



For a probabilistic sociology: A history of concept formation with Pierre Bourdieu

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Abstract

This article uses a history of concept formation focused on Pierre Bourdieu's probabilism to provide the groundwork for a probabilistic sociology. We argue that not only was Bourdieu a probabilist, but that reframing probability along heterodox lines holds empirical promise when it is also linked to new concept formation, as evident in the case of Bourdieu. For the anglophone sociological field, probability is of primary significance for method and epistemic commitment. Sociological theory continues to react to the integral role of probability used for the purposes of sociological knowledge but finds very little in the way of concept formation that does not adopt the same commitments as the methodologists. The history we outline retrieves a different approach, one which finds Bourdieu aligned with *objective probability* borrowed from the sociology of Max Weber. This version of probabilism locates probability directly in the world and makes it a source of concept formation without the intervention of the methodologists. This article follows Bourdieu as he recognizes objective probability in the work of Weber (around 1973) and then engages in novel concept formation on these grounds. Ranging between spaces of objective probability (fields), spaces of randomness (games of chance), and spaces of determinism (apparatus), Bourdieu's mature probabilism reveals the conceptual and meta-methodological differences that come with making probability objective. Probabilistic expectations derive from the world itself, rather than existing as part of explanation or method. Specifically, this history of concept formation reveals a looping relation between objective probability (chances) and learned probability (expectations) that, as Bourdieu himself appreciated, holds wide-ranging implications for best knowledge practices and empirical sociological research.

Keywords Bourdieu · Weber · Objective probability · Chance · Habitus · Field

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Despite the reams of commentary that have accumulated in English-speaking sociology over the last four decades, the particular emphasis Pierre Bourdieu gives to what he calls, following Max Weber, “objective probability” has nearly gone unnoticed. This is notwithstanding the fact that Bourdieu almost verbatim repeats various formulations and reformulations of the idea in publications, lectures, and addresses spanning from as early as 1963 to his initial practice theory of the early 1970s. These are restated again in his key theoretical statement *Logic of Practice* in 1980 and in *Pascalian Meditations* published in 1997, his last theoretical statement, very appropriately entitled as a homage to Blaise Pascal, one of the classic “discoverers” of probability (Hacking, 1975, p. 59ff). This connection to Weber’s probabilism is fitting and significant but has also not been remarked upon despite many analyses showing the Weberian roots of several of Bourdieu’s central concepts (Brubaker, 1985; Gorski, 2013; Swartz, 1997; Wacquant, 2013). In part, this is because Weber’s focus on “objective probability,” particularly in *Economy & Society* (Weber, 1921-1922/2019), his own (and last) statement on sociology, in addition to earlier iteration of his principle themes “Some Categories of Interpretive Sociology” (Weber, 1913), has also largely been lost to history ever since Talcott Parsons (1937) and, later, Schutz (1932) both read the original German language version of Weber’s text and both (independently) dismissed the idea for what it suggested about the integral connection between probability and action.

This sociological amnesia prevails despite analysts like Stephen Turner (1983) highlighting the centrality of Weber’s ransacking of some peculiar ideas about objective probability floating around in his intellectual milieu early on (and S. P. Turner, 1986, p. 163ff; see also S. P. Turner & Factor, 1981), particularly the conceptions of the German physiologist, jurist, and philosopher Johannes von Kries. Even though Turner’s paper on Weber’s probabilistic action theory appeared in a prominent outlet (*American Sociological Review*), considerations of Weber’s approach to probability, particularly as it pertains to his theory of action, still have not seeped into mainstream sociological discourse or even post-Parsonian action theory (e.g., Joas, 1996), which may have contributed to scholars persistently missing the (surprisingly) obvious Bourdieu/Weber connection.¹ One reason for this is that the collection of methodological texts from Weber, translated and edited by Edward Shils and Henry Finch as *The Methodology of the Social Sciences* in 1949 (Shils & Finch, 1949), did not include Weber’s 1913 essay, even though the essay was written to serve as the methodological introduction to *Economy & Society* (particularly the first four chapters) before Weber decided to publish it separately (Graber, 1981). It was, however, published in the German-language volume on which the Shils and Finch’s volume was derived, *Gesammelte Aufsätze zur Wissenschaftslehre*, the posthumously collected (Weber, 1922) edition of Weber’s “theory of science” writings. This omission is significant because, while Weber had helped himself to the idea of “adequate cause” from Von Kries (Heidelberger, 2015), in the earlier and better-known methodological (and polemical) essays included in Shils and Finch’s translation, it is only in the 1913 *Logos* essay that Weber incorporates the even more pivotal (particularly concerning Weber’s last statement of his action theory) notion of “objective probability” also taken from

¹ Recent work uncovering the origins and implications of Weber’s (still) obscure probabilism remain confined to specialized Weber scholarship (Heidelberger, 2015; Palonen, 2011; Treiber, 2015; Tribe, 2019).

Von Kries (Heidelberger, 2015; S. P. Turner, 1983, p. 510ff). The result is that anglophone sociologists did not have access to a key link in the Weberian chain until Edith Graber's (1981) translation of the *Logos* essay, published in the March issue of *The Sociological Quarterly* in 1981 (Weber, 1913).²

Bourdieu (2007, p. 72), on the other hand, had the benefit of reading Weber with fresh eyes, free of Parsonian (or Schutzian) baggage, given his uncertain positioning in sociology and the fact that French sociology was not configured around a canon in the same manner that American sociology had come to be following Parsons. In particular, Bourdieu was evidently influenced by a 1965 French equivalent to Shils and Finch's text, *Max Weber: Essais Sur La Théorie De La Science*, edited and translated by Julien Freund (1965). The difference is that this collection of Weber's methodological writings *did* include a translation of Weber's 1913 *Logos* essay. Bourdieu's Weber, drawn in particular from this reading, is a Weber for whom probability is not a purely instrumental statistical measure; neither is it a reified positivist trope (in Quetelet's sense). Rather, it constitutes an integral component of *action*, though importantly not as a token of subjective meaning as understood in an interpretivist sense (Reed, 2011). From this heterodox position (see Weber, 1913, p. 159), probability instead has an "objective existence" that is mirrored in "subjective [expectation]" (*Chancen*).

What is probabilism?

This article provides a preliminary, but substantive, elaboration of the difference it makes to incorporate probability *conceptually* into sociology, in contrast to incorporating probability *methodologically* as it is most conventional. Both Weber and Bourdieu did this, but their achievements in this respect remain largely unacknowledged and underexploited. In the pure methodological approach, probability is fundamentally about mathematical problems that can only be addressed by doing calculations on numerical data.³ Probability is a tool for sociological knowledge because such calculations can enable the restatement of sociological theories as "probability statements" rather than the statement of laws. As Lieberson (1991, p. 7) notes, "it is unrealistic to act as if social life is driven by deterministic forces"; the most a theory can do is to specify "certain conditions" that "alter the likelihood of different outcomes" (ibid, p. 8). Sociological theories should therefore take the form of epistemic statements like "If X_i is positive, then there is the probability of Y ; and if X_i is negative, then the probability of Y is different" (p. 10). As some have argued (e.g., Watts, 2014), such

² Based on an MA thesis written at the University of Oklahoma in 1970 entitled "A Translation of Max Weber's 'Ueber Einige Kategorien Der Verstehenden Soziologie'." The more recent English translation of the entirety of the *Wissenschaftslehre* by Hans Henrik Bruun does include a (new) translation of the *Logos* essay (Bruun & Whimster, 2012). There are reasons (regarding consistency of terminology concerning the concept of *Chancen*) to prefer Graber's older translation, however.

³ The historiography would suggest that these assumptions are mainly a nineteenth century creation that coincided with probability's mathematization, which appears somewhat anomalous, in the concentration on *explanation* separate from *expectation*, within the historical arc of concern with probability. Of particular relevance, as we discuss below, is seventeenth century "classical probability theory" as "discovering" probability not by starting with numerical data observations but with an intuitive "social reasonableness" and the problem of how equity and justice in particular were intuited by players in games of chance (Hacking, 1975; Daston, 1995).

statements can be strengthened by moving into the realm of *prediction* with the benefit of bigger (e.g. “big”) datasets, more advanced technical apparatus and aptitude, and research designs (out-of-sample testing) drawn from predictive-centric disciplines like physics. Altogether this can yield a “probabilistic standard of prediction, according to which one must merely demonstrate that the probability of an event Y increases in the presence of some other factor X relative to its absence” (p. 338).

From this perspective, probability refers to the *calculated* likelihood that a given event will occur given some set of co-present conditions or factors that can vary with it. But while it might seem unremarkable to suggest, these arguments rest on the premise that probability can only be known as it is calculated, that probability only exists in the calculation, and that there is a disconnect between the calculation and what it applies to, particularly when the probabilistic statement or the prediction applies to action. After all, those who act (and experience) do not predict, or if they do, those predictions should not be taken seriously. If probability cannot be part of social action, then many sociologists have suggested that something more must be added to move from a probabilistic statement to an explanation: like a mechanism enriched by interpretation, for instance (Gross, 2009; Hedstrom & Ylikoski, 2010; Knight & Reed, 2019).

The tension has also been “resolved” by explaining it away, for instance by arguing that prediction *is* explanation; interpretations do not explain because they cannot predict (Watts, 2014) or by rendering the predictive relation into a *causal* relation by using it to infer toward the presence of (real) social kinds (Gorski, 2004). More generally, a purely methodological conception of probability has the effect of reinforcing a conventional form of the quantitative/qualitative divide by making the methodologies not designed to produce explicit calculable chances (ethnography, interviews, historical sociology) inherently different from the ones (e.g., survey designs, machine-learning) wherein calculable probability is (or can be) integral to data-gathering, analysis, and related knowledge claims.

Probabilism as we discuss it here differs from these approaches because it takes the novel (and seemingly counterintuitive) step of locating probability in the social world and making it learnable by the folk without the intervention of calculation. From this position, probability becomes a qualitatively retrievable part of social action and experience, rather than located only in (or learnable through) an analyst’s calculation.⁴ This heterodox approach also means that probabilistic knowledge and prediction is premised upon a different (non-hierarchical, non-authoritative) relation to the folk, making that relation more akin to an interpretative sociology focused on understanding as distinguishable from interpreted meaning (e.g., a non-interpretivist interpretive sociology; see Weber, 1913, p. 158ff; see also Strand, 2020).

⁴ Consider the following example (from Elliot, 2021): we can know that a U.S. quarter’s probability of landing heads after being flipped is about 50% without the benefit of even a rudimentary calculation. Our knowledge suggests, first, that coin flips are not matters of chance but of probability. Second, this suggests that a probabilistic content must be located outside a calculation and in the world itself, in the *expectation* of the 50% probability, rather than in the explanation of it. We can know that (and form expectations that) a coin flip has a 50% probability of landing heads because we have already *learned* this probability (or can learn it). After all, no American football team would agree to a coin flip as fair in deciding who gets the ball first if they did not already know that there is a 50% probability that their guess will be right. Even then they will bicker if they do not believe the coin flip was decent enough to ensure this probability; because they *expect* it. Scholars have begun to retrieve Von Kries’ original claims about objective probability that are compatible with this example (Rosenthal, 2016; Zabell, 2016).

We focus on Bourdieu's probabilism because it consists of the most thorough conceptual incorporation of this heterodoxy (Weber, 1921–22/2019] and Bois Du [2000] offer further examples) into a systematic sociological framework proposed to date. A history of concept formation focused on Bourdieu's probabilism holds specific lessons for the prospects of a more general probabilism in the field today, particularly when this incorporation very likely defies our best knowledge practices and field-specific *nomos* (in our terms, a non-epistemic probability has become objectively *improbable* and will only match expectations with some creative reframing like the kind that Bourdieu exemplifies).

In what follows, we first trace Bourdieu's adoption of probabilism, a story that hinges as far as we can tell on Bourdieu's reading of Weber's 1913 *Logos* essay sometime in the early 1970s. We do this to establish the difference that the incorporation of probabilism made for the development of Bourdieu's budding and influential sociological framework, with lessons for a more general incorporation of probabilism into sociological theory. We then recast core concepts of Bourdieu's sociology (*habitus*, *capital*, *field* and *illusio*) in their final probabilistic form to illustrate the difference that probabilism makes for concept formation.⁵ To do this, we focus primarily on Bourdieu's initial lectures at the *College de France* and his last "theoretical" book *Pascalian Meditations*, which we claim provides prime evidence of his probabilism freely at work and in mature form. On this basis, and drawing from Bourdieu's efforts, we conclude by outlining the meta-methodological and conceptual differences that a probabilistic sociology can make for empirical research.

The origins and evolution of Bourdieu's probabilism

Internalized ('subjective') probability before *Logos*

Throughout the development of his thinking on social action, Bourdieu retains a looping formula codifying the relation of expectation and chance, or objective probabilities and subjective expectations. As we will see, this does not mean that there are no shifts in emphasis and refinement of the position. Some of the earliest versions appear in *Travail et Travailleurs en Algérie* (1963), of which Bourdieu contributed one half of the book (*Étude Sociologique*) and statisticians from the *Institut National De La*

⁵ By adopting a "history of concept formation," we allude to Margaret Somers' (1995) argument that tracing such a history seeks to capture "how concepts do the work they do, not why they do so in terms of interests, by reconstructing the public histories of their construction, resonance, and contestedness over time" (115). Likewise, we will emphasize the historicity of "theoretical semantics and epistemological foundations." Nevertheless, our approach to concept formation seeks to avoid a stance of exegesis (focused, for example, on interpretively situating concepts within a "culture structure with an internal logic") by adopting instead a stance of *mimesis*, or concept formation as a practical act that involves position-taking within fields of certain historical (objective) possibilities. Following Weber, concepts precede hypothetical propositions (hypotheses or judgments), and their formation changes the object of explanation in addition to what can (with the highest probability) claim to be an explanation. This includes the "average" lexical possibilities associated with a term like "probability," i.e. the kind of expectations that apply should it be used in one way rather than another. *Mimesis* attempts to not only explain the objective probability of orientation to these expected uses but also seeks to reshape our orientation to its possibilities (rendering them, in this instance, more than methodological or epistemic) by reconstructing a history of concept formation directed at this order yet deviating from its most usual interpretations.

Statistique Et Des Études Économiques Alain Darbel, Jean-Paul Rivet, and Claude Seibel contributed the other half (*Données Statistiques*). In Bourdieu's half, we can find statements like the following:

Everything happens as if the material conditions of existence exercised their influence on attitudes, and particularly on attitude towards time, that is to say on economic attitude, through the mediation of the perception that the subjects have of it. Indeed, because it is circumscribed by economic and social necessity, the field of possibilities varies as the field of effective possibilities. The economic attitude of each subject depends on his material conditions of existence through the mediation of the objective future of the group of which he is a part or, more precisely, through the mediation of the consciousness, implicit or explicit, that he takes from this objective future (Bourdieu, 1963, p. 346ff, our translation).

This, we submit, is not (yet) a statement that is informed by Weberian “objective probability,” but rather reflects the influence of Edmund Husserl's *Ideen I and II* (1913; 1952) a familiar source from Bourdieu's “fieldwork in philosophy” (Bourdieu, 1990a, pp. 5, 10), particularly in preparing his proposed dissertation with Georges Canguilhem.⁶ Bourdieu appears to combine this with the notion of “effective possibility,” which he elsewhere (Bourdieu, 1974/2014b) draws from Marx's *Outline of a Critique of Political Economy*, specifically the idea of “effective demand” as demand that reflects the possession of what would be required to obtain its object, versus “demand without effect, without being real, without an object” as being like a fantasy or wish.

Any close reading of the essay also conveys aspects of what might have been Bourdieu's abandoned philosophy doctorate, with a noted emphasis on how temporal relations (*sens de l'avenir*) translate into affective experiences like hope, fatalism, paranoia, and the “wild” fantasies and plans that characterize those who have been violently displaced from a structured flow of time (a theme he returned to one last time in Bourdieu (1997/Bourdieu, 2000, p. 221ff)). Bourdieu includes one obvious reference (uncited) to Weber's *Protestant Ethic* (in 1979, p. 5) and footnote (1967, p. 315) to Weber's critique of “marginal utility” (see Weber [1908/1975]) included in the *Wissenschaftslehre*, which also included the 1913 *Logos* essay. Bourdieu (1979, p. vii) later clearly states that what, in retrospect, the early work in Algeria addresses is how a “particular structure of objective probabilities – an *objective future* – generates determinate dispositions toward the future” (emphasis original). He then restates the formula for *habitus* proposed in *Outline of a Theory of Practice* (Bourdieu, 1972/1977), published during the intervening years: “These dispositions are structured structures which function as structuring structures, orienting and organizing the economic practices of daily life” (Bourdieu, 1979: vii).

⁶ Bourdieu's agrégation at the famed *École Normale Supérieure* was in the equivalent of philosophy. He completed his diplôme there as a translation and commentary on Gottfried Leibniz's *Animadversions* under the directorship of Henri Gouhier. His first teaching post at a Lycée in Moulins in 1953 was in philosophy. When he was conscripted into military service in 1955, Bourdieu had to abandon a planned philosophy “doctorate” thesis with Canguilhem which had the tentative title of “The Temporal Structures of Affective Life” or “Emotion as a Temporal Structure: An Interpretive Essay on Physiological Data” (Robbins, 2020, pp. 136, n5).

What is significant about this explicit mention of “objective probability” is that it coincides with Bourdieu’s move toward a clearer break with structuralism following Bourdieu, 1968. In fact, Bourdieu’s entire conception of what counts as “objective” shifts gradually from one grounded in a “structuralist” conception of objectivity (e.g., objectivity as a subject-less *langue* separated from *parole* or a system of “objective relations” designed and uncovered by the third-person anthropological observer) to an increasingly *probabilistic* conception of objectivity molded in the idea of *Chance* as “ontological” probability (Heidelberger, 2015). The 1968 English-language essay, “Structuralism and the Theory of Sociological Knowledge” (Bourdieu, 1968), represents the clearest alignment of Bourdieu with structuralism, alongside the essay on the Kabyle house (Bourdieu, 1963/1970) and the aforementioned *Métier* (Bourdieu et al., 1968/2010). However, the essay also previews Bourdieu’s own (idiosyncratic) “post-structuralism,” which he accounts for using nearly the same terminology that he will use to later discuss “objective probability,” suggesting that probabilism helped Bourdieu resolve the tensions he had recognized in structuralism.⁷

According to Bourdieu, “[the anthropologist] obtains the means to discover how the relations objectively defining the differential *chances* of marriage are realized in and through the attitudes that directly condition the capacity to succeed in the competition for marriage” (Bourdieu, 1968, pp. 704–705). This argument contains an early version of the chances-expectations loop idea. The link between the “system of objective relations” uncovered by the structuralist observer and the “attitudes” of actors, in this case, represents an important move *away* from what would otherwise be a satisfactory structural analysis; but it also introduces the paradox of how the two (e.g., chances to marry and attitudes toward marriage) could relate. Bourdieu follows this statement on chances/expectations with an argument that will remain (relatively unchanged) at the core of his resistance to appropriations of structuralism (anthropological, symbolic) that do not remain “methodological” (Lizardo, 2010), keeping this stance all the way through to *Pascalian Meditations* (Bourdieu, 1997/2000, pp. 176–177):

To give primacy to the study of the relations between objective relations rather than to the study of the relations between the agents and these relations, or to ignore the question of the relationship between these two types of relations, leads

⁷ Central to this (as we observe further below) is the renewed attention he would give to the concept of field. Before the early 1970s, Bourdieu (especially in “Intellectual Field and Creative Project”) rendered fields as essentially structuralist spaces of “systems of relations.” Yet between May 1972 to January 1975, Bourdieu would give a seminar series at the *Maison Des Sciences De L’homme* on the concept of field, to which he gave an indicative title: “De la méthode structurale au concept de champ” (e.g. from the structural method to the concept of field) (Bourdieu 2013). This (nearly verbatim) move toward a post-structuralism occurs in tandem with what we claim is Bourdieu’s encounter with Weber’s objective probability and his incorporation of it into the concept of field as now referring to spaces of objective probability. Robbins (2008) explains Bourdieu’s post-structuralist trajectory particularly after the publication of the *Le Métier De Sociologue: Préalables Épistémologiques* (1968/2010) (originally a privately circulated mimeograph) as revealing a discomfort with having, by this point, become a purveyor of a kind of authoritative mental labor (e.g. creating and then imposing categories on the folk, with the aim of “truth” being the folk’s transformation into the kind of people who hold and speak such categories) through the medium of structuralism, and “betraying the primary, domestic, or familial experiences of his upbringing in the Béarn and the primary experiences that he had observed amongst the Kabyles in Algeria.” Bourdieu would thereafter seek to avoid “simply [being] part of a process of consolidating the self-referentiality of an introspective and socially distinct sociological epistemic community.”

to the *realism of the structure* which, taking the place of the realism of the element, hypostatizes the systems of objective relations in already constructed totalities, outside the history of the individual or the group. Without falling back into a naive subjectivism or “personalism,” one must remember that, ultimately, *objective relations do not exist* and do not really realize themselves except in and through the system of dispositions of the agents, produced by the internalization of objective conditions (Bourdieu, 1968, p. 705; emphasis added).

Bourdieu uses these arguments to characterize the mediating role of *habitus* (Bourdieu, 1968: 705) as a “geometrical locus of determinisms and of an individual determination, of *calculable probabilities* and of lived-through hopes, of objective futures and subjective plans” (emphasis added). The intriguing thing about this proposal, and which is also evident in the 1979 preface to the collection of Bourdieu’s writings in *Travail et Travailleurs* from 1963, is that habitus is directly connected to probability here (e.g., chance-expectation connection with habitus as a mediator) thus avoiding the (substantialist) tendency of structuralism to commit to a “realism of the structure,” while also staying clear from a “subjectivist” counter-reaction in which the placement of action within a system of objective possibilities is denied. The counterpart to *habitus* (as the other element of the relation between “subjectivity” and “objectivity”) is still murky defined in terms of the “constructed” objectivity of the structuralist method. “Field” (*champ*) is not yet found in these arguments.⁸

Neither is it present in the arguments found in Bourdieu’s co-authored (with Passeron) research on education from this period, *The Inheritors* (1964) and *Reproduction in Education, Society and Culture* (Bourdieu, 1970). The latter includes phrases that resonate directly with those found in “Structuralism” from Bourdieu, 1968 and extending back to *Travailleurs* (Bourdieu, 1963). Take for instance the claim that

[t]he concept of subjective expectation, conceived as the product of the internalization of objective conditions through a process governed by the whole system of objective relations within which it takes place, has the theoretical function of designating the intersection of the different systems of relations...[This is] explanation in terms of the relationship between subjective expectation and objective probability, i.e., in terms of the system of the relations between two systems of relations (Bourdieu & Passeron, 1990, p. 156).

⁸ While Bourdieu used the category of “field” (*champ*) as early as 1963 in *Travail et Travailleurs en Algérie* (see above) and, most influentially, in “Intellectual field and creative project” (1966/1969), he did not link it to habitus until (it appears) *Outline of a Theory of Practice* (p. 176 in the original) published in 1972, specifically with this statement: “quasi conscient l’opération que l’*habitus* réalise sur un autre mode à savoir une estimation des chances supposant la transformation de l’effet passé en avenir escompté, il reste qu’elles se définissent d’abord par rapport à un *champ de potentialités objectives*” (emphasis added). Important to note here is the mention of “potentialités objectives” as part of the habitus/field link. Bourdieu also does not mention “potentialités objectives” explicitly in line with Weber’s “objective probability” until 1974. In the 1977 English edition of *Outline* (p. 76) Richard Nice translates the original “un *champ de potentialités objectives*” as “a system of objective potentialities.” In the “Three forms of theoretical knowledge” essay this is translated as “a *field* of objective potentialities” (1973, p. 64, emphasis added).

This rendering of probability combines its methodological meaning (statistically derived) with a somewhat shadowy and awkwardly phrased structuralism (“the system of relations between two systems of relations”). This makes any reference to “objectivity” ambiguous because, as Bourdieu notes, it cannot carry ontological status without the danger of reifying the constructive operations of the sociologist. The popularity of these arguments in the sociology of education, meanwhile, have made terms like *habitus* inconsistent with Bourdieu’s later (especially in *Pascalian Meditations*) probabilistic rendering of the same terms. As is particularly evident in the “Structuralism” (Bourdieu, 1968) essay and Bourdieu’s initial application of *field* (“Intellectual Field and Creative Project” [1966]), the absence of an understanding of objective probability pre-1973 has resulted in an analytic overreliance on “systems of relations,” something which remains overextended in Bourdieu scholarship to the present-day (e.g., Emirbayer & Johnson, 2008, p. 6ff).

From the very start, Bourdieu’s conception of habitus had involved a deeper connection with probability than has been appreciated, specifically that habitus consists of the internalization of objective probabilities (but see Swartz, 2002, p. 64ff). Furthermore, Bourdieu had begun to theorize the origins of internalized probability as linked to the connection between “agents and objective relations” (ambiguously conceived as “objective” in the usual sense of non-subjective, but also as an epistemic construction by the analyst). As Bourdieu develops his thinking in this regard, he gradually drops reference to “objective relations” (or “systems of relations”) in the way structuralists (whether in linguistics or social anthropology) used the term and moves toward a characterization of a chances-expectations loop in terms of the dialectic between *internalized probability and (objective) chances*. The difference between “objective chances” referred to after the incorporation of Weber’s probabilism (post-1973) and “objective relations” subjected to a “methodological structuralist” critique is that “objective chances” are unambiguously *ontological*.

Objective probability after *Logos*

Bourdieu’s arguments before 1973 remain directly uninfluenced by Weber’s 1913 essay and his proposal for “objective probability” (Weber, 1913, p. 161). The 1973 English-language article “Three Forms of Theoretical Knowledge” is rightfully acknowledged (Robbins, 2002, p. 320ff) as a pivot point, condensing and further developing points from *Outline*, summarizing various developments that would make their way to *Logic*, while also indicating a more thorough connection to Weber’s “objective probability.”⁹ For instance, the 1973 article includes no citations of Weber, though it does include this subtle though revealing mention:

[S]omeone who accepts money as an instrument of exchange implicitly takes into account, as Weber shows, *the chances that other agents* will agree to recognize its function. Automatic and impersonal, significant without intending to signify, the ordinary conduct of life lends itself to a no less automatic and impersonal decoding: *the decoding of the objective intention* which they express in no way requires the ‘reactivation’ of the intention ‘experienced’ by the person who accomplishes this

⁹ As such, this work is concerned with debates occurring in Anthropological Theory (in particular structural anthropology, cultural anthropology, social anthropology, and structuralist linguistics) at the time.

conduct (1973, p. 70; emphasis added). Revealingly, this statement features a more explicit critique of an interpretivist approach while leveraging a version of the expectation-chance connection as directly impacting the course of action. Accordingly, rather than interpreting what someone will do when we give them money by “reactivating” their intentions (beliefs, desires), it is the “automatic and impersonal” recognition of objective chances (probabilities), allowing for the “decoding of objective intention,” that matters in this sequence. Compare this to the following claim from Weber’s 1913 *Logos* essay:

An important (though not indispensable) normal component of social action is its meaningful orientation to the expectations of certain behavior on the part of others and, in accordance with that, orientation to the (subjectively) assessed probabilities (*Chancen*) for the success of one’s own action. A most understandable and important basis for the explanation of action therefore is the *objective existence of these probabilities*, i.e., a greater or lesser degree of probability as expressed in a ‘*judgment of objective possibility*,’ to the effect that these expectations are well-founded (Weber, 1913, p. 159). It seems likely that when composing the earlier passage Bourdieu had this specific argument in mind, suggesting that he had now read the 1965 Freund translation. Instead of decoding intentions, Weber concentrates on the “judgment of objective possibility” concerning the “objective existence of probabilities.” In different terms, this is almost directly comparable to the *relation* that, in Bourdieu, 1968, Bourdieu used to make his early proposal for habitus. He now begins to phrase that relation as a *loop*.

In the 1973 article, Bourdieu helps himself to the idea of “objective probability” when trying to differentiate the way he believes the *habitus* engages in expectations from more “naïve” models (later to be referred to as “rational choice”) whereby people construct in a conscious, strategic manner, “what the habitus carries out in another manner, namely an estimate of the chances based on the transformation of the past effect into anticipate future effect” (Bourdieu, 1973, p. 64). In this connection, Bourdieu notes that “[o]ne regularly observes a very close relationship between scientifically constructed *objective probabilities* (e.g., opportunities for access to higher education or to museums, etc.) and *subjective aspirations*” (1973, p. 65, emphasis in the original), reiterating that this mutual adjustment does not happen via conscious regulation. Bourdieu does not mention Weber in this context. However, the connection to Weber’s *Logos* essay becomes fully explicit with Bourdieu’s 1974 article “Avenir de classe et causalité du probable.”¹⁰

Consider *the Weberian theory of ‘objective probabilities’*, which has the merit of bringing to light one of the most fundamental assumptions, although tacit, of the economy, namely the existence of a ‘relation of intelligible causality’ between generic chances (‘typical’) ‘existing objectively on average’ and ‘subjective expectations’. *By speaking of ‘average chances’*, that is to say, valuable for anyone, for an indeterminate and interchangeable agent, a ‘one’, as Heidegger would say, and by recalling that rational action, ‘carefully’ orientated according to what is ‘objectively valuable’, is that which ‘would have happened if the actors had knowledge of all the circumstances and all the intentions of the participants’, that is to say, what is ‘valuable in the eyes of the

¹⁰ This article was translated in 2014 by Michael Grenfell as “The Future of Class and the Causality of the Probable.”

scientist', who is the only one capable of constructing by calculation the system of objective chances to which an action accomplished in perfect knowledge of its causes should adjust, Max Weber clearly showed that the pure model of rational action cannot be considered as an anthropological description of practice (Bourdieu, 1974/2014, p. 235, emphasis added). Bourdieu (1974/2014, p. 260, fn. 7) includes a footnote here to Weber's 1913 *Logos* essay collected in Freund's (1965) edited volume. This, we argue, is a crucial turning point because it appears that having Weber's 1913 argument for objective probability firmly in hand allows him to (re)state the relation between expectation and *Chance* in a much more consistent and comprehensive way, specifically as a *looping relation*. For our purposes, this secures the fact that integral to Bourdieu's sociology is a concern with probability, though in such a heterodox form that it easily goes unrecognized and remains essentially irrelevant to conversations on prediction and probability in sociology that are, by contrast, far more narrow in their methodological focus.

Internalized and objective probability in *Logic of Practice*

In *Logic of Practice*, the connection to Weber's 1913 essay becomes further explicit, as it becomes foundational to Bourdieu's well-traveled theory of *habitus*. The argument here, however, is that *habitus* connotes the internalized form (in persons) of what exists (in the world) as probability (or objective possibility). This had been integral to Bourdieu's conception of *habitus* since at least 1973, when he starts to draw on Weber's *Logos* essay. *Logic* is a revision of the earlier *Outline* and a development of points mentioned in the 1973 "Three forms" piece and a 1976 *Actes* article "*Le Sens Pratique*." Importantly, between *Logic* and *Outline*, Bourdieu added an entirely new chapter, namely, "Belief and the Body," which draws out and highlights points that were more scattered in *Outline*. The revision also includes a discussion of the philosopher (and classical probability theorist) Blaise Pascal's famous "wager" that is missing from both *Outline* and "*Le sens pratique*."¹¹ The greater incorporation of Weber's "objective probability" and this new incorporation of Pascal indicate that at, arguably the pivotal moment of its conceptual formation, *habitus* becomes tightly linked to internalized probability.

This link becomes particularly apparent in a curious string of references present in *Logic* but found nowhere in either the "*Le sens pratique*" or the earlier *Outline*. They account for a form of *probability learning*, namely by making the *habitus* a *product* of probability learning.

[D]ispositions durably inculcated by the objective conditions and by a pedagogic action that is tendentially adjusted to these conditions, tend to generate practices objectively compatible with these conditions and expectations pre-adapted to their objective demands (*amor fati*) (for some psychologists' attempts at direct verification

¹¹ Pascal's wager is arguably the signature example of Pascal's own "discovery" of probability as a practical reasonableness usable by the folk and applying most naturally to games of chance, but from which he generalizes to derive lessons for essentially any situation of uncertainty, even the following one, with the gravest of consequences (Daston, 1995; Hacking, 1975):

One is compelled to wager, it is not voluntary, you are in the game ... [when] there is such an infinite life of infinite happiness to be won, one chance of winning against a finite number of possibilities for a loss ... [This] eliminates all choice ... one must give all (Pascal, 1680, pp. 122–123).

of this relationship, see Brunswik, 1949; Preston & Baratta, 1948; Attneave, 1953). As a consequence, they tend, without any rational calculation or conscious estimation of the chances of success, to ensure immediate correspondence between the *a priori* or *ex ante* probability conferred on an event (whether or not accompanied by subjective experiences such as hopes, expectation, fears, etc.) and the *a posteriori* or *ex post* probability that can be established on the basis of past experience (Bourdieu, 1980/1990b, p. 63). These references (e.g., Attneave, 1953; Brunswik, 1949; Preston & Baratta, 1948) are all to psychologists institutionally affiliated with mainstream departments in the U.S. and working in the “neobehaviorist” line of research (because accommodating of such constructs as “purpose” and “goals”) developed by Edward Tolman and Egon Brunswik (Tolman & Brunswik, 1935).¹² Later on this same page, Bourdieu includes his most direct reference to Weber’s *Logos* essay to date, with (Weber, 1922) being a reference to the original German-language collected volume where the essay appears.

They thus make it possible to understand why economic models based on the (tacit) premise of a ‘relationship of intelligible causality’, as Max Weber (1922) calls it, between generic (‘typical’) chances ‘objectively existing as an average’ and ‘subjective expectations’, or, for example, between investment or the propensity to invest and the rate of return expected or really obtained in the past, fairly exactly account for practices which do not arise from knowledge of the objective chances (Bourdieu, 1980/1990b, p. 63). Here Bourdieu dissects, draws out and emphasizes Weber’s major points in the 1913 *Logos* essay, all revolving around the key idea of objective probability. Specifically, that knowledge of “average chances” can produce a kind of “objectively correct rationality” (Weber, 1913, p. 157) without any kind of explicit instruction or knowledge of “objective chances” such as would be produced by a sociologist or statistician.¹³ Probability learning, in this case, can explain the kind of looping effect (e.g., “near-circular relationship” [63]) that Bourdieu wants to capture in his much-bemoaned

¹² Of particular interest is the Attneave study, which is worth some discussion. Here 100 subjects were tested according to how much they internalized letter frequencies from the English alphabet as present in natural language. The hypothesis being tested is whether because these letters appear with stable relative frequencies in natural language, this can prove “probability learning” by adults as they “observe these proportions...throughout their entire lives” (Attneave, 1953, p. 81) To draw out a possible probability learning mechanism, the experimental study separated the subjects into three groups and asked them to guess the relative frequency of each letter of the alphabet that would appear in a random newspaper clipping with a thousand total letters. A first group was given no indication of the relative frequency of letters in the clipping. A second group was told that they have “approximately uniform frequency.” Finally, a third group was told the letters appear with “English text frequencies.” Attneave (1953: 84) found that the third group, by a significant margin, came closest to guessing the actual frequency of each letter as it appeared in the article (with a logged average of .88). Not to be overlooked, the other two groups’ guesses were significantly above zero. For Attneave, this gives some evidence of probability learning, or how “psychological probabilities [do seem to] correspond to their environmental counterparts” (Attneave, 1953: 81), at least when “they are appreciated and utilized by the observer” (emphasis original). This evidently suggests a connection between “probability learning” and practice, such that if the subjects were asked to guess the frequency of a different alphabet, or something with which they had no practical experience, we should not expect a psychological/environmental correspondence, and certainly not at such a high ratio.

¹³ Bourdieu would later (Bourdieu, 1997/2000, p. 219) critique this particular Weberian characterization as an instance of (one version of) the “scholastic” way of defining the chance-expectation loop (characteristic of marginalist economics) while at the same time acknowledging that in deploying the (idealized) notion of average chances “Max Weber at least had the merit of tacitly taking account of the inequality of chances, which he placed at the centre of his theory of stratification” (1997/2000, p. 220).

Table 1 Probabilistic Recasting of the Core Concepts of Bourdieu's General Sociology

Concept	Non-Probabilistic Meaning	Probabilistic Recasting
Habitus	"... structured structures predisposed to function as structuring structures" for systematic production of thoughts, perceptions and actions" (Bourdieu, 1980/1990b, p. 53)	The learning of objective probabilities offered by a <i>field</i> and generative of practical anticipations that tend to adjust action in the present to the future objective Chances by the field.
Field	"[S]tructured spaces of positions (or posts) whose properties depend on their position within these spaces and which can be analyzed independently of the characteristics of their occupants (which are partly determined by them)" (Bourdieu, 1993, p. 72). Position-takings in a field are indicative of a struggle over the monopoly of symbolic capital.	Delimited arenas of striving, characterized by a given (unique) distribution (a "play space") of objective Chances , partially determinative of individual trajectories and regulated temporal successions to which individuals adjust via an anticipatory <i>habitus</i> .
Capital	Resource at stake in a struggle between commonly oriented actors, which can also be transformed into other resources when transferred outside the field.	A set of unequally distributed (or in an ideal case, monopolized) resources (cultural, social, economic, etc.), allowing individuals to better grasp the objective Chances distributed within a <i>field</i> via an anticipatory <i>habitus</i> . More consequentially, capital may be used to alter the structure of objective probabilities constitutive of a field, thus having an indirect influence on the anticipatory moves of other players.
<i>Illusio</i>	Interest or investment in the contest or "stakes" taking place in a field.	Subjective motivation to invest in a game offered by the objective probabilities constitutive of a <i>field</i> , fueled by the capacity to use practical expectations of the <i>habitus</i> to link to objective Chances , thus 'buying into' the game.

definition of habitus given earlier in the chapter (e.g., "... structured structures predisposed to function as structuring structures..."). Bourdieu's earlier discussion (Bourdieu, 1980/1990b, pp. 48–49) in *Logic*, which is also directly linked to his added chapter in the book ("Belief and the body"), of Pascal's wager thus becomes relevant in a way that has not been appreciated to date by suggesting that the breakthroughs on probabilism that Bourdieu makes during the 1970s that culminate in *Logic* will continue to preoccupy him for the rest of his career and find their last statement in the appropriately titled *Pascalian Meditations* (Bourdieu, 1997/2000).

Probability claims: Reframing Bourdieu's general sociology

The discussion so far has concentrated on a turning point in the trajectory of Bourdieu's thought that was marked most of all by his direct incorporation of a brand of probabilism drawn from Max Weber into what would eventually become his familiar and influential sociological framework (e.g., habitus, field, capital). Yet, while Bourdieu's original concepts have been in large part rendered conventional by use

and repetition, their genealogy rests in what we have argued is Bourdieu's probabilistic turn in the early 1970s. That this has been overlooked despite volumes of Bourdieu commentary and exegesis over the years is not surprising given how counterintuitive "objective probability" is relative to the de facto understanding of probability as methodology and epistemology in anglophone sociology.

What we seek to do now is to take the conventional meanings of habitus, capital, field and *illusio* and recast them in probabilistic terms, to show the *conceptual* difference objective probabilism makes when given broad application. The core concepts, with their usual definitions on the left, and their probabilistically recast definitions on the right are shown in Table 1. To accomplish this, we concentrate on the last two, big "theory" works (post-*Logic of Practice*): his *Cours de Sociologie Générale* (1981–1986) given as his initial years of lectures following his election to the *College de France* and his 1997 book *Pascalian Meditations*. These efforts, particularly the last, mark the furthest development of Bourdieu's probabilism, incorporating it into general sociological principles that have what we will argue are significant empirical implications.

Sociology, as Bourdieu argues, consists of a form of mental labor that makes and uses classifications, and it does this amid other specialists competing to "establish the existence of groups" (1981–1982/2019a, p. 79). Between classifications and objective probability is a relative match or mismatch related to their *mutually independent* effects on group-making, which Bourdieu (1987b) describes in elaborating these points as the relationship between the "theoretical and practical existence of groups" (see also (1981–1982/2019a, p. 79)).¹⁴ The significance of "symbolic structures" for prediction-making is rarely acknowledged (though see Boltanski & Thevenot, 1983); yet the creation of explicit and public (e.g., "group-making") classifications, in which sociology (as mental labor) is closely involved, generates "*recognized distinctions*" and provides a means with which to make *predictions* (e.g., "presuppositions") about the persons fitted to them (Bourdieu, 2013, p. 297, emphasis in the original).

In a keynote lecture delivered at the University of Chicago in 1987 and addressing the analytic challenge of differentiating between the theoretically constructed groups (or classes) of the sociological analyst and the actual (practically existing) groups in the world, Bourdieu goes on to define both the "classes on paper" and the *structure of the social space* generating the counterpart "groups in the world" to which these classes (may) refer in terms of *probability*:

The theoreticist illusion which grants reality to abstractions hides a whole series of major problems, those which the very construction of well-founded theoretical classes allows us to pose when it is epistemologically controlled: a theoretical class, or a "class on paper," might be considered as a *probable* real class, or as the probability of a real class, whose constituents are likely to be brought closer and mobilized (but are not actually mobilized) on the basis of their similarities (of interest and dispositions). *Likewise the social space may be construed as a structure of probabilities* of drawing individuals together or apart, a structure of affinity and aversion between them

¹⁴ "Social groups, and especially social classes, exist twice, so to speak, and they do so prior to the intervention of the scientific gaze itself: they exist in the objectivity of the first order, that which is recorded by distributions of material properties; and they exist in the objectivity of the second order, that of the contrasted classifications and representations produced by agents on the basis of a practical knowledge of these distributions such as they are expressed in lifestyles" (Bourdieu, 2013, p. 296).

(Bourdieu, 1987b, p. 7, emphasis added). Bourdieu differentiates an *epistemic* sense of probability (e.g., the “probable” classes constructed by the analyst) which *may* point to actual classes in the world; but because mental laborers like sociologists cannot claim a monopoly on probability, it may *not*. This is the oft-noted point that classes “on paper” seldom correspond to “real” groups. However, Bourdieu makes an additional *ontological* claim on these grounds: “Groups in the world” are probabilistic in a non-epistemic sense. Potential groups in the world take the form of *habitus* (learned probability) and *capital* (capacity to shape objective probability) relative to *fields* (spaces of objective probability). This means there is a relevant contrast to draw between groups formed in fields versus *apparatus* (spaces of determinism) or *games of chance* (spaces of randomness). Probability-in-action takes form as *illusio* as an investment in (and vulnerability to) a probabilistic structure, its trials and risks. Like Weber, Bourdieu proposes an interpretive sociology that meets and recognizes agents in the world rather than imposing an interpretive scheme on them. The “gap” between analyst and agent (whether this gap applies to action, motivation or the existence of groups) is closed instead by focusing on their mutual (egalitarian) relation to probability (see Bourdieu, 1980/1990b, p. 54). Nowhere in Bourdieu’s *oeuvre* is this made more apparent than in the early *Cours* lectures and in *Pascalian Meditations*.

Habitus

Among the host of other influences on Bourdieu’s conception of habitus (Wacquant, 2013), an important one is what Bourdieu finally arrives at in *Logic of Practice*, namely “learning probability,” and this makes a significant difference. Since at least the early 1970s, Bourdieu had been slowly unveiling the elements of his *gnoseologica inferior* (e.g., temporal experience, practice, qualitative immediacy), or a science in which knowledge assumes a “reverse hierarchy,” a “science of knowledge that is inferior...because its object is inferior” and subject to contempt, with its closest cousins being phenomenology, ethnology and aesthetics (Bourdieu, 2020, p. 101). This promotes a knowledge of probability that, true to form, *reverses the hierarchy* that remains implicit to a strictly methodological appropriation of probability.

Thus, Bourdieu uses internalized probability to redeem, more explicitly than before, the kind of “rational/reasonable practice” that comes from learning probability *without* technical tools. Early in the *Cours* Bourdieu describes internalized probability by borrowing terms from Husserl, specifically “habituality” and “experience.” Bourdieu (1982–1983/2020, p. 101) quotes from Husserl’s *Experience and Judgment* (1948/1973), highlighting specifically the analysis of the word “experience,” then adds the following commentary:

I found this text very striking, because it basically expressed the essence of what I wanted to find in the notion - that is, both an experience in the sense of the something ‘acquired through experience’, by confrontation with the patterns of the social world, with the emphasis on the mode of acquisition, and the experience that enables us to get by in life, to be experience, which gives us, as Husserl says, ‘assurance in decision and action in the situations of life (ibid: 101).

This draws Husserl's phenomenological framework into Bourdieu's concern with learned probability, which Bourdieu uses, in line with Husserl's emphasis in his approach, to *redeem* the validity of probability (as synonymous with Husserl's "experience") as having a colloquial meaning even if it is not something that could be measured or recognized exclusively via technical epistemic practices. Bourdieu takes this discussion further, referencing Husserl's theme of "habituality" from his *Cartesian Meditations* (1933/1960) (specifically the section "habituality as the substrate of ego"), as "[developing] an analysis very close to the one I want to make." He then mentions Maurice Merleau-Ponty's *Phenomenology of Perception* (1962) as marking the "natural prolongation of Husserl's thought" on habituality via experience as resulting in a kind of "intentionality incarnate," or what Bourdieu connects with "the habitus being that familiarity with the world of which Merleau-Ponty quite rightly said...is an intermediate term *between presence and absence*. This expression seems very apt to describe what I wanted to say, which is that the habitus is neither an ever-present consciousness constantly on the alert nor an absent automatism" (1982–1983/2020, p. 102).

Bourdieu suggests it is misleading to make the habitus substantive (equivalent to, say, a personality type), and certainly not deterministic, when, as this implies, its very manner of *presence* is *probabilistic*. Habitus is neither a fixed "variable" nor a "feature" in this sense; but if it is not, this raises a question that is, very likely, *obvious* given the specific way in which (using variables) sociologists tend to use probability to generate predictive knowledge (e.g., statistical model-fitting). Specifically, if the classifications that sociologists are in the business of producing and using appear independently of the epistemic practices used to measure and define them, and if the presence of those classifications is probabilistic ("between presence and absence") rather than being substantive or static, how can they have any *predictive* value at all?

Bourdieu answers this question with a revealing statement in a section of the lecture aptly entitled "the solution of the habitus":

[T]his is what I call '*the causality of the probable*' to borrow a term from Bachelard. This process of socialization, what Husserl calls experience, acquired through repeated confrontation with a social world structured according to a certain logic, a sort of disposition to anticipate and await what is going to happen, and moreover, to help make it happen by expecting it to happen – in fact, this *disposition to anticipate and await the probable* – is acquired through the permanent confrontation with a structured world defined by a certain structure of *objective probabilities*. I shall return to this when I come to discuss the field, for one might say that the *field is a space of objective probabilities* (of which is to say that, when you enter a space and go to a particular place, you have a 1 percent, 20 percent, or 50 percent chance of success) (1982–1983/2020, p. 123, emphasis added). The two key concepts of *habitus* (mental structure/expectations) and *field* (social structure/chances, opportunities) therefore have mutually implicative definitions, and their mutual links come from their recasting in terms drawn ultimately from Weber's probabilism. Specifically, internalized probabilities can only exist if there are, in fact, objective probabilities in the world, and if fields are such localized distributions of

objective chance.¹⁵ For Bourdieu, this insight is significant for the way in which objective probability is “translated into reality” as habitus. He describes this as follows as “the tendency of aspirations to adjust to objective opportunity.”

[T]he social agent who sets himself a goal of 10 and attains 2 tends gradually to move the desired goal of the performance nearer to the level of actual attainment: he chooses 8 and manages 4; he chooses 6 and reaches 5; then he goes for 5 and gets 5. This kind of tendency to adjust aspiration to objective opportunity occurs quite unconsciously and without any need for the agent to intervene (1982-1983/2020, p. 134, emphasis added). This conveys a similar interaction with a space of objective probability, in this case through a “quasi-experimental” process involving “progressive disinvestment.” Contrary to “reproductionist” readings of Bourdieu, nothing about this is deterministic; and this is not even the main point (though it is often made out to be by naive action theories). What Bourdieu describes are interactions with a given space of objective probability, and its trials and risks, through which appears a distribution of aspirations. Those aspirations are ways of translating probability into reality, though not the only possible ways of doing so. If Bourdieu is to remain true to form and maintain sociology as *gnoseologica inferior*, even here, then he cannot fix the distribution in advance by any commitment to broad theories of reproduction or even insinuate how aspirations *should* be distributed. Both would simply affirm an authoritative division of mental labor. Besides, he could not do this even if he wanted to because the source of aspiration remains *probabilistic*. If there are patterns in aspirations that do persist, this indicates a persistence in the mutually implicative counterpart to habitus; namely, objective probability localized in fields.

Field

For Weber’s own source of “objective probability,” the aforementioned physiologist and philosopher Johannes von Kries, the kinetic theory of gases provided a principal example of what epistemic probability could not explain (likewise for Bachelard [1934/1981]). Kries himself uses the German word *Spielraum* (literally: play space) to refer to the distribution of gas molecules as a result of objective probability, and this word carries a connotation that is very *field*-like: “[it] can mean ‘room to move’, ‘leeway’, ‘latitude of choice’, ‘degree of freedom’ or ‘free play and ‘clearance’ or even ‘scope’” (Treiber, 2015, p. 49, fn. 6).¹⁶ This could convey much more free movement than is

¹⁵ The “causality of the probable” comes from Gaston Bachelard’s (1984, p. 118) “indeterminist” philosophy of science, in which scientific explanation attempts, generally, to account for how a given phenomenon results from “translating probability into reality, or making the probable real.” This (e.g., “new scientific spirit”) is a different approach to probability than taking a “given phenomenon and certain specifying parameters” and then “[predicting] that the probability that at some subsequent time the phenomena will be in such and state [sic], similarly defined by a specific set of parameters, is E” (120). Here, Bourdieu draws on Bachelard to mark the difference between an “ontological” view of probability (also held by Weber’s main influence, Von Kries) and a purely epistemic one. For Bachelard, the indeterminist approach to probability “first entered physics” with the kinetic theory of gases and the probabilistic distribution of molecules for which it was not possible to increase the parameters enough to enable prediction “at a subsequent time.”

¹⁶ So much is this intuitive that John Maynard Keynes in his *Treatise on Probability* (1921) independently translates von Kries’ *Spielraum* as “field,” likely in reference to the colloquial, at the time, phrase “playing field” (e.g., “the playing fields of Eton”).

typically associated with a field. The larger point is that objective probability works through an assessment of chances in Weber's (1913) language, and internalized (learned) probability in Bourdieu's terms. Thus, probability must be objective in order for action to be caused by probability in the form of subjectively assessed, learned or internalized probabilities.

For Bourdieu (1982–1983/2020, p. 245), the paternity of “field” to capture social space as objective probability derives from Marx, for the simple reason that Marx used a similar notion to confront the impulse to otherwise reduce all effects to social interactions: “In all forms of society there is one specific kind of production which predominates over the rest, whose relations thus assign rank and influence to the others. It is a particular ether which determines the specific gravity of every being which has materialized within it” (Marx 1993, pp. 106–107). A wage-laborer, for instance, does not need to ever meet a majority stockholder to have her action impacted by objective probabilities that the relation (between “objective positions”) creates. Bourdieu quotes this from Marx and then says, particularly about this latter part, “this is really the notion of the field.”¹⁷

We might question whether this contradicts objective probability. Yet for Bourdieu, what Marx shows above all is how it is as a “space of objective relations irreducible to interactions” that can describe a field as a social space in which objective probabilities apply. The problem is that “objective relations” rather than “objective probability” has become the primary way to index the presence of a field. From a probabilistic (as distinguishable from a relational) point of view, positions are “objective” only because they each dictate the distribution of chances in a given space of objective probability.¹⁸ This means that objective positions actually *exist* in the world because they form the basis through which participants in the field learn probability and form expectations.

It has gone largely unremarked upon (Bourdieu & Wacquant, 1992, pp. 102–103) that Bourdieu often contrasted fields with *apparatus* (see 1984/1993, p. 252–53; Bourdieu, 1986, p. 818–819; Emirbayer & Johnson, 2008, p. 6, fn 7), as if a field could easily be mistaken for an apparatus, or a field could change into an apparatus and vice versa; and Bourdieu does so too in the general sociology lectures. For Bourdieu, the notion of *apparatus* plays the role of a limiting (empirically unlikely) case: a completely non-probabilistic objective structure. It is in this way that apparatus contrasts to the fundamentally probabilistic notion of field. As Bourdieu explains, when an “integral monopoly is achieved...a field where for example the religious capital or legitimacy would be entirely concentrated in the hands of a single person or group of

¹⁷ Bourdieu adds here, “Obviously I came across this text [Marx's *Grundrisse*] after a prolonged use of the notion of the field. (And I am surely the only person to have noticed [this passage quoted above], although heaven knows how many people have read Marx, or pretend to have read him!)” (see also 1982–1983/2020, p. 245).

¹⁸ An earlier iteration of this argument, similarly focused on objective positions, is evident in “Intellectual Field and Creative Project” (1966/1969) and in “*Une Interprétation de la Théorie de la Religion selon Max Weber*” (part of which was reprinted as “Legitimation and Structured Interests in Weber's Sociology of Religion” (1971/1987)) in which Bourdieu analyzes Weber's sociology of religion as a field constituted by the objective positions of a priest, prophet and sorcerer/magician, with control over lay belief being the “stakes” to be gained (see also 1982–1983/2020, pp. 240–241). However, as noted earlier, in these early (pre-1973) writings Bourdieu operates with an ambiguous (regarding the epistemic/ontic distinction) notion of “objective” (position, relations, etc.) modeled after structuralism, later recast in a less ambiguous ontic manner in terms of objective probabilities.

persons, would no longer be a field but, rather, what I would call an apparatus.” This is a “completely mechanical [non-probabilistic] space answering to an almost physical analysis” (1982–1983/2020, p. 219). Thus, what happens in an apparatus is due to the *absence* of objective probability because it does not count on subjective assessments or internalized probability. This *is* a deterministic space, in other words, in which we cannot credit probability for anything, and participation can simply be assumed.

In the *Cours*, Bourdieu (1983–86/2019b, pp. 129–130) returns to a point he had first mentioned in *Outline* (1972/1977, p. 189) as differentiating between “capitalist” and “pre-capitalist” (or, we might say, non-capitalist) situations. The presence of capital means that social order is reproduced in some relatively consistent way by an “objective mechanism” rather than having to be recreated, say, moment to moment, or interaction to interaction (e.g., Hobbesian free-for-all). Bourdieu here (and elsewhere [1980/1990b, p. 130; 1975, p. 32]) uses the example of Karl Polanyi’s (2001/1944) “self-regulating market” as an example of an “objective mechanism.” What we can infer from this is that a space of objective probability forms based on certain *trials* (modes of *trying* concerning some form of potential resistance; these modes are “objective” because they resolve uncertainty within the space of the field) with accompanying *risks* (what one stands to lose should that uncertainty be resolved in a certain way). With *apparatus* there are no trials and no risks because there is no uncertainty; the future is a predetermination rather than a potential or a probability. The lack of uncertainty also means there is no *illusio*, and therefore no presence of “buy in” or motivation necessary to engage. In *games of chance*, meanwhile, uncertainty prevails given the disallowance of anything that could objectively shape the trials that everyone confronts. There is no history in a game of chance.

In the *Cours* (Bourdieu, 1983–86/2019b, p. 229), Bourdieu refers to capital as distinct in this comparison of probabilistic and non-probabilistic social spaces, among other reasons because it “manipulates the propensity to invest” ... “basically [manipulating] the *illusio*.” In both the *Cours* (Bourdieu, 1983–86/2019b, p. 178ff; 224ff) and *Meditations* he uses Franz Kafka’s *The Trial* (and the fortunes of the character Josef K.) as an example. In *Pascalian Mediations*, Bourdieu ties his claims more directly to the probabilistic propensities of *capital* (Bourdieu 2000, pp. 237ff). In this instance, the stakes of “being *tried* by” a capital-leveraged field, and its objective probability, encourages a high investment; but this in turn discloses the sheer tenuousness (and risk) of what Bourdieu now refers to as the “justification for existing,” and the fact that sheer pragmatic success is *less* at stake than is recognition (e.g., symbolic capital of being classified/recognized as such and such, with associated predictions). Thus, making things more or less objectively probable also makes them more or less important (or worthy, capable of producing recognition) such that we invest in them. We *take an interest* in these things and, achieving them, are given a “reason for being”; but as Kafka shows, to dissect the process is to reveal its basic absurdity, making clear the mechanisms that “manipulate [our] propensity to invest” by conferring on things the propensities of capital.¹⁹

¹⁹ Bourdieu also quotes Pascal (1680, p. 42) here, again (it seems) to show the *limits* of calculation as learning against *illusio*, and to draw attention to the seeming low stakes investments made, that in fact are not low stakes when objective probability, qua (symbolic) capital, signifies importance and justification: “We are fools, powerless as we are, they will not aid us; we shall die alone. We should therefore act as if we were alone, and in that case should we build fine houses, etc.? We should seek the truth without hesitation; and, if we refuse it, we show that we value the esteem of men more than the search for truth?” (p. 239).

Bourdieu's argument for the presence of fields rather than apparatus is not dissimilar, then, from Weber's argument for the presence of legitimate order (1921–1922/2019, pp. 108–109). Here action is “oriented by an actor's conception of the existence of a legitimate order” as dictated by specific ways of intervening into and molding the expression of *Chance* (e.g. like “office” separated from household, decision-making according to “general rules,” hierarchical order based on “career,” expertise established by tests [Weber 1921–22]). Both Bourdieu and Weber used the conceptual resources of probabilism to define “macro” sociological concepts (e.g., the state) in a way that avoided the organicist reification of collectives or the postulation of collective persons and agencies. Bourdieu phrases this differently in his *Leçon Inaugurale* (1982/1990, p. 194) by removing Weber's implicit mentalism; but his concern is still with a field *qua* a “legitimate order” (in folk/mentalist terms).

Capital

All of this leads into Bourdieu's analysis of *capital* as arguably the specific term that has had the most mileage (which is saying a lot) in the triumvirate of capital, field and habitus, with various Bourdieusian and non-Bourdieuian “capitals” having proliferated in the sociological literature for the last forty years. Here too we can see how Bourdieu defined “capital” in terms of probability (as he did with habitus and field), and also the conceptual difference this makes. Despite arguments to the contrary (Desan, 2013), there is a Marxian lineage to capital in Bourdieu's work he remains faithful to, with him even suggesting that Marx's focus on capital accumulation is more *generalizable* than Marx made it (Bourdieu, 1982–1983/2020, p. 219). In order for this to be the case requires that we recognize the *nearly inextricable connection between capital and objective probability*, or what is in many ways the opposite of the quasi-mechanical and apparatus-like focus that often tends to characterize the analysis of “Capital” (whether in an explicitly Marxian sense or not).

Bourdieu dedicates the last three years of his *Sociologie Générale* lectures (1983–84, 1984–85, 1985–86) to capital; but the general focus of his claims here are of a kind with the probabilistic characterization of habitus and field developed in his first two years of lectures. This becomes clear in the *résumé* that Bourdieu writes for the 1983–84 lectures, the first dedicated specifically to capital:

Capital exists and functions only in relation to the field in which it can be classed: like trumps in a game, it confers power on this field, and in particular on materialized or incorporated instruments of production and reproduction, the distribution of which constitutes the very structure of a field, and on the regularities (mechanisms) and rules (institutions) that define usual operation of the field; and at the same time on the profits that are generated in this field (e.g., cultural capital and the laws transmission of cultural capital through the school system)...Games of chance, like roulette, give an idea of a universe of perfect equality of opportunity, without accumulation, where anyone could win everything or lose everything at any time. Capital, as the capacity to produce profits and to reproduce, as identical or augmented, [creates] a tendency to persevere in one's being which means that everything is not equally possible or

impossible at all, at each moment.²⁰ The connection between capital and “games of chance” reaffirms the point developed in the previous years’ lectures, particularly the *illusio* that defines participation in a field similar to a *gamble*. But here Bourdieu makes the connection with objective probability that much more firmly, because if the presence of a field is marked by capital, and this limits the “equality of opportunity” that can apply, then capital becomes fundamentally a measure of one’s capacity to control the future of a particular objective probability. The roulette wheel stands out by contrast because it is characterized by a distinctively non-objective *Chancen* (e.g., every outcome is equally possible for everybody) in which nothing is allowed to control the future.

Objective positions, in this case, are essentially inherited strategies (e.g., “accumulated history”) that have shaped objective probability in the past *because* of how they have differentiated themselves from already existing positions that had previously shaped what was objectively probable (Bourdieu, 1983–86/2019b, p. 32). To shape what is objectively probable at a given moment, then, means to have “accumulated capital” because it makes your particular future chances more certain and less risky (e.g., “regular”) than they would have been without this accumulation (never deterministic however). This formulation is fully relational because to shape objective probability in this manner reduces the “equality of opportunity” that, in an *absolute* sense could only prevail in social spaces that lack *any* objective probability, i.e. those (like “games of chance”) in which, as Bourdieu puts it, “everything *is*...equally possible [and] impossible...at each moment (emphasis added)” (1983–86/2019b, p. 203).

When objective probability is shaped by the presence of capital, by contrast, this is reflected in internalized probability as the *illusio* that orients one’s involvement in a field. This takes form in the sense of expectations and risk that varies according to one’s alignment with or deviation from “positions” that are objective because of how they dictate available possibilities. When these positions are “institutionalized,” a way of shaping objective probability is “made explicit, rationalized, [and] codified.” This in turn shapes expectations and risk by making certain lines of action almost entirely predictable, while making any deviation a risky gamble (Bourdieu, 1983–86/2019b, p. 36).²¹ None of this requires a passage through intellectual cogitation or “mentalism” because expectations and sense of risk remain a *practical* sense as learned and internalized probability (e.g., *habitus*).²² Thus, to maintain a highly capital-leveraged

²⁰ The original text of the *résumés annuels* for all the Collège lectures is available here:

<https://www.college-de-france.fr/site/pierre-bourdieu/Resumes-annuels.htm>.

The *Cours de Sociologie Générale* III, IV, and V are not yet translated (scheduled for 2021 through Polity Press), and so we will quote directly from these texts sparingly, given our somewhat fluent (but far from translator-quality) command of French.

²¹ This language of institutionalization resonates with Bourdieu’s famous “Forms of Capital” essay (e.g., “institutionalized capital”), published originally in 1983 (Bourdieu, 1986), and reflected in the *Capital* lectures, particularly the contrast between capital-laden fields, which have objective probabilities, and the non-objective probabilities of games of chance (see Bourdieu, 1983–1986/Bourdieu, 2019a, 2019b, p. 241–42).

²² This is, distinctly in Bourdieu’s (Bourdieu, 1982–83/2020, p. 118) view, what Marx gets right about the “structure of capital.” Importantly, for Weber’s “interpretive sociology” (1913/1981) expectations that form relative to objective probability *is* “subjective meaning” rather than an interpretive scheme (like a Diltheyan cultural formation or folk psychology).

position means to act in ways that expand your influence over objective probability (e.g., to “accumulate”) as to reshape and diminish *different* forms of what is objectively probable to make them align with yours. To act from a position that is not capital-leveraged (or not even a position in this sense) is to act in ways that *affirm* this sort of distinction (e.g., to “differentiate”) as gaining control over the future by establishing objective probability in a form that does not mirror what has been accumulated as history or internalized as expectation. Bourdieu is often reprimanded on this point for committing to a kind of poor man’s game theory (Alexander, 1995). However, this criticism only sticks if Bourdieu’s probabilism (in which expectations are linked to objective chances) is replaced by a folk rationalism (in which expectations are linked to an omniscient standard). Because a field is not a game of chance (Bourdieu, 1983–86/2019b, p. 51ff), participation can occur only according to the increase or diminishment of control (e.g., the *reduction* of absolute chance) over the prevailing objective probability as a way of grasping at and holding the future by ensuring one’s repeat performance on trials. For Weber 1921–22, p. 638), a capitalist (in a strictly economic sense) only likes markets as spaces of objective probability up to the point that they have made their position reproducible. A successful capitalist will seek to narrow those probabilities (e.g. making them less akin to a field and the opposite of a game of chance) as soon as possible. Both are ways of shaping objective probability.

As Bourdieu will argue later in the *Cours*, the presence of capital as historically established control over a space of objective probability allows for “the progress of Truth, or the progress of Reason...without even needing to want it explicitly” (Bourdieu, 1983–86/2019b, p. 1112; our translation). In a 1975 article (p. 31–32), Bourdieu mentions this as securing the “interest in truth” (“*intérêt a la vérité*”) and how this rejects any claim for the exceptionalism of science as involving the “disinterested” pursuit of truth.²³ The accumulated capital of science, in this example, means that a space of objective probability has been established, secured (as “institutionalized,” “embodied” and “objectified” capital) and can have a certain stability without the “arbitrariness” (e.g., capable of being remade at any moment as radically different) that would characterize a game of chance. This means that some statements and actions have a high probability of being considered “scientific” while others have little chance. By this stage, participants in the field have internalized this probability. At minimum, “new entrants” will tend to seek a “systematic diversion of ends” relative to the (currently) “dominant” through the (safer) accumulation or (riskier) distinction of capital to shape what is objectively probable such that it allows them to exist in the field (Bourdieu, 1975, p. 32; 1983–86/2019b, p. 232). In a field, they cannot do this through one-to-one interactions; though the fact that they can do this, and that there are established ways of doing this through which expectations can form, means that they *are* participating in a field rather than in a social space configured as an apparatus or playing a game of chance.

By “structure,” then, we can translate different positions that are “objective” because they each dictate the distribution of chances in a given space of objective probability.

²³ In fact, it is not until this 1975 article translated and published that same year in English as “The Specificity of the Scientific field and the Social Conditions of the Progress of Reason,” that Bourdieu refers to the field/capital connection as dictating “objective probability.” There, the control of “*les chances objectives*” is dictated by “the structure and distribution of capital” (Bourdieu, 1975, emphasis added).

As lines of action, this takes systematic form as either “accumulation” or “distinction.” To have an “interest” (or what Bourdieu will, in [1997], revise as *illusio*) means to be willing to play a (capital-leveraged) game in which some chances are more likely than others to occur (1983–86/2019b, p. 201). Depending on where one stands (according to a variety of metrics), this means one will “have an interest” in either accumulation or distinction, as broadly defined ways of *shaping objective probability* and the degree of *risk* one thereby assumes, such that your presence in the field can be part of other’s expectations.

Illusio

Any reading of *Pascalian Meditations* will very likely miss its main and consistent themes without understanding that the book represents another entry (and, it turned out, the last one, with Bourdieu’s death in January 2002) in a career-long effort to understand probability, its internalization, links to objective possibility, and its effect on action and experience.²⁴ *Pascalian Meditations* is, in other words, an articulation of “general sociology,” a further development of its basic categories (habitus, field and capital) and an effort to articulate and extend further the distinct vocabulary (e.g., *conatus*, *nomos* and, especially, *illusio*) that puts objective probability, as an obscure and improbable concept which Bourdieu first stumbled upon over two decades earlier in reading Weber, and who himself retrieved it from von Kries over fifty years before as part of Weber’s own attempt to define sociology, right at the center of social explanation.²⁵

To “function,” according to Bourdieu, a field must “find individuals who are socially predisposed to function as responsible agents.” This is a rather odd phrasing to give (e.g., “*agent responsable*”), but it becomes much clearer, and more directly linked to probability, when Bourdieu notes “to risk their money, their time, and sometimes their honor or their life, to pursue the objectives and obtain the profits which the field offers...[This] basis of entry into the game and commitment to the game...[is] *illusio*” (1986, p. 194). Thus, the “validity” of a field, in this case, depends on putting something up for risk according to probabilistic expectation. The term *illusio* here hints at this integral connection to probability.²⁶ As Bourdieu acknowledges in *Pascalian*

²⁴ It is also not unfair to say that, over 40 years after having to abandon it, Bourdieu finally got to pursue, with *Pascalian Meditations*, what he set out to do in his planned philosophy doctorate with Canguilhem, particularly in chapter 6 of the book.

²⁵ This could account for the strange reputation and reception of the book in the subsequent two decades. In short, most analysts do not know how to fit it into Bourdieu’s intellectual development, resorting to mostly speculative (and mutually inconsistent) takes. Accordingly, we find claims that it secretly contains a “theological unconscious” (Gorski, 2013), that it provides ample evidence of Bourdieu’s adoption of the “logic of psychoanalysis” (Steinmetz 2014), or that it offers a superb dismantling of “symbolic domination” particularly of labor (Burawoy, 2012). These themes are all addressed but are of secondary importance to the larger project. The probabilistic hypothesis has the virtue of being the least speculative and is also the simplest. Bourdieu titled the book *Pascalian Meditations* because it was the last statement of his mature probabilism, and Pascal is the greatest French representative of classical probabilism (Hacking, 1975).

²⁶ Bourdieu first appears to mention “*illusio*” only with the 1980 publication of *Logic of Practice*. It is not found in the article with the same title in 1976, nor is it found in *Outline of a Theory of Practice* published in 1972. This suggests that a crucial part of revising the earlier text was integrating its core theme of practice with what Bourdieu (after Bourdieu, 1973) had become increasingly preoccupied with as “objective probability.” This combination required a new vocabulary, which (indicatively we claim) Bourdieu borrowed from classical probability theory.

Meditations (1997/2000, p. 207) the term itself is derived from the classical probability theorist Christian Huygens's *lusiones* which specifically applied to "expectations" that correspond with *gambling* (Hacking, 1975, p. 92ff) and what one will accept as a fair outcome. Essentially, your *lusiones* corresponds to your willingness to "play the game" or "stand trial" as evidenced by your having put forward something to lose (e.g., money, time, honor, even one's life).

Pascalian Meditations thus finds Bourdieu explicitly defining and elaborating the core *motivational* construct of general sociology, now with a firm probabilistic focus. Specifically, the notion of *illusio* (usually translated as "feel," "investment," or "interest" in the game) appears now as a core concept alongside habitus, capital and field. *Illusio* links to motivation via probabilistic expectation, but which is not necessarily conscious or personal. Those who are invested in a space of objective probability are interested in what its trials have to offer and are vulnerable to losing something. Those offerings come in the form of a distribution of chances: "the *illusio* (or interest in the game) is what gives 'sense' (both meaning and direction) to existence by leading one to invest in a game and its forth-coming [*son a venir*], in the *lusiones*, the chances, that it offers to those who are caught up in the game and who expect something from it" (Bourdieu, 1997/2000, p. 207).

For Bourdieu, at the center of probabilistic sociology is the experience of *time*. Attunement to a rhythm of sequencing, particularly the *succession* that defines a distribution of probabilistic outcomes in a field (the field's *Spielraum* in Von Kries's terms), orientates experience within a sequence of trials. The experience of time is thus tantamount to a practical grasp of the *relation* between internalized probabilities (in *habitus*) generative of the dispositions and inclinations to act in this or that way given a present setting, and an objective succession, whether this be probabilistic (as in a field), random (as in a game of chance) or predetermined (as in an apparatus). The sense of temporality and (social) time arises in a field through this connection to a probabilistic succession:

In the relationship between the practical expectations or hopes which are constitutive of an *illusio* as investment in a social game, and the tendencies immanent to this game, the probabilities of fulfillment that they offer to these expectations, or, more precisely, the structure of mathematical probabilities, *lusiones*, that is characteristic of the game in question (Bourdieu, 1997/2000, p. 208).

Because the experience of time tends to be a quasi-reflexive grasp of a (pre)intentional relation between internalized and objective probability, it follows that in cases in which there is an exact coincidence between expectations generated by the internalization of the probabilistic structure of the world and the set of objective chances provided by the field, time is not subjectively experienced. Instead, the phenomenological signature is that of being lost in the activities and offerings provided by the field (play, creation, or work) such that we "lose track of time." Instead, time intrudes precisely when there are (micro) breaks between anticipations and chances, such that "time...is really experienced only when the quasi-automatic coincidence between expectations and chances, *illusio* and *lusiones*, expectations and the world which is there to fulfil [*sic*] them is broken" (Bourdieu, 1997/2000, p. 208).

What *Pascalian Meditations* consists of is a proposal for a probabilistic sociology, or a sociology in which basic concepts are defined in direct relation to probability because the phenomenon they refer to are probabilistic in nature. Consider the following two examples: *motivation* and *power*. In this respect, fields are inherently productive of motivations (e.g., generative of ‘impulsions’ to do this or that, not just post hoc motivational talk) because the structure of possibilities they offer call forth, or evoke the required responses, but *only* from agents who have already internalized probability as *habitus* allowing them to anticipate (without this necessarily or even normally being a subject anticipation in the vein of rational action theory) the field’s probabilistic offerings and be willing to lose something (e.g., make themselves vulnerable to the field) based on their assessment of chances within this particular structure of objective probability.²⁷ It follows that the same set of chances would be grasped by someone who can practically wield the required set of subjective probabilities, but missed by another who has not internalized the same set of objective chances. In this sense, what is to be done, or the things to do (or not to do) are also defined *relationally*, where the *relata* are once again, “the structure of the hopes or expectations constitutive of a habitus and the structure of *probabilities* which is constitutive of a social space.” As a result, “objective probabilities are determinant only for an agent endowed with the sense of the game in the form of the capacity to anticipate the forth-coming of the game” (Bourdieu, 1997/2000, p. 211, emphasis added).

Rather than being a hindrance, the probabilistic structure of fields is what accounts for their motivational force or (in Gestalt-theoretic terms) “demand character.” The most “de-motivational” environments, it follows, are ones that are perfectly predictable (where objective Chances become *fate* in a substantive sense) or perfectly random (completely unpredictable). This is why the metaphors of “games” is an apt structural analogy in this case (DiCicco-Bloom & Gibson, 2010). Probabilistic environments are “associated with uncertainty” but this is a “regulated uncertainty” which justifies “the pertinence of the analogy with games” (Bourdieu, 1997/2000, p. 213). To motivate and call up action, fields have to be set up “between absolute necessity and absolute impossibility.” People have to feel like there are *stakes* for every action (some objective *chance* of winning or losing) and that the field has trials (requiring skill), in other

²⁷ In what turned out to be his last *Cours*, Bourdieu applies this idea to the case of Édouard Manet and how he orchestrated a “symbolic revolution” in painting during the second half of the nineteenth century: “when the field, understood as a space of positions, is perceived by a young man, a beginner endowed with a habitus of the ‘we need a revolution, radical change, etc’ type, it appears, so to speak, as a space of possibilities, but not as a space of theoretical possibilities. In fact, if we use Max Weber’s terminology, it is a *space of objective possibilities*, where there are things to do and things not to do. The things to do are not at all dependent on intentions” (Bourdieu, 2000/2017 p. 48; emphasis added). Later in the *Cours*, Bourdieu will argue that Manet could be a “heresiarch” in painting, as one who shifts an entire field (and its objective possibilities), because, in part, he came from a position of affluence and stability (e.g., “had something to fall back on”), which was particularly significant at this time in painting: “This is significant, because this is a domain where new ideas were not commonplace, because *you had to dare to put your insight into practice*, which was difficult, and then of course you had to have the means to do so” (p. 228; emphasis added). The suggestion here is *not* that only those from a position of affluence and privilege can be “heresiarchs” (as Bourdieu himself proves), but that the vulnerability to a given space of objective probability is as such, for those who do not come from such a background, that they stand to lose everything should they make a similar “dare” and not succeed; though if they do succeed, they also stand to gain everything (elsewhere Bourdieu calls those in this position *oblates*: “those who give everything to the institution because they owe the institution everything”). The unstated (though strong) connection to Pascal here is readily evident.

words, rather than pure “rolls of the dice” or strict rule-following (with no possibility of surprise).

The probabilistic structure of fields provides that “nothing must be absolutely sure, but not everything must be possible,” which also makes them *learnable* and provides for the possibility of getting better at anticipating its offerings. Uncertainty, rather than being the enemy of action and motivation, is a primary enabler for both fields and games of chance, thus explaining why people are motivated to “work for the uncertain” (Pascal, 1680, quoted by Bourdieu 1997/2000, 214). There is, however, a key difference between fields and games of chance. The latter are characterized by a “discontinuous series of perfectly independent events.” In statistical terms, (fair) games respect the mathematical idea of “independence,” in which the chances of success and failure in a successive state are not affected by the events immediately preceding. Fields, by contrast, have a *history* which makes the entire structure of probabilities offered by the field necessarily dependent on the preceding sequence of moves, countermoves, and the congealed history (sometimes encoded in material artifacts) constitutive of it. Fields are therefore *not* fair games; they are rather more like “a handicap race that has lasted for generations or games in which each player has the positive or negative score of all those who have preceded” them (Bourdieu, 1997/2000, p. 215).

Additionally, fields have conservative, self-preservative tendencies (what Bourdieu refers to as their *conatus*) to maintain a given “structure of objective probabilities, or, more precisely, the structure of the distribution of capital” (Bourdieu, 1997/2000, p. 215). Accordingly, Bourdieu refers to the conservation of the structure of objective probabilities in fields across time as “the order of successions.”²⁸ This tendency, inherent to each field (and in fact constitutive of the field as such) ensures, “the regularities and rules of the transmission of powers and privileges which is the condition of the permanence of the social order as a regular distribution of *lusiones*,

²⁸ Bourdieu will develop this point further in *Homo Academicus*, which he had been working on in part since at least the May ‘68 revolts (see Wacquant 1990), and which he published in 1984 (1988 trans), thus overlapping with the *Cours de Sociologie Générale*. Bourdieu mentions (Bourdieu, 1984/1988, p. 87) Leibniz’s idea of the “order of succession” and applies it the stages of the French professoriate in the social sciences and, particularly, philosophy/literature/history professors at the time (e.g., assistant lecturer → doctoral thesis → promotion to lecturer → chair at the Sorbonne). As a prelude to the May ‘68 crisis, this order of succession was scrambled, which Bourdieu credits with being a critical ingredient of the “critical moment,” combining with a different scrambling of an order of succession among students (see. Bourdieu, 1984/1988, p. 90ff). Bourdieu includes a revealing footnote to this discussion (Bourdieu, 1984/1988, p. 299, n19) in which he states the following, which connects “order of succession” to objective probabilities, and what happens when that order breaks:

... the crisis in relations between the old and new entrants arises from a break in the harmony which used to obtain, for the great majority of new entrants, between the *personally internalized structures of expectation* (waiting) and the objective structures (likely trajectories), a break which is influenced simultaneously by the effects of a *transformation in the structure of probabilities* of promotion and of a modification in the disposition of the agents. In such a conjuncture, the “old” and the “young” feel “out of phase,” the former seeing careerist ambition in which is experienced as a normal claim, and the latter seeing mandarin conservatism in what is felt to be an appeal for ethical standards (emphasis added).

In the *Cours*, Bourdieu (Bourdieu, 1982–83/2020, p. 192ff) will make similar claims, allude to the same case (referencing to earlier work he had done [“La defense du corps”] with Luc Boltanski and Pascale Maldidier published in 1971) and will also include the following suggestive insight: “This refers us back to the eternal problem of finding out why certain groups harbour revolutionary intentions: there are places in this space where the *contradictions in succession* will be maximal ... it is obvious that these people will be the bearers of the early-warning message” (p. 195; emphasis added; see also Strand and Lizardo 2015, 2017).

of probabilities or objective expectations” (Bourdieu, 1997/2000, p. 215). In fact, Bourdieu sees *institutionalization*, in the sense of an objectification and sedimentation of roles and positions within fields (as elaborated first by Weber and then Schutz), as the primary mechanism underlying the tendencies of fields to reproduce (not necessarily exactly) a given structure of objective probabilities over time. To the degree that this objective structure of probabilities assumes an explicit and stated form (as de facto rules, law, “principles of vision and division”), it is retrievable as what Bourdieu (2000/1997, p. 96ff) now refers to as *nomos*.

Power

The recasting of his core concepts within this frame of sociological probabilism thus leads Bourdieu to a novel reconsideration of the idea of power. Here, power becomes inherently tied to the capacity to affect both the preservative and sometimes transformative tendencies of a field (its *conatus*) as encoded in the distribution of objective probabilities it offers. Thus, agents exert power when they can indirectly affect the subjective aspirations and expectations of other players by intervening in the *distribution* of chances offered in the field, “which are measured by objective probabilities” (227). Power comes to be directly tied to issues of *predictability*, then, since a “predictable world...[is] one [that people] can count on, even in its risks” (228). Capital and power are also intrinsically related: “...power (that is capital, social energy) governs the potentialities objectively offered to each player, her possibilities and impossibilities” (Bourdieu, 1997/2000, p. 217).

A person exercises power “over” others, then, when they control and manipulate the predictability of their actions, thus making it hard for others to predict: “[a]bsolute power is the power to make oneself unpredictable and deny other people any reasonable anticipation, to place them in total uncertainty by offering no scope to their capacity to predict” (228).²⁹ As such, “[t]he power to act on time, through the power to modify the objective chances...makes possible (and probable) a strategic exercise of power based on the direct manipulation of aspirations” (230). People who make others wait (as in Kafka’s parable “Before the Law” in *The Trial*), who set limits and quotas on expected durations, or who have the institutional capacity to shorten (or elongate) others’ passage (or the time to the conferral of rights and duties via rites of institution) exercise power in its purest form. Interpersonal power (power over others) is operative when one actor can disrupt or subvert others’ practical expectations and anticipations. This can happen either directly (e.g., via the creation of unpredictable or hard to predict situations) or indirectly, by modifying the objective structure of probabilities constitutive of a field, rendering it less navigable and predictable for those who lack power.

The link between power, probability, expectation and chance also becomes evident in the experiences and typical actions of those who have the *least* power, as in the least chance to shape their own or other’s objective potentialities. For Bourdieu, the extreme powerlessness experienced by the most marginalized (in his example “subproletarians” (Bourdieu, 1997/2000, p. 221ff)) reveals what happens when the link between practical anticipation and a set of more or less coherent objective chances is almost completely

²⁹ Bourdieu’s formulation here comes close to a probabilist recasting of the idea of “robust action” as a source of power and autonomy as developed by Padgett and Ansell (1993).

broken. In having a future denied via the denial of *any* set of objective chances in a field, individuals are rendered the most powerless. Without the capacity to link practical anticipations to a possible future, action itself becomes disorganized, “misfiring” in unpredictable ways and seemingly unmoored from “rational” (or reasonable) expectations. For Bourdieu, “below a certain threshold of objective chances, the strategic disposition itself, which presupposes practical reference to a forth-coming...cannot be constituted” (221).³⁰ The ambition and motivation to control the future “varies with the real power to control that future,” and that capacity is lacking among the most marginalized. This radical dislocation of expectations (which may show up in completely “unrealistic” fantasy) and chances is thus evidence of what happens when the anticipatory (and mutually adjusting) relationship between internalized probability and objective chance is broken, evident in the “projects they entertain, completely detached from the present” (Bourdieu, 1997/2000, p. 222).

The *attraction to games of chance* observed among the most economically dispossessed (Beckert & Lutter, 2013) emerges as a mechanism to escape exposure to objective situations that offer *no chance*, which suggests that certainty of fate, as literally the *absence* of chance and uncertainty, is most aversive and demotivating.³¹ These games, “offer an escape from the negated time of a life without justification or possible investment, by recreating the temporal vector and *reintroducing expectation*” ((Bourdieu, 1997/2000, p. 222). Attraction to risky ventures among young marginalized people (violence, dangerous games) has the same motivational basis, as it allows persons to escape from “fatalistic submission” to a world that offers no chances, thus allowing them to reclaim some level of control or power over the outcomes that *could* happen (which may include death). They can thus make “something happen rather than nothing” (223). In this way,

The extreme dispossession of the subproletarian...brings to light the self-evidence of the relationship between time and power, by showing that the practical relation to the forth-coming, in which the experience of time is generated, depends on power and the objective chances it opens...investment in the forth-coming of the game *presupposes a basic minimum of chances in the game*, and therefore power over the game, over the present of the game...the aptitude to adjust behaviour in *relation to the future is closely dependent on the effective chances of controlling the future*...inscribed in the present conditions...adaptation to the tacit demands of the economic cosmos is only accessible to those who possess a certain minimum of economic and cultural capital, that is, a certain degree of power over the mechanisms that have to be mastered (223; emphasis added). As Bourdieu notes here, the experience of time under “normal” circumstances (as a practical anticipation of an objective forth-coming), and investment in everyday practical activities (*illusio*) is intimately tied to power, and by implication the distribution of capital. Investment in a project or career, anything that involves the anticipation of the future, requires, at a minimum, a felt capacity to control the distribution of (anticipated) objective chances, themselves regulated via a chances-expectations loop. In this way, what seems to be a “conservative” adjustment to objective chances is itself

³⁰ We elsewhere theorize this mismatched condition as a form of “hysteresis” (Strand and Lizardo, 2017).

³¹ Jay Macleod documents a similar connection (e.g., between absence of chance as certainty of fate and “levelled aspirations”) in his famous study *Ain't No Makin' It* (1995). Notably, he also observes the attraction of those “fated” to certain social futures to games of chance (see pp. 49–50, 183–184; see also Charlesworth 2000, p. 122–23).

the product of *power* as mediated by the aggregation of the action of others. Rather than being a limitation on “agency,” power becomes the ability to seize, grasp, and “grab” that which objective *Chance* (in Max Weber’s sense) has to offer.

Discussion: Toward a probabilistic sociology

Thus far, our argument has engaged in a mimetic retracing of Bourdieu’s steps (from 1973 forward) as he engages in novel concept-formation in order to show the difference it makes, in this case for a well-known set of concepts, to draw them together with probabilism. By probabilism we mean a scientific approach built on the premise that probability is *objective* as part of the world, involves learning by the folk without measurement or calculation, and has a direct (unmediated) connection to action and experience. Probability can therefore serve as a point of mutual orientation between analysts and actors and, more generally, means that *all* sociologists should worry about and take account of probability, rather than just quantitative specialists or methodologists. However, given how objectively improbable this kind of position-taking is, how it defies the field-specific *nomos* and probabilistic expectation generally held among those particularly in anglophone sociology today, an open question of this pursuit remains whether following Bourdieu’s position-taking and incorporating probabilism into sociological theory in order to yield a *probabilistic sociology* makes a difference for empirical sociological research? In the remainder of this article, we will sketch out what probability in sociology, from this novel position, looks like in an applied form, as a new claim on what social explanation can (potentially) be.

For a probabilistic sociology, the variable relations revealed by statistical models would serve as *indexes* for how probability has been made objective. This means that predictive variables give evidence not of a direct link with a dependent variable ($X \rightarrow Y$) but of elements of (historically-specific) trials and risks, as these refer to the presence of objective probability. So, as Pedulla and Pager (2020) recent study finds, “African American job seekers ... need to utilize roughly twice as many network contacts as white job seekers to accrue the same labor market benefit” (p. 996). The labor market benefit here indicates an outcome (likelihood of receiving a job offer, an interview, a screening call) of job search and hire as a *mode of trying*, and how network contacts serve to resolve this *trial* (as a potential resistance and uncertainty) into an outcome. The different probabilities indicate how this objective probability is racialized in a manner that Pedulla and Pager suggest by their emphasis on “network returns”: “conditional on hearing about an opening through a network-based channel, Black job seekers are less likely than white job seekers to (1) know someone at the companies to which they are submitting applications, and (2) have their network mobilize key resources on their behalf, specifically contact an employer on their behalf” (p. 1007).

On both ends, *risks* are centered in outcomes, which implies that because the risk for potential employees is potential unemployment, this serves as the *illusio* to use network contacts for job search and job application without a second thought. The *capital* of white job seekers shapes the field (space of objective probability) of job search and hire by linking objective probability (e.g., *power* over potentially resistant outcomes) more closely to expansive network contacts. None of this would become objective, however, if employers, as the source of potential resistance, did not resolve their own uncertainty

by making (racialized) predictions according to network contacts (see Pedulla & Pager, 2020, p. 1008).

This attempts to situate probability directly into action by appreciating the fact that because job search and hire is a space of objective probability, analysts are not alone in confronting uncertainty and *expecting* that “results” are not random either.³² Alternatively, this space could be an apparatus (determinism) or a game of chance (randomness), in which case there would be either *no* uncertainty or near *complete* uncertainty at every moment. Because this space of objective probability *exists*, a statistical model can index its properties; more significantly, sociologists can interpret social action by finding probability-in-action (as *habitus*), specifically as what Bourdieu (after Weber) identifies as a (measured) *chances* - (learned) *expectations loop*. To find an $X \rightarrow Y$ relation as a probabilistic statement does not require that social action be understood as any less probabilistic than the statement itself.

For probabilistic sociology, understanding that statistical models can index the properties of objective probability (e.g., *how* probability is made objective) carries a further implication (and inference) toward a history and mode of *inviting* chance in and/or *taming* it. This dialectical tension (*invite* $\leftarrow \rightarrow$ *tame*) is critical for an explanation that can scale up to an aggregate ($X \rightarrow Y$) variable relation and remain continuity down to probabilistic social action, though it does not have to be by design. More generally, it suggests *institutionalization* as a taming of chance by the future-controlling effects of *capital* and the creation of rhythms in modes of trying in a situation that invites chance in but not so much as to become a game of chance. Just as the classical probability theorists understood, objective probability can seem random for those who have not learned its probabilities and cannot anticipate them or be motivated by or orientated to them (as *illusio*). Much like the denizens of Babylon in Borges’ (1962) story of “the lottery,” who live in circumstances in which chance has been invited in to *everything*, what happens next is neither probable or improbable, expected or unexpected, and therefore neither a form of justice or injustice, signifying neither equity or inequity. It is simply something that happens next. “Objective potentialities” can be statistically measured as “average chances” (1980/1990b, p. 290 n2) that reveal how much chance has been invited in or tamed, how much these potentialities serve the accumulation of capital, and how settled or maintained are the “outcomes.”³³

Furthermore, for a probabilistic sociology probability can be *qualitatively* understood as part of social action and experience, and this does not require a strong distinction from its statistical measurement (as if probability could play no direct role in action). Contrary to any reification of reality as a “data structure,” statistical measurement does not tell us how probability becomes objective. This requires a secondary inference, but one that does not leave probability behind (as merely epistemic). Rather, an “estimation of chances” finds its way into action as the “transformation of ... past effect into an expected objective” (1980/1990b, p. 53). These schemes make

³² Pedulla and Pager (2020, p. 1006) suggest as much when they observe the following: “African American job seekers are aware of racial discrimination, and thus they attempt to utilize their networks to target employment opportunities where there may be less racial discrimination and improve their likelihood of obtaining a job offer. We encourage future research in this area.”

³³ “Taming chance” and “inviting chance in” are phrases inspired by Hacking’s book *The Taming of Chance* and Borges’ story “The Lottery in Babylon” (respectively) as demonstrating engagements with objective chance in ways consistent with a probabilistic sociology.

“social space” as real as “physical space,” though not as fixed entity variables, averages, correlations and predicted effects (or as structures reified on these grounds); but as an interpretation-rich *qualitative physiognomy* rooted in *chances-expectations loops* as “hope” or “foreboding,” “danger” or “possibility,” “open paths” or “blocked horizons.” For probabilistic sociology, “average chances” are important not as descriptions of reality but as secondary inferences toward the probabilistic schemes (e.g., Future → Past → Present) that wager on a future with these potentialities and the corresponding trials and risks.³⁴

This suggests that the appearance of a field as a space of objective probability serves to *orientate* (a key notion in Weber’s [2019/1921–22, p. 100–101] probabilism) social action through a chances-expectations loop. More generally, this suggests a form of social change that occurs through some means of inviting chance into space (of objective probability or determinism) that has already tamed it in a certain way, or is otherwise teeming with chance mechanisms not yet made objective, thus enabling new forms of capital to appear as a new power over the future. This could also occur through the introduction of new capital into a preexisting loop, thus changing the manner in which probability is continuously made objective and changing expectations.

Thus, a conceptual incorporation of probability makes a meta-methodological difference for historical sociology or genetic “formation stories” that are often the most removed from probabilistic concerns (Hirschman & Reed, 2014). For instance, in Shai Dromi’s (2020) recent account of the appearance of the humanitarian field in the nineteenth century, new interpretative schemes (as evident, especially, in Henry Dunant’s 1862 book *A Memory of Solferino*) serve as a critical factor (chap. 1); but combined with them was the warfare technology and acrimonious politics that made nineteenth century battlefields in particular into pockets teeming with chance mechanisms (new *trials* and *risks*). New interpretive schemes and organizations (e.g., The Red Cross) created expectations along with these chance mechanisms, as constituting a new *illusio* marked by varied efforts (some interpretive) to tame chances like these and other seemingly random disasters (like famines) (p. 17–18). Together, they marked the appearance of a new space of objective probability (*field*) that could orientate social action toward the *expected* presence of human rights and human worth (or a new *capital*) as a way of continuing and extending a new *chances* (arbitrary devastation and destruction) - *expectations* (humanitarianism) *loop*, particularly into spaces of destructive chance (like warfare or natural disasters) and absolutist spaces of determinism (like authoritarian political regimes).³⁵

A probabilistic sociology would seek to avoid an oscillation between political economy and culture as substantive accounts of historical social change by making a more formal claim rooted in the qualitative significance of probability. The range of factors signified by “political economy” and “culture” can *both* be integral to changing

³⁴ Probabilistic schemes of this kind are not metaphoric, it would seem, as they align with an emerging paradigm in cognitive science referred to as “predictive processing” in which experience-based predictions generate the meaning of incoming sense impressions rather than “representations” (Clark, 2013).

³⁵ As Dromi (2020, p. 133–34) mentions, arguments for secular humanitarianism against theologically rooted schemes are not to be dismissed as much as pointing out that their criticism misses the mark. Fundamentally, the debate is not over the objectively correct interpretation of what humanitarianism means; but rather over what maintains the expectation that human rights and worth *should* be present concerning *any* set of chances (e.g., its universalism).

chances-expectations loops, inviting chance in, or taming it in a new way. A probabilistic sociology will not account for power by referencing macro categories *without* including a focus on capital as a future-oriented control (with expansionary tendencies) on how probability is continuously made objective; neither will a probabilistic sociology only use familiar cultural plugs (e.g., a new interpretive scheme) to account for shifts in expectations as part of social action (interpretation can tame chance, as analysts themselves know, but it is certainly not the only way)³⁶.

Conclusion

To move toward a probabilistic sociology requires that we break with distinctions and divisions that persist in the same (epistemic) assumptions about probability that have been made since the nineteenth century. Among these are that probability is exclusively about mathematical problems, that it is only present in and learnable through (machine) calculations, or that it can only be given an operational (instrumentalist, or third-person predictive) definition, lest it be rendered naive or biased (see Hacking, 1975). Given the (objective) improbability of making a contrary claim, and the expectations that have been adjusted as such, we believe requires (even to show the *possibility* of an alternative) a detailed tour of a sociologist's work that is distinctively probabilistic, but not as an epistemology or methodology. As we have argued, Bourdieu's sociological framework can be accurately recast as conceptually rooted in probabilism through and through. We have used this argument not as yet another exegesis on Bourdieu but with a more *mimetic* goal in mind. Retrieving Bourdieu's probabilism as part of his concept formation (both narratively and analytically) makes it possible to relay new schemes and practical approaches for a general incorporation of probabilism into sociology. Note that insofar as sociologists have already been making (perhaps good, perhaps ritualistic) use of Bourdieu's core concepts, then they are already probabilists in practice. So perhaps this transition may not entail such a radical subjective dislocation.

Any such transition has three relevant points of conceptual focus, we believe, that are understandable in sequence, drawing from Bourdieu's novel concept formation. First, Bourdieu's early adoption of Weber took the form of *a looping relation*, between probability in two forms, which he would (over the course of the 1970s) articulate as habitus and field. Second, Bourdieu would use this probabilism to *reformulate the notion of objective structure* by introducing and revising concepts like capital as a way of explaining power, external force and action-at-a-distance (coming to fruition in the *Cours*) without holism or organicism (a goal he shared with Weber [1921-22/2019] and Bois Du [1905/2000]). Third, he would revise this probabilistic vision further (in *Pascalian Meditations*) to *theorize motivation* by deploying a new terminology (*illusio, conatus, nomos*) that does not rigidly divide subjectivity from objective probability (e.g. fields).

³⁶ Note that the table should not be read as a substantive claim that there is a "left-to-right" shift in Bourdieu's conceptualization of the relevant notions, or an "early" versus a "late" Bourdieu, although as we argue throughout, the specific conceptualizations on the right appear later in Bourdieu's larger body of work (and are layered on top of or next to the ones on the left), as he works out the implications of probabilism in the General Sociology lectures and one last time in *Pascalian Meditations*.

As we have suggested, a probabilistic sociology in Bourdieu's mold would use these conceptual and meta-methodological arguments to propose and pursue significant changes to sociological practice. Theoretically, this opens up new avenues and perhaps a probabilistic recasting of other core notions, of both Bourdieusian and non-Bourdieuian provenance. These include core notions in action theory, such as "belief," "trust," and even traditionally "macro" concepts such as "institution" and "structure," as we saw earlier. Take for instance, the idea of "hysteresis," (Strand & Lizardo, 2017), featured prominently in Bourdieu's work. This notion can naturally fit into the probabilistic framework, referring to instances of prediction-in-action from learned probabilities in previous experience that fail to match a novel configuration of objective chances offered by a dynamically changing environment.

More generally, qualitative observational methods can be calibrated to investigate the myriad ways that probability, chance, and prediction, as well as their vicissitudes and subversion, show up as substantive, inspectable elements in action. In this respect, a probabilistic sociology would not respect a qualitative/quantitative division that is in large part rooted in methodologies that are allowed to talk about probability versus those that are not. A probabilistic sociology would also not bracket probability from social action and require that social action be cast in an entirely different mold than the phenomenon it is called upon to explain. This article has only sketched the potential relevance of these general points by using Bourdieu's probabilism as a demonstration (and far from the last word) of such concept formation. Acknowledging probabilism as a *possibility* in sociological theory, we hope, will inspire improvements to empirical sociological research, rooted as it is in probabilistic knowledge, through exposure to a different, heterodox tradition.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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