



Cultural Context Is Crucial in Suicide Research and Prevention

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According to Geertz (1973), “. . . there is no such thing as a human nature independent of culture . . . We are . . . incomplete or unfinished animals who complete or finish ourselves through culture . . .” (p. 49). And, in the words of Markus and Hamedani (2007), “. . . biological beings become human beings through their engagement with the meanings and practices of their social world . . .” (p. 32). Thus, the sociocultural context is crucial to peoples’ lives, which inevitably means that it also plays a crucial role in suicide. If we want to *understand* suicidal behavior and suicidal people, it is absolutely essential to take the cultural context into consideration in *all* kinds of suicidological research (e.g., Hjelmeland, 2010; Hjelmeland & Knizek, 2010; Hjelmeland & Knizek, in press). This should be self-evident. However, it turns out not to be, and in an endeavor to include a cultural perspective in suicidological research we face a number of challenges – conceptual, theoretical, methodological, ethical, and political challenges (Hjelmeland, 2010). One of the most important challenges, and the one to be discussed here, might be the current “biologification” of suicidology.

Among other sciences, psychiatry is one of the most prominent premise providers for suicidology; and there is no doubt that psychiatry, as well as behavioral sciences, have recently developed in a more biological direction (Brinkmann, 2009). Thus, studies on biological factors (e.g., genes, endophenotypes, neurotransmitters) are presently in demand (e.g., Mann et al., 2006), researchers are now describing the “suicidal brain” (e.g., Desmyter et al., 2011), and various kinds of brain-imaging techniques are developing fast and maintained to be important also in suicidology. For example, Mann (2005) stated that “The clinician needs to know which depressed patient is at risk for suicide, and one promising direction is to begin using brain imaging to measure the predisposition to suicidal behavior . . .” (p. 102). With this, we face some ethical challenges. For instance, *when* and *how* is the information produced in such studies going to be used? If you are told that you have

a biological predisposition to suicide (or not), this information will inevitably have consequences for both you and your family and friends (Hjelmeland & Knizek, in press). Moreover, such studies have their limitations. For instance, Restak (2006) pointed out that correlations found in brain-imaging research frequently – and inappropriately – are interpreted in terms of cause and effect relationships.

Furthermore, with the new brain-imaging techniques, psychiatry, and with it suicidology, may be heading toward (or back to?) a very mechanistic view of human beings. A potential consequence of finding biological markers for suicidal behavior is that this makes it rather easy to think of medication as the best/cheapest/easiest possible treatment available. It may be considered easier to treat what is often referred to as “a chemical imbalance in the brain” with chemicals instead of spending a lot of resources on unveiling the reason(s) for this “imbalance,” which very well may be found in the person’s sociocultural environment, so that the patient should therefore rather be treated with alternative therapies. Take the current debate about whether the increased use/sales of antidepressants contributed to, or even caused, a reduction in suicide rates (e.g., Isacsson, Rich, Jureidini, & Raven, 2010). Even though, according to Jureidini and Raven, the evidence base for such a relationship has proven methodologically weak, Isacsson and Rich maintain that “treatment with antidepressants prevents suicide” (Isacsson et al., 2010, p. 429). Governments, for example, perhaps welcome such simple solutions to complex problems, so that researchers have a duty not to contribute to untenable simplification. In fact, the relationship between use of antidepressants and risk of suicidality has proved to be rather complex. A meta-analysis of 372 double-blind, randomized, placebo-controlled trials demonstrated that this risk was strongly dependent on age: Only among older adults (> 64 years) was the risk of suicidality found to be reduced with use of antidepressants, whereas there was no effect for the age group 25–64 – and even an increased risk for those under 25 years (Stone et al., 2009).

Because of the high cost of brain-imaging equipment, it

is unlikely that culture-specific MRI studies will be conducted on a large scale, for instance, in low-income countries. But it is far from unthinkable that some (e.g., pharmaceutical companies?) will generalize the effect of medicines from one cultural context to another. In the above-mentioned debate article, Isacson and Rich argue for a worldwide decrease in suicide rates due to increased use of antidepressants. However, there is evidence that culture, both the clinician's as well as the patient's, influences the effect of drugs (Yu et al., 2007).

We currently also see a "biologification" of language in the suicidological field, in that "endophenotypes" seem to have become a new catchword for (some specific types of?) risk factors for suicide. Originally, endophenotypes were defined as genetically induced biological markers; intermediate traits that lie somewhere on the developmental pathway from genes to phenotype (Gottesman & Gould, 2003). That is, endophenotype is a biological concept. However, in a recent *Crisis* editorial, Larkin and Beautrais (2010) described "suicide-related endophenotypes" (p. 2) by referring to, for example, psychiatric illness, alcohol and substance abuse, old age, smoking, partner violence, criminal behavior, and firearm ownership. Here, the concept of endophenotype has obviously received a broader definition than the original one and simply replaces the "old-fashioned" concept of "risk factor." In this way the suicidological language is being "biologized." And language is power and influences thoughts and actions.

With the focus on biological explanations of human behavior on the increase, the focus on cultural explanations is in turn decreasing (Brinkmann, 2009). This biological turn of events may thus become – or perhaps it already has – one of the most important challenges in ensuring a focus on cultural issues in suicide research and prevention. The increased focus on biology may contribute to shifting the attention away from the importance of cultural issues. Alarcón (2009) recently stated that this is an uphill battle in psychiatry, which would also make it an uphill battle in suicidology. It is, however, important to remember that the "suicidal brain" is still situated inside the skull of a whole person, and this person is embedded within his/her specific cultural context: a cultural context that consists of several different cultural contexts simultaneously. Many factors in these contexts are *crucial* in the suicidal process, more or less regardless of an individual's genetic/biological makeup.

However, there is no reason why biological research should exclude or diminish the focus on cultural influences. On the contrary: "Biology is not 'culture free,' findings derived from the field of biological psychiatry need to be understood in the context of culture and ethnicity to avoid misleading and mis-interpretation" (Chen et al., 2007, p. 78). Transcultural neuroimaging has shown that cultural background can influence neural activity (Stompe, 2009). Thus, the sociocultural context needs to be considered when interpreting brain images (Restak, 2006). Henningsen and Kirmayer (2000) argue that "increasing knowledge

of neurobiological mechanisms does not indicate the triumph of reductionist models in the sciences of the mind. On the contrary, recent trends in cognitive neuroscience underscore the significance of social context . . ." (p. 468). And research in neuroplasticity has demonstrated that there seems to be few limits to what the brain can do and develop into with different environmental stimulations; biological patterns in the brain both can be created and changed by experience throughout life (see Badenoch, 2008; Schwartz & Begley, 2002, for references). Thus, since experiences occur and are interpreted in particular sociocultural contexts, it should be self-evident why cultural issues are so crucial to the analysis of the data, even biological data. In the words of Markus and Hamedani (2007), ". . . before looking for . . . the genetic underpinnings of a given behavior, it would seem wise, and also scientifically sound, to determine whether a given observed behavior can still be observed once the context shifts" (p. 29).

In fact, most, if not all, researchers today, at least officially, acknowledge that biological factors (for instance, genes) in themselves do not play a crucial role, particularly not in something as complex as (suicidal) *behavior*. It seems commonly accepted that we are not going to find one gene accounting for suicidality, or that even combinations of genes will not, on their own, "cause" suicidal behavior. Whether a potential genetic predisposition is expressed as suicidal behavior depends on complex gene-environment interactions (e.g., Mann et al., 2009). In other words, the environment *always* plays a crucial role in a person's suicidality.

Mann et al. (2009) argue that, instead of continuing to look for specific genes to explain suicidal behavior, "a more productive approach is to identify biological and clinical endophenotypes" (p. 557). The endophenotypes they propose are "impulsive-aggressive traits, early onset of major depression, neurocognitive function, and heightened cortisol response to social stress" (p. 557). As candidate endophenotypes (i.e., endophenotypes that need more research in order to establish their potential relationship with suicide) they list "serotonergic neurotransmission, second messenger systems, and borderline personality disorder traits" (p. 556). Although recognizing the importance of environmental factors, Mann et al. emphasize the importance of advancing the biological understanding of suicide. The significance of taking the environment into consideration in terms of the cultural context where these (candidate) endophenotypes might develop (or not) is, however, not mentioned.

Although most now recognize the vital significance of the environment (e.g., gene-environment interactions), some still promote "pure" biological research. Perhaps this is natural. We all have our training within one (sometimes a couple) specific discipline(s), and with the high publication rates in most disciplines these days, it is difficult to keep up to date on more than one scientific field (sometimes even that seems impossible!).

A relevant question, however, is how much information

from biological studies in isolation can contribute to suicide prevention when we know how crucial the sociocultural context is. How can findings from such studies be “translated” into suicide-prevention activities? Again, referring to the Mann (2005) quote above: Yes, we do need to know which depressed patient (and who else, for that matter) is in danger of suicide. However, the answer may not lie in taking pictures of their brains to find biological markers; it might be more fruitful to focus on people’s experiences rather than on biological structures since the biological structures found may even have developed *because of* some particular experiences in particular environments/context. Even genes seem to be able to learn (that is, change) from experience (Bird, 2007). That is, “our perceptions of life shape our biology” (Lipton, 2010, p. xv).

Moreover, it is also important to remember that human beings are not biological/mechanical machines, and suicidal behavior is not an automatic/mechanical response to certain biological and/or environmental stimuli. Human beings are complicated, reflective beings, and suicide is by definition a conscious, *intentional* act. Intentionality is often overlooked in biological research when, in fact, “a choice can invalidate a genetic influence” (Colbert, 2001, p. 88). Intentional behavior cannot be reduced to the deterministic cause-and-effect level of some biological factors. Barrett et al. (2010) maintain that “By focusing on a mental state or behavior in isolation, it is easy to miss its embeddedness in a larger system that gives it its nature. It is easy to miss the forest for the trees” (pp. 4–5). Biological research alone can therefore contribute relatively little to the understanding of suicidal behavior.

Since everyone, also biologically oriented researchers, now seems to agree on the crucial significance of environmental influences on biology (although we can suspect that sometimes even “environment” is defined purely biologically, that is, as a gene’s *intracellular* environment), we need to remain sober about the contribution to suicide prevention from biological research conducted in isolation. This calls for *multidisciplinary* collaboration (e.g., Bertolote, 2004; De Leo, 2002a; De Leo, 2002b; De Leo, 2004). We need studies that *integrate* the effect of potential biological markers with psychological, social, and cultural factors. Psychiatrists, psychologists, sociologists, anthropologists, etc., therefore need to work together to develop research projects that study all the important factors in relation to each other. Actually, with the crucial importance of culture in suicidal behavior, anthropologists, for instance, might have very important contributions. Multidisciplinary collaboration, however, may require an attitude change in some circles. We sometimes encounter tendencies toward “trench mentality,” where professionals look down at or even dismiss completely the contributions from other disciplines. This is particularly strange, and unfortunate, in suicidology, since suicide is a multidimensional malaise that can be studied from numerous theoretical approaches (Shneidman, 1985).

There can be no doubt that suicidologists from all disci-

plines have the same goal, namely, to prevent suicide. We just work from different angles. However, no matter which angle we are working from, we need to take the (socio)cultural context into consideration. Always. The sociocultural context *is* crucial in suicide research and prevention.

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Correction to Mugisha et al. (2011)

In the article “Doing Qualitative Research on Suicide in a Developing Country: Practical and Ethical Challenges” by James Mugisha, Birthe Loa Knizek, Eugene Kinyanda, and Heidi Hjelmeland (*Crisis*, 2011, Vol. 32, No. 1, pp. 15–22, DOI: 10.1027/0227-5910/a000047) there is an error in the affiliations of Heidi Hjelmeland on the title page of the article. Her name and affiliations should have appeared as follows:

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