

THEORETICAL ASSUMPTIONS OF CULTURAL CONSONANCE MODEL

The present article offers an overview of one of the most successful theoretical frameworks in biomedical research on interactions between society and health – cultural consonance model. Formulated by William Dressler as a result of two decades of empirical research on health disparities in the United States and Brazil, cultural consonance offers insight into the relationship between individual's inability to live up to a societal standard in their behavior or lifestyle, and negative health outcomes. In the present publication the intellectual roots, up-to-date key findings and current directions in cultural consonance research are discussed.

Keywords: sociology of health, health disparities, theory, cultural consonance.

The relationship between social status, stress and health has generated a wide literature in social sciences. Its extensive coverage includes research on social gradient in health, subjective social comparison, relative deprivation, and discrimination and stress [33; 28; 6; 24]. Building on these explorations, recently there has been much interest in the mechanism underlying the social gradient in health (the negative relationship between morbidity/mortality and socioeconomic status). Concluding that the conventional factors such as diet, exercise and access to health care do not account for the entire amount of variation in physical and mental health, over the course of several past decades the empirical evidence has been consistently linking health disparities to the psychosocial stress associated with one's social position, the processes of sociocultural change, migration and social disintegration [1; 3; 34; 39]. It is one of the points of investigation in biomedical research¹ at the moment.

More specifically, individual congruence with normative culture is a prominent theoretical nexus in current biomedical research. One of the most successful models addressing these issues is cultural consonance theory [20]. Cultural consonance represents a biocultural² approach to health disparities [8] and seeks to connect the emergent variation in health to the stress generated by the socioeconomic inequality. It is thus an invaluable empirical source for the researchers studying poverty, inequality and illness within sociology of health, applied medical anthropology,

transcultural psychiatry and social psychology. However, despite the usefulness of this framework and the wide-spread knowledge about it among medical anthropologists, it is scarcely known beyond its specialized research niche. As a result, it has not been connected to similar literatures in modern sociology or psychology, evaluated or tested by the representatives of other disciplines, nor did it have the strengthening advantages of interdisciplinary criticism, both theoretically and methodologically.

As it can hand us tools necessary for understanding the full impact of inequality on human condition, cultural consonance is a model of a high applied value. The present article focuses on the analysis of the theoretical foundations of cultural consonance as a model, and reconstruction of its intellectual roots. The goal of this publication is to connect the evidence accumulated by this theoretical framework to the existing literatures on health disparities and their psychosocial causes. My intention is to cast into sharper relief the range of issues connected to cultural consonance model, and to make its contributions more available to the interdisciplinary audience beyond medical anthropology, such as specialists in sociology of health and illness, psychologists, students of transcultural psychiatry and other social researchers interested in understanding the effects of culture and inequality on the emergence of health disparities and particularly subclinical variation in mental health. While focusing on this task, I shall refrain from any substantial critical review, which will be at the core of a separate publication.

What is cultural consonance?

Cultural consonance is defined as “the degree to which individuals approximate, in their own beliefs and behaviors, the prototypes for those beliefs and

¹ Biomedical research is based on the assumption that the disease has the biological origins and involves agents and vectors of physical existence, rather than regard it as a socially constructed subjective experience of suffering or a reflection of the society's ideology.

² Representing humans as organisms capable of inheriting both biological and social information, and receptive to influences from both these sources.

behaviors encoded in shared cultural models”³ [20; 18]. Cultural consonance thus emphasizes the negative health outcomes in individuals failing to match a cultural standard [12]. Its central empirical claim posits that one’s failure to match a socially desirable standard encoded in a cultural model (i.e. lack of cultural consonance) results in the decrease in individual physical and mental health [13].

Conceptually this model integrates collective culture with individual cognition, and links them to behavior and health, which is a separate strong point of this framework in assessing cultural influences on individuals. The conceptual map of cultural consonance recognizes that individual cognition, behavior and perceived social difference have a different nature than shared collective knowledge (culture), although all of them can have outcomes for individual health.

In other words, cultural consonance is presented as both a theoretical orientation and a methodological model facilitating the study of the relationship between the society and health, and the specific role of culture (conceived of as a measurable variable) in generating the psychosocial stress affecting human condition [11].

The development of the idea of cultural consonance

The general preposition embedded in Dressler’s theory has emerged from the empirical material published during the interval from the 1980 till 2000s, thus making cultural consonance an inductively formulated model. Most of the observations in its background concerned cardiovascular health, high blood pressure, and (later) depression, and was originally published in outlets for physical anthropology.

The foundation of cultural consonance is connected to its empirical origins in epidemiology and sociological research on social change and community structure [4]. The first step towards the development of the theoretical premises of what will later be formulated as cultural consonance was Leighton’s research into the community organization in Canada, namely the degree of community disintegration (levels of poverty, family stability, and “confusion of community’s cultural values”) [29]. This study has initiated systematic studies of

sociocultural processes (e. g., modernization, migration) and health, mainly focusing on psychological distress and cardiovascular disease. The general hypothesis it has generated was linking the increase in the blood pressure to the process of modernization.

The new emphasis on the external factors in the process of stress (i.e., sociocultural stressors) has stirred more theoretical work in social psychology [27], focusing on modernization, migration and social change. While these formulations would presently be regarded as theoretically and terminologically vague [14; 21], they provided a new vector for the development of scientific reasoning about the range of factors affecting the individual health. These studies have established a baseline in research on sociocultural factors in health, mainly focusing on the role of culture as a stressor and how social support network can differ from one society to the next (and thus changing the effects of stress) [15; 16; 17].

In this context, the specification of the statistical model was at the discretion of the researcher’s sensitivity to the ethnographic context they explored [5; 26]. Dressler observes that in order to truly investigate the involvement of the cultural factors in health, culture was to be conceptualized more precisely, to make it into a quantifiable variable suitable for the research design that would measure the effects of culture on health. He therefore used cognitive theory of culture focusing on shared collective knowledge (culture consensus model, see below) and connected it to the self-reports about individual behavioral practices and measures of individual health (mainly cardiovascular health).

Cultural consonance and its cognitive roots

Methodologically cultural consonance stems from cognitive anthropology and has Romney’s model known as culture consensus for its methodological foundation [36; 37]. The methodological assumptions of culture consensus are derived from the principles of the distributive model of culture ([38], cf. [36]), which supposes that, despite the substantial overlap in knowledge due to shared socialization, the distribution of this knowledge within the community is uneven and the individuals vary in terms of what they know about a domain. Romney called the degree of individual’s approximation to the collective knowledge *cultural competence* and developed a methodological procedure to measure it. Culture consensus is a quantitative technique that allows computing cultural competence for each participant. The closer

³ A cultural model is presupposed, taken-for-granted models of the world that are shared within a society and that play an enormous role in its members’ understanding of the world and their behavior in it. Cultural models reflect the cultural regularities in cognitive organization of collectively shared experiences. These regularities are reflected in logical connections people make, and as such are accessible for analysis and interpretation [35].

one's degree of cultural competence to the shared collective knowledge (the group's profile), the more competent the individual is with respect to the domain in question.

Building on this premise, Dressler notices that individuals whose behavioral correspondence to the collective profile is low, tend to display negative health consequences proportionate to the size of the gap. Roughly speaking, in Dressler's conceptualization, cultural consonance effect describes the outcomes of individual deficiency in re-enacting their cultural competence (e.g., the essential phenomenon addressed by cultural consonance is technically cultural *dissonance*⁴). It should also be noted that over time the definition of cultural consonance began to explicitly articulate the component of congruence as occurring "in person's own beliefs", thus stressing the importance of the favorable evaluation of self-society congruence in individual's own perception⁵.

Conceptualizing cultural consonance as a measureable phenomenon and using culture consensus to estimate it for each individual informant within a particular domain, Dressler's model further adds measurements of health (symptoms of cardiovascular disease, blood pressure or depression), and the typical research design involves regressing the measures of depression on that of cultural competence and other additional demographic variables of interest [21]. It should be noted that the methodology is a specific instance that is not unanimously agreed upon by different researchers and oftentimes attracts criticism at conferences etc.; a special section is dedicated to the discussion of the cultural consonance research design. The present publication is limited to the presentation of ideas of cultural consonance and their genetic interconnectedness; while the evaluation of particular aspects of methodology and application of different theoretical components will be a subject of a separate article.

Also added by Dressler's framework is the extension of the reasoning from the shared collective meanings (the collective culture) to the actual individual behavior that reenacts those meanings or fails to do so. In other words, for Dressler consensus represents knowledge and ideations of the collective culture, while cultural consonance gauges the actual individual behavior [11; 12].

⁴ Social psychology has an entire literature on culture-personality clash, which discusses this instance of lack of congruence between individual characteristics and socially desirable traits [32].

⁵ However, the effects of self-deception and coping have never been explicitly tested empirically. The role of these factors as potential buffers against cultural consonance deficiency is to be determined.

Evidence and major findings

Dressler's ambition originally was to unconfound the effects of culture from those of ethnicity and class (which were similarly conceptualized in then-current theory). By working out a new definition of culture, Dressler's framework was focusing on its properties and its ability to affect human health. Research in Brazil and the United States has shown that one's failure to realize cultural models in one's behavior is experienced as stressful and is associated with greater psychological distress, higher arterial blood pressure, and greater body mass [7; 9; 10; 22; 23]. It explains why most of the applications of cultural consonance so far connect it to research on poverty and use samples from economically disadvantaged communities in the American South and Brazil.

The most general finding links low cultural consonance to the negative health outcomes (more severe symptoms of depression and cardiological problems). Tests with a sample from Brazil have shown that cultural salience of the domain (in the collective knowledge) plays an important role in cultural consonance: the higher the culture consensus for a domain, the greater the effect of change in cultural consonance in that domain on depressive symptoms [15; 16]. These effects were also found to be independent from stressful life events, which altogether points to cultural consonance as a chronic stressor producing generalized psychological distress [15; 16].

The foundation of the published evidence available for cultural consonance rests on the cardiovascular health and elevated blood pressure, and the effects are particularly strong for the domains of social distinction and affiliation [14; 15; 16]. The results are more interesting even if somewhat incomplete for mental health, as for the most part only the relationship between the individual consonance and negative mental health has been assessed. Higher cultural consonance in the cultural domains of lifestyle, national identity, food and social support was associated with lower psychological distress in several samples from the U.S. and Brazil [16]. In terms of negative mental health outcomes (measured as depressive affect by using Beck's Depression Inventory), cultural consonance had an inverse effect on depressive symptoms independent of the occurrence of stressful life events (a well-known risk factor for depression) in a Brazilian sample, and the effect was detectable after 2 year test-retest period (for example, [17]). In other words, there is evidence that the individual deficit in cultural consonance increases likelihood of negative mental health. The picture appears to be more complex with respect to explaining the effects of cultural consonance on

positive mental health (subjective well-being, SWB), as it cannot be satisfactorily predicted by cultural consonance alone [30; 31; 32].

Furthermore, the mediating effects for social support have been found: in a study of a Black community in Alabama, under the social change social support from kin worked as a buffer for the older informants while non-kin (peer) support worked for the younger participants [7]. It would be interesting to explore what other buffering factors exist for low cultural consonance, and how effective they are at providing protection against the distress.

Methodological choice and sampling sites

Cultural consonance is a quantitative model which mostly collects and relies on quantitative data; qualitative data is also collected but very briefly and their role in construction of cultural models is described as rudimentary. During the past few years cultural consonance research has been using sequential mixed designs while continuing to employ extensive direct medical measurements, including blood pressure and more recently DNA samples [17; 18]. Overall, of late cultural consonance inquiries are moving in the explicitly biological direction, on the border with genetics [19].

As such, cultural consonance model has operationalized the mismatch between the cultural standard and the individual behavior as reflected in lifestyle. It therefore only uses the material elements of lifestyle (possessions, kinds of foods, and items of prestigious consumption that designate the cultural meanings of a “good life”) to measure the degree to which one is consonant with the society.

The data typically come from the urban areas in the American South (Alabama) and Brazil where William Dressler and his co-authors work and/or conduct ethnographic fieldwork. The process of data collection is described as a brief qualitative reconnaissance followed by a quantitative survey in which the data are extracted by means of stimuli in English (in the U.S.) or Portuguese (in Brazil) languages.

Future directions

There are still a few conceptual problems that are left without attention in the current formulation

of the model. For example, we know that, according to Dressler's findings in the U.S. and Brazil, a mismatch between the standard and one's lifestyle is likely to result in suboptimal health outcomes physically and mentally. We do not know, however, if it will be the case in different societies (i.e. less stratified, more secular, less individualistic, more protected by the welfare state etc.). Nor do we have any information whether there are any significant gender differences in cultural consonance and if so, what patterns it creates in different societies. It is also unclear what will happen if an individual whose behavior does not match a society's standard is not culturally competent (for instance, immigrants, poorly enculturated individuals lacking consistent ideas about how the society works, culturally estranged persons etc.). The model does not consider the possibility of any buffering effects other than social support (e.g., personality traits fostering social living) and coping strategies as possible factors intervening in cultural consonance and diminishing its direct effects. Finally, – and it is perhaps the most complex problem, – we do not know about the actual mechanism of cultural consonance, and, because of that, we are unable to account for the degree to which culture and genetic predispositions affect one's (negative) response to the culture-lifestyle mismatch. These are some of the directions in the cultural consonance research that could come to bring the model to further fruition and generate further useful results.

Culture is now recognized as a powerful stressor within sociological, psychological, anthropological and medical literatures [2; 19]. Despite the widely circulated ideas about the interference of cultural variables in the research on health, the extent and exact mechanisms of their participation in psychological processes evade most large-scale studies and are not addressed directly (cf. [25]). Exploration of the ways cultural prescriptions modify our mental habits, emotional needs and their expression in behavior to affect the quality of life is one of the most intriguing directions in psychological and medical anthropology and sociology of health and illness. I conclude with the hope that more empirical research will follow to clarify the relationship between the society and individual health, and the mechanisms by which one affects the other.

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Мальцева К. С.

ТЕОРЕТИЧНІ ЗАСАДИ МОДЕЛІ КУЛЬТУРНОГО КОНСОНАНСУ

Стаття пропонує оглядовий аналіз однієї з найбільш ефективних теоретичних побудов у сучасних соціальних дослідженнях біомедичного напрямку, що стосуються взаємин між суспільством та здоров'ям, – моделі культурного консонансу. Сформульований Уільямом Дресслером у результаті 20-ти років емпіричних спостережень у галузі нерівності у здоров'ї (health disparities) у Сполучених Штатах та Бразилії, культурний консонанс стосується негативних наслідків у здоров'ї індивідів, нездатних реалізувати суспільні стандарти у своїй поведінці чи способі життя. Публікація розглядає інтелектуальні витоки цієї теорії, її основні суттєві висновки на момент сьогоднішнього та сучасні напрямки досліджень, що спираються на модель культурного консонансу.

Ключові слова: соціологія здоров'я, прояви соціальної нерівності у здоров'ї (health disparities), теорія, культурний консонанс.

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АГЕНТНЕ МОДЕЛЮВАННЯ: ОСНОВНІ ІДЕЇ І ПЕРСПЕКТИВИ

Агентне моделювання є сучасним методом вивчення соціальних процесів, який дозволяє аналізувати зв'язок між поведінкою агентів на мікрорівні та її наслідками на макрорівні. У цій статті аналізуються основні ідеї, принципи побудови моделей і наводяться приклади реалізації агентного моделювання для вивчення деяких суспільних процесів. Ми доходимо висновку, що агентне моделювання є перспективним методом, який дозволяє глибше розуміти і пояснювати соціальні процеси.

Ключові слова: агентне моделювання, агент, середовище, правило.

Побудова пояснювальних і прогнозних моделей є одним з найбільш перспективних і корисних інструментів вивчення соціальної реальності. Майже в абсолютній більшості випадків, виходячи з етичних і прагматичних міркувань, проводити експерименти на реальних людських спільнотах для перевірки своїх теорій соціолог не має можливості. У цьому контексті методи моделювання є просто необхідним інструментом з «арсеналу» вченого-соціолога. Вчені, які присвятили свій час вивченню соціальних процесів, досить давно і небезуспішно виявляють інтерес до методів моделювання. Класичними, наприклад, є моделі системної динаміки, які роз-

робляються інженером Дж. Форрестером з 1960-х років [6], або модель сегрегації, запропонована економістом Т. Шеллінгом в 1970-х роках на основі клітинних автоматів [14]. У випадку вітчизняних вчених, наприклад, варто нагадати про експерименти з моделлю «Соціон» [2], спроби побудови моделей під керівництвом М. Амосова [1; 5], імітаційну модель відтворення трудових ресурсів «Труд-1», розроблену В. Паніотто і Л. Фінкелем для населення Києва у 1980-х роках [3]. Починаючи з 1990-х різкий прорив і розвиток у сфері комп'ютерних технологій і програмуванні обумовив і стрімкий розвиток методів моделювання, зокрема і в соціальних науках.