Human Totality and the Total Social Fact

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Abstract

In this paper, we reconsider Marcel Mauss's concept of the "total social fact" (TSF) and its potential to redefine sociological analysis. The prevailing interpretation of TSFs, which we call the "social totality" approach, focuses solely on phenomena that sit at the intersection of multiple social sites or spheres. We argue that there is a more encompassing interpretation, in which the Maussian TSF is meant to denote a tripartite framework of biological, psychological, and social elements, which we term the "human totality" approach. The human totality approach aligns better with current trends in contemporary sociology, which is increasingly incorporating insights from embodiment, psychology, and cognitive science. We illustrate the analytic utility of the human totality approach by examining the phenomenon of addiction, showing how its biological, psychological, and social dimensions intersect and interact. We close by noting how the human totality conception of TSFs could lead to a more holistic and robust sociological science by bridging explanatory gaps between different intra and interdisciplinary perspectives.

Introduction

One of sociology's core epistemological tenets derives from Durkheim's late essays on the "dualism of human nature" (*homo duplex*) (1914/2005) and "individual and collective representations" (1974), where he asserts that collective, social facts are irreducibly disjoint from psychological, individual facts (Lizardo 2009). For better or worse, this position supports the distinct sociological commitment to anti-reductionism found across diverse perspectives like social constructivism (Berger & Luckmann, 1966), interactionism (Stryker, 1980), and network relationism (Emirbayer, 1997), all of which see themselves as providing *alternatives* to psychological (e.g., essentialist, individualist, or "substantialist") explanations.

Grinding against these long-standing commitments, sociologists today regularly draw on insights from cognitive neuroscience (Cerulo et al., 2021; Franks & Turner, 2013; Kaidesoja et al., 2022), suggesting that Durkheim's strictures are beginning to erode (if they are even in place anymore). Not only that, despite Durkheim's initial strong attempt at boundary work relative to psychology and related "infra-individual" disciplines (Sperber, 1997), it is easy to envision an alternative trajectory for the discipline in which such boundaries would have been absent from the start. In this paper, we suggest that had sociology followed a different path, centered on Marcel Mauss's conception of the "total social fact," such a synthetic multi-discipline centered on the total person could have been a reality; we, therefore, attempt to rehabilitate and reconceptualize this pivotal, but as we will see, somewhat misunderstood Maussian notion, useful for establishing this alternative synthetic approach to sociological theorizing in the twenty-first century.

Mauss and the Total Social Fact

Durkheim's nephew Marcel Mauss, in a series of lectures directed to psychologists (Ignatow, 2012), argued for sociology's search for and study of a modified social fact, or what he called *total social facts* (Mauss, 1979). Though the meaning of total social facts has been debated, as we show in the next section, one of Mauss's key aims was to focus on phenomena or processes revealing a tripartite composition: *biological*, *psychological*, and *social*. For Mauss, language or (social) death were exemplary instances of this kind of phenomenon, as neither could be fully understood nor explained by sociology alone. Language, for instance, is as much a biological (e.g., neurophysiological) fact as a (Saussurean) social fact, even if the social aspect is crucial in understanding its evolution in human

history. In the same way, the phenomenon of "social death," whereby an individual who is shunned and ejected from the group suffers such a level of psychological and mental distress that it results in their death, served as an "existence proof" of a phenomenon that linked the social, psychological, and biological in one fell swoop (Mauss, 1979). Although central to his thinking, few sociologists today have engaged or leveraged Mauss' ideas concerning the tripartite composition of total social facts.[1]

In some ways, sociology today is far more prepared to incorporate Mauss' tripartite, radically interdisciplinary conception of total social facts than it was during Mauss's lifetime, thereby reaping its theoretical and empirical benefits. Since the work of Foucault (1975/1995), Bourdieu (1980/1990), and—to a lesser extent—Merleau-Ponty (1945/1962) became incorporated into American sociology, efforts to take seriously the role of embodiment have grown more visible (Engman & Cranford, 2016; Wacquant, 2015). We can see this concern with embodiment as a way to link the biological with the social. Likewise, as noted above, cognitive science has become commonplace in cultural sociology as core psychological concepts, like schemas (Boutyline & Soter, 2021; Leschziner & Brett, 2021), have been imported from cultural anthropology (D'Andrade, 1995). We can see this concern with cognition as a way to link the psychological with the social. Rather than proceeding piecemeal, trying to unite different puzzle pieces in distinct fields, Mauss's conception of the total social fact may provide a unifying framework for uniting the physiological, psychological, and sociological dimensions into comprehensive explanations of social phenomena.

In what follows, we analyze Mauss's conception of total social facts, disentangling our preferred (and better grounded in Mauss's writings) tripartite interpretation from others proposed in the literature. From there, we examine one particular phenomenon, addiction, chosen because it highlights the confluence of Mauss's three aspects of the total social fact and the tenet that the phenomenon cannot be adequately understood by considering each in isolation. Instead, insight is gained by considering the relations between the three facets while attempting to bridge the relevant explanatory gaps. By examining the phenomenon of addiction closely, we show that it is not reducible to a presumed primary basis but is nothing without the interplay between the biological, psychological, and social dimensions. We conclude by considering the implications of this renewed commitment to total social facts as tripartite phenomena covering the "whole person" for theory and

[1] The most recent and prominent example was Meštrović's (1987) effort to reconceptualize Durkheim's anomie as a total social fact of the Maussian type.

research.

Two Ways of Thinking About TSFs

Most analysts agree that the concept of the "total social fact" is perhaps Marcel Mauss's most enduring theoretical contribution. Nevertheless, like many classical concepts, it is hardly a unitary notion and has been subject to various uses and interpretations in the literature. As Alexander Gofman (1998) notes, Mauss's idea of the "total social fact"—hereafter TSF—does not constitute a completed theory or framework. Instead, it is a heuristic or orienting concept. The main reason to turn to the TSF idea is to orient the analyst to "totality" in explaining social phenomena. According to Gofman (1998), there are at least two ways to understand Mauss's conception of "totality." The first one restricts its disciplinary application to the social sciences (broadly conceived), seeking to locate TSFs at the intersection of multiple *social* sites or spheres. In this sense, TSFs represent the convergence of conventional forces located in sociocultural space. However, they are presumed unique because they transcend most complex societies' functional and symbolic differentiation (Abrutyn, 2021). The self, then, is affected by a TSF not because it is a religious, economic, or political fact but because their *total self*—and not some compartmentalized role/status position—is engaged and imposed on them.

The second approach considers TSFs as a privileged cognitive object where various sciences intersect, particularly psychology, biology, sociology, and history (Meštrović, 1987). From this perspective, the TSF, as a phenomenon or process, is not simply located in space but in its multi-level construction. Death, for instance, is a biological fact all organisms reckon with and experience, even if they lack humans' relatively large neocortex and the symbolic means of expressing inner subjective feelings of impending mortality. Human death, because of these biological capacities, is a TSF because we have the psychological abilities to go beyond sensing our demise; that is, we have needs or desires to understand or make sense of our death, to strive for immortality, to wonder what happens afterward (Greenberg et al., 1997). Moreover, because we can project or externalize these innermost feelings, death can become a social object of the community through soteriologies, piacular rituals, beliefs about good and bad deaths, and the like (Durkheim 1912; Weber 1946a). Importantly, the "causal" pathway is not linear (from biology to psychology to sociology), but rather social processes, like shunning or eviction from the community after a major transgression or

breaking a taboo, can react back on the psychological and biological processes, whereby "social" death results in biological death (Mauss, 1979).

To summarize, the first version of TSFs, which we refer to as the "social totality" approach, sees the self as located in cultural space, imposed on by the weight of various societal spheres (Weber, 1946b). In contrast, the second version, which we refer to as the "human totality" approach, sees the TSF as eminently tied to the things that shape our social reality by unifying—contra to Durkheim's *homo duplex*—every level of the human organism.

The Total Social Fact as Social Totality

The social totality approach—with a few exceptions to be noted later—constitutes the main reception of the idea of total social facts in sociology and anthropology, primarily via the influence of Mauss's classic essay on *The Gift* (1967).

For instance, the Japanese anthropologist Naoki Kasuga (2010) sees the concept of TSF as a resource to move beyond the functionalist image of society as composed of various nested sectors or subsystems linked via functional relations and exchange. To this picture, Mauss counterposes the TSF as a way to conceive of particular *sites* or *situations* "where various economic, legal, political and religious relationships overlap" (p. 101). Valeri (2013, p. 278) follows a similar tack, noting that TSFs "activate the *societal structure* at all its levels" (italics added). Relatedly, in Viana's (2020, p. 53) words, the TSF "is usually envisioned as an amalgam of *social* domains, making it a prospective interface between *social* sciences" (italics added). Similarly, Brubaker (2020) describes *digital hyperconnectivity* as a TSF in the sense of social totality because it transforms the self through transformations in culture, politics, the economy, and, consequently, the interaction order. Related conceptualizations of TSFs that emphasize social totality may also add temporal dimensions. Allen (2000, p. 143) argues that the totality of TSFs emerges because they "bring together the *whole* of society, past, present and future and everything associated with it. On such *occasions* everything mixes in" (italics added).

In the social totality conception, a study, description, and explanation of a given social phenomenon is lacking if it does not extend beyond itself. Accordingly, "[t]he 'total' approach to social phenomena, the interpretation of each phenomenon in close relation to the others and to the social system in which they are set, constitutes the specificity of the sociological method" (Gofman, 1998, p. 66). Bourdieu, in his Manet lectures, extends the social totality version of TSFs to consider the role of

particular revolutionary objects in fields of cultural production, which, in his example, was Manet's *Luncheon on the Grass*. For Bourdieu, the painting counts as a TSF because its exhibition called into question not only established artistic rules internal to the artistic field but also "the orders of politics, culture and the state" (1998-2000/2017, p. 84ff), thus bringing multiple social dimensions, sites, and institutional domains into convergence (and conflict). In the social totality conception, TSFs are total because they bring together all the major social institutions within their ambit; they are "at one at the same time legal, economic, religious, political, relating to production and to consumption" (Gofman, 1998, p. 67).[2]

While there is much to admire about the social totality perspective, in many ways, it is just another analytic strategy for conventional sociology. Though more holistic in its approach to considering the full suite of institutional forces working on the object or changing because of the object, it seems to obey Durkheim's methodological guardrails while ignoring the cautionary tale told by Mauss (1979) in his lectures on psychology and sociology. For Mauss, a sociology insisting on hard and fast boundaries between social and psychological facts was incomplete at best and theoretically and empirically handicapped at worst (Ignatow 2012). Consequently, while we are not advocating *against* the social totality version of TSFs, like Durkheim's *Homo Duplex*, it is only a partial framework for studying the most essential social forces or processes shaping social action and organization..

The Total Social Fact as Human Totality

As noted, there is another way to interpret the "totality" of TSF in Mauss, which is not necessarily incompatible with the social totality version. Here, rather than focusing on a *social* totality, the analyst examines how a given phenomenon involves multiple *aspects* of the person as simultaneously biological, psychological, and social beings (Smith, 2011). Like the social totality idea, this "human totality" version of TSF involves a mixture of disciplinary standpoints to understand a given phenomenon. However, rather than restricting the combination to multiple *social* sciences or sites, the analyst now fuses biological (today neuroscientific), psychological (today cognitive-scientific), and social (including historical) perspectives on the same phenomenon. Like

[2] In some ways, the social totality version of Maussian TSFs anticipated Parsons' efforts at Harvard to subsume the whole of social sciences under sociology during the "social relations" experiment (Isaac, 2012). While Parsons recognized interdisciplinarity as a virtue, this Social Totality version of TSFs does not necessarily require consulting other fields, as it simply demands seeing the TSF in the space constituting overlapping institutional spheres.

social totality, in the human totality conception, the TSF constitutes a nexus within which different disciplinary concerns (cutting across the social/non-social science divide) meet.

Rather than *The Gift* serving as a primary point of reference, authors inspired by the human totality version of the TSF look to a broader and more comprehensive corpus of Maussian essays (Meštrović, 1987, p. 568). Rather than the potlatch or the Kula Ring, the primary empirical referents for this version of TSFs are language, body techniques, or socially induced death, namely, "organo-psychic-social" phenomena (Ignatow, 2012). Particularly the classic essay on bodily techniques (Mauss, 1973), the study of collective suggestion of the idea of death ("dying by witchcraft") having actual psychological and physical effects (Mauss, 1979, pp. 35–56), and the lectures given to the French Psychological Society on the relations between psychology and sociology (Mauss, 1979, pp. 1–33).[3]

From this perspective, a TSF is total to the extent that it serves as a locus or nexus where the social, biological, and psychological sciences intersect. In this rendering, therefore, TSFs are produced by the interplay of people's physiologically grounded capacities, cognitive processes, social locations, and institutional histories. Subsequently, the primary purpose is to gain a holistic image of the person, including aspects deemed "subpersonal" from a strict social science perspective across various modalities of existence, experience, and causal processes. The human totality version of TSFs can be found in Gofman (1998), Karsenti (1998), James (1998), and Valeri's (2013) respective interpretations; Gofman notes that "the 'total' vision of objects should contribute to the erosion of disciplinary boundaries" (p. 65). At the same time, James suggests that *totality* should encompass the "intersecting planes or dimensions, of *organic*, *psychological*, and *social* existence" (James, 1998, p. 15, italics added).

Meštrović's (1987, p. 570ff) somewhat neglected reconceptualization of Durkheim's anomie as a Maussian human totality TSF is instructive in this regard. According to Meštrović, the reason why sociologists have long struggled with anomie operationally (Abrutyn 2019) rests on the conventional interpretation of Durkheim's concept that places the phenomenon at the macro-structural level (Merton, 1938; Besnard, 1988; Hilbert, 1989). Returning to the original French, Meštrović points out that Durkheim refers to anomie as a personally painful state of *dérèglement* caused by *derangement*. At the *social* level, the human totality version of anomie is the derangement of collective

[3] This approach has been referred to as "holistic sociology" (Ignatow, 2012), although this term is misleading, because Mauss's express aim was to breach the boundaries of disciplinary sociology with respect to the cognitive neurosciences and psychology.

representations, where "morals and standards are 'upside down'" and the self is left to its own devices that cause pain (1987, 570). Why? At the *psychological* level, Durkheim describes anomie as an affective state characterized by "frenzy, impatience, restlessness, feverishness, disenchantment, fatigue, excessive excitement, agitation distress, exasperation, misery, and insatiability" (1987, 571). Finally, at the *biological* level, "anomie is experienced [for real] as pain and suffering." Thus, one can only conclude that "anomie is painful to the individual experiencing it and it hurts" (ibid.; also, Berger, 1969).

In this last sense, anomie has physiological roots in the same neural circuits that encode physical pain, or what is conceptually referred to as *social pain* (Abrutyn, 2023), leading to the same potential deleterious consequences chronic pain can produce, such as a decline in the quality of life, disinvestments from social and worldly attachments, anhedonia and depression, and in some cases death by suicide. Accordingly, while analysts following Durkheim's (1914/2005) "homo duplex" separated the bio-psychological individual from the "sociological individual" by an unbridgeable chasm, conceptualizing anomie in purely social-structural terms—thus constituting a dualism (Lizardo, 2009)—Mauss sought to put that human back together, envisioning "the 'complete' human being as a reality whose biological, psychological and socio-cultural characteristics make up an indivisible whole" (Gofman, 1998, p. 66).

Reconceptualizing the Total Social Fact

A Tripartite Conception of Human Totality

Because of the popularity of the social totality version, vagaries remain surrounding the human totality approach. In this section, we synthesize previous formulations to provide a coherent conception of the human totality version of TSF. Most notably, not all analysts interpreting TSFs in this human totality direction agree on the exact mixture of disciplines encompassed in the TSF. For instance, Valeri (2013, p. 266) notes that the TSF has "a *tridimensional* character: 1) sociological, 2) historical, 3) physio-psychological" (italics added). Here, Valeri follows an influential formulation of TSFs provided by Claude Lévi-Strauss in section II of his introductory essay to the collected works of Marcel Mauss (Lévi-Strauss, 1987, p. 24ff). There, Lévi-Strauss notes that the TSF is a "decisive" notion in Mauss's work. However, Levi-Strauss also notes that it could have been further clarified if analysts

relied less on their conceptualization of Mauss's classic essay on *The Gift* (1967). In our terms, Levi-Strauss provides a persuasive argument for moving beyond social totality and towards the human totality conception of the TSF.

For Lévi-Strauss (1987), Mauss's idea of the TSF has several aspects. It is meant to encode the idea that society is a system and that while some aspects of social phenomena can be separated and abstracted out (in a first step) for analytic purposes, they must then be reintegrated into the whole of social phenomena and thus concretized (in a second step). This initial aspect of the TSF is compatible with the social totality interpretation of the TSF as the confluence of the significant social spheres, like politics, the family, economy, religion, art, and the like. However, for Lévi-Strauss, TSFs have two other aspects, bringing the notion closer to Mauss's human totality interpretation. First, TSFs "must also be embodied in…individual experience" so that we can observe people act as total agents, not divided up into faculties (of thinking, perceiving, feeling, and the like) (p. 26). Second, and most importantly, TSFs must be considered from an equally "total" science of the person, "an *anthropology*" conceived as "a system of interpretation accounting for the aspects of all modes of behaviour [sic] simultaneously, physical physiological, psychical and sociological."

In sum, Figure 1 reflects Lévi-Strauss' conclusion that "[t]he total social fact therefore proves to be *three-dimensional*" (*ibid*., italics added). It also reflects our effort to leverage Valeri's tripartite model, which collapses the psychological and biological into a single dimension and adds a historical dimension. We see value in the latter but also believe the biological and psychological dimensions are distinct enough to retain their discreteness. In turn, then, the socio-historical dimension stands in for the sociological dimension—to use Saussurean terminology—which captures its "synchronic" or atemporal aspect and the historical dimension, which captures its "diachronic" or temporal elements. That said, all analysts who interpret TSFs in the interdisciplinary direction agree that TSFs imply joining the social character of specific phenomena with their more "micro" psychological and

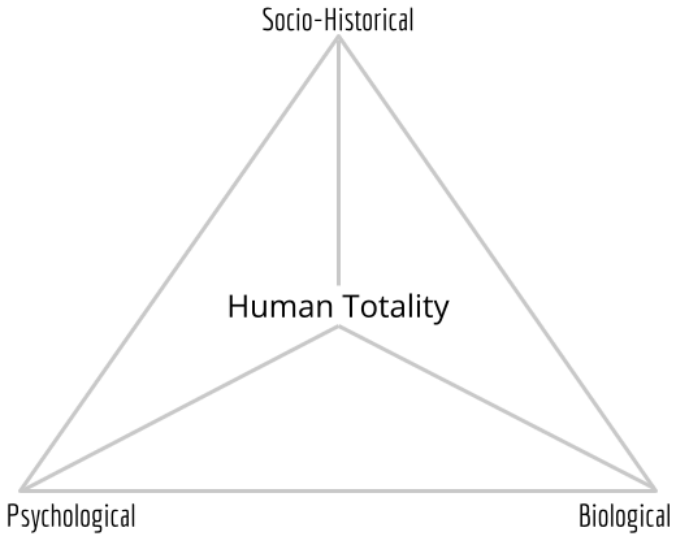

Figure 1. The Total Social Fact.

biological components.

The advantages are clear but worth reiterating. As we have intimated, Mauss's triune conception of the total human as a simultaneous biological, psychological, and sociohistorical creature can be profitably contrasted with Durkheim's famous image of the *homo-duplex* (Gofman, 1998, p. 66ff). What Durkheim rendered into a comprehensive, oppositional *duality*, Mauss seeks to analytically reintegrate into a more harmonious *tripartite* whole (perhaps inspired by his deep background in ancient Hindu mythology, which was suffused with tripartite classifications of the cosmos and the social order). In Mauss's conception, rather than alternating between "profane/individual" and "sacred/social" moments (as with Durkheim), actors are always simultaneously socio-historical, psychological, and biological/corporeal entities. For Mauss, the *totality* aspect of TSFs attempts to take the human being in their totality, elevating facts that affect each level as essential to understanding social behavior and organization. To tease one out, in Dennis Wrong's (1963) terms, the actor risks appearing as either "over-socialized," "over-psychologized," or "over-biologized," and perhaps also "over-historicized" as in Foucault's (1990) late work. In turn, any analysis that did so would be analytically limited and, significantly, would get the wrong answer when considering most phenomena of interest to the social sciences.[4]

[4] In many ways, mid-century sociology was closer to this idea than we are today. While Parsons' four levels of social reality are often satirized, Gerth and Mills (1953), for instance, recognized the central interplay between personality

Bridging the Three Explanatory Gaps

The human totality concept of the TSF we have outlined highlights three analytic problems that must be faced by anyone who wants to put to explanatory use, for each of the "sides" of the triangle also show up analytically as a kind of "explanatory gap" separating language or descriptions at a given level from perhaps discontinuous or incompatible language at another level. To describe a given phenomenon as a TSF in the human totality sense requires that we give up the temptation—pervasive across the human and social sciences—to privilege one level (e.g., the biological, psychological, or sociological) or discard the others as irrelevant, unscientific, reductionist, and so forth.

What is the nature of these explanatory gaps? One is familiar from discourse in the philosophy of mind and cognitive science, and that is the one that separates the "personal" language used to describe the wellsprings and motivation for action at the personal level (e.g., the language of beliefs, desires, hopes, fears and so forth) from the increasingly pervasive language, proprietary to the cognitive and affective neurosciences, of describing the same phenomena in terms of biochemical events, processes, and interactions occurring at the "subpersonal" level of brain systems, structures, and neuronal populations (Jackendoff, 1987). The familiar "mind-body" or "mind-brain" interface problem has bedeviled much discourse in the philosophy of mind for centuries, at least since Descartes's definitive statement on the subject. In the cognitive sciences, this shows up more concretely as an issue of the explanation of action and whether subpersonal events at the biological level are relevant for explaining action at the level of personally meaningful psychological constructs like cravings, desires, pains, hopes, and the like (Colombo, 2013; Drayson, 2014). Any attempt to use the human totality version of the TSF must grapple with the issue of bridging the personal and subpersonal levels of explanation (Bermudez, 2000).

Yet, our conception of the human totality TSF points to two other explanatory gaps that have yet to receive the attention they deserve relative to the ink spilled over the biological-psychological explanatory gap in philosophy. The first is that which separates explanations couched in the language preferred by those who privilege large-scale socio-historical processes as the main realm where explanations of action, interaction, and order are to be found (e.g., structures, epistemes, discourses, dispositifs, systems, and the like) from explanations couched in terms that can be cashed at the level

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and the institutional realities to which we are subjected.

of personally meaningful motivations for action in the Weberian sense (Coleman, 1986). This "society-mind" explanatory gap has shown up in various distorted guises in the history of social theory (e.g., as the structure versus agency problem). In most of these disquisitions, especially those inspired by Critical Realism, the gap is thought of as an ontological issue, bridge via the concept of emergence and emergent structures. Still, it is perhaps more profitably and memorably stated by Martin (2001) as the gap separating "first" and "third" person action *explanation* in sociology and social science more generally.

Like the "biology-mind" explanatory gap, the core issue concerns the preferred vocabulary in which explanations are couched and the preferred set of mobilized constructs. Importantly, as Martin (2001) points out, the usual "third-person" constructs sometimes preferred by sociologists can feel alien and removed from the more intuitive first-person concepts, as these are from the language of brain events and processes comprising the biological level. Sometimes, when first-person language is completely jettisoned from the explanatory scheme, it results in a form of top-down "sociological reductionism" common to both mainstream and critical conceptions of social science (DiTomaso, 1982). In both cases, what is indeed at issue is the matter of discrepancy, discontinuity, and lack of commensurability between competing frameworks for accounting for human action. Yet, even this deservedly influential formulation hides an issue made clear by the human totality conception of the TSF.

Just like there is a "society-mind" explanatory gap separating first and third-person constructs, there is also a "biology-society" explanatory gap separating high-level socio-historical concepts like discourses, epistemes, and racialized social systems from the increasingly influential language featuring interactions between biochemical processes in the human brain, or biological processes of genetic exchange, drift, and inheritance in human populations (Ignatow, 2022). If the job is to "mind the gap" between seemingly incompatible explanatory frameworks, this "biology-society" explanatory gap seems as essential to bridge as the first two (Freese et al., 2003). It is a virtue of the human totality version of the TSF concept that it first clarifies the existence of the three gaps, brings attention to their importance, and throws up the challenge to bridge the gap in ways that emphasize the continuity of language, vocabulary, and explanatory frameworks across the levels defined by the three gaps, if we are to come up with a sufficiently "total" explanation of a social phenomenon.

In the following section, we follow this line of argument to its logical conclusion by examining

the phenomenon of addiction as a human totality TSF conventionally believed to be caused or primarily shaped by one of the three levels as a means of showing just how much they depend on the interplay of all three corners of the TSF triangle.

Addiction as a Total Social Fact

Social scientists who study addiction are naturally drawn to emphasizing its socio-historical components (top vertex of Figure 1), an understandable reaction aimed at rectifying a genuine analytic imbalance, given that the study of addiction is dominated by people who only consider its psychological or biological (neurophysiological) aspects (the bottom vertices of Figure 1) (Weinberg, 2002, 2011; Bourgeois and Schonberg, 2009; Hammersley, 2018). These include those who uncritically adopt an increasingly inapt (and rejected across disciplines) "medical model" of the phenomenon, seeing addiction not only as a purely biological phenomenon but even more narrowly as a *disease* to be treated mainly via psycho-pharmaceutical means (Miller et al., 2020, p. 2). This is an unwarranted equation, as one can acknowledge the biological reality of addiction while rejecting the conception that is a "brain disease," as many normal motivational and behavioral phenomena have a specified physiological basis (Lewis, 2015, Levy, 2013). The medical model reduces addiction to an individual "problem," a *subpersonal*, neuropsychatric issue beyond the level of personal psychological meaning or interpersonal social context. This opens up an explanatory gap between this subpersonal language and the cognitive and affective experiences of the people involved, and another explanatory gap between both of these and the socio-historical aspects of the phenomenon.

The TSF perspective casts aspersions on all houses involved in this debate, providing a framework to close these explanatory gaps. There is no question that the socio-historical aspect of the addiction TSF has been under-emphasized and given short shrift (Hammersley, 2018). There is also no question, as has even been recognized in contemporary addiction medicine, that the medical model and disease paradigm is a failure on analytical, normative, and practical grounds (Miller, 2015). Yet, an overreaction to the other side, looking at addiction exclusively as a socio-historical phenomenon while ignoring its psychological, physiological, and embodied aspects, is also a mistake, reinstating an untenable mind/body, symbol/materiality dualism that would cloud our understanding of the phenomenon (Weinberg, 1997).

As Weinberg (2002, p. 1) has noted, addiction is a "remarkably fruitful empirical site for

studying the relationship between body and society" and thus can serve as a bridge to close the various explanatory gaps; it is thus a "total social fact" in the strict Maussian sense. Interestingly, some of the earliest practical applications of the pragmatist theory of symbolic interaction were to the phenomenon of addiction in the work of Alfred Lindensmith (1938). Naturally, Lindesmith endeavored to show that addiction could not be reduced to purely bio-chemical or psychological processes; instead, to understand addiction, we must also grapple with the meanings that the addict (and those around them) assign to the behavior, where these meanings are largely drawn from the extant social and cultural milieu. Thus, as these available meanings change, so does the phenomenon of addiction. The other thing we must pay attention to is the socio-historical and even biographical *process* of becoming addicted to a substance (or "becoming an addict") since, depending on the specific sequence of events, two individuals could begin as users of a particular drug or substance, but only one would become a "full-time" addict (Uscola, 2023).[5] This line of argument has been largely accepted by scholars trying to "think" sociologically about drug use (Becker, 1953) and alcohol abuse (Denzin and Johnson, 2017) through a microsociological prism that rejects any hint of biological or psychological reductionism.

Yet, as Weinberg (1997, p. 150) has noted, in order to establish this purely sociological approach to addiction, Lindesmith had to keep (conscious) cognition (which served as the conduit for symbolically mediated cultural meanings learned from the environment) from more implicit bodily sensations and other drug-use related experiences (such as the experience of pleasure, euphoria, or physical withdrawal). This opened up an explanatory gap between the personal events and experiences that were subject to description by the analyst at the level of cultural meaning and those subpersonal processes that were given a purely physiological cast. Consequently, Weinberg concludes, "this mind-body dualism is untenable on both epistemological and phenomenological grounds…and inhibits conceptually rigorous sociological contributions to our understanding of the visceral, or prereflective and nonsymbolic, features of drug use and drug-induced experience" (*ibid*).

What is needed, therefore, is an approach that links the physiological process of addiction with its more meaningful personal, psychological, and socio-historical aspects. Such an approach must be mindful of deploying conceptual resources that are designed to "mind the gap." For instance,

[5] An approach equivalent to the one Becker (1953) would follow in his later and also deeply influential article on marihuana use.

Weinberg (1997, p. 152-153) states that due to its mid-twentieth-century association with behaviorism, sociologists like Lindesmith (along with such influential representatives of pragmatist symbolic interactionism as Cooley and Blumer) abandoned the concept of habit, seeing it as antithetical to cultural meaning and symbolic indication. This is despite the fact that habit was the central and perhaps most fundamental concept of the theory of action of the first generation of pragmatists from Peirce to James, to Dewey, and even Mead. This is a major conceptual loss since habit is one of the few concepts that can bridge the explanatory gap between bodily practice and physiology and personal level meaning, connecting right back up to societal-level and historical processes (Bourdieu, 1990), as exemplified in Mauss's use of habit-like concepts to bridge the psychological, bodily, and societal aspects of the TSF (e.g., in his idea of societally specific "bodily techniques"). Another bridge concept is that of *learning*, which was thrown away by symbolic interactionists, given its association with behaviorism. As we will see, modern approaches to addiction coming from motivational science put learning squarely at center stage in the addiction process without needing to rely solely on behavioral conditioning, as addiction is viewed primarily as a hijacking of the motivational system responsible for all energizing of human behavior (Berridge 2023).

A final bridge concept is that of *affect* (Panksepp 1998; Flores Morsi, 2021). As Weinberg (2002, p. 11-13) notes, symbolic interactionist approaches to addiction, such as Ray's (1961) theory of the relapsed self and Denzin's theory of the alcoholic self (Denzin and Johnson, 2017), while going beyond some of the limitations of Lindesmith's original approach, by incorporating a richer account of division and conflict in the addict's experiential career, remain tied to an overly cognitivist model of the actor. Even when affective processes are incorporated, as in Denzin's account of addictive craving and desire in alcoholism, the stipulation that there has to always be "a reflexive interpretation of this desire as such, a reflexive acknowledgment that one is the particular self who is experiencing the craving, and some type of moral evaluation of that particular self," thus reintroducing the "cognitivism that prevented Ray from grasping the spontaneous visceral character of craving and forces us to conceive of relapse as always preceded by a reflexive interpretation of oneself and one's emotions" (p. 12). Contemporary affective neuroscience allows us to part ways with this cognitivist approach (Panksepp et al. 2017), which once again reintroduces an explanatory gap between felt desires and cravings (presumably happening at a subpersonal level) and their reflexive acknowledgment and incorporation into more deliberate self-identifications, thus rendering the biological-embodied

separate from the social-psychological aspects of the total social fact (Weinberg, 1997). We begin by describing addiction as a biological fact, reviewing recent work in the neuroscience of addiction. A key roadblock when considering the biological aspect of addiction is to remain stuck at this level (as in the disease model), thus failing to describe the phenomenon as a true TSF. We will see that it is possible to consider the biological aspect of addiction while endeavoring to link it with its psychological and socio-historical aspects.

Addiction as a Bio-Psychological Fact

One thing that almost all models of addiction seem to agree on is that addictive behavior is tied to the neural system devoted to rewards, particularly those that mediate encoding the environmental contingencies that lead to rewards in memory (reward-learning) and in coding for those objects, substances, and experiences that we find rewarding (incentive salience) (Flores Morsi 2021). In both cases, the neurochemical dopamine, as well as the brain circuits within which it is produced and circulates (like the midbrain), play a central role. In fact, the key finding supporting the (flawed) model of addiction as a brain disease rests on an accurate observation, which is that the process of addiction leads to significant modification in brain structure and function, particularly those supporting motivational (wanting) functions (Lewis, 2014, Levy, 2013).

Midbrain dopamine circuits constitute a mechanism supporting the core of mammalian desire or search for potentially rewarding objects that tonically fire as we move about the environment (Panksepp 1998; Berridge and Kringelbach, 2008).[6] Importantly, this system implements a reward-prediction-error process, which is critical for the learning phase of the motivational process. More specifically, midbrain dopamine-releasing neurons that project to the ventromedial and prefrontal cortex release dopamine whenever we encounter unexpected (unpredicted) rewards, thus helping tag the current environmental state (and the actions that led us to it) as one that we should strive to revisit in the future (Schulz, 2016). Dopamine thus links temporally ordered actions and environmental states, helping us select some (the ones that led to unexpected rewards) over others.

[6] In neuroscience, the difference between the tonic firing of neurons and the "phasic" firing pattern is that phasic activity is discontinuous and represents a sudden deviation from a pre-established firing norm (represented by tonic activity). Phasic neuronal firing is thus a response to unexpected events at short time scales. In contrast, tonic firing regulates behavior at longer time scales, including patterns of phasic activity via afferent pathways from the cortex to mesolimbic brain areas (Grace, 1991).

Importantly, midbrain dopamine stops being released once the reward received in a given environmental state matches the predicted reward, indicating that the dopamine codes for the discrepancies between prediction and actions and not the hedonic impact (e.g., coded by neurophysiologically distinct pleasure "hotspots" in the brain) of the reward object or experience itself. Accordingly, when the dopamine circuit is electrically manipulated in lab experiments with animals, they become exceptionally excitable; when given the opportunity, they will also self-stimulate (Panksepp, 1998), indicating that they are motivated to seek environmental states and experiences that lead to surprisingly pleasant experiences.

Once defined as a "pleasure center," neuroscientists have found that, for human and non-human animals, wanting something is neurophysiologically and chemically distinct from liking or consuming the thing they want. The two often cycle back and forth. We see and smell a piece of cake and are compelled to put a delectable piece in our mouth. At this point, dopamine-releasing circuits become less active, and smaller hotspots distributed around the midbrain subserved by opioid-releasing neurons become active. If the cake was perhaps even better than we hoped, dopamine release begins anew, reinforcing our expected reward model and compelling us to fork another piece. However, addictions involve the gradual decline in opioid release paired with the hyperactivity of dopamine (Berridge, 2023).

The most addictive substances, like cocaine, nicotine, and heroin, promote the release of dopamine via direct neurophysiological mechanisms (in the case of cocaine) or indirectly, acting to confound the usual reward-prediction circuitry used for learning and reinforcing actions in natural reward experiences, because Cocaine is always coded as *surprisingly* rewarding (because its consumption leads to dopamine release), regardless of whether the actual environmental states were unpredictable or not, meaning that the reward circuitry comes to hyper-reinforce drug consumption experiences over other equally rewarding options. In the same way, the dopamine hyperactivity induced by addictive substances comes to code *all* environmental accompaniments of the drug consumption experience as themselves "surprisingly" rewarding, which then becomes both cues for initiating actions associated with drug consumption, themselves become environmental states that the person learns to seek as pathways to the the "rewarding" drug consumption states.

Thus, the hyperactivity of the dopamine-mediated reward prediction system during addiction is partly triggered by the fact that environmental stimuli can become as rewarding as the object we

crave (Berridge, 2023). That is, the place, people, and even random objects can come to trigger the same cravings that the actual reward object produces, perhaps even more potent, suggesting an intimate relationship between the external factors pulling people towards their cravings and the inner, affective systems pushing them. Anyone, then, can become addicted to one thing or another. Drugs are exceptionally addictive because of their purposeful chemical effect on the brain. Cocaine, for instance, acts like the electricity rats trigger to self-stimulate the dopamine circuits (Panksepp, 1998; Berridge and Kringelbach, 2008). People self-stimulate in a variety of settings. We do this with mindless web surfing or, worse, doom scrolling; food addictions (Hammersely 2018); porn addictions (Perry 2019); and thrill-seeking addictions (Lyng, 2014). It is here, though, that a pure neuroscience perspective requires psychological and sociological contributions to understanding and explaining addiction. That is to say, neuroscience teaches us *why* addictions happen, at least the mechanics of addiction. But the sheer variety of things we can become addicted to is mindboggling.

Addiction as a Social-Psychological Fact

By the mid-century, developmental psychology realized that early attachment, or the lack thereof, to caregivers had significant consequences for children's maturation into adulthood. For instance, abrupt disruptions of critical social ties have short- and often long-term effects on the child. Of course, we do not need to be taught to feel the panic we all felt when we lost sight of a parent in a busy mall; we are wired to panic and seek out significant others (Panksepp, 1998). More recently, cognitive neuroscience has shown that being rejected by or separated from a loved one triggers the same neural circuits as experiencing various physical traumas (Eisenberger, 2012). It hurts. Pain is also a great motivator for action, where possible. Belongingness is a fundamental human need (Baumeister and Leary, 1995), even if the amount of belonging we each need is a subtle mix of genetics, biology, and social experience. Psychological explanations of addiction, diverse as they may be, tend to hinge on dealing with unmet needs (Lewis et al., 2020). But, as this discussion implies, being exposed to social pain has sociological dimensions (Abrutyn, 2023). Home trauma, for instance, is not always random, and like other social phenomena, it clusters in certain areas, as does the tendency to experience fear and anger chronically (Hochschild, 2018; Rotolo, 2022). Moreover, cultural beliefs and practices in dealing with things like pain, depression, and anxiety cluster in communities, making more extensive swaths of a population vulnerable to drug abuse, as in the

so-called "deaths of despair," (Case & Deaton, 2020), or death by suicide (Mueller & Abrutyn, 2024).

Addiction as a Bio-Sociological Fact

While exposure to rejection or chronic humiliation is a social factor, the outcomes are psychological and neurological. In terms of the former, anhedonia—literally, the reduced incapacity to code rewarding experiences as subjectively pleasurable—may become dominant, making some people more vulnerable to pursuits that are coded as pleasurable by the dopamine system. That sort of trauma may also make people either especially sensitive to pain or desensitize them. In terms of the former, those who feel pain quickly may also feel it more intensely, drawn to painkillers that have addictive qualities. More likely, affective systems designed to be phasic or trigger only in appropriate situations may become chronically activated. Pain is an evolved signal of danger, causing our fear system to operate and respond in aversive ways (Lang & Bradley, 2010). Fear is one of the best triggers of memory systems (LeDoux, 2000), hence the panoply of phobias humans display. The issue, then, is that chronic fear makes people chronically averse to social relationships, which amplifies the rejection felt in childhood. The inability to form healthy relationships causes people to be engulfed in social pain and, in turn, seek any sort of mitigating force (Panksepp and Watt 2012). Drug addiction is predominantly a consequence of, and as it feeds back on people's psyche and social life, a cause of social and physical pain (Flores Mosri, 2021). An ethnography of a homeless encampment in San Francisco, for instance, described the continuous pain drug addicts experienced (Bourgois and Schonberg 2009). Most, if not all, were reflective of the ties lost and the regret they felt, while all of them experienced the acute sensation of withdrawal, urging them to seek out a hit that would (temporarily) kill the pain.

The same sort of totalistic explanation helps make sense of the so-called 'Deaths of Despair' more satisfyingly than the ordinary economic or epidemiological explanations (Case & Deaton, 2020). Yes, capitalism, big pharma, changes in medical insurance systems that encourage easy fixes, and massive changes over the last 40 years in the global economy have conspired to hollow out hundreds of communities propped up by manufacturing jobs. These "distal" social causes help explain the environmental context for opioid addiction and higher rates of morbidity among middle-aged white men. But, without understanding the neurophysiological role that social pain plays in conjunction with physical pain, the picture is incomplete. These communities are sites of

rampant social trauma or a sense of shared tragedy and the ensuing sense of moral disorientation, hopelessness, and imminent danger (Hochschild, 2018). That people know people who have died by suicide, poor physical health, and addiction reinforces the collective nature of trauma, as does the popularization of the term 'deaths of despair' by the news and pop cultural media. The physiological addiction, however, is real. While ordinary over-the-counter painkillers like Advil may help mitigate social pain (Panksepp and Watts, 2011), these drugs are not as addictive in the physiological sense as opioids. Thus, the use of painkillers becomes embodied as much as they are psychologically rewarding and socially approved cultural repertoires for managing the physical and affective hurt the community feels.

The Addictive Personality as a Total Social Fact

Drugs, of course, are the most usual object people think of when they think of addiction. We can, however, become addicted to just about anything, with a very blurry line between clinical addiction and intense desire or want (Lewis, 2015). It is these other things that both illustrate the need for a totalistic approach. Take, for example, addiction to pornographic material among Evangelical men in the U.S. (Perry, 2019). LUST, is the core motivational system in charge of producing desires to find and consummate sexual activity with partners. LUST is thus a ubiquitous affective drive, subserved by a dissociable set of brain regions and dedicated neurochemical pathways, and triggered by predictable environmental stimuli across the entire range of modalities, including auditory, visual, olfactory, and haptic stimulation (Panksepp, 1998). In combination with other affective systems such as CARE, it can produce secondary and tertiary phenomena such as romantic attachment (Flores Moris, 2021). Like any affective system, the functioning of the LUST system can veer towards the "pathological" (in the usual disease-model sense) due to natural genetic variation in combination with particular learning histories.

The social explanation that Evangelical culture simultaneously elevates and enforces amplified patriarchal gender roles *and* represses myriad forms of sexual pleasure makes some sense in explaining why Evangelicals are disproportionately likely to engage in pre- and extra-marital affairs than their counterparts or have higher rates of teen pregnancy. Like these activities, porn, of course, is intensely condemened as a sinful activity via pervasive cultural messages in the evangelical subculture. This means that at the individual level, persons are expected to exercise self-control in

their everyday behavior to prevent themselves from indulging in the behavior. We know from previous work, that the capacity to engage in this type of consciously monitored self-control is highly limited and particularly prone to failure (Dill & Holton, 2014). Thus, any combination of a social milieu that emphasises prohibition on activity that requires self-monitoring will likely end up with the "ironic" result of producing people who are more likely to engage in the prohibited activity (Wegner, 1994). However, this explanation only helps understand why they might be a predisposition to watch porn among conservative protestansts (e.g., as predictable failures in self-control attempts), but it does not explain why they become *addicted* to it.

For instance, Perry (2019) found many compulsively masturbating to porn despite hating it after the fact, suggesting that the pursuit of pure pleasure or release was not the main culprit. One interlocutor, David, lamented, "[t]otally addicted. Sometimes I've felt downright hopeless about my enslavement to pornography" (Ibid. 59), without understanding the underlying biological and psychological elements. Here, what we find among Perry's respondents is an affective feedback loop: Various stimuli in their environment make them anticipate and prepare to watch porn helplessly, as they report, and feel guilt or shame after the fact. The pleasurable act of preparing, watching, and satiating themselves mitigates this pain just as heroin kills the physical pain of withdrawal. It also makes them crave being in the very social milieu that makes it hurt so much. One woman Perry spoke with reflected that it had "made me, like, more religious…Like, I felt really bad for a long time and prayed about it, went to church, asked for forgiveness for a really long time" (ibid. 86); a sentiment shared by many others he interviewed. They, however, immediately feel more shame and guilt and, thus, become driven to the easy, immediate form of relief. Their local community, or the structural and cultural webs around them, act in analogous ways to the street economies of homeless encampments (Bourgois and Schonberg, 2009).

This socio-bio-psychological loop raises a chicken-versus-the-egg question that underscores the totality of addiction as a social fact: some seek, aimlessly, for something to kill the pain; find it; become addicted psychologically and then neurophysiologically; then come to need it more as it self-reinforces the underlying causes. Others stumble onto something they find pleasurable, perhaps even finding the company and its social rewards more enjoyable than the alternative social ties they have (Uscola, 2023); the use of the object causes neurophysiological changes that than feedback onto our social relationships, as we become less capable of interacting with others or, in their eyes, less

desirable to interact with (Lewis, 2015). We simultaneously withdraw and are isolated from the social relationships we found so rewarding in the first place (Link & Phelan, 2013). If events continue to unfold, we may find ourselves in physical pain, further reinforcing the addiction. Too much binge eating mixed with depression may make us seriously obese; drug or alcohol addiction may leave us unhoused; thrill-seeking may lead us to seek out ever-extreme thrills that get us closer to the edge between life and death, inviting accidents. [losing steam here…didn't use the evangelical stuff, Sims' addicted to hate, or deaths of despair yet]

Discussion and Concluding Remarks

This paper has sought to re-examine Marcel Mauss's concept of the "total social fact" (TSF), arguing for a shift from the prevailing "social totality" approach to a more comprehensive "human totality" perspective. This latter interpretation emphasizes the tripartite nature of TSFs, encompassing biological, psychological, and socio-historical dimensions, thereby offering a more holistic understanding of social phenomena. By illustrating the limitations of the social totality approach, which often confines analysis to the intersection of various social spheres, we have argued fro the usefulness of integrating insights from diverse disciplines, including cognitive neuroscience and psychology, into sociological inquiry. This integration allows for a richer, more nuanced exploration of how phenomena like addiction, conceptualized as a total social fact in Mauss's sense, manifest across multiple levels of human experience.

To show case the flexibility of the proposed approach, we applied the human totality TSF framework to the phenomenon of addiction. Rather than viewing addiction solely through a biological, psychological, or socio-historical lens, we have shown that it can be best conceived as a TSF; namely, a complex interplay of all three. Biological factors, such as dopamine pathways and reward-prediction error processes, provide the physiological mechanisms of addiction, while psychological factors, including unmet needs and affective states, shape individual vulnerabilities. Socio-historical factors, such as cultural beliefs, economic conditions, and social trauma, further influence the prevalence and manifestation of addiction within communities. Understanding addiction as a TSF requires bridging the explanatory gaps between these dimensions, moving beyond reductionist models that privilege one aspect over others.

Furthermore, this paper has highlighted the importance of bridging the explanatory gaps that exist between the biological, psychological, and socio-historical levels of analysis. These gaps often manifest as discrepancies in language and preferred constructs, leading to fragmented and incomplete explanations. By advocating for the use of bridge concepts like habit, learning, and affect, we can foster a more coherent and integrated understanding of social phenomena. These concepts allow us to connect subpersonal processes with personal experiences and socio-historical contexts, avoiding the pitfalls of over-socialization, over-psychologization, or over-biologization.

Sociology is at a juncture where one path leads to the status quo and the continued bracketing of social facts from other relevant mechanisms and processes, and the other towards a more holistic and robust science of society. While it is true that different levels of social reality are emergent and, therefore, possess dynamics irreducible to those below them, it is not true that these are the only or even the most important social phenomena of interest. Durkheim's *homo duplex* legacy, like most canonized sociological thinkers, is no longer tenable and was deemed untenable by one of his closest friends and collaborators, Mauss, not long after his death. In that spirit, we have sketched one possible vehicle for moving along that second path: total social facts.

While addiction was the case, we used to illustrate total social facts, myriad other objects of inquiry may be fruitfully examined through this framework, including play, sex, death and/or funerals, language, and learning or socialization. We realize that others, like gender or disability, are provocative and tend to represent the sort of "third rail" that sociologists fear touching, lest any semblance of biology or psychology cause one's membership in the sociological tribe to be revoked. Yet, we would advocate for cautiously treating these phenomena as total social facts and not simply reducing them to constructions that resist any physiological, chemical, or sensory explanations. To be sure, in showing how addiction is neither a disease nor a purely social construction like deviance or stigma, we offer a vision for a bio-psycho-social line of investigation that is not reductionist or determinist but that promises to offer exciting new insights into the discipline's core concerns.

The implications of embracing the human totality conception of TSFs are significant for the future of sociological research. It necessitates a move away from rigid disciplinary boundaries and towards a more interdisciplinary approach that incorporates insights from various scientific fields. This approach not only enriches our understanding of specific phenomena like addiction but also strengthens the robustness and comprehensiveness of sociological science as a whole. By

acknowledging the interconnectedness of biological, psychological, and socio-historical factors, we can develop more effective interventions and policies for addressing complex social issues.

Ultimately, this paper argues that Marcel Mauss's vision of the total social fact, when understood as a human totality, offers a powerful framework for understanding the complexity of human experience. By recognizing the indivisible whole of the total human being as a biological, psychological and social creature, we can move beyond fragmented and reductionist (eitther in their top-down and bottom-up varieties) explanations and develop a more holistic and integrated approach to sociological analysis. This approach not only honors the richness and complexity of social life but also paves the way for a more comprehensive and impactful sociological science in the twenty-first century.

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