

Cultural-Clinical Psychology

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Abstract

Awareness of and attention to cultural diversity has grown increasingly important to clinical psychology over the past several decades. Cultural psychology has not yet had much influence on this development, however, and has tended not to engage with clinical issues. This is unfortunate, as cross-country and cross-ethnic studies of mental disorder present us with many fascinating examples of differences in conceptualization, prevalence, presentation, and course of mental disorders, as well as the beliefs and practices relevant to managing their symptoms. Much of this research would benefit from the cultural psychology perspective; at present, studies are too often limited by a tendency to document these differences rather than unpacking them. In this chapter, we present the cultural-clinical psychology perspective as an attempt to move towards a closer integration, grounded in the premise that mental disorder is an emergent property of culture, mind, and brain. We follow the typical course of a sufferer, starting with the ways in which culturally-shaped vulnerability and stress factors affect the emergence and maintenance of disorder. Then, we turn to the ways in which emergent symptoms and responses to them are shaped by cultural scripts of normalcy and deviance, with an emphasis on dynamic looping patterns that generate symptoms, perpetuate them, and strengthen their associations with one another. Finally, we consider the state of knowledge on clinical evaluation and intervention, especially diagnosis and psychological treatment. Throughout the chapter, we emphasize whenever possible research that considers more than one level of culture, mind, and brain, and that does so in an effort to better understand and explain the influence of the sufferer's cultural context. (266 words)

With each passing decade, researchers grow increasingly convinced that mental disorders are, in many important ways, disorders of the brain. Studies have now catalogued the complex sets of genetic vulnerabilities, changes in brain structure and activation, and neurochemical and hormonal shifts integral to psychopathology. Research on mental disorders nonetheless continues to benefit from understanding them as disorders of the mind. Clinical psychologists in particular have developed rich research programs that foreground cognitive, affective, behavioral, and interpersonal patterns in order to better understand and treat psychopathology. Rather than placing brain and mind-centered approaches in opposition, some of the most exciting studies in recent years have successfully integrated them (e.g., Hamilton et al., 2011).

Mental disorders are also shaped by the cultural context, at times powerfully. A number of important cultural differences have now been documented, covering different aspects of psychopathology, such as: (a) prevalence of mental disorders (e.g., major depression; Ferrari et al., 2013); (b) the type, content and severity of symptoms (e.g., autism; Chung et al., 2012); (c) course of illness (e.g., schizophrenia, Kulhara & Chakrabarti, 2001); and (d) links with important outcomes (e.g., between mood disorders and suicides, Nock et al., 2008). Yet, potential mechanisms to help explain these variations are rarely studied. In many cross-national and inter-ethnic comparisons, group differences are reported, and “culture” is invoked as a catch-all explanation for the findings. Although these studies complement their discussion of differences by post hoc speculations about why culture matters, incorporating these possibilities into the study design is usually left to future research.

This future is overdue. Although hypotheses abound, we still know surprisingly little about specific cultural meanings and practices that shape patterns of cultural variation in mental disorders. At present, when ‘cultural competence’ is incorporated into clinical psychology it tends to play the important but limited role of ethical watchdog, flagging a set of additional concerns to be considered by practitioners once they have assimilated the research. As clinical psychology increasingly finds its

footing as an evidence-based discipline, this role is no longer sufficient. Cultural psychology offers an important set of findings—and even more importantly, a set of approaches—to inform evidence-based clinical research and culturally competent practice. Cultural psychology, in turn, stands to benefit from broadening the range of psychological processes central to our field, not least through consideration of the vital clues about normal functioning that come from careful study of dysfunction. Moreover, as cultural psychologists seek to expand their traditional concern for culture-mind links to include the brain, they stand to benefit from a sustained engagement with clinical psychology, a subdiscipline increasingly operating at the mind-brain intersection. We refer to this culture-mind-brain integration, applied to the study of mental disorder, as ‘cultural-clinical psychology’ (Ryder, Ban, & Chentsova-Dutton, 2011).

In describing our vision of cultural-clinical psychology in this chapter, we will follow the prototypical pathway followed by a person suffering from mental disorder. Let us imagine Hana, someone who is at risk for developing symptoms of a mental disorder. Given that no disorder affects everyone, what biological, psychological and cultural factors make Hana, rather than others, vulnerable? Are they impacted in specific ways by the sociocultural context? What, if anything, is known about the nature, course and significance of these symptoms in her context? Are they recognized and scripted? As symptoms emerge, what is the relationship between Hana’s physiological changes and her experiences of distress, on one hand, and cultural scripts available to her, on the other hand? Finally, how might she talk about her symptoms, if at all, and how might others in her cultural context understand these symptoms and respond? What diagnostic labels are used? What treatment paths are available? Cultural-clinical psychology is concerned with this broad set of questions in pursuit of two central aims: to understand the cultural shaping of mental disorder; and to apply this understanding to the improvement of clinical evaluation and intervention (Ryder et al., 2011).

Mutual Constitution of Culture, Mind, and Brain

Before following this path, however, let us first briefly pause to consider how we understand the relation between culture, mind, and brain. Social science of medicine has for decades made a distinction between biological ‘disease’ (i.e., brain) and subjectively experienced ‘illness’ (i.e., mind) (Boorse, 1975; Eisenberg, 1977; Hofmann, 2002). Twaddle (1973) introduced a third term, ‘sickness’, referring to the social identity ascribed to the sufferer (i.e., culture). We find these terms useful to highlight how distress operates at a given level, but generally prefer ‘disorder’ to capture the complex interactions of disease, illness, and sickness across the culture-mind-brain. Our aim here is to acknowledge the central importance of the three domains encompassed by the biopsychosocial model, and also push beyond this model in important ways.

We begin with the core claim of cultural psychology: that culture and mind are mutually constitutive (Shweder, 1991). We cannot reduce culture to mind or vice versa. Individual people are uniquely situated within their cultural contexts, thinking and acting in different ways that are nonetheless culturally meaningful (Sperber & Hirschfield, 2004). At the same time, these contexts do not simply exist as abstract and essentialized human groups, but instead are shaped by the individual minds that comprise them. In keeping with both longstanding ideas in cultural psychology (e.g., the importance of cognitive tools; Vygotsky 1978) and contemporary developments in philosophy of mind, we understand ‘mind’ to be extended to incorporate habitually used ‘tools’ (Clark & Chalmers, 1998), such as a notepad to supplement memory or a close other to aid emotion regulation (Ryder et al., 2011).

Over the past few decades there has been increased attention to the role of brain and nervous system, and the ways in which they should be added to the story of mutual constitution (Han & Northoff, 2008; Kitayama & Uskul, 2010; Ryder et al., 2011). The human brain is adapted specifically for cultural acquisition, and responds to cultural inputs with a considerable degree of plasticity (Wexler, 2006). At the same time, plasticity does not mean infinite possibility: rather,

plasticity involves important biological constraints. Importantly, the inclusion of the brain in what we consider ultimately to be a single system moves us away from overly simplistic biological and sociocultural forms of reductionism: the brain both shapes and is shaped by culture and mind. This view of culture-mind-brain as a single system highlights, and bypasses, the difficulties that result from an overly narrow focus on one level. Although clinical psychologists are familiar with the three levels of the 'biopsychosocial' approach, there is a tendency not to dwell on the extent to which they interact. We believe treating culture-mind-brain as a single multilevel system, rather than three important-but-separate domains, has profound implications: we cannot reduce our explanations to one level, but instead must contend with a system in which a change at one level cascades to the others.

Consider as an example the reported increases in mental health problems among American undergraduates (Kitzrow, 2003; Pledge et al., 1998). We know that developing children benefit from proximity with adults, with specific paths to regulating brain's responses to threat and measureable health benefits (Beckes & Coan, 2011). European American cultural contexts promote autonomy, with positive consequences for well-being (Fischer & Boer, 2011). This cultural emphasis on autonomy is expressed in higher levels of residential mobility compared to many other societies (Esipova, Puglese & Ray, 2013); a major autonomy milestone is moving away for college. An older cultural model in the US managed this potential conflict between social proximity and demands for autonomy in college by slowly increasing opportunities for autonomy throughout adolescence. In recent years, however, fueled by perceptions of an unsafe world, American parents have been delaying these milestones (Wyver et al., 2010). Parents now spend increasing amounts of time with children, despite perceptions that earlier decades were more 'family-focused' (Gauthier, Smeeding, & Furstenburg, 2004). The result is that more students enter college unprepared for the sudden shift in autonomy demands. Although the extent of this shift remains unclear, it is thought to be costly for mental health. Note that there are benefits to both social proximity and autonomy, to both

independence in college and to appropriate caution in a genuinely unsafe environment. But in a particular cultural system, during a particular historical period, a disorder-generating combination of these otherwise functional elements of culture-mind-brain may be emerging.

Vulnerability and Stress in the Culture-Mind-Brain

Let us now trace the course of mental disorder as it emerges within the culture-mind-brain. We would want to know what makes a person like Hana vulnerable? Clinical psychology provides us with a set of empirically-based models describing mental disorders as resulting from complex interactions between preexisting vulnerability factors and environmental triggers, such as life stress or trauma (Belsky & Pluess, 2009; Monroe & Cummins, 2015). Long before symptoms emerge, some people are at risk for experiencing mental disorder due to factors ranging from their biological makeup (e.g., genes) to the socioeconomic or cultural systems in which they live (e.g., racial group marginalization). Although vulnerability factors have generally been studied at a single level, we shall highlight cases where these factors are best understood in a multi-level way. Indeed, some of the best-researched vulnerability factors, namely personality traits such as neuroticism or impulsivity, are grounded in robust literatures that include biological, psychological, and sociocultural contributions (Krueger & Tackett, 2003).

Vulnerability at the Brain Level

One possibility is that Hana may be genetically vulnerable to distress. Although behavioral genetics studies have been criticized for their reliance on culturally homogeneous samples (see Duncan et al., 2014), the overall conclusion that mental disorders are shaped in important ways by genes is uncontroversial. The extent of genetic contribution differs disorder by disorder, with a relatively low contribution for some—e.g., major depression—and a relatively high contribution for others—e.g., bipolar disorder (McGuffin et al., 2003; Sullivan, Neale & Kendler, 2000). These findings are reflected in a reverse pattern for the magnitude of cross-cultural differences in prevalence and symptomatology, with considerably higher cultural variation for major depression

than bipolar disorder (Weissman et al., 1996). These findings suggest that although cultural factors play a role in most forms of mental illness, their impact is lower for disorders with relatively high heritability.

Although genetic characteristics are distributed differently in different populations, it is important to remember that the genotype and biological phenotype are not deterministic in how they translate into specific symptoms of psychopathology (see Sasaki, LeClair, West & Kim, 2016). Environmental influences shape gene expression, and habitual behaviors and ways of processing information affect patterns of brain activation. Consider animal models demonstrating that the rearing environment shapes behavioral outcomes of genes relevant to mental disorders (e.g., Perez-Sepulveda et al., 2013; Suomi, 2006). In one study, rats were selectively bred to be high or low in their response to stressors and rewards (Perez-Sepulveda et al., 2013). Genetically vulnerable rats uniquely benefitted from the presence of familiar cage mates and from exposure to an enriching environment with lots of toys, as evidenced by increases in these vulnerable animals' positive vocalizations. Similarly, cultural environments modulate the ways in which genetic characteristics affect emotions and behavior, producing patterns of cross-cultural differences that do not map onto genetic differences in a simple one-to-one way (for a review, see Sasaki et al., 2016).

Culture-gene interactions have been examined in studies comparing populations of people with known distributions of genetic characteristics as well as in studies comparing people with different polymorphisms of genes known to be associated with different forms of mental disorder. At the level of populations, we know that groups who have long inhabited the East Asian geographic region show high levels of genetic markers of social sensitivity relative to other groups (see Way & Lieberman, 2010). One might expect that these higher rates of genetic vulnerability might lead to higher rates of internalizing disorders in this region. Instead, these rates are lower rather than higher. This is thought to be due to the protective role of collectivistic cultural practices that promote regulation of social stressors and social pain (Chiao & Blizinsky, 2010). Outside of collectivistic

cultural contexts, the genetic risks may produce higher levels of distress. Indeed, people of East Asian heritage who have lived in North America for longer periods of time show higher rates of depression than more recent migrants (Tan, 2014).

Studies examining these questions at the individual level also suggest that culture and genes interact to shape indices of mental health. For example, studies conducted in Brazil by Dressler and colleagues suggest that the severity of a person's depressive symptoms are jointly predicted by their genetic risk for depression (as indicated by a 5-HT_{2A} receptor polymorphism), their levels of experienced stress (as indicated by their reports of experienced childhood adversity), their local environment (i.e., their neighborhood), and the larger sociocultural context (i.e., the degree of fit between each person's view of their family and cultural consensus on this subject among Brazilians) (Dressler, Balieiro, Ribeiro & Santos, 2009; Dressler, Balieiro, de Araújo, Silva & dos Santos, 2016). These and other recent studies suggest that the impact of brain-level vulnerabilities depends in part on the ways in which the brain is affected by the person's thinking, feeling and relating to others in his or her cultural context.

Of course, Hana's brain functioning may also be affected by non-genetic factors. There is growing evidence that the digestive system may be a long-neglected locus of vulnerability to mental disorders (Forsythe, Sudo, Dinan, Taylor, & Bienenstock, 2010). There is increasing reference to the "brain-gut" axis, with the gut microbiome being implicated in depression, anxiety, and schizophrenia (Dash, Clarke, Berk, & Jacka, 2015; Dinan, Borre, & Cryan, 2014; Foster & Neufeld, 2013). Given regional variations in the prevalence of specific microbiota, along with dietary differences, there is a potential pathway here towards another source of cross-group variation in vulnerability to mental disorder (Yatsunenکو et al., 2012). Indeed, other aspects of diet have already been shown to play such a role (Peet, 2004). One example is that of omega-3 fatty acids, which are especially found in seafood and which affect brain functioning (Hibbeln, 2002). Very low consumption of seafood is associated with heightened risk of bipolar disorder (Noaghiul & Hibbeln, 2003). Countries vary not

only in access to fish, but also in dietary habits: some have high fish consumption (e.g., Iceland, Korea), whereas others do not (e.g., landlocked Switzerland, but also New Zealand). These differences are associated with different rates of lifetime vulnerability to bipolar spectrum disorders, ranging from a low of 0.2% in fish-loving Iceland to a high of 5.1% in fish-avoiding Switzerland.

Vulnerability at the Mind Level

Hana may also become vulnerable to distress by virtue of how she thinks, feels and behaves. In some cases, heightened vulnerability to mental disorders can begin with habitual mind-level processes; cognitive vulnerabilities are a widely-studied example (Mathews & MacLeod, 2005). For instance, the ways people appraise stressful events and their own symptoms have important implications for mental health in the wake of severe traumatic events. Those who experience such events and detach or attempt to mentally undo them are more likely to develop Posttraumatic Stress Disorder (PTSD) than those who do not employ these cognitive strategies (Dunmore, Clark, & Ehlers, 1999). A similar tendency to spontaneously suppress one's emotions is associated with symptoms of anxiety and depression (Ehring, Tuschen-Caffier, Schnülle, Fischer & Gross, 2010; Moore, Zoellner, & Mollenholt, 2008). Additional vulnerabilities, such as inadequate social support or heightened levels of criticism from family members, emerge as (dys)functions of the extended social mind (e.g., Butzlaff & Hooley, 1998).

As with brain-level vulnerabilities, vulnerabilities in the mind can be modulated by culture. Data supporting the examples above were collected in North American or Western European cultural contexts. Cross-cultural comparisons suggest, however, that at least some of the impact of these vulnerability characteristics is culturally shaped. The tendency to suppress emotions, known to be associated with mental illness for European Americans, does not appear to be as dysfunctional in people socialized in East Asian cultural contexts (e.g., Su, Lee, & Oishi, 2012). Family criticism of a client predicts a problematic trajectory of severe mental illness among European Americans, but not among Mexican Americans (Lopez et al., 2004). In each case, the effects of potential intrapersonal

and interpersonal vulnerability factors are shaped by their cultural meanings. The need for Hana to suppress her painful emotions or to tolerate criticism by a family member may violate norms of emotional and interpersonal functioning in European American cultural contexts, but not in East Asian or Mexican contexts. The deleterious (vs. benign or even beneficial) effects of these experiences on Hana would depend on how they fit with her cultural models of normalcy.

Vulnerability at the Culture Level

Beyond adding nuance to vulnerability stories told at the level of brain or mind, there are scenarios in which the level of culture plays the primary role. The cultural context can confer vulnerability or resilience to mental illness onto people like Hana by promoting models of thinking, emotions, or behavior that may prove dysfunctional, either generally, or at a particular point in history. Cultural meanings and practices have in many cases evolved to promote group identity and survival, and can do so at the expense of individual well-being. What is functional for many or even most people in a group may be dysfunctional for those who may be tempted to drink, starve themselves, or chase ephemeral happiness. The ever-increasing levels of self-esteem and confidence in North American cultural contexts fit well with the psychological needs fostered by increasing levels of individualism (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). Yet, although this cultural tendency does not harm (and may even benefit) many in a population, it is associated with important relational and motivational costs (Crocker & Park, 2004). Consider generational increases in the prevalence of narcissistic personality disorder (Stinson et al., 2008), a syndrome with dire interpersonal consequences (Miller, Campbell, & Pilkonis, 2007), or the ways in which increasing residential mobility has potential negative consequences for people low on trait extraversion (Oishi, Krochik, Roth, & Sherman, 2012; Oishi & Schimmack, 2010).

Another example of culture-level vulnerability comes from research on use and abuse of alcohol. Hana's risk of abusing alcohol would depend on local consumption norms. A child born in some cultural contexts, such as those of the Middle East or Central Asia, has a much lower risk of

developing alcoholism than a child born in other cultural contexts, such as those of Eastern Europe. In 2010, prevalence rates for alcohol dependence ranged from well under 1% for Egypt or Saudi Arabia to over 9% for Russia and Belarus (World Health Organization, 2014). These cultural contexts foster different drinking norms and alcohol expectancies, or beliefs regarding potential outcomes of alcohol for the self and others. Positive alcohol expectancies, such as believing that drinking will make one feel better, are known to predict drinking and alcohol-related problems and mediate the effects of temperament on these outcomes (Corbin, Iwamoto, & Fromme, 2011). Eastern European contexts foster a view of drinking as a culturally-acceptable or even celebrated way of socializing and regulating negative emotions (e.g., Pesman, 1995), thereby encouraging use and abuse of alcohol (Popova, Rehm, Patra, & Zatonski, 2007). In contrast, Middle Eastern cultural contexts are shaped by Muslim religious norms that strongly discourage use of alcohol. These norms affect drinking behavior at many levels, from intrasubjective attitudes about alcohol consumption, to legal sanctions against drinking, to the availability of alcoholic products.

In addition to temporally-stable vulnerabilities, there are also examples of spikes in vulnerability to mental disorder during cultural transitions. Classic models of social change by Durkheim (1970) and Merton (1938) propose that rapid social change contributes to psychological and social difficulties. Chandler and Lalonde (1998), for example, have found that the epidemic of suicides among First Nations in Canada is not evenly distributed. Rather, it is linked to the extent to which a given community suffered a loss of cultural continuity as a result of colonization. Bands that retained or regained control over local affairs had suicide rates much closer to European Canadian norms, whereas those who had lost much of this control had rates that were up to hundreds of times higher. A similar pattern of results emerged comparing bands that had varying degrees of success in preserving indigenous languages, another proxy for cultural stability (Hallett, Chandler, & Lalonde, 2007).

Hana may also become vulnerable to mental disorder due to being caught in between the valued cultural models in which she was raised and newer models emerging due to socioeconomic shifts. During times of change, traditional culturally-valued models of behavior may become poorly suited to the new circumstances, leaving some people, such as those who are younger and have fewer resources, with limited means to succeed by enacting these models. Consider Japan, a rapidly changing society that is grappling with stresses imposed by globalization, economic recession, and transition to a postindustrial economy. In the last few decades, these changes have engendered a shift away from traditional interdependent models of the self, particularly among disenfranchised Japanese youth (Toivonen, Norasakkunkit & Uchida, 2011). This shift has been psychologically costly, placing youth who are more culturally deviant than their peers at heightened risk for social disengagement and psychological distress (Norasakkunkit & Uchida, 2014).

Ethnic minority status might further contribute to Hana's vulnerability to mental disorder, particularly if she is identified by others as a member of a socially devalued group. One striking observation replicated in a number of countries involves higher rates of psychotic disorders in minority populations, particularly black minorities in majority white cultural contexts. Relative risk varies markedly when majority white and minority black groups are compared (Cantor-Graae & Selten, 2005) even though there is no evidence for increased risk in black majority societies. Some of this discrepancy may be attributable to misdiagnosis, particularly over-interpretation of contextually-appropriate mistrust (Whaley, 2001). Nonetheless, several teams of researchers, particularly in Europe, have found that risk for psychotic disorders is associated with experiences of social defeat and marginalization: biologically vulnerable people are much more likely to develop psychosis under chronically adverse social conditions (Selten, van der Ven, Rutten, & Cantor-Graae, 2013).

Just as culture shapes expression of brain- and mind-levels vulnerabilities, mind and brain in turn constrain cultural shaping of mental disorder. Our evolutionary heritage limits the ways in which our thoughts, emotions and behavior go awry, and encourages stability and adaptation. For instance,

although manifestations of anxiety disorders differ across cultural contexts, they are nonetheless constrained by the ways in which our brain and nervous system process threat (e.g., Öhman, Dimberg, & Öst, 1985). Even those contexts wherein threats are common or even culturally-desirable do not produce anxiety symptoms that violate these constraints. Examples of such constraints include the fact that anxiety drives attention or the fact that high levels of arousal are sustainable only for very brief periods of time.

Similarly, mind-level factors can limit the effects of cultural environments on mental disorder. Studies of people who live in the most adverse of contexts suggest that only a minority develops serious mental disorders. Psychological resilience is common. Researchers attribute this resilience to normative functioning of psychological and interpersonal adaptation systems, with factors such as effective problem-solving, positive emotions, social support, and meaning maintenance as some of its potential sources (Bonanno, 2004; Heine, Proulx, & Vohs, 2006; Masten, 2001). For example, in one study of children living in adverse circumstances, children's intelligence and quality of parenting they received limited the effects of adverse environments on their antisocial behavior (Masten et al., 1999). In sum, substantial heterogeneity in mental disorder can be attributed to culture, but this variability is not boundless. Vulnerabilities at one level of culture-mind-brain constrain and shape and are constrained and shaped by vulnerabilities and resilience at other levels.

Stressors and Triggers

Moreover, vulnerability factors alone do not fully account for the emergence of mental disorder. Perhaps there are other people in Hana's social circle that will never develop a mental disorder despite a strong genetic loading or tendency to ruminate. In order to understand the emergence of actual symptoms of distress, vulnerability factors need to be considered in combination with environmental triggers. These triggers include exposure to prenatal stressors (e.g., viral illnesses) during critical periods of brain development, stressful life events (e.g., trauma), as well as chronic stress (e.g., poverty). Many ubiquitous sources of stress, such as climate and the resulting

likelihood of natural disasters, access to healthcare, economic and political systems, and geopolitical conflict are interwoven with culture (e.g., Gelfand et al., 2011; Schwartz, 2006). Even seemingly random life events, such as fatal traffic accidents, are not distributed equally across cultural contexts (World Health Organization, 2015), and are dependent on cultural factors (e.g., norms of driving behavior; Özkan, Lajunen, Chliaoutakis Parker, & Summala, 2006).

Jointly, stress and vulnerability allow us to better account for individual and cultural differences in symptom levels. For example, across cultural contexts, common forms of internalizing disorders are associated with lower socioeconomic status (Steptoe, Tsuda & Tanaka, 2007; Van de Velde, Bracke & Levecque, 2010). Although there is no doubt that mental disorder can reduce educational and financial attainment (Kessler, Foster, Saunders, & Stang, 1995), limited access to socioeconomic resources uniquely contributes to development and maintenance of symptoms (e.g., Costello, Compton, Keeler & Angold, 2003), and helps account for cultural differences in internalizing distress (Van de Velde et al., 2010).

In sum, prior to developing symptoms of mental disorder, people vary in terms of their physiological, psychological and cultural vulnerabilities. The local sociocultural context also contributes to their exposure to stress. Hana's likelihood of developing symptoms of mental disorder depends in part on these factors. Different distributions of vulnerability factors and stressors across cultural contexts can help us account for cultural group differences in prevalence and expression of the common types of mental disorders. Yet, the story of how cultural context shapes mental disorder only begins here: vulnerability and stress factors are far from the only mechanisms shaping cultural variation in psychopathology. If Hana develops initial distressing symptoms, she will not experience them in a cultural vacuum.

Many empirical examples suggest that even when people depart from cultural norms they tend to do so in ways that are shaped by these norms. For example, although paranoid delusions are common in schizophrenia across cultural contexts, their content differs (Tateyama, Asai, Hashimoto,

Bartels & Kasper, 1998). Delusions of being poisoned or delusional guilt are more common in Austria and Germany than in Japan; the opposite is true for delusions of being slandered. Similarly, although auditory hallucinations, especially hearing voices, are much more common in patients with schizophrenia than hallucinations involving other sensory modalities, the likelihood of a patient experiencing particular types of hallucinations differs markedly across cultural contexts (Bauer et al., 2011). Roughly half of all patients in the West African countries of Ghana and Nigeria report experiencing visual hallucinations within the last year. Moreover, they tend to experience them relatively often, on average about two to three times a year. The same symptom is very rare in Pakistan, with fewer than 1 in 25 patients reporting this symptom, and in Georgia, just shy of 1 in 10. When Pakistani or Georgian patients do report this symptom, it is relatively rare, occurring only once a year on average. These differences are not easily reducible to vulnerability and stress factors. In the case of paranoid delusions, we may want to know more about Austrian, German and Japanese cultural scripts of psychosis to make sense of the observed differences. Let us consider what is known about symptom- and syndrome-generating scripts that might add to existing work on vulnerability and stress.

The Role of Cultural Scripts in Shaping Psychopathology

In order to gain a better purchase on the emergence of Hana's symptoms, and the personal and social responses to these symptoms, we need to consider local understandings of health, suffering, and pathology. Although not everyone has first-hand experience with mental disorder, we are all familiar with representations of what it means to be healthy and ill in our cultural context(s). Consider Hana's potential encounters with these ideas while growing up. Perhaps she overheard adults talking about someone's low spirits, witnessed reactions to a person who was intoxicated, or read about people acting in hard-to-comprehend ways. She may have seen public health education posters or been explicitly taught about mental health in school. The information available to her depended on her cultural context.

Personal and Consensual Beliefs About Distress

To better understand Hana's beliefs about mental disorder, one would need to learn about cultural scripts common in her cultural context(s). *Cultural scripts* are sequentially arranged schemata that are intersubjectively shared, meaning that they tap into ideas of what other people know and believe in a given cultural context (Wan, Torelli, & Chiu, 2010). These scripts guide the meanings (e.g., beliefs, values, expectations) and practices (e.g., consensually-understood behaviors, such as speech) in a given conceptual domain. Many of these scripts are normative: people who act in accordance with a normative cultural script are acting in a socially approved manner. *Deviant cultural scripts*, in contrast, involve that which is still comprehensible, but understood as abnormal and undesirable (Chentsova-Dutton et al., 2014). For example, a Kerala script of teenage suicide is recognized by most people in this South Indian cultural context and is understood as tragic and abnormal (Chua, 2012). A subset of deviant scripts pertain to mental disorder. They shape where we draw the line between health and illness, how we recognize a problem, what we call it, and how we talk about it (or avoid talking about it). They inform us about possible causes, signs and symptoms, seriousness, and anticipated course. Finally, they provide us with guidance about whether to seek help, how to do so, and what treatments might be most effective.

Prior work in cultural psychiatry has used several related constructs to describe local understandings of symptoms and etiology (formerly *culture-bound syndromes*, replaced with *cultural syndromes*, Alarcón, 2014; Hughes, 1998), etiological beliefs about particular forms of suffering, and consensual models shared by members of a given community about why people suffer in particular ways (*explanatory models*, Kleinman, 1977), the ways in which distress is communicated to others to facilitate social support while minimizing stigma (*idioms of distress*, Nichter, 2010), and personal accounts of suffering (*illness narratives*, Groleau, Young, & Kirmayer, 2006). We prefer the construct of cultural scripts due to its ability to capture both intrasubjective and intersubjective understandings of mental disorder that are encoded and enacted in cultural environments.

To gain a better purchase on the relevance of cultural scripts to health concerns, let us briefly consider the scenario in which Hana has experienced a head trauma. Without ever having a concussion, most people are familiar with a script of post-concussive symptoms, including expectations that one will experience headaches and feel anxious after head trauma (Mittenberg, DiGiulio, Perrin & Bass, 1992). Many competing sets of shared scripts of a health condition (e.g., folk categories of sickness, biomedical models offered by the health care establishment) may be available within a single cultural context. Yet cultural scripts are often inaccurate. People's expectations of post-concussive symptoms are at odds with the actual post-concussive changes observed by neurologists (Mittenberg, DiGiulio, Perrin & Bass, 1992). Since people are not simply interchangeable representatives of their cultural groups, these scripts also may or may not accurately reflect any given person's private understanding of their own symptoms. We nonetheless believe it is important to study scripts as they can tell us about intersubjective understandings, framing people's interpretation of their own and other people's symptoms and organizing their ability to understand the responses of others to their own distress.

Deviant scripts can only be fully understood in reference to normative scripts (Chentsova-Dutton et al., 2014). That is, to understand symptoms in a particular cultural context, it is important to consider the ways in which these symptoms conform to or deviate from how one is expected to function as a healthy community member. For example, cross-national research on autism yields differences in parental reports of symptoms (see Mandy, Charman, Puura & Skuse, 2014). A leading hypothesis is that these differences may be due in part to variation in beliefs about normal development; after all, non-clinical samples from different cultural contexts differ in their endorsement of traits associated with the autistic spectrum (Wakabayashi, Baron-Cohen, Wheelwright & Tojo, 2006). Some mental disorders may even be associated with psychological characteristics that can only be understood in reference to normative scripts. For example, depression is associated with decreased emotional expressiveness in European Americans, but increased

emotional expressiveness in Asian Americans. These two correlates of depression seem diametrically opposed, but in both cases reflect a deviation from normative scripts for emotion expression in each cultural context (Chentsova-Dutton et al., 2007; Chentsova-Dutton, Tsai, & Gotlib, 2010).

As culture changes over time, so do illness-relevant scripts; and as they shift, they trigger reciprocal changes in normative scripts. For example, at the time of reunification with West Germany, many East Germans reported that the official symptoms of major depression did not fit any of the East German scripts of mental illness (Beck et al., 2003), describing these symptoms as examples of unfortunate but normative behavior caused by personal problems or life crises. As deviant scripts (i.e., for major depression) available to East Germans changed over time due to contact with West Germany, more and more residents of former East Germany became convinced that these symptoms signaled pathology. In the process, East German models of normative behavior were adjusted to exclude characteristics such as melancholic mood and withdrawn behavior. Another example is provided by the case of broadening diagnostic criteria for autism spectrum disorders (Gernsbacher, Dawson & Hill Goldsmith, 2005). As the diagnostic criteria expanded, the public experienced these changes as evidence of a terrifying epidemic of autism. Members of the public, teachers, and parents were also increasingly likely to understand a broader range of behaviors as indicative of autism and hence pathological, altering their perspective on milder symptoms that were previously considered normal (Gnaulati, 2013; Molloy & Vasil, 2002). A number of adults reinterpreted their own social functioning, shifting from seeing their own behavior as quirky but normal to autistic (see Limburg, 2016, for one such example). Meanwhile, some researchers in disability studies sounded the alarm regarding the potential negative consequences of downward expansion, towards viewing larger swaths of autism spectrum as pathological (Moloney, 2010).

Conversely, changes in normative scripts can prompt changes in deviant scripts. For example, modernization in China, combined with increasing exposure to Western ideas, has fostered changes in beliefs about shyness. Whereas shy children used to fit well with traditional Chinese

normative scripts, shyness has increasingly become understood as problematic in Chinese society. Although shyness among elementary school children was associated with social and academic achievement as recently as 1990, it became linked to internalizing and externalizing problems by 2002 (Chen, Cen, Li, & He, 2005). Notably, shyness continued to be associated with markers of positive adjustment in more traditional rural schools in China, but became increasingly linked with maladjustment in urban areas undergoing rapid cultural change and modernization (Chen, Wang, & Wang, 2009).

Cultural scripts of illness are important to consider even for disorders with known physiological etiology that is largely independent of culture (e.g., diabetes; Smith, 2012). For example, the symptoms of myopia are similar across cultural contexts, yet cultural scripts of nearsightedness vary substantially—and can have real-world ramifications. Consider the first author's experiences in Russian and American cultural contexts. In Russia, nearsightedness is thought to signal vulnerability for further eye disease. A typical recommendation would be to refrain from high-impact exercise for fear that strain might further damage vision. Nearsightedness is partially attributed to the person's behavior (e.g., not protecting the eyes). In the background there are long-standing assumptions linking glasses with social class membership. In other cultural contexts (e.g., Cambodia) such stereotypes are even more salient due to recent history of persecuting people wearing glasses, as such people were assumed to be educated and privileged (Etcheson, 2005). In contrast, the American script for nearsightedness largely attributes this problem to genetic factors and does not point to salient social or practical contingencies of its symptoms. Cultural variations in scripts can organize a person's model of themselves and their relationships with others vis-à-vis their symptoms and their expectations for the future. Scripts are even more important to examine in the realm of mental disorders, as psychological functioning is not independent of our understanding of it. People do not become significantly more nearsighted in response to a cultural script, but they can feel and exhibit more emotional, psychosomatic, cognitive or behavioral

symptoms that fit with culturally- or personally- salient scripts (Barsky & Borus, 1990; Mittenberg, DiGiulio, Perrin & Bass, 1992).

We contend that cultural scripts shape the beliefs of sufferers and others in their local social world about what is going on and what one ought to do about it. Yet, we would push this claim about culture's centrality much further. When a vulnerable person like Hana begins noticing something awry with their bodies or thoughts, recruitment of salient scripts may potentially play an essential role in actually generating and then maintaining symptoms. It is to this possibility that we now turn.

Emergence and Maintenance of Disorder

At any given moment, our bodies and minds produce a myriad of potentially discernible somatic, cognitive and emotional changes. Much of the time, we are barely aware of them, although they may enter our consciousness when they become particularly intense or when other sensations are limited (Pennebaker & Brittingham, 1982). If you stop reading this chapter for a few seconds and pay attention to your body or your mind, you will likely notice twitches, tensions, or nagging thoughts that were not on your mind just a moment ago. Some of these experiences are surely trivial; others may be noteworthy, annoying, or even alarming. Even healthy people experience a significant number of *potentially symptomizable experiences* (Ryder & Chentsova-Dutton, 2015), ranging from changes in mood and energy level all the way to hallucinations, dissociations, intrusive thoughts, and compulsions (e.g., Johns & Van Os, 2001; Flett, Vredenburg & Krames, 1997; Gibbs, 1996; Kihlstrom, Glisky & Angiulo, 1994; Radomsky et al., 2014).

Let us compare the full set of experiential changes that can be noticed by a person like Hana to the full set of stars that are visible on the night sky on a particular night from a particular location. Just as the number of visible stars depends on the observer's visual acuity, the stars' apparent brightness and weather conditions, the number of discernible physical and psychological sensations observed by Hana depends on her interoceptive and introspective abilities, the intensity of her sensations, and the presence of salient distractors. Both sets are very large, albeit finite: in both cases,

only a subset will be noticed. Just as one does not attend to or remember all visible stars, one does not attend to or remember all available somatic and psychological changes.

The extent to which stars or experiential changes enter into consciousness and become registered as noteworthy depends on the combination of bottom-up factors, such as their novelty and intensity, as well as top-down factors, such as available schemata that can organize and scaffold attention to some stars or changes over others. In the case of stars, people rely on constellation schemata. There are stories behind each constellation, guiding perception, interpretation, and memory (e.g., “Orion, the hunter, is so close to Lepus, the hare, because the former is hunting the latter”). Although these schemata are constrained by the visual characteristics of the stars themselves, they also differ culturally. The ancient Chinese organized their constellations differently from the ancient Greeks, although both sets feature some of the brightest stars in the night sky. The Inca, looking up at the star-dense Milky Way in the Southern Hemisphere sky, saw constellations in the sparsely populated dark spaces (*yana phuyu*) between bright stars (Urton, 1981); nonetheless, all of these groups were constrained by the actual arrangement of light and dark in the night sky.

Similarly, although scripts of mental disorder are constrained by the evolutionarily-shaped responses of our bodies and brains to physical or environmental disruptions, they are also culturally shaped. A common script for depression in European American cultural contexts emphasizes psychological causes and cognitive symptoms, such as deficits in the ability to think clearly (Karasz, Garcia & Ferri, 2009; Ryder et al., 2008), whereas counterpart scripts in China or India foreground somatic symptoms, such as “sinking heart”, fatigue, and weakness (Dere et al., 2013; Kleinman, 1977; Krause, 1989; Pereira et al., 2007). Yet all these scripts acknowledge sleep disruption as a salient and potentially universal “bright star” symptom of depression.

Hana is likely to utilize scripts available in her cultural context(s) to monitor, detect, and interpret changes in her bodily sensations, emotions, cognition and behavior. Scripts are also likely to affect how she might experience these symptoms, encode and recall her experiences and

communicate them to others, facilitating recall of script-consistent information (Bower, Black, & Turner, 1979; Sentis & Burnstein, 1979; Petersen, Schroyen, Mölders, Zenker & Van den Bergh, 2014). Even minimal categorical information about classes of sensations (e.g., A versus B) is known to affect how they are experienced and remembered (Petersen et al., 2014). Although people are generally poor at remembering their own symptoms after a delay (e.g., Wells & Horwood, 2004), symptoms that fit the script may be more likely to be remembered (at times falsely) than those that do not. Indeed, preexisting and experimentally induced scripts affect memory of psychological processes (Robinson & Clore, 2002), including reports of symptoms (see Barsky, 2002 for a review). For example, women's descriptions of menstrual symptoms are shaped by their scripts of PMS more so than by their in-the-moment experiences of discomfort in the days prior to menstruation (Boyle & Grant, 1992; McFarland, Ross & DeCourville, 1989).

Salient scripts can also reveal or amplify existing symptoms and even trigger new ones. By conditioning responses to script-associated cues and directing attention towards some potentially symptomizable experiences and away from others, scripts can help convert these experiences into full-blown symptoms by increasing readiness to perceive script-consistent symptoms. Just as one may search the sky for a star that is known to be part of a given constellation, one may scan sensations, thoughts, the local social environment, and so on for known characteristics of a particular disorder, thereby speeding up the process of identification and increasing the chances of labeling the scripted syndrome accordingly—if not necessarily 'accurately' (Lange & Fleming, 2005; Pennebaker & Skelton, 1981). These processes trigger shifts in perceptual biases and ensure that experienced patients detect and process their symptoms differently from novices. Accumulating research demonstrates that our expectations and conditioned associations powerfully affect a wide range of perceptual processes, including perception of emotional expressions and experiences of taste, pain, and somatic changes, such as chest tightness, to mention just a few (Koyama, McHaffie, Laurienti &

Coghill, 2005; Plassmann & Weber, 2015; Van den Bergh, Stegen & Van de Woestijne, 1997; for a review, see Schwarz, Pfister, & Büchel, 2016).

Furthermore, the high prevalence of medically unexplained symptoms and syndromes and documented cases of mass hysteria show that vulnerable members of a population are capable of developing symptoms and entire syndromes in response to salient cultural representations (see Boss, 1997; Rief & Broadbent, 2007). This process has been well-characterized in the literature on the “nocebo effect,” or the tendency to develop and/or intensify symptoms in response to negative expectancies (Benedetti, Lanotte, Lopiano & Colloca, 2007; Lang et al., 2005). Nocebo effects have been observed in controlled lab-based studies for a number of symptoms, ranging from increased pain to sexual dysfunction. Priming people with illness scripts in many cases triggers reports of script-consistent symptoms and risk factors (Lorber, Mazzoni & Kirsch, 2007; Nakajima & Fleming, 2008; Skelton, Loveland & Yeagley, 1996; Witthöft & Rubin, 2013). Participants in one study reported experiencing more flu and strep symptoms after being primed by questions about fever and sore throat, prototypical symptoms of these illness scripts (Skelton et al., 1996). Factors such as somatic awareness, emotional arousal and high levels of trait negative emotions/neuroticism are known to increase the likelihood of symptom amplification and symptom generation (Barsky, 2002; see Van den Bergh, Bogaerts & Diest, 2015 for a review).

Therapeutic approaches designed to teach vulnerable people, particularly those with higher levels of the aforementioned factors, what symptoms to expect may therefore produce increased levels of such symptoms among some of the targets. For example, symptoms of PTSD tend to increase and/or persist following critical incident stress debriefing, an intervention approach that educates survivors about potential symptoms of PTSD soon after the trauma (Gist, 2015). This tendency may be due in part to introduction of a new illness script to vulnerable individuals (Bootzin & Bailey, 2005). Emerging studies suggest that people from cultural contexts that encourage attention to the body (i.e., East Asian and West African contexts) are less accurate, although more

confident, when detecting and tracking actual bodily changes (e.g., heartbeat; Chentsova-Dutton & Dzokoto, 2014; Ma-Kellams, Blascovich, & McCall, 2012). It may be that by encouraging attention to the body these contexts actually encourages attention to culturally-salient scripts of bodily changes rather than to actual bodily changes. It remains to be seen whether these differences translate into higher likelihood of generating symptoms in response to cultural scripts.

The normative and deviant cultural scripts held by family members, friends and acquaintances, and the community at large can also contribute to the maintenance of a mental disorder. After all, many symptoms are public events: noticed, discussed, evaluated, tolerated, and/or punished by others. The consequence is that social meaning is ascribed to being sick in a particular way. Consider one of the best-known patterns of findings in culture and mental health, from the literature on schizophrenia. People experiencing a first episode of this disorder respond better to treatment and have a more benign course of illness if they live in low-income developing countries, such as India or Algeria, relative to wealthier developed countries, such as the UK or Japan. This pattern is puzzling, given the fact that the latter countries offer more comprehensive and up-to-date psychiatric care than do the former (Hopper & Wanderling, 2000; Novick et al., 2012; Sartorius et al., 1986; see Isaak, Chand, & Murphy, 2007 for a review; but for a contrary view see Patel, Cohen, Thara & Gureje, 2006). Despite the first reports of this pattern appearing over four decades ago (e.g., Mauritius; Murphy & Raman, 1971), surprisingly little progress has been made in identifying cultural factors that shape these differences in outcomes. Although variations in stigmatizing attitudes have been ruled out as a potential explanation (Pescosolido et al., 2015), the influence of other cultural factors remains under-researched. Continued inclusion in the community, such as through holding a socially meaningful role, has been suggested as a potential explanation. This experience is in marked contrast with the social defeat more common in wealthier developed countries—and especially, as previously discussed, in devalued minority groups (Luhmann, 2007).

In sum, there is a possibility that being reminded of a familiar deviant script may affect Hana's symptoms. Some people respond to cultural representations of physical and psychological symptoms by noticing bodily and psychological changes consistent with these representations and emphasizing them in their own reported experiences. Although some of these sufferers may be motivated by strategic concerns, such as reporting or denying a particular symptom to gain access to health care resources or to avoid shame, symptoms can also emerge with little to no conscious intent or awareness. Their emergence, in turn, takes place in a social world where the symptoms are further shaped by the actual, anticipated, or perceived reactions of others.

Disordered Loops

Finally, Hana's potentially symptomizable experiences can combine with normal and abnormal cultural scripts, the interpersonal reactions of others, the institutional structures in a society, and so on, to generate and sustain symptoms in vicious self-perpetuating cycles. For example, her anticipatory anxiety about speaking in public might combine with consensually held beliefs about the consequences of poor performance, leading to heightened physiological arousal symptoms while speaking, such as sweating, stuttering and shaking hands. These responses might in turn lead to embarrassment and negative interpretations about how other people are judging her ability to speak, leading to more anxiety. On a longer time scale, believing that public speaking experiences will likely end in disaster may lead Hana to either suffer through them (i.e., punishment for engaging in public speaking) or to avoid them when possible (i.e., positive reinforcement for avoiding public speaking). Either way, a second loop emerges that helps to maintain the persistence of her symptoms (Ryder & Chentsova-Dutton, 2015).

Attending to, pathologizing, and communicating about certain experiences can create such feedback loops in which attention and response to these experiences leads to their intensification and emergence as full-blown symptoms. One consequence, of course, is to encourage monitoring of these symptoms, potentially further worsening them. This is well-documented for anxiety (Clark, 1999),

somatic symptoms (Witthöft & Hiller, 2010), and sexual disorders (Barlow, 1986), all characterized by high levels of anxiety about experienced symptoms. Interruption of such loops is the bread-and-butter of cognitive behavioral therapies for these disorders. Because deviant scripts differ cross-culturally, attention may be driven to different symptoms, promoting culturally variable dysfunctional loops underpinned by universal mechanisms.

Consider one of the most widely cited papers in clinical psychology. Clark (1986) describes panic attacks as catastrophic misinterpretations of physical sensations; for example, people with panic disorder tend to interpret increased heart rate as a sign of possible heart trouble. Perhaps Hana is particularly prone to this interpretation. Given the prevalent belief that heart trouble is dangerous and hence frightening, her anxiety increases. She then attends more closely to chest sensations, but the autonomic arousal that accompanies their rising anxiety leads to additional chest sensations. This pattern requires Hana to hold certain assumptions that in themselves may well be reasonable—that heart trouble is concerning, that a rapidly increasing heart rate could be dangerous and potentially fatal. Now what if Hana lives in a different cultural context, with different reasonable assumptions? Hinton and colleagues (e.g., Hinton, Um, & Ba, 2001; Hinton et al., 2013) have described the phenomenon of ‘neck-focused panic attacks’ in Cambodian cultural contexts, focusing on a set of folk physiological beliefs surrounding ‘Khyal’ or energy that flows through the body. The neck is seen as particularly vulnerable: rapidly rising Khyal can lead to blockages in the neck, causing stiffness, pain, and ultimately death from burst blood vessels. Neck stiffness thus has the potential to be catastrophically misinterpreted as dangerous and potentially fatal.

Another example comes from *koro* script, widely known by various names in a number of Asian and West African cultural contexts (Chowdhury, 1996; Dzokoto & Adams, 2005). Sufferers of *koro* report that their genitals are shrinking or disappearing into their bodies. Often, another person is accused of causing these symptoms via witchcraft. The full-fledged experience of *koro* depends on having access to cultural scripts that infuse these symptoms with meaning. Although isolated cases

do occur in Western cultural contexts, these contexts lack deviant scripts that explain them (Malinick, Flaherty & Jobe, 1985). These cases do not spread. Knowing that situational fluctuations in the size and appearance of genitals may potentially signal trouble, and, in response, attending to these changes and responding to them as threatening generates loops that reinforce the symptoms (Simons, 1983). Moreover, as the script includes the belief that koro can travel in waves through geographical areas, awareness that an outbreak is occurring and that cases have been observed in neighboring communities can further heighten attention to signs of genital shrinkage. Shared beliefs about how koro moves through populations contribute to it moving through populations in exactly those ways.

Looping can also unfold in interpersonal contexts. For instance, insecure romantic attachment is known to be associated with lower perceived support from one's romantic partner, which in turn contributes to dissatisfaction with relationships and depressive symptoms. A comparison of Hong Kong and the United States suggests that although avoidant attachment is linked to poor relationship outcomes in both societies, the strength of some of these relationships (e.g., between avoidant attachment and low perceived support) is stronger for people in more interdependence-promoting Hong Kong relative to those in the more independence-promoting United States (Mak, Bond, Simpson, & Rholes, 2010). It is likely that these results reflect interaction dynamics between the two partners as they unfold in its cultural context. People with avoidant attachment models tend to see their partners as demanding and overbearing in their expectations of closeness. They describe themselves as aloof, and prefer more distance and less mutual dependence. Although some of the specific preferences associated with avoidant dependent styles (i.e., avoiding emotional disclosure) may fit with interdependent models of relationships, this broader avoidant way of viewing close relationships clashes with expectations promoted in interdependent contexts. While avoidant individuals across cultural contexts may reject their partners' overtures for closeness, partners of highly avoidant individuals in Hong Kong may gradually become more upset, more critical and less

likely to respond with support given that their cultural context leads them to expect interdependence. This study illustrates the ways in which models of relationships that violate the normative cultural scripts of how to be a good partner may be more likely to threaten interpersonal and intrapersonal functioning, and thereby trigger potential interpersonal loops. When examining Hana's symptoms over time, cultural-clinical psychologists would want to observe temporal dynamics of certain symptoms triggering and potentiating one another and of the ways in which Hana's friends and family respond to her symptoms, thereby potentially affecting the symptoms themselves.

Implications for Clinical Research and Practice

All in all, the cultural-clinical psychology approach to mental disorder, with its emphasis on dynamic looping processes, may well serve to broaden our appreciation for the role of culture. It also promises to make life more difficult for researchers, let alone clinicians. The former want well-defined diagnostic groups for comparison purposes, the latter want them for treatment planning, and everyone wants clear and efficient communication. If properly designed, and appropriate to a given context, these categories may have important, albeit limited, functional utility – for self-understanding, professional communication, treatment decision-making, insurance reimbursement, public policy debate, and so on – but this does not mean they are natural kinds. We know that psychiatric categories are not fixed; indeed, most of them are not especially categorical (Haslam, Holland, & Kuppens, 2012; Kotov et al., 2017). Clinical science is in flux regarding its conceptualization of mental disorder (Lilienfeld & Treadway, 2016), precisely because symptoms of mental disorder show little evidence of reflecting clear-cut diagnostic categories as they are imagined by clinical communities. While true even of studies conducted within a single cultural context, such as the United States, the problem compounds once we expand across cultures. Looping effects render fixed human categories all but impossible: people notice them, talk about them, write about them, divert funds to (or away) from them, valorize them, stigmatize them, and so on, all in ways that loop back to further shape the category, leading to considerable diversity across cultural-historical

contexts (Hacking, 1995; for examples see: Ryder, Zhao, & Chentsova-Dutton, in press; Sun & Ryder, 2016).

As researchers interested in labeling theory and stigma have long known, part of the experience of being ‘depressed’ or ‘schizophrenic’ is the consequences of knowing that one fits with a particular category, and knowing that others see one as fitting with that category as well (Kroska & Harkness, 2008; Link et al., 1989). We do well to keep this in mind as we turn our attention to help-seeking and then, finally, to clinical evaluation and intervention. All of these processes are deeply social. A client’s suffering can be dramatically shaped by the ideas, attitudes, social contingencies, and structural features of the people and institutions encountered throughout the search for healing. Hence, we do well to consider the possibility that they are shaped in important ways by the cultural context.

Pathways to Healing

Not only do deviant cultural scripts include information about the causes and consequences of a given mental disorder, they also provide prescriptions about what one should do about it. There is considerable cultural variation in what a person is expected to do when emotionally distressed: what reactions are appropriate, at what point is it appropriate to solicit help, how is this most effectively done, what can one realistically expect of another person (Kim et al., 2008)? For example, European Americans are more likely to disclose their problems and/or distress and ask for help than Asian Americans, a pattern partly due to cultural variation in concerns about burdening others (e.g., Taylor, Sherman, Kim, Jarcho, Takagi & Dunagan, 2004). As a result, European Americans are more likely to psychologically and physiologically benefit from explicit support than Asian Americans. The reverse is true for implicit support, or face-saving form of support that involves close social presence but no disclosure of a problem (Taylor, Welch, Kim & Sherman, 2007).

These models of support are important to our understanding of what people do when they develop troubling symptoms, as they extend to the realm of help-seeking. One study compared

Japanese and American students and found that Japanese students were more reluctant to seek professional help for hypothetical symptoms of mental disorder compared with American students, an extension of a more general reluctance to seek help from close others (Mojaverian, Hashimoto & Kim, 2013). Further, studies examining beliefs about help-seeking among adults suffering from mental disorder indicate that these beliefs are culturally-patterned. If Hana is an Ecuadorian suffering from *pena* (Tousignant & Maldonado, 1989), her cultural context may suggest that not only is it important to pay attention to her stomach and heart, her depression-like symptoms may be best addressed by appealing to those in the community who have wronged her in the past. If, in contrast, she is an immigrant from a South Asian cultural context, she may be more familiar with the notion of tackling her symptoms by distracting herself or turning to family members to talk about her situation (Karasz, 2005).

Similarly, there is variation in what a help-provider is supposed to do. For example is unsolicited advice appropriate, or might it lead to an autonomy threat or a loss of face (Chentsova-Dutton, 2012)? In the case of mental disorders, stigma and lack of ‘mental health literacy’ have been identified as barriers to effective treatment (Furnham & Hamid, 2014; Livingston & Boyd, 2010), albeit with the danger of uncritically assuming that Western perspectives are the correct ones (Na, Ryder, & Kirmayer, 2016). Regardless, pathways to healing are powerfully shaped by the sufferer’s own beliefs, prevalent assumptions in the sufferer’s local social world, and the expectations of care providers.

Help- and Treatment-Seeking

Will Hana seek help for her symptoms? People who believe in negative consequences for speaking up about their distress will, not surprisingly, conceal this distress as best they can. A core set of stigmatizing beliefs about mental disorder can be identified across a wide range of different societies (Boyd, Adler, Otilingam, & Peters, 2014; Littlewood, Jadhav, & Ryder, 2007). Simply holding such beliefs about one’s suffering can worsen the suffering. Moreover, intersubjective beliefs

about the stigmatizing attitudes of others predict reluctance to seek help (e.g., Tucker et al., 2013). People might also delay help-seeking because they do not actually recognize their suffering as requiring intervention. In recent years, advocates of mental health literacy have argued in favor of public education about mental disorders in order to promote early detection and intervention (Jorm, 2012). These approaches tend to be based on Western understandings, however, pointing to the need to develop a more culturally-informed perspective (Na et al., 2016).

If Hana decides to disclose her symptoms, to whom might she turn? When suffering cannot be hidden any longer, people across a wide range of cultural contexts prefer to keep this information within a trusted social network, most often within the family. Doing so protects the family from the stigmatizing reactions of others (Lin, Inui, Kleinman, & Womack, 1982; Pescosolido, Boyer, & Medina, 2012). In Western societies, people from minority backgrounds are particularly likely to do this, and hence underutilize formal mental health services (e.g., Colucci, Szwarc, Minas, Paxton, & Guerra, 2014; Hernandez, Neaman, Mowery, Acevedo-Polakovich, & Callejas, 2009). Underutilization does not necessarily mean lack of treatment, however. An apparent delay in accessing standard interventions might be due to reliance on traditional healing practices, which may prove helpful to the sufferer (Gone, 2013; Kirmayer, 2012). Nonetheless, delays often have deleterious consequences. For example, Black sufferers from psychosis living in White majority societies often delay formal treatment-seeking due to social disadvantage and mistrust (Whaley, 2004). The consequence is increased likelihood of an emergency room admission with police and/or ambulance involvement, as symptoms have had time to worsen (Jarvis, Kirmayer, Jarvis, & Whitley, 2004).

Evaluation

Once Hana or her family decide to seek treatment, they will likely encounter professionals who are trained to work with discrete diagnostic categories reflecting Western scripts of mental illness. Disciplinary biases that come with clinical training include overlooking the bottom-up

dimensional nature of many common forms of mental disorder in favor of top-down diagnostic categories (Haslam et al., 2012) and overemphasizing Western understandings. In addition, diagnoses are further shaped by clinicians' own cultural contexts. Cross-national differences in diagnoses emerge even when clinicians rate the same prerecorded targets. Despite some similarities driven by the Western-derived diagnostic instruments and manuals, clinicians from different countries see the same symptom reports and behavior as indicative of somewhat different symptoms, which can in turn point to different diagnoses (Katz, LeBars, Itil, Prilipko & DeGiralamo, 1994; Nakane et al., 1988). For example, in one study, clinicians in Japan, China and Korea saw the same videotaped interviews with patients. The resulting diagnoses systematically differed by country, with Japanese clinicians emphasizing depressive and psychotic symptoms, Chinese clinicians emphasizing anxiety symptoms in their diagnoses, and Korean clinicians showing an intermediate pattern (Nakane et al., 1988).

Even more troublingly, clinicians detect, interpret and weigh symptoms in ways that are informed by their cultural contexts' social representations, applying different diagnostic intuitions to patients from different cultural and ethnic groups. For example, American clinicians have a tendency to over-diagnose mentally ill African Americans with a highly stigmatizing diagnosis of schizophrenia relative to European Americans and Hispanic Americans, who are relatively more likely to receive diagnoses of bipolar disorder and major depression, respectively (Minsky, Vega, Miskimen, Gara & Escobar, 2003; Pavkov, Lewis & Lyons, 1989; Strakowski, Lonczak, Sax, West, Crist, Mehta & Thienhaus, 1995). The case of diagnoses applied to African Americans versus Hispanic Americans is particularly striking, as the former tend to report fewer psychotic symptoms than the latter, but are more likely to receive a diagnosis that centers around such symptoms (Minsky et al., 2003). Although these differences are known to be partly due to differences in how patients describe their symptoms, they are also shaped by the ways in which clinicians apply diagnostic information to individual patients (Strakowski et. al., 1997).

While unstated cultural assumptions can affect psychological assessment and diagnosis in any clinical encounter, such assumptions are less of an issue when they are shared, with seemingly little need to complicate matters by interrogating them. Yet clinicians increasingly work with patients who inhabit very different cultural worlds, and the power and influence of ‘Western science’ means these unspoken assumptions are exported to contexts for which they are not well-suited (Kirmayer, 2006). We believe the idea of cultural scripts can be usefully applied to this conundrum. As a thought experiment, imagine that a friend has come from a medical appointment and you want to find out how it went. In answering your question it would be odd if your friend went into detail about checking in or reading a magazine in the waiting room. Instead, this ‘physician visit’ script is understood to be shared; *violations* of the script, such as a secretary listening to loud music, are much more noteworthy. A deviant cultural script shared by people inhabiting the same cultural context is exactly that: it is shared, and understood as shared. Imagine now that you are visiting another country and pick up a minor infection. You have a medical visit that proceeds in a very different way: you cannot find a receptionist, initial assessments are carried out in a public waiting room, the physician recommends unfamiliar herbal remedies. Confused, you ask a local to walk you through a typical visit to the physician’s office. When we cannot assume a shared script we communicate differently, assuming less and asking questions more.

There is an important difference, then, between assessing something broadly shared, with implicit and inferred scripts, and assessing something that may not be shared, where the scripts themselves need to be made explicit. Knowledge of how deviant cultural scripts work may help us to develop and improve assessment techniques that allow specific scripts to come into view. One sound approach is to start qualitatively. For example, DSM-5 now provides the Cultural Formulation Interview (CFI; American Psychiatric Association, 2013) as a first step for assessing presenting complaints, etiological beliefs, and history of help seeking. If Hana’s clinical evaluation were to include the CFI, she would be asked about how she and others in her local social world understand

her symptoms, her cultural and religious identity, her concerns about whether cultural misunderstandings might interfere with her care, and so on. A broadly similar but more comprehensive assessment is provided by the McGill Illness Narrative Interview (MINI; Groleau, Young, & Kirmayer, 2006), which is more commonly used for research. Such instruments can be valuable for eliciting and elaborating upon unfamiliar cultural scripts.

Researchers and clinicians can augment these ethnographically informed instruments with psychometrically sound tools that systematically sample culturally-relevant symptom domains. A major challenge is to identify a pool of symptom experiences that can simultaneously reflect local sociocultural worlds and retain some degree of meaning beyond these worlds. For example, in order to compare symptom presentations in China and Canada, Ryder and colleagues (2008) pooled items from both Chinese- and Western-designed symptom measures. In the absence of indigenous measures, an alternative approach is to employ a mixed-methods approach integrating qualitative and quantitative assessment tools. Rasmussen and colleagues (2015) used such an approach to develop a depression rating scale for use in Haiti. Careful qualitative work identified the key symptoms and the specific idioms of distress, as conveyed by expressions in Haitian Creole, which informed development and psychometric evaluation of a quantitative instrument.

Whether one uses unstructured or structured methods, the challenge is to understand the ways in which a problematic script is situated in the matrix of intersubjectively understood norms about normality and deviance, health and illness. This is not necessarily an easy task for clinicians, especially in highly multicultural settings. Should Hana be fortunate enough to live in a metropolitan area with access to a cultural consultation service, her clinician would have the option of seeking an evaluation from a multidisciplinary team that includes translators, cultural experts, and social scientists in addition to mental health professionals (Kirmayer, Rousseau, & Guzder, 2014). While resource intensive, cultural consultation can help refine diagnosis, provide clinicians with guidance on potential interventions, and improve access to resources (e.g., a community group, an immigration

lawyer). Recent advances in telehealth, including cross-cultural applications, are a promising development for the many clinicians who do not work in urban cosmopolitan settings (Milcic, Hilty, & Yellowlees, 2016).

Preliminary research suggests that cultural consultation is highly valued by clinicians who are in a position to take advantage of it (Kirmayer, Groleau, Guzder, Blake, & Jarvis, 2003). Moreover, there is evidence that this approach can help to resolve diagnosis; in one study, as many as 49% of patients originally diagnosed as psychotic being re-diagnosed with other non-psychotic disorders. The distinction between psychotic and non-psychotic disorder is far from trivial here, pointing to different treatment interventions and different implications for stigma. When clients were recent migrants, the likelihood of such reclassification increased, suggesting that the approach helps to clarify cases where cross-cultural misunderstandings of symptom presentations may be a particularly salient issue (Adeponle, Thombs, Jarvis, Groleau, & Kirmayer, 2012). For Hana, the result could be a much more appropriate treatment, a reduced risk of hospitalization, a quicker return to functioning, a different response within her family and community, and more.

Intervention

As Hana searches for explanations and help, she will potentially encounter healers from a variety of training backgrounds and professional identities offering a wide range of treatments. While there is a well-developed literature in medical anthropology on traditional healers, as psychologists we focus here on ‘Western’ psychological treatments. Our model of how culture, mind, and brain interrelate has implications for how the process of treatment is understood. A psychiatrist might be drawn to a neurochemical explanation of suffering and thereby conclude that a neurochemical intervention is needed, whereas a psychologist might prefer psychological explanations and believe they point to psychotherapy. But with mounting evidence to show that pharmacological intervention affects intra- and interpersonal functioning, and that psychotherapies impact brain functioning (e.g., Knutson et al., 1998; Linden, 2006; Seretti et al., 2010), it is clear these interventions affect disorder

in complex ways. We similarly expect culture-level interventions (e.g., efforts to lessen mental health stigma; Na et al., 2016) to influence psychological and neurological functioning, although research is comparatively scant. Conversely, exposure to mental disorder and the actual or perceived effects of available interventions can shape culture by shifting consensual norms about normality and abnormality (Pescosolido et al., 2010). Indeed, some key Western ideas, such as beliefs about the self and the importance of a robust self-esteem, are shaped by the discipline of psychology itself (e.g., Mruk, 2013).

Just as disorder can emerge via multiple etiological pathways and form self-generating and self-perpetuating loops, so too can interventions show effectiveness at different levels. Indeed, the ‘effectiveness’ of a treatment can itself get pulled into looping patterns. A treatment approach widely endorsed—fitting the cultural script of an effective intervention—may be more believable to the client and delivered more confidently by the clinician. Research on common factors in treatment has demonstrated that believability and confidence increase effectiveness (Benedetti, 2008; Luborksy et al., 1999; Wampold, 2001). How can clinicians ensure that Hana is a willing and engaged participant in her treatment? If treatment works in part because it is a believable cultural ritual that can be compromised by cultural misunderstandings or a shaky therapeutic alliance, matching clients to clinicians from the same cultural background may be warranted. Perhaps Hana will “buy into” treatment delivered by someone from her own cultural context. Indeed, for many years the literature focused on the extent to which a match between the client’s and clinician’s ethnic group improves treatment outcomes. In a series of three meta-analyses, Cabral and Smith (2011) demonstrated a moderately strong preference for a therapist from one’s own ethnic group, and a modest tendency to appraise same-group clinicians more positively. Surprisingly, there was no difference in actual clinical outcomes (see also Maramba & Nagayama Hall, 2002), suggesting that despite its intuitive appeal, matching alone is unlikely to improve outcomes for someone like Hana.

While the lack of treatment effects for ethnic matching may be due in part to pervasive methodological problems (Karlsson, 2005), there are deeper conceptual issues to contend with as well. Matching assumes that: (1) clients and clinicians can be fairly easily categorized as belonging to a single ethnic or cultural group; and (2) clinicians and clients thus categorized will share similar cultural worldviews. In part due to these concerns, the literature in recent years has shifted away from matching and towards adaptation of treatment approaches to meet the needs of specific groups. Examples of common adaptations include the use of familiar metaphors or acknowledgment of local explanatory models. A meta-analysis by Griner and Smith (2006) demonstrated a moderately strong effect size for such interventions, especially when delivered in the client's first language, pointing to more fruitful directions for culturally competent care.

The work of Hinton and colleagues on neck-focused panic attack and posttraumatic symptomatology in Cambodians provides a particularly detailed example of a culturally-adapted intervention. Recall that anxious people raised in traditional Cambodian cultural contexts can present with neck-focused panic attacks. These panic attacks can in part be understood through general CBT principles, including the links between anxiety, attention, and actual and perceived autonomic arousal (Bouton, Mineka, & Barlow, 2001; Clark, 1987). Yet these attacks can only be fully understood through a cultural lens: it is difficult to clinically engage with them without reference to Cambodian folk biology and illness representations. These attacks must be placed within the larger context of local socioemotional norms and the history of suffering during Pol Pot's regime in the 1970s (Hinton et al., 2013; see also Etcheson, 2005). Drawing both from general CBT principles and this cultural model, the researchers have developed Culturally-Adapted CBT (CA-CBT) for traumatized refugees and ethnic minority patients. (Hinton et al., 2012). Specific modifications for Cambodians include the explicit presentation of and reference to the neck-focused panic attack model to patients, to the use of Buddhist imagery for mindfulness and loving-kindness meditation exercises.

Nevertheless, even the approach of matching clients to culturally-adapted interventions has its limitations. It invites clinicians and researchers to essentialize cultural groups, treating them as more clearly defined and internally homogeneous than they really are. The more we subdivide, the more specific treatments we need to develop. Further, there will always be people who complicate group-based treatment efforts; for example, people from less well-represented groups, or people who inhabit multiple cultural worlds. An important next step for researchers, then, is to extract general principles from careful attempts to develop culturally-specific treatments, integrate these principles into flexible treatment protocols, and evaluate the efficacy of these approaches. If successful, the result would be intervention approaches that are at once culturally informed, flexible with regard to the individual client and their local social world, and grounded in the best available evidence.

In short, we believe the key is to focus on identifying generalizable ways of learning about a given person's specific cultural context and salient cultural scripts, coupled with generalizable ways of integrating this knowledge with evidence-based treatment principles. In addition to the CBT-based examples provided above, there is also evidence to support the cross-cultural efficacy of treatments with interpersonal, mindfulness, parent training, and acceptance-based components (e.g., Rosselló & Bernal, 1999; Rosselló, Bernal, & Rivera-Medina; Singla & Kumbakumba, 2015; Singla, Kumbabumba, & Aboud, 2015). Regardless of the specific approach, we contend that successful therapies work by encouraging the emergence of positive perturbations in a system that is otherwise looped to generate distress and impairment (Ryder & Chentsova-Dutton, 2014). A successful treatment for Hana would thus involve its own, more functional, loops. Careful attention to cultural context not only improves understanding of this client, it shows compassion and concern, helping to build a strong therapeutic alliance. The safety provided by this alliance encourages her to attempt a change, such as exposure to a feared situation—with the situation chosen according to both knowledge of learning principles and understanding of Hana's fears in cultural context. Success in facing this fear and experiencing the consequent changes builds confidence and promotes trust in the

alliance, which opens the possibility of attempting more difficult changes. The hope is that these virtuous, upwardly spiraling loops spread to her life outside the clinic, and become the primary engines of further change.

Concluding Remarks

Psychologists have been addressing issues at the intersection of culture and mental health for several decades now. By 1980, work in this area was already sufficient for one of the six volumes of the *Handbook of Cross-Cultural Psychology* to be dedicated to psychopathology (Triandis & Draguns, 1980). The decade that followed included numerous contributions, some in close contact with developments in adjacent fields, but many more focused on the aptitudes needed by clinicians and counselors to work in increasingly multicultural societies. This practical focus, along with an emphasis on American ethnoracial categories, may have come at a cost, however. A review in the late 1990s showed a dropping off in clinical contributions to a major culture and psychology journal, a change attributed to a lack of theoretical sophistication in these practice-oriented submissions (i.e., *Journal of Cross-Cultural Psychology*; Smith, Harb, Lonner, & van de Vijver, 2001).

Ironically, North American cultural psychology was at the same time undergoing a rebirth following the publication of seminal works by Shweder (1990), Markus and Kitayama (1991), and a little later by Cole (1998). This perspective encouraged analysis of specific cultural contexts while promoting a promising theoretical idea—the mutual constitution of culture and mind. They encouraged researchers to consider people like Hana as culturally shaped shapers of their context, simultaneously reinforcing and being affected by its models of what it means to be healthy and sick. At the same time, cultural psychologists were fully engaged with the mainstream of cognitive, developmental, and social psychology; they remained well-grounded in the theories, methods, and findings from these subdisciplines while also challenging some of their long-standing ideas, and backing these challenges up with data (e.g., Henrich et al., 2010). Cultural-clinical psychology should aim to follow a similar path. Mutual constitution of culture and mind (and brain), along with

ideas such as ‘cultural scripts’ and the methodological focus on ‘unpacking culture’, can provide a robust theoretical framework. Cultural-clinical psychology should then seek to bring its findings to the mainstream, to influence clinical research, practice, and training.

We believe that the need is there and the time has arrived. With a broadly-defined cultural psychology as its basic science, cultural-clinical psychology can make important contributions to our increasingly multicultural societies. Accreditation bodies for psychology training programs, internships, and licensure have responded to demographic changes by calling for the infusion of culture into every aspect of training—yet, there is little clarity on how this should actually be done. Moreover, the rapidly growing influence of Global Mental Health initiatives (Becker & Kleinman, 2013); Patel & Prince, 2010), often oriented around exporting clinical psychology approaches (e.g., CBT; Rahman, Malik, Sikander, Roberts, & Creed, 2008; see also Singla et al., 2017), suggests a need for scientist-practitioners who both understand these approaches and are also thoroughly grounded in cultural psychology. Cultural-clinical psychology can help fill these gaps.

As we noted at the outset, clinical psychology has a number of contributions to make to cultural psychology. In building a transdisciplinary bridge to adjacent disciplines, moreover, cultural-clinical psychology can infuse cultural psychology with fresh ideas from cultural psychiatry and medical anthropology, which share a concern with the interconnectedness of culture, mind, and brain. Cultural-clinical psychology demands that we engage with cells, social structures, and everything in between, and that we find ways to think about the links between generalizable findings and idiosyncratic single cases like our hypothetical case of Hana. The suffering client, moreover, requires us to get beyond abstract discussions of these difficulties and find ways to effectively address them in their specific and embodied manifestations. While the precursors to cultural-clinical psychology have been around for decades, this important work has only just begun.

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