K. Brad Wray

Social Selection, Agents' Intentions, and Functional Explanation*

Abstract: Jon Elster and Daniel Little have criticized social scientists for appealing to a mechanism of social selection in functional explanations of social practices. Both believe that there is no such mechanism operative in the social world. I develop and defend an account of functional explanation in which a mechanism of social selection figures centrally. In addition to developing an account of social selection, I clarify what functional hypotheses purport to claim, and re-examine the role of agents' intentions in functional explanations in an effort to show why a mechanism of social selection is indispensable to adequate functional explanations.

1. Introduction

One of the principal concerns of social scientists is to explain social phenomena. Given that social phenomena are a consequence of human action, and humans act intentionally, it is often assumed that agents' intentions must figure in adequate explanations of social phenomena. This intentionalist presumption has led many philosophers and social scientists to believe that explanations of social phenomena in terms other than the agents' intentions are unacceptable. Functional explanations of social phenomena have frequently been criticized as illegitimate on these grounds. In the place of agents' intentions, social scientists developing functional explanations often appeal, at least implicitly, to a mechanism of social selection. The critics, though, suggest that there is no such mechanism, and consequently, functional explanations that rely on such a mechanism ought to be rejected.

My aim in this paper is to develop and defend an account of functional explanation in which a mechanism of social selection figures centrally. I argue that functional explanations of social phenomena are suited to explaining the unintended consequences of agents' actions, in particular, the persistence or increase in frequency of social practices. Hence, though agents' intentions and beliefs often explain the sorts of phenomena that concern social scientists, they are unfit to explain the phenomena that can be explained functionally. In Section

---

2, I review some recent criticism of social scientists' appeals to a mechanism of social selection. In Section 3, I develop an account of social selection, and clarify what functional hypotheses purport to claim. In Section 4, I examine the role of agents' intentions in functional explanations, and show why a mechanism of social selection is indispensable to adequate functional explanations. Finally, in Section 5, I examine the task of supporting functional explanations.

2. The Attack on Social Selection

Jon Elster has been one of the most unrelenting critics of functional explanation in the social sciences, developing a sustained attack in a variety of books and articles (1990; 1986a; 1986b; 1985; 1984; 1983a; 1983b; 1982a; 1982b; 1980). Elster is especially critical of social scientists' appeal to a mechanism of social selection in their efforts to develop functional explanations of practices and institutions. He believes that human behavior is best explained intentionally. Daniel Little shares Elster's concerns with social scientists' appeal to a mechanism of social selection, but he believes that functional explanations in the social sciences need not rely on such a mechanism. Little argues that adequate functional explanations tend to identify the intentions that sustain the practice or institution being explained.

Long ago, Robert Merton ([1949]/1967) drew an important distinction between latent and manifest functions. As Merton explains, "*manifest functions* are those objective consequences contributing to the adjustment or adaptation of the system which are intended and recognized by participants in the system. *Latent functions* ... [are] those which are neither intended nor recognized." (105) This distinction provides insight into understanding the difference between the criticisms raised by Elster and Little. Elster rightly recognizes that when social scientists develop functional explanations, their aim is to explain latent functions. But, he rejects explanations of latent functions on the grounds that they rely on a dubious comparison of the natural and social worlds. Little, on the other hand, maintains that only manifest functions can be adequately explained functionally. In order to explain a latent function, he claims, one must appeal to a mechanism of social selection, a mechanism that he denies exists. My aim in this section is to present the arguments of these critics, and thus draw attention to the challenges facing anyone who wants to defend appeals to a mechanism of social selection.

Elster's attack on functional explanations is two pronged. The first prong aims to establish a very strong thesis, that functional explanations are in principle unsuited to explaining social phenomena. Elster argues that there are significant disanalogies between the phenomena of the biological world, which are often aptly explained functionally, and the phenomena of the social world. These disanalogies, Elster believes, make functional explanations wholly inappropriate in the social sciences. The second prong of Elster's attack aims to establish a modest claim, that functional explanations in the social sciences are generally not well supported.

Consider Elster's first argument. He (1984) believes that the standard form of explanation in the biological sciences is a functional explanation, but that such explanations are inappropriate for explaining social phenomena. Elster's concern is that the phenomena of the biological world and the phenomena of the social world differ fundamentally such that functional explanations are appropriate for the former, but not the latter. In biology, functional explanations appeal to the mechanism of natural selection. For example, when biologists explain "the structure or behavior of organisms through the benefits for reproduction", they justify their claims by appealing to "the theory of natural selection, according to which such beneficial effects tend to maintain their own causes" (1982a, 463). According to Elster, "in societies there is no general mechanism—corresponding to natural selection—that could permit us to infer that the latent functions of a structure typically maintain the structure by feedback" (1984, 2).

Elster believes that "waiting and the use of indirect strategies are crucial features of human choice" (9–10; see also 1983a, 51). As a result of these capacities, we can let pass immediate opportunities that are merely local maxima on the expectation that if we wait some better opportunity is apt to come along. We can also employ indirect strategies, knowingly incurring a loss in the short term, in the anticipation of gains later (1984, 9). Given these capacities, Elster claims, people "can choose the globally best alternative because [they are] capable of surveying all alternatives, all possible futures" (16). Thus, humans are capable of global maximization.

Natural selection, though, operates through immediate advantages with no eye to future possibilities (1983a, 51). As a result, "what is maximized in natural selection is differential fitness not absolute fitness" (1984, 26). Natural selection is thus merely a local maximizer. Elster believes that it is because of this difference that the analogy between the biological and the social breaks down and functional explanations are inappropriate in the social sciences (9).

Consider the second prong of Elster's attack, aimed to establish that most functional explanations in the social sciences are inadequately supported. Elster (1984) outlines five necessary and sufficient conditions for adequate functional explanations in the social sciences, and argues that most functional explanations fail to satisfy these conditions. As he explains,

"*an institution or a behavioural pattern [X] is explained by its function Y for group Z if and only if:*

(1) Y is an effect of X;

(2) Y is *beneficial* for Z;

(3) Y is *unintended* by the actors producing X;

(4) Y (or at least the causal relationship between X and Y) is *unrecognized* by the actors in Z.

(5) Y maintains X by a causal *feedback* loop passing through Z." (Elster 1984, 28)

Elster argues that, as a matter of fact, rarely are all these conditions sat-

isfied.[2] Elster, though, does concede that functional explanations in the social sciences are possible. He even cites a successful example, an explanation developed by the Chicago School of economists. The Chicago School economists argue that "profit-maximizing [is] the result of the 'natural selection' of firms by the market" (Elster 1984, 31). As Elster notes, this explanation was developed in response to the following anomaly.

> "On the one hand the observed external behaviour seemed to indicate that firms in general adopt a profit-maximizing behaviour, by adjusting to market conditions. On the other hand the internal decision-making process of the [businesses] did not seem to be guided by this objective; rather some rough-and-ready rules of thumb were found to be typical." (31)

According to Elster, in order to explain the phenomena "the economists ... postulated that some firms just happened to use profit-maximizing rules of thumb and others did not; that the former survive whereas the latter go extinct; that the profit-maximizing routines tend to spread in the population of firms, either by imitation or by takeover." (31) This, Elster suggests, is the model of a good functional explanation. At work is a process much like natural selection. Further, Elster believes that the explanation "works (to the extent that it does) only because the notions of fitness, survival, reproduction and inheritance can be transferred without too much modification" (31-2).

Elster, though, insists that intentional explanations are generally the most plausible explanations for human behaviour, given our ability to pursue global maximization. As Elster explains, though "not all human behaviour is rational or intentional, ... there is a well-grounded *presumption* that this will typically be the case" (x). Consequently, as far as Elster is concerned, the burden of proof rests with the social scientist offering a functional explanation (17). But those who have developed such explanations, he suggests, have rarely provided sufficient proof.

Let us now consider Little's view. Following Elster, Little (1998) argues that, whereas a biologist defending a functional explanation can appeal to natural selection, there is no "comparable background mechanism to which we may refer in justifying functional explanations in social science" (6). Unlike Elster, though, Little does not take this as grounds for rejecting functional explanations in the social sciences. Instead, Little recommends developing an account of functional explanation that does not rely on the problematic notion of social selection.

But Little does agree with Elster that functional explanations are generally poorly supported. Little's (1991) concern is that many functional explanations in the social sciences are "inherently incomplete" (102). According to Little,

> "to explain a phenomenon [functionally] it is not sufficient to demonstrate that it has consequences that are beneficial ... Rather, it is

---

[2] When only conditions (1)-(4) are satisfied, Elster believes we have an invisible hand explanation. And, when conditions (1)-(3) and (5) are satisfied, he believes that we have what he calls a 'filter-explanation'.

necessary to provide an account of the micropathways by which the needs ... or interests [served] ... are imposed on other social phenomena to elicit beneficial consequences." (100)

In particular, a detailed account of this sort would identify the mechanism through which the practice in question comes to acquire its functional role.

Little believes that there are two mechanisms that can play this role, and both turn "on the intentional choices of individuals" (100). Little claims that "it may be that the benefits produced by a social feature are anticipated and pursued by the persons whose behavior gives rise to the feature" (100). So, for example, if one seeks to argue that the function of extended lactation amongst hunter-gatherers is to reduce fertility, then one might maintain that the women in such groups generally know that extending lactation has this effect, and it is this knowledge that leads them to engage in the practice. Alternatively, Little claims, though the agents themselves may be unaware of the beneficial effects of a particular practice, the "practice may be encouraged by other powerful individuals who *do* understand the causal relationship between the practice and the benefit and who intend to produce the benefit by encouraging the practice" (100). For example, though the women who breast-feed may not be aware of the fertility-reducing effects of extended lactation, they may be encouraged to continue breast-feeding by someone who knows of the fertility-reducing effects. A functional explanation thus gains its plausibility from a specification of the *intentions* that sustain the practice. Such an explanation enables us to understand how the practice came to have the functional role ascribed to it.

Little distinguishes these sorts of cases, where a mechanism can be readily specified, from "more difficult and more interesting [cases] ... in which the benefits associated with the practice are unknown and unintended by all participants" (101). According to Little, in these cases where

a latent function is being ascribed to a practice, "we cannot explain the currency of the practice as the result of the deliberate choice of the participants" (101). Consequently, we must look elsewhere for a mechanism. Little's concern is that the two most commonly cited candidates for a mechanism are unacceptable.

First, sometimes social scientists invoke a notion of social selection that operates on groups. According to this strategy, we are to imagine that various small groups within a society employ different practices, practices which are unequal in their ability to advance the welfare of the group. In time, provided that there is mobility between small groups, certain practices will come to dominate as more and more people transfer to those groups that are flourishing. Little's concern with this type of appeal to social selection is that it relies on false assumptions about human behavior. In particular, he notes that "the assumption of easy entrance and exit from groups ... flies in the face of most ethnography of premodern societies" (101). Consequently, he concludes that this social selection principle is unpromising (101).

Second, some social scientists invoke the notion of social selection but apply it to "social features rather than social groups" (101). According to this view, societies will try a variety of different practices, but those that are most benefi-

cial will, in time, displace those that are less beneficial or detrimental. Little's concern with this view is that each of two competing practices are apt to be beneficial in some respects, and also detrimental in other respects. For example, as he notes, some methods of distributing land for farming may be efficient to farm but cause dissension, whereas other methods of distribution may reduce social conflict but also reduce agricultural efficiency (101–2). As a result, Little argues that "it is difficult to justify a judgment that one [feature, for example, agricultural efficiency,] is more causally relevant than the other" (102). Consequently, he concludes that this "'selection of features' approach ... [is] unpersuasive as well" (102).

Little adds that "these approaches to unintended functional relationships ... presuppose an excessively optimistic metatheory, holding that societies will tend to evolve toward more functional characteristics" (102). He believes that such a presupposition is groundless.

Given the criticism outlined above, appeals to a mechanism of social selection seem doomed, and latent functions seem to be mere fictions.

3. Social Selection and Functional Claims

I now want to turn to the task of defending social scientists' appeals to a mechanism of social selection. In this section, I have three tasks. First, I want to defuse Elster's first argument which states that functional explanations in the social sciences are in principle wrong. Second, I want to provide an analysis of social selection processes and show that they are far less problematic than Elster and Little imply. Third, drawing on the account of social selection I develop here, I want to examine the nature of functional claims in the social sciences. A better understanding of functional claims will aid us in determining the appropriate use of functional analysis in the social sciences.

I think that Elster fails to show that there are deep and irreparable problems with social scientists' appeal to a mechanism of social selection. Indeed, there is a tension between his two arguments that ultimately undermines his first argument, the one that aims to show that functional explanations of social phenomena are in principle wrong. This concern has been raised by others. Allen Wood (1986), for example, argues that it is far from clear what Elster's final position is on functional explanation (18–9). Sometimes Elster makes a very strong claim, arguing that "functional analysis ... has *no place* in the social sciences" (Elster 1982a, 463; see also 1984, ix; 1983a, 20; emphasis added). Yet, at other times he seems prepared to grant that the use of functional explanations in the social sciences is not in principle wrong. Elster (1986a) is aware of this tension, and grants that he has "yet to get [his] ideas fully into focus" (74).

I believe that Elster undermines his own first argument by identifying an instance of a successful functional explanation of social phenomena. Thus, Elster's final verdict seems to be that functional explanations are *generally* poorly supported. Significantly, in making this concession, Elster also undermines his criticism of social scientists' appeal to a mechanism of social selection. Given

that Elster believes that functional explanations depend upon a mechanism of social selection, and he acknowledges the existence of one good functional explanation, he must grant that there is nothing wrong in principle with social scientists' appeal to a mechanism of social selection.

The problems with Elster's attack on appeals to a mechanism of social selection run even deeper. In particular, it is questionable whether Elster's schema adequately models the structure of functional explanations in *either* biology or the social sciences. As G. A. Cohen (1982b) explains, one can grant that functional explanations in the social sciences generally do not satisfy the five conditions Elster lays out, and yet still maintain that there is a place for functional analyses in the social sciences. After all, as Cohen explains, one might argue that Elster's "schema is not properly analogous to whatever is the schema of functional explanations in biology" (43).[3]

I now want to turn to the task of clarifying what a mechanism of social selection would look like. In providing an explication of the notion of social selection, I appeal to the work of David Hull. Hull has been developing a general account of selection processes for some years now (see especially 1988; 2001; Hull/Langman/Glenn 2001). He (1988) is concerned that many philosophers and scientists have overly simple, and consequently incorrect, views about biological evolution (424). As a result, he suggests that when they come to criticize appeals to the notion of selection in other domains, their criticisms are often ungrounded and misguided.

In collaboration with Langman and Glenn, Hull develops an account of selection that is general enough to be applicable to gene-based selection in biological evolution, operant behavior, and the reaction of the immune system to antigens (2001, 51). Hull (2001) claims that this same general notion of selection is even applicable to conceptual evolution (32–45). Hull, Langman and Glenn (2001) argue that "selection is not a single process but one composed of two processes—replication and environmental interaction" (91). Replication involves the repetition of information (56). And, the types of environmental interaction relevant to selection processes lead to differential replication (60). That is, the relevant sorts of environmental interactions will lead to changes, in subsequent generations, in the distribution of the qualities that are replicated. According to Hull, Langman, and Glenn, a selection process involves *"repeated cycles of replication ... and environmental interaction"* structured such that *"environmental interaction causes replication to be differential"* (53).

---

[3] Cohen (1982b) constructs a biological example which he believes satisfies Elster's demand for a causal feedback loop, yet owes nothing to "the theory of chance variation and natural selection" (45). Here is Cohen's example: "properly functioning kidneys are a requisite of a creature otherwise equipped as I am. Therefore my possession of functional kidneys is a crucial part of the explanation, of why I am (still) here ... But since, if I am here, I am here with my kidneys, the service my kidneys perform, by sustaining me, causes my kidneys to be here. So my kidneys are here because they are functional" (45). Cohen's example is questionable, though his criticism still stands: Elster's criteria may not adequately characterize functional explanations in either biology or the social sciences. Indeed, there is no consensus about the structure of functional explanations. Each philosopher who discusses their structure cites different conditions. In this regard, see Kincaid 1996, 111; Cohen 1978, 258–264; Elster 1984, 28; Hempel 1994; 358; Little 1991, 94–95.

Hull claims that some of the confusion and misunderstanding surrounding selection processes is due to the fact that people often fail to distinguish between the two constitutive processes. As a consequence, people also fail to distinguish between the units of replication and the units of environmental interaction, which can be different. In the process of natural selection, for example, the units of replication are "genes, larger chucks of genetic material, and sometimes even entire chromosomes" whereas the units of interaction may include "genes, cells, and organisms ... hives, demes, and possibly entire species" (62-63). Hull refers to the units of replication as "replicators" and the units of interaction as "interactors" (Hull 1988, 408). I will adopt his terminology in what follows.

This general account of selection processes developed by Hull and his collaborators provides us with a template for understanding social selection. Social selection will consist of two types of processes, a process of replication, and processes of environmental interaction. The repeated cycle of replication and environmental interaction will lead to differential replication.

We can see that there is a straightforward mapping of the components of the Chicago School's functional explanation to the general pattern of selection processes developed by Hull. The replicators in this case are internal decision-making processes. And the interactors will include companies, but may also include individual workers. According to the explanation developed by the Chicago School: different companies employ different decision-making heuristics, and the various decision-making heuristics are replicated through imitation and takeovers; the firms interact with each other in competition for consumer spending such that in the course of a number of generations of replication and interaction, particular decision-making heuristics become less common and others become more popular. Those that become less common do so because many of the companies that once employed them have either gone out of business or adopted different heuristics. Thus, what the Chicago School economists explain is the prevalence of particular decision-making heuristics in a population of firms. And social selection is the mechanism by which the persistent decision-making heuristics come to prevail and others become obsolete.

Having illustrated how a mechanism of social selection figures in a successful functional explanation, we are now in a better position to understand the structure of hypotheses in the social sciences that ascribe functions. A social practice (or institution) is described as having a function when:

> (a) the practice is subject to a process of replication, and (b) through processes of interaction between appropriate entities (be they individuals, groups, or both), the replication of that practice and other competing practices is differential, such that (i) the practice in question is sustained or increases in frequency, and (ii) its persistence is due to its serving the function it serves.

Given that replication is differential, the fact that a practice either is sustained or increases in frequency requires an explanation. And, a *possible* explanation may involve attributing a function to the practice. The difficult matter,

one that I will discuss in some detail later, is determining when the persistence of a practice is due to its serving the function it allegedly serves.[4]

In the example from the Chicago School economists, the functional practices are profit-maximizing decision-making heuristics. These compete with other heuristics. As businesses interact with workers, consumers, and other businesses, they will compete for consumer spending, and those which rely on the ineffective decision-making heuristics are apt to fare poorly, and in time be driven out of business. On the other hand, businesses that rely on the profit-maximizing heuristics will tend to stay in business longer. The function of the profit-maximizing heuristics is to ensure the survival of businesses in the market-place. And, what can be explained functionally are changes in the distribution of particular heuristics.

Having explained both how a mechanism of social selection operates, and what functional hypotheses claim, we are now in a position to address a concern raised by Little. Contrary to what Little suggests, social scientists can explain 'unintended functional relationships' without presupposing 'that societies will tend to evolve toward more functional characteristics'. As Elster reminds us, selection processes are merely local maximizers, not optimizers. Consequently, each particular social change that results from the operation of a mechanism of social selection constitutes an improvement, but it is only an improvement relative to the previous condition. Hence, we cannot assume that a series of such local improvements over a long course of time results in a better adapted society than earlier ones in the process. With each change the environmental conditions change with the result that each society faces its own unique set of challenges. Hence, social scientists who appeal to a mechanism of social selection neither need to nor should assume that societies are getting increasingly better over time.

4. The Role of Intentions in Functional Explanations

So far, I have only shown what a mechanism of social selection would look like. In this section, I want to make a stronger claim in defence of appeals to such a mechanism and argue that social selection processes are indispensable to functional explanations. In an effort to show this, I want to clarify the role that individuals' intentions play in functional explanations. I argue that functional explanations in the social sciences are concerned with explaining the consequences of intentional behavior that cannot be explained by agent's intentions.

As you will recall, Little argues that functional explanations are only plausible if appropriate micro-pathways can be identified. And he believes that the only plausible micro-pathways that have been cited are individuals' intentions and beliefs. Consequently, he believes that intentions play an integral role in

---

[4] Practices that decrease in frequency may be explained by appeal to the mechanism of social selection, but they are not aptly described as having a function. After all, their decrease in frequency is not a result of the function they serve. Rather, it seems to be the result of their failure to play a functional role.

functional explanations. In particular, he claims that any plausible functional explanation seems to rely on either (a) the intentions of the agents who are consciously aware of the causal powers of the practice that is ascribed a functional role, or (b) the intentions of a subgroup in the community who are aware of the causal powers of the practice and encourage those who are not to do their part in sustaining the practice. According to Little, when social scientists fail to identify the micro-foundations their functional explanations are incomplete, and consequently, unacceptable. Little thus believes that genuine functional explanations of social phenomena are a species of intentional explanation.

I believe Little is mistaken in denying the existence of a class of social phenomena that have unintended functions. Hence, I think it is worth examining the nature of these alleged phenomena with the aim of dispelling some of the mystery surrounding the notion of a latent function. Recall Merton's distinction between manifest and latent functions. Latent functions are those objective consequences contributing to the adjustment or adaptation of a system which are neither intended nor recognized. Clearly, the phenomena for which Little believes plausible functional explanations are possible involve manifest functions only. The beneficial consequences are intended and recognized by the participants in the system. The concept of a latent function is meant to pick out a different class of phenomena from that which Little aims to capture. As Merton explains, "given the concept of latent function ... we are reminded that [a] behavior may perform a function for the group, although this function *may* be quite remote from the avowed purpose of the behavior" (118). Given that functional explanations are developed with the intention of explaining *latent* functions, the phenomena that social scientists aim to explain in terms of their functions cannot aptly be explained in terms of agents' intentions. Thus, the sorts of explanations that Little regards as acceptable functional explanations, which identify the agents' intentions that sustain the functional practice, actually compete with genuine functional explanations.

I believe that Little fails to see that latent functions exist because he erroneously identifies "*motives* with functions" (see Merton 1967, 115). Merton (1967) argues that this has been a persistent problem in the social scientific literature on functional analysis. But, as Merton rightly notes, "motive and function vary independently" (115). For example, to return to the Chicago School's explanation, even the firms that adopt ineffective decision-making heuristics that ultimately lead to their demise do so in order to maximize profit. That is their *motive.* But such heuristics do not have that *function.* Consequently, the motives of the various firms are insufficient to explain either why some heuristics persist in the population of firms over the course of time, or why particular firms are driven out of business. When motives and functions diverge, some mechanism must be invoked to explain the persistence of particular practices. The motives or intentions are insufficient. As long as we grant that motives and functions can diverge, we are committed to a social world in which selection mechanisms are apt to play a role.

Merton argues that the concept of a latent function "can sensitize sociological investigators to a range of significant social variables which are otherwise

easily overlooked" (122). This provides an important rationale for developing functional explanations in the social sciences. Functional explanations direct the attention of social scientists to variables that are apt to go unnoticed if they were to investigate social phenomena by merely examining the intentions and beliefs of the agents involved. Merton suggests that we may even find some behavior that is apparently *irrational*, though still functional (119). Further, he claims that sociologists can make their greatest contributions in studying latent functions because such analyses focus the sociologists' attention on otherwise neglected variables (120).

So far, I have emphasized the divergence between functions and agents' intentions. But, it is important to recognize that a functional explanation is compatible with individuals acting with the intention of realizing the goal that the functional practice allegedly realizes. As Harold Kincaid has put the point, "functional explanations can coexist with other causal factors" (1996, 126). But, when a functional explanation is proposed there is a presumption that an explanation *solely* in terms of individuals' beliefs and intentions is inadequate. This is what motivates social scientists to develop functional explanations. Consequently, the Chicago School's functional explanation would not be undermined were we to find that *some* successful businesses do use the decision-making procedures that advocates of rational choice theory thought they must use. As long as many businesses don't use such decision-making procedures, such procedures cannot explain why the particular decision-making heuristics that are so prevalent persist. This is especially perplexing given that other decision-making heuristics which were adopted with the same intention, to maximize profit, fail to serve that function.

5. When is a Functional Explanation a Good Explanation?

I now want to briefly examine what is involved in defending a functional explanation in the social sciences, for critics often suggest that such explanations are seldom adequately supported. This will also provide me with an opportunity to address some of the criticisms that Little and Elster raise against functional explanations in the social sciences.[5]

I believe that social scientists who aim to defend functional explanations have two tasks before them, the same two tasks that any scientist faces when defending an explanation of any sort. First, a scientist must offer evidence

---

[5] The critics and the defenders disagree about what is required in order to develop a well supported functional explanation. Elster 1986a claims that "good functional explanations must ... have ... a demonstrated feedback mechanism or a lawlike connection between the tendency of the explanandum to produce the explanans and the occurrence of the explanandum" (73). Cohen 1978, though, insists that "we may have good reason for thinking that a functional explanation is true even when we are at a loss to conjecture by what means or mechanism the functional fact achieves an explanatory role" (266; see also Kincaid 1996, 136).

that supports her own explanation. Second, she must show deficiencies with alternative explanations of the same phenomena.[6]

Kincaid (1996) gives us a clear idea of how social scientists can accomplish the first task. He identifies three causal claims that need to be established in order to support a functional explanation, claims that he argues are *entailed* by any functional explanation. According to Kincaid, if it is hypothesized that the function of some practice, A, is to yield some result, B, then in an effort to support the hypothesis one should garner evidence in support of the following three claims:

(1) A causes B

(2) A persists because it causes B

(3) A is causally prior to B. (1996, 110-111).

The third claim serves to (i) "explicitly *rule out* inverting the explanation," treating B as the initial cause, and (ii) rule out situations where it matters not which of A or B occurs first (112). Support for these three claims would constitute support for the functional hypothesis. Most importantly, support for these claims would demonstrate that the practice in question persists because of the function it serves. A practice may persist despite the fact that it serves no function. Just as in the biological world, traits may persist, generation after generation, despite the fact that they have no function. Gathering evidence in support of these three constitutive claims, though, should enable us to distinguish between practices that merely persist, and those that persist because of the function they serve.

Kincaid's analysis of the constitutive causal claims of functional hypotheses provides insight into addressing a concern raised by Little. Recall that Little believes that there are difficulties with justifying functional explanations that appeal to a mechanism of social selection, in particular, there are difficulties in determining what features of a practice are responsible for its persistence. Little's example involves different societies adopting different methods for distributing land, some of which are more efficient for production but cause more dissension, and others which reduce dissension, but are less efficient. His concern is that it would be difficult to make judgments about which of the two features are causally more relevant.

Kincaid's analysis enables us to address Little's concern. Sometimes the function of a method of land distribution might be to reduce dissension. In other cases, the function may be to increase efficiency. But viable functional explanations in either case will demand evidence in support of all three constitutive causal claims outlined above, and these two hypotheses are not apt to be equally well supported by the same data, for they entail very different causal claims. One hypothesis entails the claim that a particular practice of land distribution causes agricultural efficiency, whereas the other hypothesis entails the

---

[6] As Fred Suppe 1998 puts the point in his analysis of the structure of scientific papers, scientists aim to impeach alternative interpretations of the data.

claim that a particular practice of land distribution causes a reduction in social conflict. Thus, though I grant that the task of justifying judgments about which features are causally relevant is difficult, it is not insurmountable. And Kincaid has done us a service by breaking down the complex task into more manageable tasks.

Now, let us consider the second task, the task of showing that competing explanations are mistaken. The relevant competing explanations that the defender of a functional explanation will need to impeach will explain the persistence of a practice in terms of individuals' intentions. The key task will be to show that such explanations are untenable, given the available evidence. Indeed, this is just what the Chicago School economists did. What made their functional explanation so compelling was the fact that it was able to resolve an anomaly. Contrary to what one might expect from rational choice theory, successful businesses did not employ decision-making procedures that *explicitly* calculate how to maximize profits. Rational choice theory thus leaves unexplained what cries out for an explanation: why many businesses that do not explicitly calculate how to maximize profits persist when others do not. By exposing this anomaly for intentional explanations, the Chicago School's explanation is rendered more compelling. In general, social scientists aiming to develop and defend functional explanations should seek to expose anomalies with alternative intentional and individualistic explanations.

Now, contrary to what Elster suggests, there is no presumption that an individualist explanation is generally more plausible than a functional explanation. Indeed, Elster might be correct in claiming that there is a presumption that human behavior is intentional and rational. But, this presumption does not entail that most of the *effects* of human behavior are best explained in terms of agents' intentions. Further, as Kincaid (1996) notes, "simply pointing to a conceivable non-functional alternative does not refute [a] functional explanation" (139). Intentional explanations are as much in need of supporting evidence as functional explanations. After all, there may even be competing intentional explanations, as Little demonstrates in his discussion of the persistence of the practice of extended lactation amongst hunter-gatherers. Which of the various competing explanations is superior will have to be settled by appeal to the available data.

Recall that functional explanations are even compatible with *some* individuals acting with the intention of realizing the goal that the functional practice allegedly realizes. The key to developing a compelling functional explanation is showing that competing individualist explanations give rise to anomalies. That is, the key is to show that individuals' intentions do not explain the effects that social scientists seek to explain.

I suspect that if we approach the study of social phenomena open to the possibility that the best explanation may not be in terms of individuals' intentions and beliefs, we are apt to find that many things that presently strike us as inexplicable can be explained functionally. Though my discussion has focused on an example of a functional explanation developed by the Chicago School economists, I want to emphasize that this is not the only successful explanation of this kind. Recently, I developed and defended a functional explanation for the

growing popularity of collaborative research in science (Wray 2002). I argued that collaborative research is more popular in the natural sciences than the social sciences because research in the former sciences frequently requires access to abundant resources for which there is great competition. Those scientists who are prepared to collaborate with others have been more successful at securing access to these resources, and consequently, they have also tended to be more productive researchers than those who have not.

6. Concluding Remarks

In summary, I have argued that a mechanism of social selection figures importantly in functional explanations of social phenomena. I have suggested that philosophers and social scientists who fail to see this believe, falsely, that adequate explanations of social phenomena must appeal to agents' intentions and beliefs. But, if we understand the sorts of social phenomena that can be explained functionally, we realize that a mechanism of social selection is indispensable. I have argued that it is the persistence and increase in popularity of social practices that are often aptly explained functionally. Further, I have provided insight into what a social scientist seeking to defend a functional hypothesis must do. In addition to gathering evidence in support of the causal claims constitutive of her functional explanation, she must impeach competing individualist explanations. And this is best done by identifying anomalies with individualist explanations.

Bibliography

Cohen, G. A. (1982a), Reply to Elster on 'Marxism, Functionalism, and Game Theory', in: *Theory and Society 11*, 483–495

— (1982b), Functional Explanation, Consequence Explanation, and Marxism, in: *Inquiry 25*, 27–56

— (1978), *Karl Marx's Theory of History: A Defence*, Princeton

Elster, J. (1990), Merton's Functionalism and the Unintended Consequences of Actions, in: J. Clark/C. Modgil/S. Modgil (eds.), *Robert K. Merton: Consensus and Controversy*, London, 129–135

— (1986a), Reply to Comments, in: *Inquiry 29*, 65–77

— (1986b), *An Introduction to Karl Marx*, Cambridge

— (1985), *Making Sense of Marx*, Cambridge

— (1984), *Ulysses and the Sirens: Studies in Rationality and Irrationality, Revised edition*, Cambridge

— (1983a), *Explaining Technical Change: A Case Study in the Philosophy of Science*, Cambridge

— (1983b), Reply to Comments, in: *Theory and Society 12*, 111–120

— (1982a), Marxism, Functionalism, and Game Theory, in: *Theory and Society 11*, 453–482

— (1982b), A Paradigm for the Social Sciences?, in: *Inquiry 25*, 378–385

— (1980), Reply to Comments, in: *Inquiry 23*, 213–232

Hempel, C. G. ([1959]/1994), The Logic of Functional Analysis, in: M. Martin/L. McIntyre (eds.), *Readings in the Philosophy of Social Science*, Cambridge, 349–375

Hull, D. (2001), Interactors Versus Vehicles, in: D. Hull, *Science and Selection*, Cambridge, 13–45

— (1988), *Science as a Process: An Evolutionary Account of the Social and Conceptual Development of Science*, Chicago

— /R. Langman/S. Glenn (2001), A General Account of Selection: Biology, Immunology, and Behavior, in: D. Hull, *Science and Selection*, Cambridge, 49–93

Kincaid, H. (1996), *Philosophical Foundations of the Social Sciences: Analyzing Controversies in Social Research*, Cambridge

Little, D. (1998), *Microfoundations, Method, and Causation: On the Philosophy of the Social Sciences*, New Brunswick

— (1991), *Varieties of Social Explanation: An Introduction to the Philosophy of Social Science*, Boulder

Merton, R. K. ([1949]/1967), Manifest and Latent Functions, in: *Social Theory and Social Structure*, New York, 73–138

Suppe, F. (1998), The Structure of a Scientific Paper, in: *Philosophy of Science 65*, 381–405

Wood, A. W. (1986), Historical Materialism and Functional Explanation, in: *Inquiry 29*, 11–27

Wray, K. B. (2002), The Epistemic Significance of Collaborative Research, in: *Philosophy of Science 69*, 150–168