Epistemic cultural constraints on the uses of psychology

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ABSTRACT

This paper describes some epistemic cultural considerations which shape the uses of psychology. I argue the study of mind is bound by the metaphysical background of the given locale and era in which it is practiced. The epistemic setting in which psychology takes place will shape what is worth observing, how it is to be studied, how the data is to be interpreted, and the nature of the ultimate explanatory units. To demonstrate conceptual epistemic constraints, I discuss metaphor use in psychology. In addition, epistemic constraints shape the praxes that arise from structural study of the mind. In order to illustrate this cultural constraint, I discuss Soviet Psychology and provide a contrast between practical uses of psychoanalysis in India, Egypt, and rural Ghana. In response to these conceptual and practical epistemic limitations, psychology could adapt methods drawn from history and anthropology.

1. Introduction

The knowledge practices of psychology promise to be the scientific study of the mind, its functions, and behavior. This immense scope is a product of the interaction between belief, culture, and psychology that arose from a particular intellectual and historical context (Robinson, 1976).[1] We can understand the scope of the field's ambitions if we view psychology as heir to the optimism inherent in industrialization, positivism, empiricism and modernity (Adams, 1931).

Psychology is comprised of diverse conceptual and methodological practices: it is characterized by a negative evolution of paradigms (Koch, 1999). The subject matter of the field has expanded to include creativity (Oatley & Djikic, 2018), neuroeconomics (Sanfey et al., 2006), affective computing (D'Mello et al., 2018), and religion (Modern, 2021), to name a few. Critical enterprises have arisen inside the field, they include ecological psychology (Gibson, 1966), social constructionism (Gergen, 1985), enactivism (Varela et al., 1991), indigenous and non-western psychology (Gergen et al., 1996; Moghaddam, 1987; Paranjpe, 1998),

and critical psychology and neuroscience (Slaby, 2010; Teo, 2015).

Some psychologists claim that the epistemic constraints I will be describing can be alleviated by dint of this plurality of frames. Yet, in spite of the diversity of content and critical enterprises, I will be arguing that knowledge about the mind and human nature, or as human nature, is hopelessly bound to its uses within the matrix of ideological and epistemological needs of the locale in which it is practiced (Smith, 2013; Muthukrishna et al., 2021). That is to say, the plurality of frames is only more evidence that each approach is forged under different epistemic constraints and that there is no one person or place in which they come together.

While the scientific method clarifies mysteries in the study of biology, chemistry, medicine, physics, and astronomy, its protocols are not ideally suited for all phenomena. Though achieving objectivity in the human sciences has proven a challenge, for the majority of its history, empirical psychologists like Wilhelm Wundt employed experimental protocols in the pursuit of psychic unity: that all human beings, regardless of culture or race, share the same basic psychological and

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[1] According to Robinson, 1976, p. 391: "Physiological psychology, little more than the product of polemicism in the eighteenth century, became a science in the hands of Flourens, Gall, Bell, Magendie, Helmholtz, and Wundt. Comparative psychology was invented by Spencer, Darwin, Romanes and Morgan. The psychology of individual differences is the creation of Binet and Francis Galton, as are several of the statistical procedures needed for such studies. Cognitive and Gestalt psychologies are so intimately tied to phenomenology that only a purist could deny Hegel and the neo-Hegelians the title of founders. Freud, Janet, Jung and the unconscious are near-synonyms. Our sense of what an experimental science is and ought to be is taken over, with only the slightest modifications, from J. S. Mill, and the general attitude toward the status of science remains largely the one advocated by Auguste Comte and his positivist disciples. Our fascination with hedonistic ethics, with the possibility of shaping the world through the processes of reward and punishment, is linearly traceable to Jeremy Bentham and the Utilitarian movement. Even our "humanistic" psychologies, with their focus on "self-actualization," personal growth, and individual freedom, have never improved upon the original formulations by the German Romantics …"

cognitive make-up (Araujo, 2016). Meanwhile, even chemists were aware of the determinative role of value-laden personal knowledge in the practice of science (Polanyí, 1958). It was also clear before the mid-twentieth century that logical positivism was not the ideal theory by which to structure a human science (Koch, 1999).

In the twentieth and twenty-first centuries, the limits of psychology are difficult to trace; it sometimes seems as if any discussion of human behavior devolves onto some form of psychology. Yet, the variety of mental phenomena have not been entirely reduced to neural principles, nor have the causes of variation in an individual's behavior been sufficiently explained by either genetic factors or social scientific principles of the interaction between a person and her environment. As currently construed, empirical psychology has yet to furnish us with the kinds of nomothetic principles to which it is epistemologically wedded. The contours of cognition are not clear and identifiable (Fodor, 1983, 1998; Khalidi, 2013), rather they may be contingent upon factors dependent on extra-logical factors such as culture, history, theory, and contingent social formations (Boyd, 2018; Boyd & Richerson, 1985). It seems the best way forward might be a mosaic of constraints between multiple levels of analysis (Craver, 2005).

Some psychologists have suggested the limitations of psychic unity and nomothetic principles reside in actual data sets (Heinrich, Heine & Norenzayan, 2010; Schulz et al., 2019). Others have articulated cavils with imaging methodologies (Uttal, 2011) or emphasized the inordinate role of context (Kagan, 2012). In fact, there is no shortage of critical voices and heterodox practices in the field. In this paper, I specify a particular set of constraints upon the practice of psychology by problematizing two initial sources of apodictic formulation: the researcher's decision about what is to be observed and why it has meaning, and the operationalized convention qua conceptual apparatus by which it is to be interpreted. This constitutes a consideration of the extra-logical factors within the contexts of discovery and interpretation (Reichenbach, 1938). We find that culture and history as embodied in background epistemological commitments are crucial to an understanding of the basic, purportedly nomothetic, psychological categories of human nature, including cognition, the self, mental health, and many others. Towards a broader consideration of the functions served by psychology, I explore the epistemic constraints posed by culture, metaphor/models, and practice.

In Section 2, I illustrate how cultural factors, like epistemic commitments and hermeneutics of the self, shape the uses of psychology. My purpose in surveying a globally diverse set of practices is to derive the influence of the epistemic constraint of context upon the practice of psychology (Martin, 2014). This is in line with indigenous psychology which speaks to the hegemonic assumptions of psychic unity in Western psychology by allowing for disparate cultural and historical factors (Gergen et al., 1996). Surveying this broad data helps motivate and develop the use of psychology as an historical science (Muthukrishna & Henrich, 2019). Contrasting these versions of psychology is a cognitive historiography of theories (Xygalatas, 2014). Since the examples I present in Section 2 are drawn from a wide range of times and places, it is important to be clear about the generalizability of my claims. The disparate nature of the uses of psychology suggest that cultural context determines the epistemic ground upon which the mind in its function, form, pathology, and discursive contours is defined. In Section 9, I present an exposition of the pragmatics of metaphor use in contemporary empirical psychology to suggest how it is epistemically bound to models that shape the goals and methods of investigation.

2. Epistemic constraints on practical uses of psychology

My purpose in this section is to describe ways in which context epistemically constrains goals and methods of the practice of psychology. The practical implementation of psychology either in empirical or therapeutic uses is constrained by the place and time in which it occurs. Various pragmatic formal systems for studying the mind preceded and

existed alongside empirical psychology. Despite their differences, as studies of the mind I will treat them as of a piece with the currently dominant forms of empirical psychology. My selection of examples ranges from political and cultural systems to descriptions of the work of particular thinkers involved in institutionalizing psychology in post-colonial settings.

First, I discuss Soviet psychology, which was methodologically linked to empirical psychology insofar as it posited unconscious processes, employed conditioning methodologies, and resorted to gestalt formalisms. My motivation for this selection is that it illustrates how political concerns are reflected in determining the context of discovery and interpretation. In this case, the Marxist-Leninist vision of human nature as determined by historical conditions provides the basis for research programs.

3. Soviet Psychology

In Moscow, Lev Vygotsky (1896–1934) and Alexander Luria (1902–1977) pursued an instrumental, historical, and cultural psychology which sought a balance between nomothetic (law-like) and idiographic (individual cases) approaches (Luria, 1979). Their 'new psychology' of the 1880s paired associationism with Wundtian empirical study of introspection in the context of Marxist materialism. Luria and Vygotsky plowed a course that admitted hidden psychodynamic causes, relying on physiology derived from the work of Ivan Pavlov (1849–1936), and German Gestalt notions of form and function. In the 1920s, Soviet psychologists created a unique synthesis in which Pavlovian reflexes were the material foundation of gestalt properties of higher psychological function that were shaped by social relations with the external world (Vygotsky et al., 1994). They termed this mediated nature of psychological function, instrumental. Soviet psychologists consistently emphasized the relational nature of the organism-environment complex. The cultural setting of mind, they stressed, takes place in language, which they saw as the all-important structuring device of thought. They conceived of language as paradigmatic of the relational nature of mind since it had a definite developmental origin. As Soviet Russians, this focus on the relational characteristics of mental processes allowed for the subordination of mental structure to the historical background conditions of the individual. This is of course the crucial tenet of Marxist materialism. Furthermore, Luria and Vygotsky engaged these relational formalisms through devoting substantial resources to the empirical investigation of illiterate communities in the Uzbek and Kazhak lands of central Asia (Luria, 1979).

Soviet psychologists in the early twentieth century took the same structural elements in use in Europe and America, i.e., conditioned reflex and Wundtian introspectionism, to promote an idiographic method and model of the mind which eschewed much of the nomothetic structuralist tradition of behaviorism and subsequently cognitive science. Their synthesis of descriptive and explanatory goals emphasized the adaptable nature of mind as this was a central tenet of Marxist materialism. Practical reason and the ordering, or regulatory, function of language were deemed central to how the mind works. This is in line with the tenets of Marxist-Leninist theory concerning how material conditions shape consciousness. The further stress on gestalt (i.e., the emergence of form) processes and horizontal organization of the brain belie the romantic psychological goal of Soviet psychologists to preserve the wealth of lived reality (idiographic) against the reductionism of structural explanations of mind (nomothetic). For Luria, truly scientific observation necessitates viewing an event from as many perspectives as possible in order to understand how the phenomena relates to other things. This dialectical analysis stressing the social construction of mind through language, history, and social relations is in contrast to the conditioned mechanistic thrust of American behaviorism, the phenomenology of Austrian psychoanalysis, and Jamesian pragmatism which were being practiced concurrently.

While the tools of measurement and basic breakthroughs (psycho-physiology, introspectionism, and psychoanalysis) of the period between 1880 and 1930 were known throughout Europe, America, and Russia, their respective theoretical syntheses do not cohere, and notably their findings cannot be synthesized. Furthermore, the realization of the shortcomings of reflexology in Russia, or behaviorism in America, or introspection in Germany were not immediately communicated outside their respective communities. This is mainly because each national scene of the use of empirical psychology had assembled unique visions of its purpose and, more importantly, visions of man. During this period, in USA, a pragmatism tinged with Judeochristian mysticism dominates talk of the mind, whereas in Russia we find the maintenance of Marxist-Leninist notions of man through a synthesis of material bases and individual agency in sociohistorical context (Smith, 2013). The need to synthesize empirical visions of mind with cultural factors reveals how psychology – no matter the amount of scientific iconography employed – is always engaged in making presumptions of philosophical cast about human nature (Donald, 1991; Koch, 1999). Psychological experimentation as currently practiced is itself a historical set of conditions that we take to be objective, even though it is a social situation in which the role of subject, experimenter, and theoretician are shifting conventions (Danziger, 1990).

Epistemic background colors the assumptions and goals of knowledge production. Despite the purported objectivity of its methods and tools, psychology is a continuation of the society from which it arises. The study of the mind in a given location and time period is also necessarily a study of the cultural and historical conditions of that locale. One way to integrate these considerations is to draw from methods used in anthropology and history. These qualitative fields describe, explore, and explain the epistemic background that shapes the uses of knowledge practices (Geertz, 1983). As an illustration of drawing from anthropological methods, I describe how individualism serves as a cultural frame for conceptualizing the limits and extent of mind.

4. The cultural frame of individualism

Individualism is the naturalization of a set of epistemic and political practices. It is a cultural frame that posits notions of agency whereby the will is a determinant moral factor for the liberal consuming subject (Dumont, 1986). The self has come to hold a central position in psychology; its narrativization is a preeminent ritual of individualism. The self serves as a locus for personality, memory, and agency; it is thus embedded in social practices. The possession of a self allows for a pragmatic encapsulation of character traits, episodic memories, and a sense of free will (Klein et al., 2004). Individualism as a cultural frame is reinforced in the practices of talk therapy, popular psychology, self-care programmes, and consumer taste (Gabriel, 2013). Psychoanalysis, as a theory of human nature which is at the same time a mode of therapy, and a toolbox for cultural criticism, institutionalizes the cultural frame of individualism in its model of the mind (Herzog, 2017, p. 2). The theoretical commitment to this culturally-derived model usually entailed a philosophy of liberal individualism and consequent notions of agency (Danziger, 1990, p. 23).

How does the concept of the self within an individualist frame epistemically constrain the uses of psychology? First of all, it implies the continuity of a stable self, even though this is a trick of memory; viz., episodic memory enables the construction of a personal narrative in such a way as to infuse our behaviors and goals states with meaning and values (Klein et al., 2009). The Self is then embedded in social relations as a platform for reputation and social hierarchy (Asma & Gabriel, 2019). Furthermore, it allows a person to project herself into the past and the future (Klein, 2014). These autobiographical aspects of the self, referred to as identity, form the basis of notions of agency and the core of significances that suffuse an individual's actions in context (Schechtman, 2011).

Positing an entity that remains the same across time allows not only

for social interaction but also for discursive interpretation. This private subjectivity can be tapped through introspection or verbal measures as a subject in psychology experiments (Danziger, 1990). The 'inner' space of consciousness is a preeminent source of data. The conceptualization of the individual as the subject of psychological research can be traced to the British empiricists who grounded philosophical speculation in the experience of individual minds (Smith, 2013). Empirical psychology consists of the design of experimental protocols by which data derived from the response of research subjects can be collected, aggregated, and used as a basis for inferential statistics and hypothetico-deductive statements about how the mind works. The subjective experience of the participants in the experiment is collected and mined for patterns within the context of a model and the researcher's hypotheses. The data points that emerge in this process are entered into statistical equations towards verifying a set of nomothetic models.

Yet, subjectivity consistently intercedes on our attempts to furnish objective explanations of human nature. According to Auguste Comte (1855/1974), self-observation of thought, feeling, and desire is subjectivity itself and therefore psychology can never be objective. In short, the mind seems to make more meaning than we know what to do with. Psychology then adopts a reflexive stance wherein it catalogues and questions those layers of meaning we are possessed to produce. The most appropriate approach for this task is discursive and qualitative, principally consisting of conversation and interpretation (Lear, 1998, pp. 12, 18). The purpose of psychodynamic methods is thus to develop a flexible, creative sense of how individuals live within a particular set of historical constraints. There are several ways in which psychology can become reflexive; most importantly, it is through recognizing the value-laden, historical, cultural nature of our visions of mind. For example, to account for the perceived aporia between physiology and subjectivity, Wilhelm Wundt developed a *Völkerpsychologie* (roughly, ethnopsychology), which concerned itself with the shared social sphere of culture and how it informed and sculpted the mind (Danziger, 1983).

Individualism is the cultural context of psychoanalysis, which will be the focus of the further examples, as it is conceptually continuous with empirical psychology as a phenomenological, empirical, and structural system for explaining behavior through hidden psychodynamic processes. While empirical psychologists are quick to disavow psychoanalysis as unscientific and improbable (Kihlstrom, 2000), it has nevertheless been practiced for over a hundred years as a legitimate therapeutic form of psychology and is thus useful to illustrate epistemic cultural constraints. My motivation for drawing from the history of psychoanalysis is to dramatize how cultural forms which distinguish particular aspects of the human become naturalized in methodological systems of hermeneutic exploration which explain pathology and therapeutic practices.

In the next section, I illustrate how cultural factors act as epistemic constraints on the practical therapeutic application of the individualist frame of psychoanalysis. I describe a range of the contexts in which psychoanalysis was practiced – from India to Egypt, rural Ghana, and in Frantz Fanon's postcolonial strategy – to demonstrate the epistemic constraints of unique cultural syntheses about the mind.

5. India

Bengali psychoanalyst Girind Sekhar Bose's (1887–1953) career dramatizes the synthesis of theoretical models in a post-colonial use of psychology. His practice of bringing together Freud's psychoanalysis with Advaita Vedānta and in turn using Viennese psychology to interpret Vedic texts demonstrates the role of context in integrating modes of analysis and structuralism (Hiltebeitel, 2018). Dr. Bose's leadership of the first department of psychology in India, located at the University of Calcutta, and as president of the Indian Psychological Association belied the importance of his written correspondence with Freud concerning his unique contribution to psychoanalysis of the 'theoretical ego.' Bose's use of psychoanalysis by syntheses and interpolations locates psychology at

the core of a Vedāntic metaphysics built around notions of nondualism, *karma*, and *kāma* (desire, cf. wish). Whereas Freud saw religion as an illusion, as a Bihari vedāntist, Bose conceived of religion as a useful palliative (Kapila, 2007). Bose found alignments in the method of introspection employed in psychoanalysis and the practical tenets of Hindu philosophy. In turn, he interprets Vedic ritual in light of Freud's reading of ritual as adjunctive behavior and suggests that the Vedas are not the only way to arrive at a revelation of Brahman (Freud, 1927; Hiltebeitel, 2018). These reciprocal theoretical achievements dramatize the intertwining of epistemic constraints on the practice of psychology. Dr. Bose dramatizes how an individual's position within historical and cultural matrices, in this case Vedantism and a newly independent country and institutionalized discipline, come to be reflected in theoretical proposals.

In Hinduism, mystical intuition plays a role in how we interpret our minds (Heelas, 2008). The epistemic cultural constraint on Bose's thought was the practical devotional need embodied in *Vedānta* and *Mimamsaka* dogma, these served as the motivating condition for his use of psychology. This illustrates that the study of mind is framed by background metaphysical assumptions. *Vedānta* notions of the reflexivity of interpreting mind shape the practices of Indian psychologists and the role psychology will play in the larger context of beliefs about the mind. In this case, the emphasis placed on conceptions of the self – ātman, *jīva, puruṣa, kṣetrajña,* frame Bose's interpretation of Freud's ego (Rukmani, 1998). Some critics portray Bose as responding to a colonial imposition of positivist knowledge by embedding psychoanalysis in fundamental Hindu philosophical systems about the means of knowledge (*pramānas*) (Vahali, 2011).

Indian cognitive science is likewise shaped by its historical context in terms of its practical and conceptual goals and methods.[2] Success of a theory in contemporary Indian psychology is more often based on the usefulness of application, on existential benefits, and spiritual progress, particularly concerning yoga and health, though experimental psychology and psychometry still dominate university curriculums (Misra & Paranjpe, 2012.). As some have written, the basic problem of importing Wundtian experimentalism is its conceptual frameworks are not intrinsic to Indian society (Nandy & Kakar, 1980). Context determines the uses of psychology. Bose's use is an example of how psychoanalysis as a discursive system allows for syncretic interpretation for the post-colonial subject. Bose was able to demonstrate that psychoanalysis could itself be framed in the older and more successful palliative technologies of Vedānta and yogic practices. Epistemic constraints thus limn the kinds of knowledge that may be derived from diverse studies of the mind. This illustrates that the background cultural context determines the goals that the practice of psychology will pursue. Also, as we saw in the relation between Russian, German, and American psychology, when epistemic backgrounds do not cohere then findings may be incommensurable.

6. Egypt

Psychoanalysis as an empirical and theoretical discipline, played an important role in redefinitions of subjecthood in the context of post-colonial projects (Khanna, 2003). For example, in the middle of the twentieth century, a circle of intellectuals in Cairo demonstrated a unique use of psychology that synthesized elements of Freudian theory with elements of Islam. Egypt is a populous and gregarious collectivist society and thus the social aspect of the individual plays a prominent role (Hopwood, 1982). Psychology in this context was used as a tool of

mediation between individual and other (*socius*) insofar as it provided a way to interrogate how the self is socialized in its various encounters. The platform of psychology was an important middle ground to engage with the relation between the ethical traditions of Islam and those of (Western) modernity. Study of the mind has played an important role in the ethical program of religion; in the case of Islam, the *tareeq* (way, road) of the Sufi traveler is a battle against the base instincts of man (El Shakry, 2017). In the mid-century circle of Egyptian psychologist Yusuf Murad, psychoanalysis was integrated with a postcolonial modernist project in such a manner that it was continuous with prior traditions of spiritual insight, vision, and direct affective perception (i.e., gnosis) in Sufist Islam as well as Bergsonian intuition (Bergson, 1907). These psychologists had a particular Enlightenment view of Europe but were also pulled in the direction of a radical rejection of colonialism by means of existentialism, engagement, and socialist realism (El Shakry, 2017, p. 40). The mid-twentieth century Cairene context of colonialism, modernity, and Islam was the ground upon which the seed of psychology grew and defined the particular epistemic constraints of its practice. Yusuf Murad, like Dr. Bose, provides us an illustration of how integration of traditions in the context of national and local projects of self-definition and theoretical development shape how psychology is used to make epistemic claims about the form of the mind.

In Egypt, popular and academic psychology represented a set of knowledge practices between medicine and prescriptive, normative institutions, such as the law. Psychoanalysis was a way to talk about psychosexual development with a scientific language, for example rethinking Al-Ghazali's notion of instinct (*ghariza*) in a post-Darwinian space of liberal subjectivity (El Shakry, 2017). For mid-century Cairene intellectuals, psychology was used as a synthesis between introspection, positivism, and phenomenology. Murad claimed positivism was unable to encompass human complexity in the all-important relation between self and other, while phenomenology and introspection did not offer enough of an explanatory view (El Shakry, 2017, p. 30). For religious and mystical practitioners, psychoanalysis offered a science of the hidden, a concept that is also crucial in Sufism (*batin*) and contemporary cognitive psychology. Psychoanalysis is thus both about knowing the self and understanding how the self is shaped by the other. Mourad and his circle were able to modify elements of this theoretical discipline to fit the context of Islamic ethics, in particular ideas of proto-psychologists like Andalucian scholar Ibn 'Arabi (1165–1240) and Abu al-Wafa al-Ghunaymi al-Taftazani (1322–1390), to make sense of the role of hidden factors in psychic life in the context of modernity. Prior intellectual traditions, such as mystical Islam and societal norms concerning sexuality and the relation between the individual and the law, provided the epistemic constraints on how psychoanalysis as a study of the mind was manifested and practiced in this period by these people.

These brief descriptions of the uses of psychology in India and Egypt demonstrate the multiple ethical roles that psychology plays as a form of knowledge production. As a set of practices about the mind, it must merge with the historical, political, and cultural context and thus produce methods and goals appropriate to the setting. Determining the nature of cognition across cultures will encounter similar issues pertaining to the embeddedness of psychology in the goals and commitments of a given locale (Henrich et al., 2010). We turn now to how the Martinician psychologist Frantz Fanon (1925–1961) put the study of mind into a political context as a way to relieve the psychological trauma caused by the colonial condition.

7. Frantz Fanon

Psychology is always used as an adjunct to prevailing cultural projects, whether it be to label degeneracy, or to craft notions of liberation. As a *trans*-national thinker involved in political projects of liberation and resistance, Frantz Fanon (1925–1961) used psychology to conceptualize the neuroses created by the equation of evil and threat with black skin

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[2] This thrust to maintain indigenous traditions is evident in Durganad Singha et al.'s Pondicherry manifesto of Indian psychology in 1965. Also see Rao, 2002; 2011; Paranjpe, 1998. More empirical work drawing together applied psychology and the Gita is to be found in Pande and Naidu (1992), and Misra & Paranjpe, 2012.

(Butts, 1979). In his home country and in French-colonized Algeria, Fanon saw how racism had the psychological effect of denying person-hood, even subjectivity itself, to create a sense of depersonalization in the colonized subject. He analyzed the tools of this psychic oppression and alienation through conceptions of sexuality, desire, and taboo developed by Sigmund Freud and Alfred Adler (Fanon, 1952). Fanon's purpose in his use of psychology was to delineate the psychic trauma of racism and, in line with the *négritude* of Aimé Césaire (1913–2008), generate pride in his identity as a black man through knowledge and understanding of the toxic socialization of negroes in the colonies. Fanon's use of psychoanalysis merged with his politicization of his vocation as a doctor in Algeria during the overthrow of the French colonial administration (1954–1962). His dislocation from Martinique to Algeria and his assimilation of psychoanalytically-charged French existentialist philosophy enabled insight into the conditions of trauma felt by people with dark skin. Psychology in his case was used as a tool of revolutionary critique; as a revelatory mode of analysis, as an articula-tion of pain, alienation, and fury. Fanon was able to conjure the external conditions of oppression through a depiction and analysis of mental states. This use of psychology was ultimately therapeutic and political: to reveal the source of discord and to remove or modify enforced in-terpretations. It served this weaponized use in accord with the motiva-tions of its practitioner in the context of local conflicts in Martinique and Algeria in the mid-twentieth century. For example, in his position at the psychiatric hospital at Blida-Joinville (1953–1956), Fanon developed techniques to give patients back a sense of agency and remove subtle forms of stigma by modifying the relationship between patient and doctor (Fanon, 1952; see also Abi-Rached, 2020). My motivation for focusing on Fanon is that his career exemplifies the political uses of psychology as an adjunct to notions of freedom, liminality, and the ex-ercise of power. The political setting is thus the context of epistemic claims about agency, self-knowledge, and empowerment.

In the apparatus of psychoanalysis, subjectivity is a platform for the analysis of feelings and their causes. It employs discursive knowledge practices to alleviate suffering by buttressing one's sense of agency. This can be done by aiding the analysand to understand why she acts as she does, including the triggers, the moments of trauma, and alternative ways to think of one's self. Fanon took these principles of psychoanalysis beyond the psychiatric ward to address how the colonized mind suffers from continuous oppression and thus becomes a stranger to itself (Wynter, 1999). He clarified the intimate psychological causality of this harsh reality and then was able to connect the tools of oppression of subjectivity to the Algerian struggle for recognition and liberty under French colonial rule (Field, 1963). His use of psychology was episte-mically constrained by its political setting and use. Individualist psy-chology in Fanon's political analysis and practice was a means to promote liberatory subjectivity by strengthening the sense of agency as reflexive knowledge. It was partly his understanding of the process of psychic oppression which pushed him to espouse violent seizure of power by anti-colonialists as the appropriate manner through which to establish a sense of control.

8. Ghana

The ethnopsychiatry of M.J. Field bears some relevance to our dis-cussion of the use of psychology insofar as it her work renders magic, science, and religion on the same plane as empirical psychology's at-tempts to understand and offer ways to control people's beliefs, expec-tations, and soteriological actions (Tambiah, 1990). My motivation for this example is to illustrate how the multilevel palimpsest of indigenous, colonial, and modern interpretative frameworks can be enacted in an integrative practice of psychology that serves as an adjunct to religious codification.

This use of psychology occurs within an amalgamation of Chris-tianity, national identity, and native practices. Colonialism is the his-torical context that created these particular epistemic constraints.

Ghana was a colony of Britain since 1874 as part of the Gold Coast till gaining independence in 1957 under Kwame Nkrumah (1909–1972) (Shillington, 2005). Part of the colonial project in the Gold Coast was introducing Methodist and Presbyterian cosmologies through mis-sionary work. The main traditional religion of Ghana is Akan, which centers around a supreme deity; though there are many variations and subgroups, such as Fanti, Ashanti, and Akuapem. These cultural forms serve as the basis of communitarian, collectivist identities that persist despite nationalist ideology. Akan religion has been syncretized with Christianity since the earlier waves of European colonialists starting in the 15th and 16th centuries, though it also remains a distinct set of cultural practices in certain communities (Opokuwaa, 2005). In those contexts, the priest serves crucial functions, as exemplified in the life of *Okomfo Anokye* and his influence on local identity (Hanserd, 2020).

Christianity is not the same epistemic ground as Akan cosmology or disparate animisms, though Field imports a use of psychology based in individualist Judeochristian traditions to analyze them. The way in which pathological and ritualistic behaviors are explained can take many shapes, but in this case, Field writes, "(W)itchcraft meets … the depressive's need to steep herself in irrational self-reproach and to denounce herself as unspeakably wicked" (Field, 1970, p. 38). Field claims witchcraft is the psychological practice by which individuals act out their guilt. In particular, Field describes how rural Ghanaians are embedded in a belief system that relies upon witchcraft, employing concepts like *kra* (soul) and *sunsum* (mind, spirit) to explain psychiatric disturbances. In this context, similar to Biblical narratives, there is a prevalence of spirit possessions wherein the possessed individual emits prophesy. Here, magic, or medicine, is enacted through the apparatus or technical instrument of the *suman* and its attendant rituals (Field, 1970). Psychology as an implication of psychical forces is here located as part of the epistemic constraints of witchcraft and possession. The mental notion of guilt is portrayed as a stain that requires an operationalized ritual technique to be scrubbed off. Psychology in Field's work is thus used to fill some of the epistemological space held by religion, meta-physics, and philosophy.

This brief example illustrates how psychology can line up with animistic conceptions of pathology in a way that is understandable to us insofar as witchcraft seeks goals to those of psychology, viz. of allevi-ating suffering and removing trauma and stigma from the individual in their local context. Yet, the similarities that arise from a universalist project of human nature exemplified in human sciences like psychology obfuscate the historical and experiential fact that these traditions create drastically distinct worlds that individuals inhabit (Appiah, 1992). Akan practice can be portrayed as witchcraft for the purposes of psychological purging, but it has other uses for identity, emotional coping, and metaphysical practices that involve mythic states of mind in distinct cosmological systems. It is the historical crafting of identity and meta-physical concepts such as the complicated strands of Akan, Christian, and animist practices which then make up an individual's way of life. This is one of countless examples that illustrate how psychology is continuous with, and epistemically constrained by, its cultural setting. Context is not adequately captured by a nomothetic use of psychology, but it can be explored using a discursive idiographic approach which draws together multiple levels of analysis including anthropological, historical, and contextual cues.

Each case study we have consulted uses psychology to minister to their prevailing needs and tend to the unknown with symbols drawn from the given culture's collective cultural context (Durkheim, 1915). The widely divergent methodologies and interpretational matrices across eras and contexts as briefly demonstrated above suggest a consistent and constantly transforming plurality. In contemporary Western society, the historical preference for nomothetic and individu-alist frames is continuous with ethical humanism and its attendant post-Enlightenment materialisms (cf. Taylor, 2007). By positing a pri-vate sphere in the individual, and expressive techniques through which it comes to be known, psychoanalysis and Soviet Psychology allow for

some diversity of mental phenomena. Housing attributes in an individual is pragmatic, it allows for encapsulation and further empirical investigation of reified operationalized attributes. As we will see in the next section, empirical psychology requires the further stipulation of structural coherence through analogical strategies that serve as the context for hypothesis formation and the interpretation of data.

9. Metaphors of mind

In empirical psychology, metaphors function as conceptual constraints. A researcher's decision between models and their metaphors will depend upon whether the metaphor achieves precision, plausibility, and a set of interesting and powerful consequences for a systematic understanding of the explanandum (Gentner & Grudin, 1985). This occurs in the cultural context in which the individual, the person as researcher, makes her value-laden choices (Osbeck, 2019). What a given empirical psychologist decides is worth studying is bound up with her education, employment opportunities, and learned disposition concerning metaphysical matters. Choosing the appropriate metaphor for the phenomena at hand encourages weighing the experimental and theoretical pragmatic consequences of our choice. The cultural constraint of local knowledge practices determine how one weighs the appropriateness of a given model of mind.

Metaphor is central to the practice of psychology because it enables the identification of relationships between interconnected elements in a system (Bowdle & Gentner, 2005). In the psychological sciences, analogical models usually represent the physical system of mind in some schematic abstraction, for example as objects, properties, relations, behaviors, or functions (MacLeod & Nersessian, 2013). As models, metaphors provide a simple frame to ask and interpret the how and why of a system's behavior across a range of settings, thus it offers predictive accounts through exposition of structural elements (Clement, 2013). Metaphors generate insights; to change metaphors entails a shift in conjectural templates, such as looking at the phenomena differently, re-ordering relationships, comparing events, and discarding or imagining further epistemic manipulations (Magnani, 2002). Sometimes the metaphor provides a new set of theoretical terms and images that is not present in the data itself; in this case, it fills a lexical gap and serves an epistemic role in framing the phenomenon (Barrett, 2011). Cultural factors make certain metaphors of mind feel intuitively accurate. Adopting an intuitive metaphor to conceive of the mind then pragmatically shapes theory and practice (Gabriel, 2021).

Psychological theory in the eighteenth century devolved on metaphors of mind-as-entity which emphasized the qualities of tangibility, passivity, simplicity, and malleability (Kearns, 1987). The early nineteenth century added a concern to preserve spirituality and will through moral psychology. In the latter half of the nineteenth century an emphasis on mind-as-living being arose wherein mindscapes, sentient webs, and other generative metaphors for mind-as-substance predominated (Kearns, 1987). In the early part of the twentieth century animate and spatial metaphors dominated, while in the latter half of the century systems metaphors were in ascendance (see review, Gentner & Grudin, 1985; Leary, 1990). Other dominant metaphors of mind include the Blank Slate of the British empiricists (Hume, 1777) which forms the basis for the behaviorist and associationist traditions (Watson, 1924/2007; Skinner, 1951; Barrett, 2012), and the Universal Turing Machine or Watt governor of the artificial intelligence and cognitive science communities (Herken, 1995; Gardner, 1985; van Gelder, 1995; Barrett, 2011).

In the twentieth century, behaviorism and cognitive science were the dominant paradigms in empirical psychology, thus they provided the epistemic constraints upon the kinds of metaphors, symbols, and language use (e.g., processing, reinforcing, etc.) attributed to the mind. Current metaphors used in the field are demonstrable hybrids built upon the wreckage of the metaphors of the mind that came before (Gabriel, 2021).

Metaphors filter our perception and condition scientists' decisions as to what is visible, what is verifiable and worth exploring (Draaisma, 2000). Theories built upon metaphors, like associationism, sometimes imply a connection between the structure of society or the physical world and the human mind. This reciprocal confirmation of symbolic structures at different levels of discourse implies that the root metaphor of a given locale is formed from a taken-for-granted collective representation (Danziger, 1990). Metaphors drawn from collective representations epistemically shape the subsequent use of psychology in the given community and epoch (Guenther, 2015). Theories reflect culture and objects encountered as we search for analogies to conceive of how to frame our hypotheses and interpretations of data from hidden processes of the mind. The sociocultural embeddedness of psychological theory is revealed for example by shifts in our portrayals of memory as a space or a process (Danziger, 2008; Draaisma, 2000).

A crucial question is whether the shifting of metaphors reflects cultural context or advance in scientific naturalism. Consider, the spatialization of the mind into the brain indicated a step away from Cartesian dualism such that mental life was secularized for the purposes of scientific investigation so as to localize cause and effect in a physical unit (Martin & Barresi, 2006). The shift in metaphors entailed a shift in the goals of knowledge production, of what the answer to research questions ought to look like. Systems metaphors then arose as a way of creating sets of spatialized mental units that enabled the imputation of relations therein, and thus more elaborate landscapes of cause and effect networks. This approach was amenable to a computational metaphor that instantiated relations of cause and effect units into distributed networks of digital logic gates (Gardner, 1985). These units could be investigated through modelling, as well as serve to explain cognitive dissociations reported in the burgeoning neurosciences. This computer metaphor has been particularly powerful because it links meaningful processes of mind to non-intentional physical processes (Draaisma, 2000). Adopting a metaphor thus serves as an epistemic constraint on psychology by determining the limits of what is under study and which methods are most appropriate for filling in the unknown details and consequences of the model. Let us look more closely at contemporary metaphors of mind and how they constitute epistemic constraints on the uses of psychology.

10. Biology, engineering, and mechanistic analysis

The rise of biology and engineering metaphors in the last fifty years is a consequence of great theoretical advances in the twentieth and early twenty-first centuries in genetics, cell theory, evolution, machine learning, and material sciences. The modern pipeline between public and private research laboratories in the natural sciences and applied fabrication in the private sector has been extremely effective; the objects we interact with on a daily basis bear this out (Latour & Woolgar, 1986). In response, natural philosophers have in the twentieth century gone to great lengths to be considered as behavioral scientists, and to be seen to be engaged in perceptual sciences (Smith, 1997). Adopting metaphors and thus methods from biology and engineering is a continuation of these efforts. Biology in particular reflects the dominance of scientific naturalism wherein all physical matter is assumed to follow a set of natural laws (Klein, 2020; Smolin, 1997). Engineering continues the mechanistic metaphor of matter to which psychology adhered in its behaviorist and cognitivist formats, it is also of a piece with the continuing industrialization and digitalization of our lived world. The master metaphors of our time shape the epistemic possibilities of the practice of psychology by playing a role in determining what is worth studying, and the putative goals of study.

A mechanistic approach to the mind has proven successful for psychophysiological and some knowledge of neural function; this includes Nobel prize-winning work on visual cortex (Wurtz, 2009) and long-term potentiation (Kandel, 2001). The success of these and other research projects required focus on a very specific and limited phenomenon for which the input could be succinctly specified and moreover that the

neural process under investigation functions in a mechanical manner. Exciting work in this regard goes beyond reduction to seek multifield intra-level integration which may unify disparate findings (Craver, 2005). The epistemic constraint of using mechanical models as part of the engineering metaphor is, in these cases, successful in delivering unique knowledge about the mindbrain.

Employing an interdisciplinary multilevel analysis which includes historical and anthropological constraints upon mechanistic and reductionist methodologies may best circumvent epistemic constraints of extra-logical factors. Though there remain limits to even this alternative approach insofar as the kinds of explanations that it would produce would still look like complex causal stories. For example, genetic markers and neurotransmitter function in an alcohol-addicted individual would be couched within the individual's sociological, developmental, and cultural context. This multilevel contextual model of explanation is important for self-knowledge and discursive expression which can lead to creative, reflexive uses of psychology which allow for contemplation (Gabriel, in press). But what is important in cases of pathology is deriving an explanation that can deliver predictive consequences in a particular therapeutic or medical situation. That is to say, we would still need to know at which level(s) causal intervention would be effective and what those modifications would be which would lead to relief of suffering for the individual. In this way, we would be turned back from an interdisciplinary analysis which circumvents epistemic constraints towards a mechanistic analysis which gives us the power to exert control, whether that be through discourse, pharmaceuticals, or locating organic disturbances. Integrating levels does not negate the fact that unique causal processes occur within levels (Wimsatt, 1976).

At the same time, not all aspects of the mind are reducible to mechanistic processes. As in Gestalt psychology of perception we find that some aspects of mind emerge from inter-level emergence. Or, in the case of an alcohol-addicted individual, intersubjective sociological and genetic circumstances calibrate neurotransmitter functions (Littlefield & Sher, 2010; Valenzuela, 1997). We may thus enquire into the constraints introduced by the adoption of descriptive and functional metaphors. Descriptive metaphors like biology and engineering tend to emphasize the mechanistic aspects of the mind (Rieff, 1968; Chemero & Silberstein, 2008), whereas discursive approaches to the mind like humanism and psychoanalysis allow for agentic discourse. When a metaphor is discursive, the actor maintains agency, he can exercise or rhetorically express control or self-regulation (Bandura, 1991), whereas a mechanistic metaphor as a description of mental processes does not leave space for agentic control. Discursive models allow for the efficacy of introspection (Lo Dico, 2018), as a linguistic dialogical process that, in symbolic interactionism, contributes to self-making (Mead, 1934; Hermans, 2001).

Adopting a discursive or descriptive use of psychology to the study of the mind has pragmatic consequences for an individual's sense of meaning, as well as ethical considerations concerning behavior and culture. Indeed, our experiences are structured by cultural metaphors like the body politic, which have social and political utility (Hoffman, 1979; Lakoff & Johnson, 2003). A model that takes into account cultural factors, as do methods in history and anthropology, is discursive and idiographic because it aims to convey the complexity and lived experience of historical exigencies and social symbols.

Our choice of models is important for the experimental programs we pursue. The way in which psychology pivots between metaphorical models reflects shifting paradigms and the state of the discipline relative to its social and cultural context (Kuhn, 1962; Jasanoff, 2004). Paradigms are 'theory plus' methodology, instruments, and metaphysical suppositions (Scheffler, 1967; Shapiro, 1985). For example, the cognitive revolution was a theory that the mind functions like a computer plus the methodology of connectionist modeling, instruments for tracking eye gaze, etc. and the metaphysical assumption of gross materialism and functionalism. The method by which we investigate a given phenomenon, be it via recording reaction times or measuring cortisol levels, is

motivated by the ontological frame of the underlying causal story of the behavior. A given scientific theory is a family of models ranging from small scale to macroscopic causal stories. Shifts in scientific terminology indicate increasing specificity while also reflecting a greater sense of authority for certain schools within the intellectual community. The metaphor in ascent at any given time devours the research resources in the field. The success of a generation of scientists will depend to some extent upon whether they secure useful, illustrative, informative, revealing verifiable metaphorical frames for their empirical work (Isaac, 2012).

While scientific knowledge is relevant to our medical and biological investigations of the natural world, psychology also bears upon ethical and existential questions and thus must engage with extra-logical value questions of responsibility and meaning (Frazzetto & Anker, 2009). What makes a particular metaphor more apt may be how aesthetic, moral, practical, and intellectual rationality is brought to bear on the truthfulness of a model (Leary, 1990). We need an understanding of the world sufficient to our intellectual and emotional needs (Lakoff & Johnson, 2003; Asma & Gabriel, 2019). In sum, metaphors we draw from local knowledge practices and the cultural and individual emotional needs that they assuage shape the research program of the science of the mind. Culture and extra-logical needs in the shape of metaphors that determine the practice of empirical psychology constitute an epistemic constraint on the use of psychology.

11. Conclusion

In this paper, I describe conceptual and practical epistemic constraints on uses of psychology to illustrate the difficulty of developing a cumulative nomothetic science. It may be more pragmatic to think of psychology as a set of useful localized knowledge practices formulated according to the exigencies and values of the given community. This does not mean that all psychology is socially constructed, rather it means that the human sciences are, in important and fundamental ways, culturally situated. For example, in the West, the context and use of psychology functions within a particular post-Enlightenment Judeo-christian setting that rests on atomistic conceptions of nature, rationalism, laïcité, and individualism and wherein the scientific method is deemed the most reliable path to truth (Kagan, 2009).

We have seen how discursive forms of psychology like psychoanalysis are situated and empirical forms of psychology are framed and interpreted through metaphors, but are all forms of psychology equally subject to the epistemic constraints I have been describing? Let's take computational modeling in cognitive science as an example, it is a formal system based on engineering protocols through which researchers depict how a system may work given data collected from experimental subject behaviors. The formal aspect of models which describe inputs, outputs, and global functions is an analytical technique. Yet, the analogical shift required to take data aggregated from human experiments and recapitulate it as a computational model is surely constrained by the epistemic context of the twentieth century assumption that behavior is explainable through systematic reproduction of aggregated data about behavior and reaction. It is also bound by the tools of investigation. So that even though modeling itself is a formal discipline, like much of neuroanatomy, the context within which it is used is subject to epistemic cultural constraints. That does mean it is not useful or insightful, but it does suggest that exercising this technique may not lead to a nomothetic model of the mind.

Psychology has shaped and continues to manifest control over our practices concerning the organization and evaluation of men (Foucault, 1966; Koch, 1999; Smith, 2013). It may be epistemically constrained, it may require each side of the encounter to convince himself into shape, but, in many cases, it does offer respite, answers, and a set of actions (or rituals) to work off the desire for remedy. Metaphysical systems in psychology may similarly redound to knowledge practices and ritual actions. No matter the country or time period, we think, believe, and act

upon codified beliefs from the knowledge practices of psychology in similar ways. One way of looking at psychology then is as the practice of tending to the unknown that is embedded in each of us. For Koch, admitting our intellectual finitude in these practices may set us free (Koch, 1999, p. 416). Understanding that psychological practices are value-laden clarify their scope (Osbeck, 2019). This paper is in the spirit of this critical approach to clarify our uses of psychology so that they may be situated and limited.

Based on the cultural constraints that face theorists and experimentalists, I suggest that psychology should include knowledge practices adapted from history, such as descriptions and comparisons that render the embeddedness of individuals in their sociocultural milieu across time (Gabriel, In press; Muthukrishna & Henrich, 2019). The tools developed by anthropologists for observing and formulating the lineaments of cultural forms are crucial to clarify the uses fulfilled by psychology as they offer situated, contextualist epistemology which demonstrate the shared social meaning of perceptions, attitudes, and experiences (Causey, 2017; Geertz, 1983; Slingerland et al., 2020). This includes, for example, qualitative research methods, such as focused ethnography (Camic et al., 2003; Shweder, 1991). While we still need to focus on intra-level processes for particular uses, multilevel integrative methods help determine the role of context and would help theorists and empiricists to work with the epistemic constraints of psychology to offer as it were, thick explanations.

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