Such questions include those relating to social roles, to society's attempts to "manage" its own fate via the political system, and to the emergence of "new modes of life" (13).

Speculation, Enabling Conditions, and Historical Teleology

Turning from the details of Bell's theory to broader epistemological and methodological questions, it is instructive to consider the *status* of Bell's arguments for his proposed mode of social forecasting. Bell's own occasional characterization of his work in this area as "speculation" and even as "fiction" certainly suggests a very different approach to that of the mainstream social science of his time (14). Given this characterization and social forecasting's focus on possible future developments, it is tempting to subsume an essay such as "The World and the United States in 2013" under the heading of sf. As we will see, something like this identification is possible, but much of the intellectual payoff of doing so lies in the specific ways in which Bell's theorizing and sf resemble and hence illuminate one another.

Bringing together our previous points, one way of thinking about social forecasting in a manner which brings out its resemblance to sf would be as *a more or less plausible imaginative frame for raising, exploring, and making sense of the agenda of questions that a future society is likely to confront.* This has the advantage of epistemic modesty: it does not make any large or ungrounded assumptions about the predictability of the future or its availability to reflection in the present. Turning to another literary example, Cory Doctorow's novel *Walkaway* (2017) nicely illustrates what Bell intends by the phrase "agenda of questions." The novel considers the potential social and economic impact of 3D printing. Doctorow's main question in Bell's sense is then: what are the implications of a move to widespread, readily available 3D printing? This is an important question for readers and policymakers to consider in the early decades of the twenty-first century, when 3D printing seems poised to overturn elements of the means of production that have prevailed in some cases since the First Industrial Revolution.[10] Part of the "answer" the novel provides—that is, the imaginative frame it develops via its use of worldbuilding, characterization, narrative structure, and exploration of themes—is that anti-capitalist groups could capture the technology and redeploy it in the construction of a post-scarcity, post-capitalist society. The unprecedented flexibility of 3D printing as a manufacturing model, combined with its ability to repurpose waste materials, inspires Doctorow's vision of a community of "walkaways" who leave capitalism behind and initiate a new form of open-source sharing economy in which food, clothing, shelter, and medicine are all freely produced and distributed.

Walkaway helps illustrate the sense in which social forecasting is speculative. No guarantee or law of history ensures that any future technologically advanced society must come to terms with 3D printing; any number of unforeseeable contingencies could intervene to block this line of development. Hence, any attempt to anticipate its impact remains necessarily speculative rather than predictive. If 3D printing does start to displace older forms of manufacturing, however, it is reasonable to assume that questions of the sort anticipated in Doctorow's novel will be among the major social questions demanding answers at that time—answers, not in the sense of verbal responses but in the sense of material, institutional, and political interventions. Although scruples about determinism and teleology are understandable whenever theorists start to talk about the future, Bell emphatically insists that the future as such cannot be known, at least not in anything like the way in which the past or present can be known (*Post-Industrial Society* 3–4). He is likewise circumspect in his avoidance of attributing necessity, certainty, or inevitability to any of the

future scenarios he discusses. His sociological sketches of the future of the US or of the post-industrial society, for instance, are provisional outlines of broad structural changes rather than attempts to pin down specific developments. Throughout, Bell registers an awareness of the openness and contingency of history, which helps him avoid the temptation to promote his carefully measured speculations to the level of a grand narrative. In these ways, Bell's forecasting is arguably closer in its formal conventions to certain kinds of sf than it is to much academic social science.

As our brief exploration of *Walkaway* illustrates, social forecasting and sf are both concerned with changes in *general enabling conditions* as opposed to specific future events. This difference is well captured by a remark made by George Orwell of Yevgeny Zamyatin's dystopian sf novel *We* (1921, English translation 1924), which has generally been read as a satirical comment on the future of Russian society in the wake of the Revolution of 1917. *We*, Orwell suggests, "satirised not any particular country but the implied aims of industrial civilization" (qtd. in Claeys 114). While far more would need to be said by way of specifying exactly which aims Zamyatin had in mind, Orwell's remark helps to shift the emphasis of our reading away from *We* as a prediction of future events in Russia and toward an anticipation of how more fundamental changes in the nature of science and technology could give rise to radically new and potentially extremely repressive forms of society. On this view, Zamyatin's novel, like most sophisticated sf works, yields more sociological insight when read as an exercise in imaginative worldbuilding than it does when read as a more direct sociological commentary. This seeming paradox arises because, as Bell shows, one must distinguish forecasting from prediction to appreciate its distinctive contribution to social thought. In the case of novels such as *We* or *Walkaway*, only an undue preoccupation with prediction forces us to choose between reading them either as commentaries on the present or else as flights of sheer imaginative fancy. A third alternative would be to read them as especially provocative and stimulating forms of social forecasting.

Bell purposefully avoids abstract or reified notions of the future: there is no sharp break between present and future in Bell's theorizing, no sense that the future is something absolutely removed or remote from us. Rather, in a manner which pre-empts the cyberpunk writer William Gibson's famous observation that "[t]he future is already here—it's just not very evenly distributed,"[11] the future for Bell is necessarily *relational*, meaning it must be the future *of* something within the present rather than a sudden rupture from without. Such ruptures would constitute large, unforeseeable contingencies, whereas

Bell is concerned with *ongoing* transformations in the conditions which enable or constrain various elements of social life. As Bell puts it, "one should 'test for' undertows by seeing what underlying forces may be latent and could be eruptive under certain conditions" ("Outline" 30). Bell would therefore be able to endorse Gibson's suggestion that "the future is already here," which he would take to mean that incipient tendencies with the potential to open up a range of possible futures are already present in existing states of affairs. For Doctorow in *Walkaway*, these tendencies include 3D printing, open-source software, renewable energy, widespread computer literacy, global heating, and the post-2008 crisis of capitalism. For Zamyatin in *We*, they include Taylorism, Bolshevism, modern utopian thought, rapid industrialization, and the popular scientific romances of H. G. Wells. Bell helps us to see that the relation of each of these texts to the future is established via social forecasting rather than prediction. In each case, the starting points for the speculation are to a greater or lesser extent already realized in the author's own world. Given that it would be nonsensical to "predict" something which has already happened, it makes most sense to think of these texts as anticipating change—that is, the "questions" such change would pose—based on an *already emerging set of circumstances*, as opposed to conjuring change out of an indeterminate realm labeled "the future." This way of understanding change is apparent in Bell's own speculations. For example, in his pioneering account of the post-industrial society, he argues that the post-industrial mode is already latent in existing industrial societies in the form of partial tendencies, even if the extent of its emergence depends on a host of political and economic contingencies (*Post-Industrial Society* xcvii). Bell thus steers clear of a teleological conception of history while allowing for a degree of historical foresight. As he observes, "in the preoccupation with prediction one risks the hubris of the historicist mode of thought which sees the future as 'pre-viewed' in some 'cunning of reason' or other determinist vision of human affairs. And this is false." ("Twelve Modes" 873) By distinguishing social forecasting from prediction, and insisting on the provisional nature of the former, Bell can uncover something of the future in the present without claiming either to know the future in a direct way or to be able to foresee developments which cannot be other than contingent. Sf arguably does the same, but—as the preceding literary examples illustrate—sf can additionally provide an immersive perspective on what it might be like for inhabitants of the imagined future society to confront the "agenda of questions" arising from the structural changes in question.

Limitations of Bell's Approach

A first limitation of Bell's approach to social forecasting is that he restricts its prospective audience to a relatively small set of professionals. While he occasionally acknowledges that potential changes in social structure pose questions for "the rest of society," Bell mainly envisages policymakers undertaking the analysis in question and thinking of potential solutions to the unresolved dilemmas the forecast highlights (*Post-Industrial Society* 13; "Future World" 110). There is therefore something of a disjuncture between (i) the inclusiveness of Bell's approach insofar as it provides a framework for further speculation and invites the reader to engage in their own analysis and (ii) the narrow section of the population Bell imagines participating in this process. This somewhat technocratic emphasis is, however, a relatively superficial issue rather than a serious methodological shortcoming. It is arguably more a result of Bell's own political leanings and professional experience than an essential feature of social forecasting *per se*. For example, a plausible, empirically grounded, well-articulated forecast of the potential social consequences of automation would be of interest to more than just policymakers and professional sociologists; trade unions, businesses, political activists, scientists, journalists, philosophers, and the public at large would surely find much to concern themselves with in such speculation. This is important because, as the sociologist John Urry observes, futures are frequently contested and saturated with different interests, so they need to be "mainstreamed" and "democratized" (192). Bell's restriction of the audience for social forecasting should therefore be seen as an adventitious extra, not a necessary feature of his way of thinking about the future.

Notably, sf does not share this tendency to assume a link between social forecasting and a narrow professional class of reader. Sf is highly accessible, cheaply available, and increasingly inclusive of a broad readership. Other than literacy, no specific expertise is required to engage with sf. Through its popular form and ability to bypass cultural gatekeepers, sf can open social forecasting to a much larger audience. Katharine Burdekin's *Swastika Night* (1937) and Joanna Russ's *The Female Man* (1975) illustrate this point well. Taking the Nazis' rise to power and Hitler's rhetoric of a "Thousand-Year Reich" as its points of departure, Burdekin's novel, published in 1937 under the pseudonym "Murray Constantine," offers a remarkably insightful forecast of the social and cultural dynamics of fascism, while Russ's book, written in 1970, anticipates and suggestively explores many of the positions and counter-positions that were to be adopted by feminists and their opponents in the

political contestation of gender in the US over the following decade. Readers of *Swastika Night* do not need to be versed in political theory to appreciate its treatment of what a fascist culture might look like; readers of *The Female Man* do not need to have read any feminist theory to appreciate its treatment of issues around reproductive labor, women's rights, and gender equality. The fact that Burdekin's novel is set in the distant future while Russ's plays out across multiple parallel worlds is no barrier to regarding them as engaging in informative social forecasting. This is because, to repeat, forecasting is not a prediction of events but rather an attempt to plausibly anticipate the agenda of questions presented by potential changes in social framework. What *Swastika Night*, *The Female Man*, and many similar works highlight, then, is sf's ability to democratize social forecasting.

A second limitation of Bell's approach is that he does not always appreciate forecasting's potential for cognitive estrangement. Unlike Darko Suvin (15–28), for whom it is the unique ability of sf to estrange readers from the world as they know it without departing from an essentially realistic form of mimesis, Bell tends to assume that, for purposes of social forecasting, the conceptual resources of the present are sufficient to comprehend the future. Given the affinities between Bell's work and sf in other regards, this is an undue self-limitation. Part of Suvin's argument about sf is that imagining the future starts to *distance* us from elements of our current ways of thinking rather than merely *extending* them into future scenarios.

For example, the nineteenth-century utopian socialist novel, which Suvin considers a paradigm of sf, clearly engages in social forecasting (51–78). However, one of the most influential novels of this sort, Edward Bellamy's *Looking Backward* (1888), did not merely anticipate new social and political structures; rather, in Matthew Beaumont's words, it "responded to some profound need that at the same time *it helped to create*" (vii). Specifically, *Looking Backward* helped turned socialism into a real possibility for millions of Americans, including the labor leader Eugene Debs, the novelist Upton Sinclair, the philosopher John Dewey, and, somewhat later, Martin Luther King Jr. (Robertson 75–77). It helped to alter readers' political behavior, giving rise to hundreds of Nationalist clubs, a network of socialist organizations that promoted economic democracy in America and which were later subsumed into the influential, progressive Populist movement. This shift in political opinion, which would have been harder to achieve without Bellamy's hugely popular novel, was likely encouraged by what the book's protagonist calls "the extraordinary effect of strangeness that marks familiar things seen in a new light," which is brought about by his alternation between an unfamiliar

twenty-first-century socialist United States and the familiar capitalist one of the late nineteenth century (Bellamy 182). When he briefly returns to his own time in a dream in the final chapter, the protagonist realizes that "such power had been in that vision of the Boston of the future to make the real Boston strange" (182). This chapter mainly consists of a Dickensian litany of the deprivations of nineteenth-century America, which contrast starkly with the peace and abundance of the utopia that has been the subject of the rest of the text. While heavy-handed, this technique is arguably very effective: the plunge back into the "past" which is in fact the reader's present is experienced as a shocking narrowing of human possibility. The condition of the majority in the real America of the 1880s is revealed as gratuitously impoverished and constricted, provoking outrage at the gulf separating reality from the utopia we have inhabited for the previous twenty-six chapters. It is worth underlining here how estrangement and forecasting thus ought to be seen as working *together* in Bellamy's novel, thereby providing a powerful example of how sf forecasting can be oriented toward the future *and* the present which contains the seeds of that future *simultaneously*. Bell is less attuned to the estranging potential of forecasting, but the case of *Looking Backward* shows that sf writers have long understood it. Bell's theorizing positions the forecaster as a relatively detached observer of social trends, whereas sf often explores the ways in which we *ourselves* are transformed by our encounter with the forecasts we make.

Sf can therefore both clarify and augment a point Bell makes inconsistently, namely that "in social action, the *'acceptance-in-advance' becomes a precipitating cause in its own right*" ("Fatalism" 4). Simply put, when enough people believe that something is inevitable, this can become a form of self-fulfilling prophecy. Sf can help not only to counter such fatalism, but also to formulate positive alternatives and begin to actualize these. This resonates with Bell's statement that the function of forecasting "is not, as often stated, to aid social control, but to widen the spheres of moral choice. Without that normative commitment the social sciences become a mere technology rather than a humanistic discipline" ("Twelve Modes" 873).[12] Bell further remarks that "[o]ne seeks 'pre-vision' as much to 'halt' a future as help it to come into being" (873). This observation could equally apply to sf, which can help engender real-world political action to avoid dystopian outcomes as well as to realize utopian ones.

Social Forecasting and Science Fiction Theory

As the foregoing reference to Suvin suggests, Bell's ideas about forecasting can be put in productive dialogue with the views of sf theorists. One seminal statement on sf that highlights a parallel between the genre and Bell's forecasting method appears in J. G. Ballard's influential 1962 manifesto "Which Way to Inner Space?" The manifesto is considered one of the first texts to announce the coming of the more experimental and formally innovative New Wave sf of the 1960s and 1970s. Here Ballard contends that, "[a]ccuracy, that last refuge of the unimaginative, doesn't matter a hoot. What we need is not science fact but science fiction" (102). On one level, this would seem to put Ballard at odds with Bell over how to conduct speculation: Ballard the novelist can afford to neglect concerns about accuracy in a way that Bell the responsible sociologist cannot. On another level, by rejecting accuracy in a narrow sense when imagining possible futures, Ballard arguably anticipates Bell's refusal of prediction in favor of forecasting. Furthermore, Bell's growing interest in social forecasting follows a similar trajectory to Ballard's own thinking during this period. Bell's *The End of Ideology*, a work of social theory which is as much prospective as retrospective, was published in 1960, with a second edition appearing in 1962, the same year as Ballard's manifesto. Over the following decade, Bell's work turned increasingly towards anticipating the future, culminating in *The Coming of Post-Industrial Society* in 1973. Ballard's work in sf took on its distinctive thematic preoccupations during the same period: his major collection of dystopian literary fragments *The Atrocity Exhibition* was published in 1970, while his iconic novel *Crash* appeared in 1973. There are even parallels between Bell and Ballard at the level of subject matter, with both taking an interest in what may broadly be termed post-industrial society. In Ballard's case, the post-industrial turn, sometimes portrayed in his fiction as a move toward a new kind of leisure society, typically gives rise to abortive utopian projects or takes on grotesque and alienating forms. Despite its utilization of satirical and dystopian modes, however, Ballard's fiction is arguably no less plausible in many regards than Bell's more sober analysis in its anticipation of changes in social frameworks and the agenda of questions these pose.

A second noteworthy point of connection between Bell's forecasting and sf theory is found in Samuel R. Delany's classic essay, "About 5,750 Words," in which Delany observes of the genre that "not only does it throw us worlds away, it specifies how we got there" (113). Delany discusses the example of a reader coming across a statement referring to a "winged dog" in a work of

fiction. "As naturalistic fiction," Delany writes, "it is meaningless. As fantasy it is merely a visual correction. At the subjunctive level of SF, however, one must momentarily consider, as one makes that visual correction, an entire track of evolution," which he then proceeds to sketch (113). In other words, while reading a work of sf, the reader finds they must actively construe the text to comprehend the otherwise puzzling background conditions to which the foreground action constantly alludes. At what Delany calls "the subjunctive level," sf requires the reader to grasp the implications of what they are reading in accordance with what they know of the physically explainable universe. That is, subjunctivity—the sf genre's way of expressing that which is prospective or hypothetical—rests on an at least ostensible *scientific* plausibility. This is comparable to the "more or less plausible" quality of Bell's social forecasting. In Delany's essay, the active reading he focuses on is needed to make natural-scientific sense of the fictional world described. This is required if sf is to remain compatible with what we know of the natural world and to maintain its difference from other kinds of literature, principally fantasy. In Bell's case, the plausibility in question is, by contrast, generally of a sociological rather than a natural-scientific kind. Although considerations drawn from the natural sciences inevitably enter Bell's forecasts—informing, for example, his account of the post-industrial society—he focuses primarily on projected changes in social, political, economic, and cultural institutions and structures. Allowing for this difference in emphasis, however, Bell's forecasting has much in common with Delany's conception of sf. Specifically, they share a view of speculation as a principled working out of the ramifications of a set of changes within a given state of affairs. When a reader encounters the phrase "winged dog" in a science-fictional context, they mentally rehearse possible explanations for it, extrapolating outward toward the world it implies. In the case of Bell's forecasts, it is as if the author has already performed the extrapolations on the reader's behalf: what we read are the extrapolations' *results*. Whereas the reader of sf must engage in worldbuilding themselves based on partial clues received from the text, the reader of a social forecast is informed explicitly of the sociological import of the changes it anticipates. While neither approach is preferable in an absolute sense as they each serve different agendas, sf has an arguable advantage over Bell's forecasting in at least one regard: its openness to multiplicity of signification and interpretation. This productive ambiguity, which has sometimes been seen as the distinguishing mark of the literary, may mean that works of literature represent a richer and more enduring style of forecast than that of the sociological paper.[13] Whereas it remains to be seen whether Bell's own forecasts will come to be regarded

principally as historical curiosities, it is hard to imagine Aldous Huxley's *Brave New World* (1932) or Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968) sharing a similar fate. In terms of Delany's theory, this may be because such novels demand active involvement from the reader in a way that Bell's forecasts do not, meaning they can sustain ongoing reinterpretation.

Delany's emphasis on sf's scientific veracity leads us back to the issue of plausibility, which is significant in the present context because, as we learn from Bell, plausibility is the proper measure of social forecasting in the absence of law-like predictability. Plausibility of the relevant kind may be thought of as having three dimensions, which we shall term synchronic coherence, diachronic integrity, and generic subjunctivity. The last of these, generic subjunctivity, is the mode of plausibility illustrated by Delany's discussion of the winged dog, which as we saw leads him to the conclusion that sf requires the reader to actively interpret what they are reading to render it as plausible as they can in light of the findings of natural science. Synchronic coherence, meanwhile, refers to the frame within which elements of an imagined society cohere with one another—all the ways in which the parts of the fictional or forecasted world hang together and make sense in relation to each other. Once a rule has been established within the context of either a forecast or a work of sf, breaking it is liable to appear as an arbitrary stipulation on the author's part and hence as lessening plausibility. Such coherence, however, cannot be the sole criterion of plausibility. This is because coherence by itself can only guarantee the *internal* lawfulness of a forecast or fiction; it has no necessary relation to what is *in fact* possible. Accordingly, synchronic coherence must be supplemented by diachronic integrity, which has to do with the relation between the forecasted or imagined society and the forecaster/writer's own. It is not enough that a piece of speculation makes sense *on its own terms*; it must also make a further kind of sense *in relation to* the world inhabited by those reading it in the present. This further relation resembles—but is not identical with—Suvin's notion of "cognition." The relation between present and possible future must be capable of being understood rationally and should not depend on an epistemological rupture, unprecedented singularity, magical event, or disregard for elementary laws of nature as presently understood. Whereas coherence is *synchronic* in the sense of referring to the fixed constellation of elements that comprise a forecast or text, integrity is therefore *diachronic* in the sense that it refers to the ways in which historical connections—albeit of a prospective as opposed to a retrospective kind—are established between the imagined future society and the present.

The Case of H. G. Wells

This creates an interesting if ambiguous point of comparison with H. G. Wells, whose works still provide significant inspiration for much modern sf and who also possessed an extensive social-scientific background and training. While Wells is not consistent in his remarks on the nature of speculation, in his widely cited Preface to *The Scientific Romances*, he states that the "living interest" of scientific romances lies not in foreseeing empirical developments or in fantastic elements like "a gravitation that repels," but rather in how such features, as he puts it, become "human" when looked at "from the new angle that has been acquired" (13–14). Wells's emphasis on the realistic working out of the consequences of a given change means his idea of speculation is closer to that of Bell than it is to that of most of his literary precursors. Moreover, Wells's relegation of accuracy to a minor role in his theorizing arguably leaves more room for what we have termed plausibility, even if in his fiction Wells often departs from anything that could reasonably be considered plausible, e.g., Martian invasions, time travel, invisibility. As for Wells's work in social theory, a first point that stands out is his reiterated claim that "the creation of Utopias—and their exhaustive criticism—is the proper and distinctive method of sociology" ("So-Called" 167). As Sarah Cole has shown, Wells believed for this reason that sociology could and should play a key role in planning and implementing social improvement (Cole 36–57). Wells's nonfictional writings on the future, such as *Anticipations* (1902), resemble in some respects Bell's notion of social forecasts as providing models "against which the sociological reality could be measured decades hence" (*Post-Industrial Society* lxxxvii).

This is not to suggest that Wells fully pre-empts Bell's method. Bell would probably reject Wells's sharp distinction between speculative novelties and their effects on human life, which Bell tends to see as mutually informative. Wells often blurred the line between prediction and forecasting in a way that Bell would likely find problematic. When Bell talks about measuring the future reality against the previous social forecast, he mainly means using the difference between the forecast and the reality to highlight what structural changes took place in society and to better understand what effected these changes, not using the forecast as an evaluative yardstick. Perhaps most importantly, Bell took issue with the fixation on "great technological breakthroughs" Wells sometimes displayed ("Working Session One" 22). Although Bell accepted the possibility of large-scale changes brought about through technological innovations, he believed that the changing contexts in which problems arise and must be addressed "are today necessarily

more sociological than technological" ("Future World" 109). This may explain why Bell does not generally engage with sf: he views the genre as occupied with anticipating technological rather than sociological change. One sees this, for example, in how Bell acknowledges the speculative forecasts in Arthur C. Clarke's "serious science fiction," but only when discussing technological forecasting, not social forecasting (*Post-Industrial Society* 199).

Bell's belief that forecasting should prioritize sociological over technological contexts, and that sf is mainly concerned with the latter, resonates strongly with the critique of more traditional sf advanced by writers and critics during the 1960s and 1970s. Russ observed in 1972, for instance, that "[i]n science fiction, speculation about social institutions and individual psychology has always lagged far behind speculation about technology, possibly because technology is easier to understand than people" ("Image" 201–202). This critique helped to initiate a broad shift within the genre toward more sociologically oriented fiction ("soft sf") and away from a narrower focus on science and technology (of the sort characteristic of "hard sf"). Today, even sf in which scientific veracity plays a key role, such as the work of Kim Stanley Robinson, tends to be less about possible future technologies as such and more about the larger context of social relations in which these are embedded and the impact they have on this social-relational context. Interestingly, the fact that *The Coming of Post-Industrial Society* was published in 1973 means that Bell's "venture in social forecasting" was contemporary with the wave of critical utopianism that spearheaded this change in sf. Regrettably, Bell and the critical utopians never made contact with each other, leaving the relationship between social forecasting and sf entirely unexplored until now.

Conclusions

Bell's work clarifies how sf can meaningfully anticipate the future. Bell concurs with sf theorists that prediction is impossible, but by distinguishing forecasting from prediction, he helps us locate sf's cognitive relationship to the future in its more or less plausible projections of changes in a society's structural contexts and the kinds of questions such changes pose for that society's inhabitants. This dialogue between social forecasting and sf allows one to appreciate sf's affinities with sociology without treating literature as "a passive and lifeless form which is of scientific value only when animated by sociological theory" (Váňa 7). Instead, this dialogue takes seriously the distinct kind of knowledge or understanding that literature (in this case,

sf) can yield and values the imaginative component inherent in sociological thinking without collapsing the distinction between the writing of sociology and the writing of fiction. Rather, each enterprise provides intellectual means for helping the other understand itself better.

As discussed previously, Bell sees forecasting as widening the sphere of choice. In his 1947 article "The Study of Man," he observes that sociology too readily takes the existing social frame for granted (80). One could say the same of older forms of hard sf, which tend to imagine discrete changes within an existing frame, whereas soft sf is more concerned with evaluating that frame. Indeed, Bell's notion of "[exploring] *alternative* […] modes of human combinations" (80), which he puts forward in the same article, would be a good, if rather abstract, definition of soft sf. Bell's stress on widening the sphere of choice implies the importance of human agency in deciding which futures it finds desirable. Despite certain technocratic assumptions in Bell's vision of social forecasting, Bell was not a technocrat in the strict sense of believing in rule by technical experts. On the contrary, Bell believed that, even though technical decisions will reach more and more into political decisions, it is futile to attempt to reduce political decisions to technical ones because politics is by its nature an arena in which a society's very priorities are contested: the ends themselves are inevitably in dispute (*Post-Industrial Society* 355). This adamant belief that political life is not reducible to a more basic or certain kind of knowledge provides a vital point of connection between speculative literature and social theory. This is because imagination is an essential component of reflecting on, criticizing, and suggesting alternatives to society as presently constituted. By "democratizing" the process of social forecasting, sf helps readers think about possible futures that could arise from changes in social frameworks that are already underway and the agenda of questions these changes would pose for their society—questions which are inescapably political.

Acknowledgments

Notes

1 One can even find this consensus view at work throughout the edited volume, *Science Fiction and the Prediction of the Future*, which may initially appear to represent a counterexample. In his introduction to the volume, Gary Westfahl claims that "science fiction writers, despite their celebrated expertise and abilities, have persistently faltered in their efforts to predict the future," asking "why has this been the case?" and whether the history of the genre reveals any "overlooked or rarely cited texts that did succeed in providing accurate prophecies of today's world?" (3). In the first essay of the book, "Pitfalls of Prophecy: Why Science Fiction So Often Fails to Predict the Future," Westfahl "attempts to systematically explain why common approaches in science-fictional prophecy, including extrapolation, have so regularly been unable to produce valid visions of the technology and societies of the future" (4). We agree with Westfahl that, taken in a narrow, predictive sense, sf has generally failed to "prophesy" the future; to this limited extent, we are in accord with the consensus view. Our main claim, however, is that sf may be understood as standing in an altogether different relationship to the future, one with a clear resemblance to what Bell calls social forecasting.

2 As should become clear below, we therefore do not wish to suggest that sf engages in social forecasting *instead of* estrangement; these functions can be, and often are, exercised together. Likewise, in claiming that sf may be read as in some sense anticipating the future, we do not mean to say that it does so *instead of* engaging with the present in all the ways that scholars and critics have argued it does. We seek not to *restrict* the range of things sf can be understood to be doing, but rather to *expand* it.

3 In this article, we focus solely on the implications of our argument for the study of sf, on the one hand, and for work in the social sciences, on the other. We have not said anything about its bearing on debates within the adjacent area of future studies. This is due partly to our relative unfamiliarity with that field, and partly to the need to prevent our intervention from becoming too unwieldy. The lack of engagement with work in future studies on this occasion should not be read, however, as ruling out further interdisciplinary links of this sort. Indeed, we would be surprised if there were no viable applications for our argument within future studies.

4 See, e.g., Ruth Levitas, Duncan Bell, and Daniel Davison-Vecchione and Sean Seeger. Although not considered here, another potentially relevant social theorist in this connection is Niklas Luhmann, whose concept of "future presents" is briefly explored in chapter 4 of his book, *Observations on Modernity*, suggestively entitled "Describing the Future." There is a question, however, of the extent to which Luhmann remains committed to a predictive/probabilistic conception of the anticipation of the future, as his various comments on the theme of risk in passages such as the following would seem to imply:

> Risks concern possible but not yet determined, or improbable, losses that result from a decision. These losses can be effected by a particular decision and would not result from any other decision. We speak of risks only when and insofar as consequences result from decisions. This has led to the idea that risk is avoidable

and that we can play it safe if we decide differently, for example, if we decide not to install nuclear power plants. This is, however, a fallacy. Every decision can cause unwelcome results. Advantages and disadvantages as well as probabilities and improbabilities are distributed differently according to what decision is made. (71)

5 See, e.g., *The Economist*'s 2009 obituary of Irving Kristol, which aligned Bell with Kristol's neoconservative project, and Bell's letter to the editor objecting to this ("Irving Kristol"; Bell and Glazer).

6 See, e.g., Starr and Zelizar.

7 The other two forms of social forecasting are the extrapolation of social trends and the identification of historical "keys" that create turning points in social history.

8 Here Bell's influences include Wilhelm Dilthey, Max Weber, and Hans Vaihinger. Space constraints preclude us from fully exploring this aspect of Bell's methodology and epistemology in the present article, however.

9 This thus makes social forecasting "an exercise […] in forcing one to say why it is that one picked out a particular element rather than another to identify societal change" ("Prediction versus Prophecy" 57).

10 For an analysis of some potentially radical social and economic implications of 3D printing, see Greenfield 85–114.

11 Although Gibson has used this quote, it is uncertain when and how he first said it. See the following analysis from Quote Investigator: quoteinvestigator.com/2012/01/24/future-has-arrived/. Accessed 30 Mar. 2023.

12 Here Bell talks about "prediction," but this predates his prediction/forecasting distinction; in context, he clearly means forecasting.

13 For the classic statement of the view that ambiguity is literature's defining characteristic, see Empson.

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