HOW DO ROMANTIC RELATIONSHIPS IMPACT MENTAL HEALTH? THE ROLE OF TRADITIONAL VALUES-A CROSS-CULTURAL COMPARISON

A dissertation submitted to Kent State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

by

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CHAPTER I

INTRODUCTION

Background and Statement of Research Question

Romantic relationships are one of the major parts of life which can greatly influence an individual’s mental health, especially college students just entering into early adulthood and having started exploring such relationships. How this influential process happens, or the mechanisms in this process deserve more research attention, however.

Since the 1970s’, there has been a large body of research examining how romantic relationships, marital or non-marital, can affect women and men’s mental health, with mixed results and continuous debates (e.g., for marital relationships, see Gove & Tudor, 1973; Marks & Lambert, 1998; Pearlin & Johnson, 1977; Umberson, 1992; Umberson et al., 1996; Aneshensel, 1992; Rosenfield, 1999; for non-marital relationships, see Connolly et al., 1999, 2004; Joyner & Udry, 2000). Although research in this area of study has grown significantly, questions as to whether men benefit more from marriage or non-marital relationships, or even whether non-marital relationships benefit or harm mental health cannot be answered for sure, with the picture becoming more complicated for different demographic groups (race, gender, age).

Simon and Barret’s (2010) work reviewed this situation and conducted an empirical study examining the different mental health impacts of non-marital romantic relationships on young adults which fills a gap of previous literature almost exclusively focusing on adolescents. Their results showed that break-ups and
involvement in relationships impact women’s mental health more than men’s even though they also found that another two dimensions of relationship quality (support and strain) affect men’s mental health more than women’s, even when men and women’s differential expressions of mental health are taken into account.

The basic theories they offer to explain these results are socialization and structural-based economic inequality, which claim that both socialization process and gendered inequality in economic power make women attach greater importance to romantic relationships for identity and self-worth than men. However, the further question should ask exactly what factors or mechanisms in socio-cultural and structural processes might explain such gender differences. A test of these mechanisms is beyond the scope of Simon and Barret’s (2010)’s research, but it serves as the focus of the research being proposed here.

The purpose of this study is to examine one of the social psychological mechanisms along the line of self-meaning studies through which romantic relationships affect mental health, that is, traditional values in the context of romantic relationships. More specifically, I examine how those internalized values as a product of both socio-cultural and structural processes moderate the effects of romantic relationships on college students’ mental health.

There are three levels of objectives in this study. The first one is to explore the role of traditional values in explaining individual differences in mental health. Individuals who hold those values to different extents may tend to interpret their relationship events in different ways and thus have different mental health outcomes. The second is to explore possible gender patterns. To be specific, although such relationship values exist in both women and men’s self-concepts, they are
especially central and constraining to women’s self-concepts thus there might be a
gendered pattern in the association between relationships and mental health which
could be explained with gender differences in traditional values. In other words, to the
extent which those gendered values may prescribe the different meanings women and
men attach to their romantic relationships, they may impact how women and men
react differently to the stress resulting from these relationships and thus lead to gender
differences in mental health outcomes. Empirically, this gendered pattern may be
reflected in three ways. One is the differed frequencies women and men endorse
certain values, and the other is for those values women and men endorse at the same
level, the mental health impacts may be different. Those gender differences in
traditional values may lead to gendered pattern in mental health in romantic
relationships.

Finally, the last purpose is to explore possible cultural patterns by comparing
a more “traditional” and a more “liberal” country—in this study; that is, comparing
results from America and China. Specifically, each of the above questions will be
studied within each country first and compared with each other in order to see
whether there is a national differences in mental health after relationship events and
whether such differences could be explained by differences in traditional values.

Survey methods will be used to collect data from an American and a Chinese
university. The scale for measuring traditional values will be constructed and
pilot-tested. The strength of this data collection method is that it is specially designed
for this research purpose. The greatest weakness, however, is that only convenient
samples will be drawn and therefore the generalization of the study results is limited.
The details about the methods and data collection will be discussed in Chapter 3.
Theoretical Perspectives

The research question is rooted in a synthesis of three broad theoretical frameworks: Social Structure and Personality (SSP: House 1977, 1981), the Stress Process Model (Kessler 1979; Pearlin, et.al. 1981), and Structural Symbolic Interactionism (SSI) and its deriving identity theories (Stryker 1980; Burke 1991). The synthesis is not a completely new idea but derives from the inherent connections among the three frameworks. I will briefly discuss these theoretical approaches and their connections, then address how they could be applied in framing the theoretical basis of the proposed research.

A Synthesized Theoretical Framework

House (1977) firstly identified “psychological sociology” or “social structure and personality” (SSP) as the third face of social psychology being featured with emphasis on the connections between macro-social structures and individuals and quantitative survey methods. He contended that this face is worthy of more attention since it balances the increasingly micro social emphases of the other faces. House (1981) further specified the three principles of conducting SSP research: (1) “the component principle” which requires the researcher to understand and identify “the nature of social structure, position, or system in question”; (2) “the proximity principle” which specifies the “intimate interpersonal interactions” through which structural components “impinge directly on individuals”; (3) “the psychological principle” which requires the researcher to “specify and test when, how, and to what extent macro social phenomena and proximal micro social phenomena and stimuli
they produce (or influence) affect individual personality or behavior” (House, 1981, p540-541). Because of its explicit attention to macro social structure and how it impacts individuals through everyday life, SSP is taken as a “quintessentially sociological approach to social psychology” (Kohn, 1989).

Symbolic interactionism by Mead (1934) and especially Blumer (1969), however, underplayed the role of the stable and existing social structure in constraining human actions. For Blumer (1969), the ongoing process of social interaction in itself is a “formative process” with meaning being subject to continuous interpretation and reformulation by human actors in a situation. Further, Blumer’s overemphasis on human agency is also reflected in his interpretive methodological orientation.

Although SSP and traditional symbolic interactionism (e.g., Blumer, 1969) have different treatments of the relationship between social structure and individuals, SSP and SSI since Stryker (1980) have generated more inherent affinity with each other. While Styker’s formulation is limited by the role-identity concept; social structure for him is conceptualized at interactional level as “being made up of interconnecting positions and associated roles, each linked through the activities, resources, and meanings that are controlled mutually or sequentially” (Stryker and Burke, 2000, p. 289), he never denies the theoretical potential to include in SSI the larger structural components examined in SSP, because larger social structures can constrain resources and cultural definitions available in social interactions.

Just as Stryker (1980) argued, “there is no reason why a symbolic interactionism must fail to incorporate macro-sociological, structural variables even if it provides no explanation for the relationships among such variables” (p. 151). On
the other hand, SSP researchers (House, 1977; House and Mortimer, 1990) emphasized that the links between macro-structures and individual processes could be better understood by paying attention to such meso-level perspectives as symbolic interactionism labeled as “sociological miniaturism” (Stolte, Fine, and Cook, 2001; Harrington and Fine, 2000).

Based on the integration of such large theoretical frameworks as SSP and SSI, the stress process model is specifically employed to address the social structural patterns of mental illnesses and the proximal processes through which social inequalities impact mental health outcomes. Pearlin et al. (1981) first used the label “the stress process” to conceptually organize varied components of social stress into a coherent process, which has dominated and is further developed by many scholars in this research area (e.g., Aneshensel and Phelan 1999; Aneshensel, Carol S. 1992; Thoits 1995).

Specifically, three major conceptual domains are of focus within the stress process model, i.e., “the sources of stress, the mediators of stress and the manifestations of stress” and are interconnected in this process (p. 337). Along the stress process outlined by Pearlin, research unfolds along two dimensions attempting to explain the correlation between social structures and individual mental health. The first dimension focuses stress exposure (life events, chronic strain, daily hassles etc.) and its social origin. And the second one is concerning the social factors affecting individual vulnerability (e.g., social and psychological coping resources: social support, self-esteem and self-efficacy; coping behaviors and strategies such as emotional-focusing and problem-focusing coping) which may mediate or moderate the impacts of life stress.
Regarding the inherent connections between the stress process approach, SSP and SSI, on one hand, the stress process approach not only focuses on the mediation and moderation mechanisms of stress processes but also emphasizes the distinctive interests of sociologists in the fundamental causes of the stress process (i.e. the social and economic statuses) (Pearlin 1999). This research interest is reflected in stress research by trying to connect each domain of the stress process with social structural factors.

On the other hand, the focus of SSI and its identity theories (Stryker 1980; Burke 1991) on self-related processes such as the identity-control process is combined with the Stress Process model, generating a new line of stress research in an attempt to explain mental health outcomes from identity-processes. This line of study focuses on the role of self and identities in moderating the meanings of related life stress and thus regulating the stress outcomes, which is often referred to as the meaning study in the stress process approach.

In sum, although I emphasize the importance of meaning and human agency in this process, the importance of social structure and culture as specified by SSP and implied by SSI is also a the major concern of this study. The Stress Process model, especially its line of meaning studies, in fact reflects an integration of those theoretical concerns in research of mental health issues. Therefore, a synthesized theoretical approach of SSP, SSI, and stress process model as the basis of this research is preferred and discussed as above, with a hope to offer a better explanation between self and society reflected in this empirical research.
Theoretical Application

Specific to this study, the synthesized framework is used to explain the stress process mechanisms in romantic relationships, which on one hand emphasizes the meaning-interpretations of stressors based on the theories of value identities and role identities, and on the other hand considers the self-meaning processes within a broader cultural and structural context. That is, the study focuses on the self-meaning processes after relationship events (e.g., breakups) happen and on how such subjective processes may be shaped by interactional processes and larger social structural and cultural factors.

SSP works as a general and overarching framework guiding the research logic. First, I conceive of personal value and role identities and relevant subjective stress evaluations and mental health outcomes as individual-level processes, which mainly involves the psychological principle of SSP. At the individual level, the concepts of value identity (Gecas, 2000) and role identities (Stryker, 1980) are conceived of as the core aspects of self which impact the stress process by influencing personal meaning interpretations of life stress. Of course, individual-level meaning interpretation must happen in proximal and interactional environment and be interwoven with interactional level meaning negotiations. More detailed discussion about the properties of value construct and the relationship between value and role/group identities will be in the literature review of value and identities in Chapter 2.

Second, at the proximal or interactional level, the individuals’ experience of the breakup, involvement, strain, and support from romantic relationships involves interpersonal social interactions and related meaning exchange and negotiations.
influenced by both individual-psychological level processes and larger social contexts. More specifically, at the process (proximal) level, how self-meanings prescribed by personal value identities and regulated by interactional meaning negotiations moderate the associations between relationship stressors and mental health outcomes is investigated based on theoretical considerations deriving from Burke’s identity control theory (ICT: Burke 1991), its extension by Large and Marcussen (2000) (i.e., identity discrepancy theory: IDT), and the line of stress research focusing on the self-interpretive meaning of stress (e.g., identity-relevant hypothesis) (see Simon 1997; Simon and Marcussen 1999; Thoits 1995). A basic point of this line of reasoning is that the discrepancies between self-standards and self-relevant perceptions of life stressors here such as breakups in relationships can impact personal evaluations of stress meanings and thus lead to different extent of mental health outcomes. Detail discussion about this meaning moderation process in the stress research can be found in Chapter 2.

Lastly, at the structural level, according to SSP and SSI, gender and culture are conceived as the structural context in which stress and self processes operate. On one hand, gender, works as a social institution, to pattern the socialization experiences of girls and boys and thus to help form the division of their gender-related values on romantic relationships. On the other hand, culture, another major source of values, usually is treated as another type of component level variable. Meanwhile, gender and culture not only help shape the existing values of adults but also constitute the current social contexts in which those personal values work to influence life stress processes. In other words, values, on one hand, are especially shaped and internalized by socialization processes before adulthood and thus become reflections of structural and
cultural constraints one was born to face. On the other hand, values for adults, working as autonomous internal resources (or human agency) to guide individual behaviors and meaning interpretations, are still influenced and constrained by current social structural and cultural contexts one is facing, especially through interactional processes, such as meaning negotiations. Therefore, the three levels of SSP framework reflected in the Stress Process in fact permeate into each other to form an inseparable process in reality.

Summary of Theoretical Construction

In sum, the above theoretical reasoning and construction can be summarized as the following three research questions motivating this study (the literature review in Chapter 2 will be organized according to these three questions):

1. How can values be conceptualized as the core aspect of self-concept and further impact the Stress Process? Discussion of the value construct and its status in self-system and potential for influencing mental health will be discussed in the first section of Chapter 2.

2. Furthermore, what kind of relationships between value identities and related role commitment and salience might exist will be briefly discussed in order to further confirm the core status of values in self-system. And last, specific traditional values existing in romantic relationships will be introduced based on gender and cultural differences in such values. Based on stress process research, the focus of this study is how self-meanings specified by value identities moderate the relationship between relationship stressors and mental health. The line of meaning studies in stress
research and the possible functioning process of traditional values in the Stress Process will be discussed in the second section of Chapter 2.

3. Considering structural and cultural contexts, whether there is any structural (such as gendered) and cultural pattern in those relationships and whether those patterns can be explained by personal differences in traditional values will be finally discussed.

In essence, the core of this theoretical construction is mostly based on Burke’s ICT and further on the logic of IDT, belonging to the meaning study tradition of stress research, incorporating larger social structure and culture as guided by SSP and SSI framework. The unique point is that I attempt to explicitly put self-defining values to a fundamental place in self-system based on my assumed conception of self and test their impacts on mental health directly. What is important in this study is to detect the effects of self-values as the core of self or bases of role identities on the mental health outcomes when value-discrepancies happen.

The conceptual model describing the theoretical construction is presented in Figure 1, in which two ways of interpreting the whole process are integrated, i.e., mediation and moderation. The full lines represent the mediating process through which cultural values for the self shape the meanings of romantic relationship, such as the meanings of a breakup for self, and thus further impact self-esteem and mental health outcomes. The dotted lines, on the other hand, represent the moderating process through which values moderate the relationship between romantic relationships and mental health outcomes, which is an indirect way to represent the self meanings prescribed by personal values. Such a moderation process in stress research is often evaluated even more indirectly from the interaction terms between
structural variables such as gender and stressors. However, the moderating effects of the two structural variables (gender and culture) are in fact explained or specified further by the social psychological variables here, i.e. values (and relevant self-meanings). It is noted that self-esteem here could be both a mediator and a moderator, but I will conceive of it as a mediator in this research because self-esteem should be reasonably affected by (and thus correlated with) relationship events.

Generally speaking, the major relationships in this conceptual model to be tested will focus on moderation processes (dotted lines) rather than mediation processes since the most direct examination of self-meanings will need qualitative studies. In this study, the meanings of relationship stress will be inferred based on the examination of the moderating effect of traditional relationship values. Survey data and structural equation modeling (SEM) method will be used in analysis. The detailed discussion about the analytical model and strategies will be presented in Chapter 3.

Study Significance

Although the research questions are based on the theoretical reasoning discussed as above, another unanswered question is why choose values as the fundamental aspects in specifying self-related meanings, and further, why choose traditional male-female relationship values as the empirical cut-point to investigate the research questions. The answers to those questions will clarify the study’s theoretical and substantive contributions.

First, although values are not the only important social psychological element in the self-system and a series of research has already explored the self-interpretive
meanings based on different aspects of self such as identity salience, the key reason to specify meanings based on self-values lies in that no current research specifies meanings in terms of their systematic connections with social structure and culture. For example, ICT and IDT all focus on the cognitive process of identity verification. Simon and Marcussen (1999) tested the moderating effect of identity meanings and beliefs, but did not connect those meanings and beliefs systematically and empirically with socio-cultural variables. Some research does imply that the structural differences in role identity meanings may explain such structural differences in mental health. The different specification of meanings and the lack of empirical tests, however, constrain such research explorations. I expect that introducing values and the concept of value identities allows us to explain both individual and structural and cultural differences in mental health because values are fundamental to both culture and adult individuals through long time socialization processes.

Second, the choice of studying values is based on its importance in the self-system and its intimate connection with other social identities. This study may help us integrate personal and social identity and come to a more complete understanding about the self and about the relationship between society and the self. Furthermore, this study is an effort to renew the attention in sociology and even psychology to this understudied construct. In addition, although value differences might be ultimately reflected in the differences of identity salience and thus one could use identity salience level to determine the meanings of life events (e.g., Thoits, 1995), introducing values not only adds more qualitative dimensions into this line of research, but also helps clarify the whole process from structure variables to individual outcomes through which self-values work. Salience difference may not be so sensitive
to mental health outcomes because for identities with the same level of salience that are based on different types of values, the impact salience on relevant events may still differ. Furthermore, the same value identities could be verified through different role identities and thus the study of value-based meanings will help establish a more general theory of meanings and mental health.

Third, the main reason for studying relationship values is that such values have very limited corresponding role identities to express themselves so that this might be a good choice in order to detect the association between values and role identities or the further mechanisms through which central values work. Values are hierarchically prominent in self-concept and thus could be expressed in multiple role behaviors. For example, achievement value may be expressed in work identity, student identity, and even parents identity etc. Values, like chastity, however, could only be expressed in romantic dating or marriage identities. Meanwhile, it is easier to detect the impact of culture and gender on such values than on other more universal values like achievement. Therefore, the substantive choice of relationship values in this study could be justified as appropriate to examine the proposed theoretical arguments. Lastly, the college student samples and the significance of romantic relationships on their mental health also are important motivations for such a choice.

To sum up, this study may contribute to: (1) a renewed research attention to value study in sociology; (2) the theoretical exploration of the relationship among value identities and role identities and the integration of the three aspects of self; (3) linking social structural and cultural context with individual outcomes through a more refined specification of self-related meanings via value identities; (4) finding important social psychological mechanisms affecting mental health outcomes in
romantic relationships beyond simple descriptive results such as women are more
depressed than men after break-ups; (5) a possible application of the research would
be providing college advisors with information that could help develop more effective
intervening strategies or help college students help themselves by understanding the
reasons for their varied emotions experienced in romantic relationships in order to
improve mental health.
Fig. 1 Theoretical Model

a: R.R. refers to romantic relationships, including events and strains in relationships.

1 It is noted that this is just a model which makes theoretical sense and that not every variable in this model could be examined carefully in a quantitative way. The focus here is to examine the role of value variation in the mental health for people who are/were involved in romantic relationships, and to compare the gender and cultural differences in this impact, with multiple analytic strategies. This figure could make theoretical sense in two ways: mediation or moderation, which are represented separately by full line and dotted line. Not all the possible relationships are marked in the figure.
CHAPTER II

LITERATURE REVIEW

Values, Self, Identities and Traditional Relationship Values in China and America

Value Concept and Its Role in Self-System

Value construct

Value, as an old concept in philosophy and social science research, has been defined in multiple ways. (e.g., Smith 1776; Marx 1848; Carey 1858; Case 1939; Kluckhohn 1951). From Alport and his colleagues (1955, 1960), statistical measures of values in psychology began to surface and take shape (Kulinch and Zhang 2010). After that, several influential works about the definition and measure of value as a construct emerged from multiple disciplines in the social sciences. Rokeach’s (1973) defines values as “enduring beliefs that a specific model of conduct is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (p.5). He also differentiated two major types of values (i.e., instrumental and terminal values) and developed a rank measure of values and value systems. It is noted that Rockeach (1973) already discussed the concept of moral values, which he emphasized has an “interpersonal focus” and “arouses range of conscience or feelings of guilt for wrong doing” (p.8).

Another influential work comes from Schwartz’s value theory (1994). Schwartz and Bilsky (1987, p. 551) summarized five features common to most definitions of values. “According to the literature, values are (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d)
guide selection or evaluation of behavior and events, and (e) are ordered by relative importance.” Specifically, in Schwartz’s theory (1994) value was defined as “desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity” and “conceptions of the desirable that guide the way social actors (e.g., organizational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations” (p. 21 & 24). Recently, Gecas (2000) summarized the definitions of values from Rokeach, Schwartz and Bilsky, and Shamir and defined values as “conceptions or beliefs about desirable modes of conduct or states of being that transcend specific situations, guide decision making and the evaluation of events, and are ordered by relative importance” (p. 95). An additional but similarly important point about the value construct is that it is a social psychological concept merging “cognitive, affective, and directional aspects” (William 1979, p16). Similarly put by Hitlin and Piliavin (2004), “Values are evaluative beliefs that synthesize affective and cognitive elements to orient people to the world in which they live” (p. 362).

For psychological social psychology, the intra-psychic or motivational properties of the value construct have received more research attention. Earlier psychologists, e.g., Allport (1955) and Smith (1969) began to pay attention to the importance of value in personality systems and in behavior shaping. This area of research then went somewhat dormant and did not become prosperous in both sociology and psychology until this decade. Rohan’s (2000) review signals the revived interest in values. He suggested that the value construct could be viewed as a “stable meaning-producing superordinate cognitive abstract” (p. 257). Further, he attempted to sort out the definitional inconsistency in value theory and research and
suggested that five aspects of the value construct may lead to such inconsistency and confusion. These five aspects include (1) value as both verbs and nouns; (2) the differences between the concepts of value priority, value types and value system; (3) value priorities concerning “want” or “ought”; (4) individuals’ personal value system versus their social (or cultural) value systems; (5) the differences between value systems, worldviews, and ideologies (Rohan 2000).

Among those aspects, it is noted that the conceptual confusions of value study arising from the second aspect has been clarified by Schwartz’s value theory (1992, 1994, 1996) in which a universal human value system is found across multiple cultures. Such a universal human value system is comprised of 10 value types (achievement and power, universalism and benevolence; hedonism, stimulation, and self-direction, security, conformity and tradition) with a two-dimension structure. Individuals form such universal value systems based on their social environment but differ in the relative importance they ascribe to each of the value types comprising this system because of their particular personal experience and personality attributes. Therefore, Rohan (2000) concluded that “people differ only in terms of the relative importance they place on a set of universally important value types” (p. 258).

Verplanken and Holland’s research (2002) also suggested that the centrality of a value to self is a variable and the value-congruent behavior is a function of this variable.

One more point relevant to the study here concerns the fourth aspect. That is, this study focuses on individuals’ personal value priorities and systems rather then their perceptions of social and cultural values even though the two have inevitable connections and sometimes they can even be the same. The personal value priorities, however, are those individuals have internalized through long time socialization
experiences and use to define their unique sense of self, while the social value system can be quite distant from such sense of self. It has to be admitted, however, that the reconciliation between the two is a lifelong process (Rohan, 2000, p. 273).

In the review of value concept by Hitlin and Piliavin (2004), it is suggested that the concept of values has been used cursorily in sociological research and often used to refer to multiple social psychological phenomena. To further clarify this concept, they differentiate values from the concepts such as attitudes, traits, norms, and needs, in which the relationship between values and attitudes is of special importance since a lot of research treats them as the same constructs and even suggests the research of values could be replaced by that of attitudes. Earlier, Rockeach (1973) already did this clarification work and emphasized the important differences and “functional interconnections” between these two concepts. Basically, Rockeach viewed values are more abstract, more central in personality, and more prescriptive for behavior and thus much less in number than attitudes. However, attitudes could also be taken as a function of higher relevant values, which will be activated when specific attitude issues are raised. Later and present work expresses similar viewpoints. For example, Rohan (2000) agreed with such abstract-specific division and proposed that such division between value and attitude may revive the study of the value construct. Miao et al. (2003) suggested that attitudes could be toward more concrete objects or social issues while values are all about abstract ideals such as freedom, equality, chastity etc. They also pointed out that values are more prescriptive for individual’s behavior than attitudes. You could feel obliged (but also voluntarily and even unconsciously) to behave in a way consistent with your values since values are thought to be “more central to issues of personhood” or in a higher
order in one’s “internal evaluative hierarchy” than attitudes (Hitlin & Piliavin, 2004). Miao et al. (2003) further suggested that besides such differences values and attitudes share some similar attributes. Those two constructs are both evaluative, subjective and linked to each other. In research about the relationship between values and attitudes, more attention is focused on the impacts of values on attitudes although the reverse direction could also happen (but much more difficult). Change in an abstract value is found to powerfully affect change in attitudes toward a series of related objects and issues or, in other word, attitudes are thought to be a type of expression of values (Katz, 1960; Miao & Olson, 2000). In fact, I agreed more with Rockeaceh’s (1973) points on attitude change. Change in abstract values per se may be too difficult to achieve for an average adult. However, since a specific attitude object serves as an instrument for attaining certain value, when such “perceived instrumentality” of the attitude object changes, then change in the attitude toward this object is supposed to happen. Similarly, when this attitude is linked to a more important value, it will become more resistant to change (p.18).

Kulich and Zhang (2010, p.244) reviewed the development of value conceptions and concluded that there are several points in value conceptions that are less controversial, which may be borrowed as a good summary about what have been discussed so far. These include (1) personal values, not equivalent to cultural or national personalities, are “active internalization and individualized construction of a culture”; (2) as previously discussed, values are at a higher abstractive level than attitudes although attitudes could be value expressive; (3) values are evaluative (laden with affective and cognitive components) and differ from generalized beliefs. The definition of value that I will take in this study will be mostly at personal level, i.e.,
personally internalized values. However, in the last part of the study dealing with cultural and gender differences, personal value scores would also be compared at aggregated level.

*Value’s role in self-system*

Regarding the places values occupy in the self-system, two perspectives are discussed. The first is that values could become one of the bases of self-conception or identity just as roles and group memberships. However, the relative importance and place of values compared to other components in self-system is not emphasized and investigated. Gecas (2000) discussed the importance of values for self-conception in terms of “values give meaning, purpose, and direction to our lives” (p94). He argued that values can be used as the basis of identities as roles or groups memberships since “value-identities” possess the same sociological importance as role and group identities in “linking individuals to cultural system” (p.94). Value identities arise when individuals are committed to the values they hold and conceive of themselves in terms of those values (Gecas, 2000, p.96). He further argued that it is those value-identities, rather than social and cultural values per se that guide behavior and evaluation of events. Other researchers also proposed the intimate relationship between values and individual personality (or the self). For example, Bilsky & Schwartz (1994) explicitly tested the empirical relationships between values and personality and suggested that they are connected with each other in a predictable way. They also argued that “values are a distinct type of disposition…conscious goals evaluated in terms of importance and experienced as demands one places upon oneself, as part of one’s self-identity” (p. 178).
The second point of view places values as the basis of core self, which offers the most fundamental meanings and guide the enactment of specific role and group identities. As Hitlin (2003) argued, values constitute the “core of personal identity” which is the core of the self, resulting in personal experience of a unique and unified self. According to him, values are transsituational and “enacted and articulated situationally through the intermediate development of various role-, group- and value-identities” (Hitlin, 2003, p122). In Erickson’s (1995) conceptualization of authenticity, self-values are also placed into a central role in the self-system and are conceived as the basis of a “true self.” She further discussed the implication of such a conceptualization for identity theory and explicitly put self-values in a more fundamental place in the self-system. Self-values provide meanings for the maintenance of a perceived “true self” which are more fundamental and transsituational than meanings related to a specific identity (e.g., identities based on roles or group membership). She further posits that “our commitment to those identities that best enable us to express our most important self-values is one of the ways we are able to fulfill these fundamental commitment to self” (p134). Similar view was expressed in Lydon’s schema of self-commitment relation that “we are especially committed to goals and projects that express core beliefs, values, and identities” (p196). Rokeach (1973) and Feather (1995) also agreed with the importance of central values for self and argued that those central values are strongly emotion-laden. “Individuals defend them in various ways and react with feeling when their values are fulfilled, challenged, or frustrated”, as put by Feather (1995, p. 1135). Seligman and Katz (1996) pointed this out again that the stability of values and value system (the rank order of a person’s value priorities) is supported by its importance to
the integrity of self stating “values are the standards that self uses to judge and justify itself; and the stability of value systems is necessary to express the coherence of the self over time and situations” (p. 55). Turner (1976) suggested that among various elements in an individual’s self-concept some are embodiment of real or true self with great significance but others are peripheral and of smaller significance. Central values, as discussed by the above researchers, take such importance for self and become the basis of “the real self”. Although the root of those values are traceable to cultural and social structural environment, when being fully internalized into individuals’ self and personality, they function automatically and naturally as internal motivations just as needs for attitudes and behaviors (Feather, 1995).

*The Link between Personal Identity (Values) and Role Identity*

Regarding the above two types of viewpoints on the role of values in self-system, the second type which holds values in a central place in the self is mostly useful in this research. It furthers the discussion of linking value-based personal identity and role identity as proposed by Stryker and his colleagues (1980). As mentioned above, Hitlin (2003) proposed a framework to integrate personal identity with social identity (based on roles and group memberships) by conceptualizing values as the core of personal identity. When discussing the concept of personal identity, he said that personal identity is “a sense of self built up over time as the person embarks on and pursue projects or goals that are not thought of as those of a community, but as the property of the person…emphasizing personal autonomy (agency) rather than of communal involvement…it is experienced by individuals as core or unique to themselves in ways that group- and role-identities are not” (p.118).
Burke and Stets (2009) offer a similar argument about the role of personal identity in self system. They suggested that personal identities are more likely to be activated across situations than role identities and the verification of personal identity leads to sense of self-authenticity (something related to core self). As put by them, “persons don’t ‘put on’ and ‘take off’ those characteristics (personal identity) as they might ‘take on’ and then ‘exit’ particular roles” (p. 125). Of course, the person identity is not separated from role identity. Rather they can be merged when effects of role socialization permeate into personality formation as suggested by Turner (1978, p. 1).

Hitlin (2003) further suggested that both identity theory and social identity theory did not succeed in accomplishing such an integrating task since they either ignore the personal side of self and emphasize only its social side or take them as the two isolated poles, although there is still some advocacy in this direction as put by Stets and Burke (2000) that “to obtain a general theory of the self, we must understand how group, role, and person identities are interrelated” (P.228). To achieve such integration, Hitlin (2003) argued that the value construct has such a potential since it is both internalized as defining characteristics of individual personality and meanwhile socially patterned. The studies of values at the aggregate level show that they are a key feature of a culture. Therefore, conceptualizing values (especially central values, that is, values with high personal priorities, noted by the author) as the core of personal identity would allow the “permeability” between personal identity and social identity. He further pointed out that “values are emotion-laden concepts of the desirable…developed around affective meanings appropriated to self” and that the incorporation of values into self-system help avoid “an over-cognitive approach to social identification process” (p.132). To test this theoretical argument, Hitlin (2003)
chose volunteer identity as an empirical cut-in point to examine its relationship with specific values. Using an adapted Schwartz value survey inventory, he found that the subjective importance of volunteer identity (measured by commitment to blood donor identity) is positively associated with self-transcendence values and negatively with self-enhancement values. Further, Hitlin (2007, 2011) specified his argument and incorporated values into the moral aspect of personal identity and argued that the verification of this self-aspect would lead to improved self-authenticity and self-esteem.

In my view, such a framework can even improve our understanding about the permeable relationship between society and individuals. For adults, personal values could become a reflection of personal agency and guide the individual’s choice of taking specific role/group identities, perceived core meanings of a role/group identity, subjective evaluation of overall role/group identity importance, and interpretation of role/group-related stressors and thus be related to mental and physical health outcomes and other inequalities. Meanwhile, values are shaped and patterned by culture and social structures. Therefore we can see clearly a circle from society to individual processes and back to unequal social structures and structured culture.

Based on Hitlin’s (2003) framework, specifically, this study will focus on role of value identities and explore how they could be linked with role identities theorized by Stryker (1980). In Stryker’s (1980) structural symbolic interactionism and identity theory, the concept of “role” (i.e., the behavioral expectations attached to social positions) was employed to connect individuals and social structure because of its “duality” nature (Stryker and Burke, 2000). Individuals define selves and others in terms of categorical roles, which become part of self-concept when role expectations
are internalized, i.e., “role identities”. Therefore, roles could be built up to form social structures, built down to form the content of self and thus becomes a link between social structure and individuals. To further specify these links, Stryker (1980) introduced the concept of “commitment” which could be taken as an operational definition of social structure in terms of social networks and used as the predictor of individuals’ role choice behavior through its impact on the structure of role identities (identity salience). Commitment in this literature is often measured at the level of role relationships, which is represented by “the extensiveness and intensiveness of the interactions in a social network to which one belongs by virtue of having a (role) identity” (i.e., interactional and affective commitment) (Owens & Serpe 2003, p. 87).

In sum, based on the conceptualization of central values as the core of personal identity and a major source of self-authenticity which require verification even stronger than specific role identities, I propose that there may be an association among self-values, relevant role identity commitment and salience as defined by Stryker’s identity theory, which will be empirically tested in this study.

To summarize the theoretical discussion as above, values or value identities in Gecas’s term or self-values for Erickson, are both characteristics of individuals and meanwhile shaped and patterned by social structure and culture. I believe the perspective proposed by Hitlin (2003) that values constitute the core of personal identity and the fulfillment of this value-based personal identity provides a source of self-esteem. Particularly, according to Schwartz and other psychologists’ research, those values used to define the unique sense of self (or so-called central values) are of special interest in this study. In addition, values need to be verified continually by

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2 Commitment refers to “the degree to which persons’ relationships to others in their networks depend on possessing a particular identity and role” (Stryker and Burke, 2000, p. 286).
performing social and role identities and by maintaining social relationships which are perceived to attain those values. Central values drive people’s cognitive and emotional evaluations for those identities and relationships, the development of commitment to them, and thus the mental health outcomes during acting out them. In the last section, the focus will be switched to the discussion of specific traditional values in romantic relationships across gender and nations.

*Traditional Values in Romantic Relationships: Cultural and Gender Differences*

*Cultural differences*

Most literature focusing on comparing attitudes and beliefs about romantic (and sexual) relationships cross-culturally found that Chinese people are more sexually conservative than Westerners (e.g., Higgins, Zheng, Liu & Sun 2002; Tang & Zuo 2000). Regarding the comparative research on romantic relationships between Chinese adolescents and their Western counterparts, Moore and Leung (2001) also expected that romantic attitudes and beliefs held by Chinese young people would be more conservative than those of young people from a westernized background (i.e., southern European, and Anglo-Australian backgrounds in this paper). They described romance and love in Chinese culture as “romantic conservatism”, which is “subordinate to the needs of the group (typically the family) and …bound by the appropriate and accepted social rules of the group” (Moore and Leung 2001, p.55). For example, they indicated that premarital sex is not regarded as appropriate and thus conservatism and restraint in the expression of sexuality is encouraged in Chinese culture, which may shape young people’s attitudes and behavior toward romantic love
(Moore and Leung 2001). Li et. al. (2010) found that Chinese culture influences adolescents’ romantic relationships to the extent that Chinese adolescents are less likely to be involved in such relationships than their same-age Canadian counterparts because Chinese parents may constrain their children’s involvement into such relationships to keep them focused on their study.

Compared to adolescents, romantic relationships of young adults (especially college students) may be influenced by cultural values and gender in a different way. Chinese parents usually will not restrain or even encourage their children in colleges to develop romantic relationships. Meanwhile, college students are more matured in their values and worldviews and thus more independent in navigating such relationship without so much control from parents as adolescents. Thus, the internalized self-values of college students may have strong influences on their attitudes and behaviors toward romantic relationships. Pan et al. (1994) attempted to systematically compare the traditional values of adults between China and United States in major social relationship areas (i.e., female-male relationships; family relationships; seniority and authority hierarchy; general interpersonal relationships). They suggested that the reason for organizing and analyzing values in terms of these major types of social relationships is that values guide people’s behavior and their ways of ascribing meanings in relationships so that values should be reflected in people’s everyday life of dealing with all kinds of role relationships. In terms of traditional values for female-male relationships, they asked questions about women’s chastity (premarital sex), cohabitation, pregnancy before marriage and women’s obedience etc. and found that generally Chinese respondents are more conservative than American respondents.
In addition to the influence from traditional values, Pan et al., (1994) also paid attention to the increasing influence of Western culture on Chinese young adults’ values regarding romantic relationships because this global trend is inevitably penetrating current Chinese society especially for college students who are always the precursors of accepting new culture. Just as described by Moore (1998), “University students, a kind of avant-garde segment of Chinese society, hold attitudes toward the West that are an especially complicated mixture of historical resentment, admiration, moral condemnation, and desire to emulate” (p. 279). Li et al. (2010) talked about “the increasing global trend toward adoption of Western norms in Asian cultures” and speculated that “Chinese youth are exposed to Western romantic norms through global media and they incorporate these media-portrayed values into their own lives, thus modifying the norms of their own culture” (P.118). In an investigation about the premarital sexual activities of college students (N=2050) in Beijing, Zhang et al. (2001) found that up to 41% of the interviewees reported premarital sexual activities, which might be higher in reality. Among those having sexual intercourse, only 69% had used condoms, which suggests the lack of sexual knowledge of college students and might imply that abortions may be also prevalent.

Some other scholars, however, proposed a more conservative view about this trend of Westernization and argued for the power of traditional culture. Chang, et al. (1997) investigated the influences of Western culture on Taiwanese youth in terms of increasing premarital sexual relations and premarital pregnancy and found that such influences are more obvious in the changes of women’s sexual mores and behaviors because “historically and culturally men in Chinese culture have always been more sexually permissive” and also because of the increase in women’s autonomy resulting
from more education and employment opportunities (p.266). The authors, however, also suggested that this “sexual revolution” is not a real one and still “reflect the pre-existing Chinese values due to the persistence of this core part of Chinese culture on marriage, family and female chastity” (p.266). Women’s sexual mores have largely not been changed because of the increasing influences of Western cultures even though a potential for future change may be implied (Chang, et al., 1997. p.280). Chang et al. (2003) suggested that traditional values in a modern society may adapt to the modernized environment but will remain to be “guiding principles” in people’s lives.

Pan et al. (1994) specifically discussed the cultural integration of current Chinese society and suggested that everyday interpersonal relationships in China are now influenced by three cultural value systems including “traditional Chinese orthodoxy, Marxism and Maoism, and Western influences” (p. 25). Communist government on one hand advocates equal status between women and men, and on the other hand still maintains the traditional values in terms of conservative female-male relationships. For example, even in today’s China, where premarital sex is relatively popular in some big cities, it is still not a “good” thing to say that in front of other people and still takes on the sense of moral judgment. They concluded that the differences in cultural values still exist between U.S. and China although both cultures are getting increasingly integrated partially arising from global media communication.

*Gender differences within each culture*

At a more abstract level, research has been done to examine if women and men differ in their value priorities across a wide spectrum of values within a universal
value system since different theoretical perspectives postulate inconsistent hypotheses. Both essentialists and role learning theorists suggest stable gender differences in value priorities while constructionist/interactionist theorists claim no such gender differences exist. Prince-Gibson and Schwartz (1998) suggested that the existing empirical research generates equivocal results about the gender differences in value priorities. Using Schwartz’s (1992, 1994) value survey, they did an empirical test with a representative sample of Israeli adults and found that there is no significant gender difference in the value priority for any of 10 different types of values.

Specific to gender differences in values related to romantic relationships, Cochran and Peplau (1985) found that women and men do not differ in their priority attached to attachment values, that is, women and men equally value both intimacy and personal autonomy in romantic relationships. However, in the area of traditional values in terms of intimate relationships, especially for traditional sexual values, gender differences are often found in research. For example, Pan et al. (1994) found that in terms of female-male relationship values men agree with premarital sex and cohabitation more than women and that both men and women agree with women’s chastity value to a similar extent. Ip Wan-Yim (2001) found that “Male students in comparison with their female counterparts had a higher level of agreement with premarital intercourse and the use of pressure and force in sexual activity.” Moore and Leung (2001) showed that men may be more “casual” toward relationships than women. Li, et al. (2010) compared Chinese and Canadian students’ involvement in romantic relationships and found that “gender moderated cultural differences, with Chinese girls least involved in romantic experiences” (P113). Chang et al. (1997) discussed traditional Chinese values in terms of gender and sexuality and offered
some explanations about such gender differences. They indicated that “sexual traditions in China have been characterized as patriarchal and men did enjoy more sexual freedom than women…” and that “the most powerful restriction on women’s sexual freedom was the institution of chastity” (p268).

Such a cultural emphasis on women’s chastity has a long historical root in China and is always taken as an important moral standard to assess a woman’s worth. Female chastity requires women to have sex with only one man in their entire life and keep chaste even after their husbands die. Women have to try their best to avoid any “contamination” of their chastity even in the cost of committing suicide (Chang et al. 1997, p. 268). Men, however, are “allowed” to have “concubines” or visit prostitutes with a more tolerable and forgivable attitude from society (although this act is still not judged as good and moral). These results on one hand suggest men are more sexually permissive and open than women and on the other may suggest that women themselves also deeply internalize such values (e.g. chastity). The patriarchal power of men and the structural constraints of the society not only restrain women externally but also in an internalized way through impacting their important values evaluating their self-worth.

In fact, the emphasis on women’s virginity (or more broadly, chastity) is an important feature of traditional Chinese culture. The latest research also empirically documented that “despite a profound social revolution over the last two decades, a relatively conservative sexual culture still exist in China today” (Higgins et. al. 2002). In some research on Chinese traditional values (Matthews 2000; Chang 2003), chastity in women is emphasized and included into Confucian ethos, related to moral development. Furthermore, as discussed above, the westernization of Chinese culture
also brings great impacts on people’s values, which is reflected from higher rate of agreement with premarital sex, cohabitation, and even abortion especially in big cities (e.g. Zhang et al. 2002). According to Zhou (1989), the conflict between the cultural and moral emphasis on virginity and the new idea of romantic love which may lead to more premarital sex has created “a dilemma” for young women in contemporary China (p. 279). Furthermore, the results of Chinese young adults accepting western cultures blindly (premarital sex and pregnancy, abortion, sexual transmitted diseases etc.) may cause great psychological and physical burden for those young people especially for women (Xiao, Mehrotra & Zimmerman 2011).

Although the moral standard of chastity is mostly for women, it does not mean that there is no traditional value restriction for men’s behaviors in marital and non-marital romantic relationships. For men, even though there is no special cultural emphasis on virginity, it is still required that men should behave in a responsible and serious way in romantic relationships. Having too many romantic relationships, especially in a short time, such as three times in one year, could be labeled as “qingfu”. Similarly, romance not oriented toward marriage could be taken as another example of “qingfu”, called “wanwan”. “Qingfu” is a morally negative label and a powerful force for both women and men, “both preventing students from engaging in short-term affairs and compelling those involved in long-term affairs to behave cautiously” (Moore 1998, p. 256-257). Thus, the traditional value requirements for a good woman in fact have some similar counterparts for a good man who has to restrain his behavior and be conservative in romantic relationships, although moral judgments and structural constraints (such as worth in marriage market) for violation of those values would implicitly or explicitly be less restraining for men.
Last, since the United States generally is often documented to be more liberal and open than China in sexual and romantic relationships, there might be some interactional effects between national culture and gender on traditional values. Higgins et al. (2002) compared gender differences in the attitudes toward sexual relationships and marriage within Chinese and British samples, and found that gender differences in those attitudes are even larger in China than in U.K. They suggested that this may be because Britain compared to China is a more liberal, open country. They also suggested that compared to U.S., Britain may be considered to be a traditional and conservative country. In fact, Bogle (2007) suggested that the dominant way of American college students getting together has even shifted from free dating to “hooking up” (e.g., only for sex without further emotional attachment). Therefore, I would expect that gender differences in the priorities of traditional values may be more pronounced in China than in U.S.

Values, Self-meanings, Self-esteem, and Mental Health

Central to this research is the integration of values and related identity-processes into stress process to discuss how they might work as intervening mechanisms to influence the mental health outcomes. First, a brief discussion of the whole stress process is presented. Then the process is divided into two parts, first discussing the literature focusing on the role of values and self-meanings in stress process, then briefly talking about the literature on the relationship between self-esteem and mental health. Last, in addition to theoretically describing general meaning-based stress process, how traditional values may work in the stress process
of romantic relationships is also briefly discussed.

The Possible Whole Picture

Rosenberg et. al. (1995) discussed the viewpoint that “self-esteem is a fundamental human motive” based on the “self-enhancement” theory. They concluded that “there exists in human beings a universal desire to protect and enhance their feelings of self-worth” (p145). Values offer individuals a set of standards to make possible the assessment of morality and competence and thus the maintenance and enhancement of self-esteem (Rokeach, 1979). Rokeach pointed out that without such values people “would not know what to do in order to go about maintaining and enhancing their self-esteem” (p50). Gecas (2000) further argued that such functions of values are fulfilled not by values per se, but through the mediation of value identities which “constitute an important basis for self-evaluation” (p97). In other words, the self-enhancement motive is a fundamental human motive and fulfilling those cherished values offers a way to meet such a need, that is, to maintain and enhance self-esteem. Rosenberg et al., (1995) also pointed out that when individuals get frustrated in the effort of meeting such a need, specifically when cherished values cannot be fulfilled by committing to relevant roles and behaviors, the feeling of self-worth is endangered and this can lead to “some measure of psychological distress” (p145). Therefore, we could say self-esteem is both a motive which to some extent fundamentally drive individual behaviors and also an outcome which could be compromised and further lead to distress. In the current study, I am putting more emphasis on self-esteem as an outcome enhanced or endangered by whether or not
successfully fulfilling self-values and relevant role identities in romantic relationships.

Then the question is how personal values impact self-esteem? What are the mechanisms? Based on the discussion about the definition of the value construct, we may suggest that values impact self-esteem through influencing the ways people evaluate self-relevant behavior and events, assessing whether or not the motivational goals entailed in the value has been attained and how severe the consequence for self is if the value is violated. In a word, values impact self-esteem through prescribing the meanings of life stress. In addition to cognitive meanings, negative emotions arising from the violation of central values may be another important mechanism through which stressful events impact mental health. Shame may be one of such emotions, which may cause the decrease in self-esteem and be detrimental for mental health. Gerhart Piers distinguished shame as “occasioned when one fails to achieve a goal or an ideal that is integral to one’s self-conception.” (Deigh, 1999, p1). He further discussed that the emotion of shame would “strike at one’s sense of self-worth and …spell loss of self-esteem…because positive self-image disappear and is replaced by a negative one under the circumstances for shame” (Deigh, 1999, p2). Failure of fulfilling one’s cherished values (particularly those related to moral judgment) thus may lead to lower self-esteem and mental illness through strong feeling of shame. Other emotions, depending on specific types of values which could be violated or fulfilled, might also work as intermediate ways to influence self-esteem and other mental health outcomes. Those emotions, however, are basically beyond the focus of the study and should be investigated more systematically in future research.

In sum, central values often constitute an important part of core self and are related to sense of personal authenticity. Thus, when such values can not be verified
because of some stressful event from environment, the meaning of the event and its consequences would be interpreted as serious and thus self-esteem and mental health may get hurt. For example, when some events (e.g., breakup) happen to a romantic relationship, commitment to the relationship is interrupted and cannot be fulfilled anymore, which from a superficial level would hurt the consistency of the meanings related to those specific identities and relationships (e.g., the meanings about a girlfriend/boyfriend identity) but from a fundamental level will hurt people’s self-values (the meanings related to a good/bad woman/man), its related sense of true self (who am I if I am not a good woman/man?), and finally global self-esteem. Therefore, commitment to romantic relationships serves for and is guided by commitment to self-values. As Erickson (1995) notes, “in that self-values comprise the meanings attached to particular identities, one of the ways we are able to fulfill these fundamental commitments to self is by becoming committed to those identities that best enable us to express our most important self-values” (p134).

The Role of Values and Self-Meanings in the Stress Process

The stress process model as discussed in Chapter 1 has been emphasizing and investigating the role of self and identity. Thoits (2013) reviewed this line of research and summarized the four possible functions self and identity may play in the stress process, including stress appraisal, stress mediation, stress moderation and involvement in social support and coping processes. The focus here is on the line of research investigating the role of self (especially those aspects related to personal values) in stress appraisals. That is, how self and identity function to impact the
meanings and further the outcomes of stressors.

The research tradition on how the stress process is moderated by self-related meanings and emotions has long been established, especially from the perspective of identity theory (e.g., Brown & Harris 1978, 1989; Kessler & McLeod 1984; Simon 1995, 1997; Riessman 1990; Burke 1991). Simon (1997) suggested that this line of stress research focuses on the meaning individuals attach to life events, chronic strain, role occupancy and loss, which is of great importance for stress process research because meaning is viewed as crucial for explaining differential vulnerability to role-related stress. Therefore, a major challenge in this line of research is to measure the content of meanings and investigate the factors affecting the ways individuals attach meanings.

Regarding the approaches to measuring meanings, Simon (1997) summarized the existing literature into four types: (1) the contextual approach; (2) the interpretive approach; (3) self and identity approach; (4) the values and beliefs approach. The first approach suggests that the context under which the stressful events and chronic strains develop may shape their meanings (Brown and Harris 1978, 1989; Brown 2002), while the second approach developed by psychologists Lazarus and Folkman (1984) focuses on people’s cognitive appraisals (primary and secondary) of stress and the following three types of stress experience (harm-loss, threat, and challenge). Those two approaches are not the major focuses of this study, though they may both impact the self-meanings individuals attach to stressors.

The approach this study takes is a combination of the third and the fourth ones. The third approach often involves the measures of role identity meanings and suggests that such meanings moderate the relationship between stressors and mental
health, while the fourth approach aforementioned focuses on how the general cultural values and beliefs could explain the structured patterns of mental health outcomes at aggregated level. The integration of these two approaches, however, could on one hand conceive the value construct as the part or even the core of self system, and on the other not ignore the systematic connection of values with social structure and culture. The following narrows in focus to specifically discuss the current situation of identity meaning measures and how it could be integrated with personal values.

**Major theoretical frameworks measuring self and identity meanings**

Almost all the stress research following the self and identity approach focuses on some types of measure of identity meanings, such as, the identity control theory (ICT) proposed by Burke (1991), the identity-relevance hypothesis by Thoits (1991), and identity discrepancy theory by Marcussen and Large (2000). In Burke’s model, the self-meanings related to role identities are conceived of as “identity standards”, which will be compared with our perception of the environmental stimuli (or reflected appraisals). What we are always trying to do is to make the input compatible with our identity standards through our behavioral output, because we will feel negative emotions and stress when the input and the standards cannot match with each other. Burke and Stets (2009) systematically illustrate this theory and summarize its related empirical research. They point out that identity standard is “a set of meanings defining the character of the identity”, arrayed along a continuum in which an individual locate the specific meaning of this identity for her/himself (p. 63). From Burke and Stets’ perspective, the identity meaning is not just a shared meaning from role expectations and norms in society. In contrast, individual’s interpretation is
essential for this construct. As explicitly emphasized by them, “the meanings in role identities are derived partly from culture and partly from individuals’ distinctive interpretation of the role…the first part is the conventional dimension or role part of a role identity…internalized into individual’s self-concept through socialization and reactions of interactive others…the second part is the idiosyncratic dimension or identity part of a role identity…not necessarily shared by others” (Burke and Stets 2009, p.114 – 115), although the two parts cannot be differentiated completely.

In identity discrepancy theory (IDT) developed by Marcussen and Large (2000, 2003), Burke’s identity control theory is integrated with self-discrepancy theory by Higgins (1987). Identity standards in ICT are specified in terms of aspirations and obligations, whose discrepancies with reflected appraisals coming from social interactions could separately predict depression and anxiety symptoms. This theory does not explicitly discuss the personal part entailed in the “ideals” and “oughts” of identity meanings. Similarly as the previous identity theories, the social part of those role identity meanings is claimed to be the theoretical focus. However, the personal side of those meanings actually is reflected in the way those meanings are measured. In the empirical test of the theory, a series of adjectives deriving from pilot studies (such as, disorganized, social, and studious etc.) are assigned to a role identity (e.g., student) and individuals are asked to rate the extent to which each of those words describes how they aspire to be and how they feel they should be in this identity. In this empirical examination, the individual’s interpretation about which identity meaning (i.e., which adjective) mostly describe their idealization and obligation in this identity is inevitably involved with their subjective evaluations.

Thoits (1991, 1992, 1995) advanced identity-relevant hypothesis and
measured identity meaning in terms of identity salience based on identity theories. She proposed that the influence of a life event depends on its relevance to the salience of the identity domain in which it happens. That is, “The appraised meaning and subsequent impact of acute and chronic stressors depend on whether the role identity involved is important for self-conception”, i.e. depend on the salience of the role identity involved (Simon 1997, p. 258). Thus, while ICT and IDT measure identity meanings directly (i.e., subjective ratings on a series of adjectives describing a role identity), Thoits advanced another dimension for identity meaning measure, i.e., overall identity salience since role identities are conceptualized as organizing in a hierarchical way in self-concept. It is not only the interruption for identity standards itself, but also the interruption for identity salience which may impact self-appraisals of stressors (i.e., major negative life events, ongoing role strains, and minor hassles). Thoits further attempted to connect identity salience with social status (i.e., some social groups have some shared patterns of salient identities) and use such patterns to explain the social status differences in mental health.

The empirical tests of this hypothesis get mixed results. The early work by Kessler and McLeod (1984) about women’s unique vulnerability to network events offered some evidence to the hypothesis. Simon (1992) found that the salience of parent identity moderates the relationship between parental role strains and distress and further explaining gender difference in vulnerability to parental role strain. Her results not only offer some support for identity-relevant hypothesis but further demonstrate that identity theory is useful in explaining the mechanisms and general structural patterns in stress process. However, Thoits’s empirical tests (1992, 1995) found little support for the hypothesis. She pointed out that the potential reasons for
such failure may be that only major life events occurring in salient identity domain may lead to distress and that people tend to change their report of the salience of an identity in response to major stress related to that identity (Thoits 2003). Marcussen and Safron’s (2004) study to certain extent overcame these problems, in which identity meanings are measured in terms of both identity commitment and salience. They found that some support for identity-relevant hypothesis and also documented the role of self-esteem in this process.

Within this research line of using identity meanings to explain status (e.g., gender) variation in mental health, other relevant ways of measuring identity meanings are taken in varied empirical studies. Simon (1995) measured identity meanings in terms of different interpretations of the relationship between roles and used such difference to explain gender difference in mental health outcomes when women and men face the same multiple role configurations (work and family roles). Simon (1997) and Umberson and Torling (1997) employed both quantitative and qualitative methods to measure identity or relationship meanings which ask people directly what the role identity or relationship mean for them.

In all types of specifications of identity meanings discussed above, there seems to be a position for personal interpretation, which was implied in those measures but was never taken as one of theoretical focuses and never been explicitly measured. On one hand, such ignorance would block our understanding of an integrated self-meaning-making mechanism, for example, why people differ in the salience evaluation of a specific role identity? Even though the salience measure already implies such personal difference, it is still not explicitly incorporated. On the other, such ignorance may also obstruct our ability to systematically connect social
structure with self-meanings and further with mental health outcomes. For example, both ICT and IDT have limited potential to make such connections because their measures of identity discrepancies are too specific. Therefore, current measures of identity meanings are neither sufficient to explain self-meaning process nor to explain structural connections. In contrast, measuring both personal values and relevant role identity meanings may be a better way to see both personal meanings and the society-individual connections.

By incorporating personal values in meaning measures and stress process, we may open the possibility to integrate personal identity and social identity, and also find another route to connect social structure with self-meaning and with related mental health outcomes. Just as discussed in theoretical perspectives in Chapter 1, personal values may constitute a core of personal identity, and thus prescribe the personally idiosyncratic part of role identity, while not losing their connections with social patterns (Hitlin 2003). Feather's expectancy-value (valence) theory (1988, 1992, 1995) suggested that values as guiding principles of desirable goals in life have motivational properties like individual needs but different from needs in terms of its evaluational dimension of goodness and badness. As put succinctly by him, "values are intimately bound up with a person's sense of self...and affect the way a person construes or defines a situation so that some objects, activities, and potential outcomes are seen as attractive, or positively valent, whereas others are seen as aversive, or negatively valent" (Feather 1995, p. 1136).

Furthermore, including values in self-meaning measures is also compatible with current identity-meaning measures. Values in nature are some prescriptions or criteria about what is most aspired or obliged in life in a highly abstract way. Rohan
(2000) suggested that personal value priorities could be conceptions of both what people want to do and what people ought to do, although literature still differs in their emphasis on the former or the latter. Therefore, abstract personal value priorities may to some extent determine which specific identity meanings are most aspired or most obliged to accomplish in playing out this role. In other words, values may impact the personal meaning part in role identity standards. Values may also guide individuals to evaluate the overall salience of one specific role identity relative to other role identities. In addition, values are more resistant to change than identity meanings, and thus may offer a better empirical test of the moderating effects of self-meanings for the stress-distress relationships.

Till now, however, the direct examination of the role of personal values in the stress process has been rare. Simon and Marcussen (1999) examined the role of people’s beliefs about marriage in explaining the impacts of marital transitions (gain and loss) on mental health. Although incorporating beliefs in meaning measures has implication for including sociocultural factors in stress research, they did not directly examine the role of people’s values in this process. Also, the connection of beliefs with culture and structure is not as clear as is that of values. In fact, the authors did not find gender difference in the beliefs examined (i.e., beliefs about the permanency and desirability of marriage).

In sum, the measure of self-meanings is the core of this study. In contrast to any single approach discussed in this part of literature, an integrated perspective with values as the core of personal identity would be taken to measure the self-appraised meanings of role or relationship related stressors. Personal values on one hand play a essential role in personal identity and prescribe the meanings of the relevant role
identities. On the other hand, they connect with social structure and culture in a systematic way. Explicitly measuring personal values could help balance the overemphasis of identity theories on the social side of identity meanings and thus facilitate an integrated perspective of self-meanings, while not losing the fundamental connections between individuals and society.

The Relationship between Self-esteem and Mental Health

The impacts of life events, chronic strains and daily hassles on mental health, however mediated or moderated by other related factors such as identity meanings discussed above, often occur through influencing important aspects of self-concept, i.e., self-esteem and self-efficacy. Substantial literature shows that the role of self-esteem and self-efficacy in stress process could be summarized into two major types: mediator or moderator (e.g., Cast and Burke 2002; Thoits 2003; Marcussen and Safron 2004). In this part, I will first discuss the concept of the self, self-esteem and self-efficacy, followed by the discussion about these two types of roles self-esteem and self-efficacy may play in stress process.

Concepts

Self, according to the early discussion by Mead (1934), is a process in which the “I” continuously responds to the “me”. While the “me” consists of the reflected attitudes from others, the “I” reacts to it in a mostly unpredictable way. Therefore, the self is a dynamic process of “I-me” interaction rather than some static structure. Gecas (1982), refers to the self as “the process of reflexivity which emanates from the dialectic between the ‘I’ and ‘Me’…while the self-concept is a product of this
reflexive activity…which is the concept the individual has of himself as a physical, social, and spiritual or moral being” (p. 3). Therefore, self-concept could be conceptualized as a product of self-process, which implies that though self-concept is relatively stable, it is never fixed.

Self-concept is a multi-dimensional construct, according to Gecas (1982), self-concept could be divided into two dimensions, i.e., content and evaluation. In the content of self-concept, identities are important, while in its evaluative dimension, self-esteem is central. Self-esteem refers to “the evaluative and affective aspects of the self-concept” (p. 4), expressing positive or negative assessment of the self. This construct is often conceptualized through different ways, one of which is global or specific division, and another is efficacy-based or worth-based division.

According to Gecas, self-esteem is differentiated as efficacy-based and worth-based (1983), which have relatively different developmental mechanisms. Efficacy-based self-esteem (or self-efficacy, sense of personal control, mastery) is based on efficacious action and thus is taken as the reflection of human agency (Gecas and Schwalbe 1983), while worth-based self-esteem (some scholars just name it as self-esteem) is based on the reflected appraisals of other people’s acceptance.

**The role of self-esteem in stress process**

Self-esteem and mastery are consistently found to be a strong mediator or a buffering resources for the impacts of stressors on mental health (e.g., Pearlin et al. 1981, 1999; Aneshensel, Rutter and Lachenbruch 1991; Aneshensel 1992; Thoits 1999). In stress process model, Pearlin et. al., (1981) conceptualized the damaged

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3 I will use self-esteem to refer to both worth-based and efficacy-based self-esteem.
self-concept (self-esteem and mastery) as “the final step in the process leading to stress”. Taking involuntary job disruption as a stressful life event, they empirically indicated the mechanisms through which this life event affects economic strain and thus leads to changes in self-concept (mastery and self-esteem) which is finally reflected in changes in depression. Aneshensel (1992) documented the relationship between social class, self-efficacy and psychological distress. Self-efficacy as a mediator is negatively related to psychological distress, while as a moderator it may ameliorate the psychological impact of stress. Thoits (1999) shows that stressors are generally found to decrease feelings of self-worth which may in turn be associated with a wide range of psychopathologies (p356). Thoits (2013) reviewed these two lines of work and summarized that self-esteem could work both as a mediating variable between stressors and mental health outcomes and as a stress-buffer through its possible effects on effective coping.

Within the framework of identity theory, the role of self-esteem is also a research focus. Cast and Burke (2002) investigated the role of self-esteem (or “worth-based self-esteem” and “efficacy-based self-esteem”) in identity verification process. They theorized that self-esteem could operate as an outcome, buffer, and motive of identity verification process and empirically evidenced these three types of roles in newly married couples. Marcussen and Safron (2004) focused on the self-esteem as an outcome of role strain and examined its relationship with identity commitment and salience. Marcussen (2006) further extended the range of empirical examination of identity discrepancy theory to include self-esteem in this process. She found partial support for the expected role of self-esteem as both an outcome of identity discrepancies and as a buffer in the relationship between discrepancies and
psychological distress.

Last, as to the role of domain-specific and global self-esteem in stress process, Thoits (1999) reviewed the existing evidence on the relationship between stressors and specific and global self-esteem. She suggested that “domain-specific stressors have more consistent negative effects on domain-specific self-esteem” (Thoits, 1999, p356). However, when the stressor happens in a domain that is perceived as important or valuable, global self-esteem will also be decreased. Rosenberg et al., (1995) shows that global self-esteem is more strongly related to measures of psychological well-being (p141). In this study, only global self-esteem will be measured since I assume romantic relationships are a domain generally very important for most college students. Thus, the ups and downs in such relationships would be likely to affect their global self-esteem and further their mental health.

Links of Traditional Values with Mental Health in Romantic Relationships

Based on the above discussion on how personal values may work as a moderator to regulate the responses of individuals to life stress, a reasonable inference may be that personal values in this romantic relationships may be one of the factors which could specify and pinpoint individuals’ vulnerability to the related stressors. Although literature is not found to specifically examine the role of traditional relationship values in this stress process, studies have been done to examine how different gendered-role requirements for women and men could influence their mental health. Tang and Tang (2001) investigated the influences of gender role internalization as a moderator between women’s multiple roles and psychological distress. They found that internalization of “traditional ideal person” exacerbated distress in some
areas when role quality is low. Such item as “I don’t feel that I can leave a relationship even when I know that it is not satisfying” is included in the component of “traditional ideal person”. Simon (1997) suggested that the different meanings men and women attach to their work and family role identities may explain gender patterns in their mental health. Sprecher et al. (1998) also found that such factors as commitment, satisfaction, and duration of romantic relationships are associated with the level of distress after breakup, although they did not indicate if gender differences exist in such factors.

In the first section of the literature review part, I discussed cultural and gender differences in traditional values in terms of romantic relationships and then here the role of value-based meanings in the stress process has been discussed. Synthesizing these lines of literature, although they are not completely consistent, we can find a possible speculation that gender and cultural differences in such values may be one of the mechanisms through which gender and cultural patterns (if any) in the associations between romantic relationships and mental health could be explained. Such gender and cultural patterns of mental health in romantic relationships found in current literature will become the focus of the last part of Chapter 2.

Summary

The focus of this study is on the mechanisms through which traditional values held by college female and male students affect the meanings they attach to four dimensions of their romantic relationships (breakup/involvement; strain/support) and then further affect their mental health outcomes (Simon and Barret, 2010). Based on the discussion so far, the main mechanism I propose in my conceptual model is
that values (or value identities) will affect the level of relevant role identity commitment and identity salience, and each of these three variables may work as a moderator for the relationship between the romantic relationships and mental health outcomes. In this process, self-esteem is tested only as a mediator. In the following section, I will move to the substantive literature concerning gender and cultural patterns of mental health in romantic relationships, that is, the structural component/context will be considered.

Gender and Cultural Patterns of Mental Health in Romantic Relationships

Structural and cultural contexts are considered on one hand to shape personal values through constructing life-long socialization, on the other hand also constrain proximal environment with which existing personal values interact and negotiate in interpreting meanings in the Stress Process. Based on previous discussion on the gender and cultural differences in traditional values and on the stress-moderating function of those values in romantic relationships, it should be reasonably to expect that there might be some cultural and gender patterns of mental health in romantic relationships. Current literature in this line becomes the focus of this last part of Chapter 2. Specifically, in this part, two structural level components (i.e. culture-indexed by countries and gender) are introduced. First, the literature concerning cultural and gender patterns in the association between romantic relationships and mental health will be reviewed. Then, possible theoretical orientations which may explain such patterns are discussed. Finally, the conclusion and summary is made to link such structural patterns with specific value attributes.
discussed as above and to emphasize the theoretical potential of a value-explanation for such patterns.

*Gender Difference—a closer link between relationships and mental health for women than for men?*

A distinctively sociological perspective of mental health is concerned with the impacts of social stratification and inequalities on mental health and the causal mechanisms through which these impacts occur (Pearlin 1999; Wheaton 2001; Aneshensel and Phelan 1999; Link and Phelan 1995; Mirowsky and Ross 2003). The stratified social system is based on multiple social statuses, such as gender, race/ethnicity, social class, and age. Discovering and explaining these status-mental health patterns are the major task of this research area.

Regarding gender patterns in mental health, generally speaking, gender is a social institution involving structural inequalities and cultural and normative differences between males and females, thus becoming a powerful social dimension organizing individuals’ “social relationships, resources, and daily activities” (Rosenfield 1999, p. 209). In the sociology of mental health, the gendered pattern of mental health is often documented but still full of controversies, that is, whether women suffer more mental health problems than men is still in debate (Gove and Tuder 1973; Ross and Mirowsky 1995, 2003; Dohrenwend and Dohrenwend 1976). Basically, the debate is around a question that women are actually suffering more or more vulnerable to life stress or just women and men express distress in different way and men’s type of distress is underestimated (e.g., Tausig 1999; Lennon 1994; Simon 2002; Aneshensel, Carolyn & Lachenbruch 1991).
Those controversial gender patterns are often considered within specific relationship contexts (e.g. dating, marriage, work, and family). This line of literature often focuses on whether women are more vulnerable to relationship stressors (e.g., Kessler and MeLeod 1984; Simon 1992; Rosenfield, Vertefuille, and Mcalpine 2000), which is empirically tested by examining the interaction terms between gender and relational stressors (gender * relationship stressor). Specific to gender difference in the link between intimate relationships (marriage or non-marital romantic relationships) and mental health, a large number of literature (Hochschild 1979; Simon, Eder & Evans 1992; Thorne 1993; Broverman et al. 1972; Hatfield & Rapson 1996) has long suggested that women tend to attach more importance to intimate relationships and thus more vulnerable than men in relationship events, while the other body of literature suggests such gender patterns may not be so obvious or even opposite (e.g., Giordano et al. 2006; Stroebe & Stroebe 1987; Rubin, Hill, & Peplau 1980). In terms of marriage, although most literature agrees that marriage involvement and the positive quality of marriage (i.e. support from partners) are helpful and marriage dissolution and strain are harmful for mental health for both women and men (e.g., Umberson et al. 1996; Williams & Umberson, 2004), the possible gender patterns in such associations are still ambiguous.

For non-marital romantic relationships, adolescents are more often studied compared with little research on adults (Simon and Barret 2007). For adolescents, still inconsistent results are found regarding the effects of romantic relationships on mental health and the gender patterns in such associations. Some found that such relationships benefit adolescents’ mental health (e.g., Coleman 1961; Connolly & Goldberg 1999), while others found that they are harmful for adolescents’ mental
health (e.g., Joyner & Udry 2000; Chen et al. 2009). For example, Chen et al. (2009) investigated the associations between romantic relationships and emotional and behavioral consequences for Chinese adolescents. With a representative sample of 7-12 grades adolescents in Beijing, they found that romantic involvements are related to more depressive symptoms and behavioral problems for adolescents especially for those being involved in early adolescence and that stress from dealing with these relationships, especially from breakups, may explain such consequences. Regarding gender differences in such impacts, they suggested that girls appeared to be more vulnerable to negative relationship events than boys. Joyner and Udry (2000) argued that females are much more vulnerable to romantic involvements which could be an important reason why girls are more depressed than boys during adolescence. After reviewing existant literature about romantic relationship-mental health associations and related gender patterns, Simon and Barret (2007) concluded that for adolescents early involvement in romantic relationships is not necessarily beneficial for their mental health and gender patterns may not exist especially both female and male types of distress expressions are measured. She claimed that such gender differences in women’s vulnerability may not exist as the literature and popular cultural beliefs have long claimed.

Compared to those aforementioned studies focusing on adolescents, Simon and Barret’s (2007) research is actually filling a gap by focusing on young adult’s mental health patterns in romantic relationships. They found that for romantic involvements and support are generally beneficial and breakups and strain are harmful for mental health for young adults. Regarding gender patterns in such associations, a more complicated picture emerges that women are more affected by romantic
involvement and breakups while men are more affected by relationship support and strain.

Cultural Patterns

Very little literature was found to examine the cultural differences in the association between romantic relationships and mental health. Chen et al. (2009) reviewed the literature on cultural differences in the negative impacts of adolescent romantic relationships and suggested that because adolescent dating is perceived as inappropriate and prohibited by most parents in China its negative impacts may be even stronger for Chinese adolescents. In investigating the association between romantic relationships and adolescents’ social anxiety and depression, La Greca and Harrison (2005) found some moderating effects of ethnicity, with the association between negative interactions in romantic relationships and depressive symptoms being stronger for White than for African American and Hispanic youth. They suggested that such moderating effects may arise from ethnical differences in relationship styles and ethnicity may be an important moderating variable to be examined carefully in future research in this line. Similarly, little literature examines the interaction between culture and gender. Simon and Barret (2007) suggested that the magnitude of gender differences in the association between romantic relationships and mental health may vary by race/ethnic groups although little literature can be found on this issue. Specific to this study, I will examine if there are cultural differences in the associations between romantic relationships and mental health, and if national culture could work as a higher level moderating variable so that gendered pattern in the associations between romantic relationships and mental health could
vary by nations.

Possible Theoretical Explanations

General theoretical orientations

Based on the aforementioned discussion, gender differences in mental health may arise from women’s greater exposure to stress than men in work and family relationships or from women’s greater vulnerability to relationship-related stressors. Since the focus of this study is on the role of self-values in this stress process, specifically on how self-meanings guided by personal values affect women’s vulnerability when men and women face the same relational events or strain, this part will especially be devoted to discussing the literature from vulnerability perspective.

According to Aneshensel (1992), vulnerability of different groups to stressor is often examined in terms of moderating effects (i.e., interaction between group status and a stressor). He pointed that this is not a direct examination of the factors regulating vulnerability but only “stand as proxies for other, unspecified attributes” (p.25). He suggested that to account for the group patterns in vulnerability we have to directly examine those unspecified attributes from two steps. First, we need to specify how those attributes impact vulnerability. Then, how those attributes differ across groups or social status should be examined. Through this two-step specification, the vulnerability perspective to explain group variation in mental health can be illustrated directly and sufficiently. For example, it is not enough we only know women are more vulnerable to network-related events than men through examining the interactional effects of gender and network events. Rather, we have to directly examine what factors or attributes directly contribute to this vulnerability of women or why women
are more vulnerable than men. The studies on coping resources, social support and identity-meanings (and self-values) are all belonging to this line of research which directly examine those unspecified contents of vulnerability.

When it comes to explaining gender differences in the association between intimate relationships and mental health, two theoretical orientations are often employed to explain or argue for women’s greater vulnerability. That is, socialization theories (Chodorow 1978) and social structural theories (Kompter 1989). Bem (1993) differentiated those two types of theories and suggested that the major difference between them is the way social factors are claimed to impact individuals. Socialization theories argue that cultural beliefs and values are internalized into individuals through everyday socialization, while structural theories emphasize the impacts of structural constraints on shaping individuals in a more coercive way. Simon and Barret (2007) also reviewed these two types of theoretical explanations and summarized that gender socialization perspective more emphasizes the role of gendered self-concept in shaping women’s greater vulnerability to relationship events while gender inequality perspective more focuses on women’s lower status in economy and power and claims that women’s economic dependence may lead to their greater emotional attachment on relationships and thus greater vulnerability to stressors occurring in relationship domain.

Those two theoretical orientations in fact are embodied in Social Structure and Personality framework because they actually focus on two major structural-level components (i.e. cultural and structural components) and how those two components affect interactional processes and individual outcomes. The debate about the relative primacy of structure and culture is always in progress (e.g. structural side: House
1981; Kohn 1977; Lareau 2003; cultural side: Lewis 1971). However, the focus of this empirical study is not testing whether cultural socialization or constraining structural stratification is more important in shaping individual values and beliefs and then shaping women’s greater vulnerability. Rather, the purpose is to find the existing gendered patterns which may be shaped by simultaneous and complicated effects of multiple-level culture and structures, and the specific factors which may explain such patterns. In other words, it can also be claimed that an undifferentiated or combined approach of cultural and structural impacts is taken in this study. Actually, gender is a basic social institution not only involving cultural differences but also all forms of social structural inequalities between females and males (West and Zimmerman 1987). Furthermore, the combined approach is advocated by contemporary scholars as a more useful way to examine their synergetic effects on individual personality and behavior (McLeod and Lively 2003).

Lastly, except for gender patterns which may be shaped by both cultural and structural factors as just discussed, another structural component will be examined in this study, i.e. culture, which in fact is a national level variable. On one hand it may create national differences in the association between romantic relationships and mental health (i.e., nation alone as a moderator), and on the other, may offer a bigger national and cultural context under which the possible gendered pattern in mental health in romantic relationships may be moderated (i.e., both nation and gender as moderators). Culture exists at multiple levels which may operate in different ways (Small, Harding and Lamont 2010). As Schooler (1996) suggested, national culture may change in slowest speed and thus the continuity of historical cultural factors create cross-national differences in individual psychological and behavioral outcomes.
even though economic modernization may create cross-national similarities. Therefore, the specific research question in this study involves two different levels of structural components (i.e. nation and gender). More specific, gender may impact individual values and mental health in romantic relationships through both structural constraining and cultural socialization processes and such gendered patterns may vary by nations.

_Empirical studies on the specific factors impacting women’s vulnerability_

Based on the theoretical orientations of gender socialization and gender inequality, multiple factors which may impact gender differences in mental health, especially gendered self-concepts or gender identity are often examined as previously discussed (e.g., Simon 1992; Rosenfield, Verteruille, and Mcalpine 2000). Results are inconsistent in supporting women’s greater vulnerability to relationship stress. Specific to factors explaining gender differences in romantic relationships, however, not very much literature can be found. Schulman and Scharf (2000) examined age and gender differences in the romantic behaviors and perceptions of adolescents. They found that girls reported higher levels of affective intensity than boys, which is consistent with the well-documented gender difference in intimate relationship. Schmitt et al. (2003) examined gender differences in dismissing romantic attachment and whether such differences are smaller in cultures with more modern or progressive sex-roles ideology and more political-economic gender equality. They found that across 62 cultural regions men are not significantly more dismissing then women in romantic relationships, which is contrary to previous literature and popular beliefs that men are more emotionally distant in intimate relationships than women. This result
may offer some support to Simon and Barret’s (2007) findings that men’s mental health are not significantly less affected by romantic relationships than women.

In addition to studies examining specific factors contributing to gender differences in mental health, the other line of literature attempts to examine gendered types of expression of psychological problems (Rosenfield 2005; Simon 1992, 2002; Aneshensel, Carolyn and Lachenbruch 1991; Schwartz 1991; Rosenfield, Lennon, and White 2005). Rosenfield, Verteruille, and Mcalpine (2000) suggested that gendered division in power and labor (i.e. gender stratification) tend to shape women and men’s different self-conceptualizations about the relationship between self and others (i.e. “boundary assumptions), which may further shape women’s predominance in internalizing mental health problems (e.g. depression) and men’s predominance in externalizing problems (e.g. antisocial behaviors). Simon and Barret (2007) suggested taking into consideration such different types of expression gendered differences in mental health is even not significant.

In sum, along with the theoretical orientations of gender socialization and unequal gender structure, empirical studies often examine how women’s self-identities or emotional styles impact their vulnerability to relational stressors. But specific to romantic relational stressors, little literature is found to systematically examine this mechanism, especially for young adults like college students. Blackwood (2000) suggested that “cultural systems of gender construct different sexual beliefs and practices for men and women” (p.223). Although literature concerning gender and cultural patterns of mental health in relationships is quite inconsistent, based on previous discussion on gendered sexual values and beliefs and how they may impact women and men’s mental health in romantic relationships, it
makes theoretical sense to hypothesize that personal values as part of personal identity could be utilized to explain potential gender and cultural patterns of mental health in romantic relationships. In fact, the reasoning process is based on the suggestions of Aneshensel (1992) on how to link specific attributes explaining group vulnerability back to group patterns of mental health. To accomplish this goal, according to his two-step suggestion, the first step is to explain how and why personal values may regulate (or moderate) the associations between romantic relationships and mental health, which has become the major content of the second part literature review. The second step is to discuss gender and cultural differences in traditional values such that those specific value attributes can be connected with and explain structural patterns.

**Summary**

Usually, the traditional values are set up in a society to help maintain its traditional social structure. For example, in the societal domain of female-male relationships, the traditional values always emphasize the obedience of women to men and double standards for women and men in sexual relationships in both Eastern and Western countries. Therefore, traditional values may help reproduce the dominant gender stratifications through a key mechanism of value internalization or the formation of value identities starting from childhood socialization. Thus, the formation of value identities may occur prior to acquiring social role identities, defining the core self or true self for a person and requiring verification and maintenance from a wide varieties of situations and roles.

Therefore, traditionalism of values may become a dimension we can use to examine the mental health patterns in different life areas. The prevalence and
distribution of traditional values in different groups imply that when facing the same
life stressors some groups of people may have different mental health outcomes from
other groups (such as female and male, and different classes, see Kohn 1977 for the
result that working class people are more likely to conform to traditional values). Of
course, more qualitative work is needed to decide which values in which life areas are
most relevant to mental health outcomes. In this research, I only investigate those
values specific to romantic relationships along the dimension of traditionalism
because this dimension could be connected with both structural level variables (social
statuses) and individual mental health outcomes. Also, romantic relationships and
related role identities are the most important area for unmarried young adults to verify
their personal values for male-female relationships.

Based on Hsu’s (1949, 1981) series of anthropological research on Chinese
and American culture and later on Pan, et al’s (1994) survey research comparing
traditional Chinese and American cultural values, we can glimpse that the traditional
Chinese values, that is, the Confucian values, has penetrated into the blood of Chinese
people over thousands of years, directing their way of life, mode of thinking, and
meaning interpretation. Specifying those Confucian values in some important
domains of social relationships (male-female, old-young, and authority-subordinate
relationships), Pan et al. (1994) designed a series of questionnaires to measure the
prevalence of those values in both China and America. Their evaluation of the
semantic and functional equivalence of those instruments shows that those measures
based on traditional Chinese Confucian values are indeed mostly equivalent in both
cultures even though traditional American cultures are not based on Confucianism.
They argued that “American culture houses many values that are equivalent to the
Confucian precepts signified in those Chinese value expressions…and the United States remains in many respects a traditional society in terms of cultural values” (Pan et al.1994, p. 214). However, the level of traditionalism (i.e. the average rate of holding those traditional values) still varies in China and U.S, with U.S to be generally more liberal and less traditional in terms of male-female relationships. Therefore, I included both gender and culture as structural level variables to see how they could be related to individuals’ traditionalism and further related to individual responses to relationship stress.
CHAPTER III

METHOD

Respondents

For practical reasons, a convenient sampling method was used survey respondents. The participants in this study are 928 college students from a Northeast American university and two Northeast Chinese universities. Since the sample was not randomly selected, the generalization of the study results to larger population will be limited. However, since the major purpose of this study is to explore the role of traditional values in the stress process and to further contribute to theory-building, convenient sample is acceptable to accomplish this goal. To remedy this limitation, the data was collected from classes such as introduction to sociology, in which students from varied majors and grades would be enrolled, so that the final sample is to some extent simulate the population demographics of college students.

Procedures

Students were recruited in class and the questionnaires were passed out then. To protect students’ privacy and also to follow IRB rules, students are allowed to take the survey home to complete since some parts of the survey inquire about personal matters. Filling out the survey in class would inevitably incur undue influence from surrounding students. Students can choose to participate in the survey voluntarily and the completed survey will be collected next time in class. Each questionnaire was placed into an envelope and is completely anonymous without any identifying information on it. Surveys in both China and the U.S. follow this same procedure.
Measurement

Independent Variables

Romantic relationships

Umberson et al. (1996) summarized three major measurable dimensions of social relationships, i.e., social integration, social networks, and relational content (p.841), in which social integration refers to the existence or quantity of the relationships, while relational content refers to relationship quality including the positive side of social support and negative side of relationship strain. Social networks refers to the structures of those relationships which is not the focus of this study. Simon and Barret (2007) adopted measures of romantic relationships based on these dimensions, including the measures of existence of romantic relationships (involvement and break-up) and relationship support and strain. Those dimensions of relationships, such as loss or gain of relationships, relationship support and strain all have emotional impacts on individuals. In this study, I also adopted Simon and Barret’s (2007) measures of romantic relationship to measure relationship status, support and strain.

a. relationship status

Students never involved in a romantic relationship are excluded from the survey. For those students who report having ever been involved in romantic relationships, specific relationship status is assessed by a five-category variable which is different from the way Simon and Barret (2010) measure it. That is, being currently
single with last break-up in one year (=1), being currently single with last break-up more than one year ago (=2), being currently involved with last break-up in one year (=3), being currently involved with last break-up more than one year ago (=4), and being currently involved for the first time (=5). Two dichotomous variables including being currently involved or not (3, 4, 5=1 and 1, 2=0) and experiencing break-up in one year or not (1=1 and 2, 3, 4=0) are created to see their impacts on mental health.

b. relationship support and strain

These two scales are adopted from Simon and Barret’s (2007) measures of relationship support and strain. First, a six-item scale is used to measure perceived support from partner, with such statements as “always talking with your partner about your problems”, and “you know your partner would always be there with you”. The response categories are from strongly disagree=1 to strongly agree=5. The Cronbach’s Alpha is .87 for this scale. Second, partner strain is measured by a five-item scale asking questions about conflict, understanding, and affection between partners, with responses from not true=1 to very true=3 and Cronbach’s Alpha coefficient of .75.

Traditional relationship values: moderator

a. why a new measure is needed?

The measure for traditional values in the context of romantic relationships was developed and refined. Following the way the popular and important value measures are constructed, such as Rokeach’s (1973) and Schwartz’s (1992, 1994) measures of individual value priorities (in nature, they seek to measure how important
an abstract value is for an individual through their subjective rating), I would ask the respondents to make responses to such statement as “It is important to me that…” In general, I take the rating approach in this value measure, relative to the ranking approach taken by Rokeach (1973).

However, since RVS (Rokeach Value Survey) and SVS (Schwartz Value Survey) are all measuring a broad spectrum of value types which are not suitable for the purpose of this study to see the relationship between traditional values and mental health in the context of romantic relationships, I adopt a value measure approach which is different from those popular measures in two aspects.

One is about the dimension of value measure. Generally, this value measure focuses on the single underlying dimension of traditionalism, while Schwartz emphasizes the importance of measuring the whole value system composed of ten motivational value types and then calculating the relative priority of each value type in this system since he found such a system is almost universal across cultures.

Second, this measure is combined with attitude measures. Specifically, an abstract value (being traditional in romantic relationships) is operationalized into the attitudes about related specific issues reflecting such a value. Based on the previous literature review about how attitudes can reflect and be prescribed by personal values, this approach of measuring values is justified. Next, I will discuss the details about how such an operationalized value measure specially for romantic context is developed and refined.

b. development of traditional value measure in romantic relationships

To explore the underlying contents and structure of traditional values within
romantic relationship context, related literature on value measures was referenced and in-depth interviews with 10 Chinese college students (five females and five males) were conducted. In addition, the newly developed measure was pilot studied with 148 American students attending introduction to sociology classes.

First, based on the related literature review, three scales measuring Asian values were referenced in terms of their dimensions of traditional values. Specifically, Kim, Atkinson, and Yang (1999) developed the Asian Value Scale (AVS) to measure the ethnic cultural values of Asian American people mainly including Japanese, Chinese, and Korean. Although in this scale there is no value dimension describing traditional values in terms of female-male relationships, there is a strong value factor concerning the desirability of conforming to norms, including conforming to gender role norms. According to Schwartz’s (1994, 1996) theory on the abstract relationships among the value types in the universal value system, the conformity dimension is positively correlated with tradition and security dimension, but opposite to the dimensions of self-direction, stimulation and hedonism.

Chang, Wong and Koh (2003) developed the Singapore Chinese Values (SCV) scale and found that moral development is a major value dimension, in which Chastity is one of six factors composing it. Last, the Chinese Value Survey (CVS) developed by Bond and Chinese Culture Connection (1987) is more suitable for my research purpose since this scale is developed to specially measure Chinese value systems deriving from the Confucian ethos. Several value items in this scale are related to the values I want to measure in the study, including “having a sense of shame”, “protecting your face”, and “chastity in women” (Matthews 2000).

Second, based on the aforementioned value scales, Pan et al.’s (1994)
relationship traditional value scale is considered to tap most directly the traditional
dimension relevant to this study purpose. Pan et al. (1994) specially measured
and compared traditional values extant in current Chinese and American society. Their
measures of traditional values are based on Chinese Confucian values and they argued
that even though American traditional values are not derived from Confucian ethos,
their measures have similar value meanings and similar factor structure in the
American sample just as in the Chinese sample and thus are not an imposed measure
for Americans. As discussed in the previous literature review, they designed several
traditional value scales around major social relationships, and I adopt the basic idea
and most of items from their female-male relationship value scale\(^4\) which could be
reasonably applied to non-marital romantic relationships.

Their factor analyses show that two similar factors emerge from these items
for the Chinese and U.S. survey, i.e., traditional values on sexual relationships and on
equal status of women. Three value items concerning women’s chastity, pre-marriage
pregnancy, and cohabitation belong to sexual relationship factor, while value items
concerning men’s higher status, women’s obedience and equal pay belongs to equal
status factor. Their results generally suggest that to some extent both women and men
internalize and accept those traditional values in a similar way. That is, similar
proportion of women and men agree with men’s higher status and women’s chastity.
Gender differences are still found though, that is, men value obedience and accept
cohabitation more than women.

Although adopting item ideas from this scales, I made explicit changes in my
value measures. Specifically, I do not use the literal translation of those traditional

\(^4\) Please see the Appendix for the original value scale for female-male relationships (Pan et al., 1994)
Chinese Confucian value items since what those traditional phrases imply for Chinese respondents is to some extent different from what their literal translation may imply for American respondents. For example, chastity for women (zhen jie) implies more than no premarital sex. In fact, it is difficult to find the accurate translation for the original terms like chastity (zhen jie) and obedience (san cong si de). The only way to make those value phrases comparably meaningful in the two countries is to operationalize them into the specific issues reflecting the inside meanings of those abstract and ancient value terms. Another reason I use straightforward wording in measuring those values is that the original Confucian phrases have been severely attacked since the foundation of communist China and therefore tend to induce a negative response automatically from their wording (but their implicit meanings are still engrained in people’s mind) (Pan et al., 1994). Furthermore, since the traditional Confucian phrases are targeted toward women, only an operationalized measure could apply to both men and women and to further differentiate the extent to which women and men possess such values.

Except for borrowing and adapting value items from the above mentioned scales, I conducted 10 in-depth interviews via on-line chatting (the transcript of the interviews is available upon request) with Chinese college students to further explore the values existing in romantic relationships and how they define them in their own words. Although I believe those Confucian values still exist in this generation of college students, their meanings may have been redefined by those contemporary Chinese college students born mostly after 1990. From the results, I can see traditional values in romantic relationships exist in both men and women. For example, a man who identifies himself as traditional in romantic relationships also
values his own virginity in addition to valuing his partner’s virginity. Thus, although
the traditional values measured in this study have some relations with typical sex role
norms reflecting masculinity and femininity, I only measure one underlying construct
for both women and men, that is, how traditional and conservative they perceive
themselves are in terms of the qualities like chastity and obedience.

In addition, findings from these interviews also help me refine the wording of
the measured items. For example, one of my original item is “I feel pre-marital sex
behavior is shameful”, with most of the interviewed students not agreeing with this
wording. They explained that society has been much more open now so that they are
able to understand such behavior even though they also pointed out that this behavior
is not acceptable by themselves. Then I change it into a more personal item and with
less explicit moral judgment, as “It is very important for me to marry the person
whom I have had my first sexual experience with”. Most students who claimed they
are traditional then agree with this statement. Furthermore, based on the results of the
interviews, the original item about abortion was deleted since most college students
never had such an experience and have given little thought to this issue. This situation
might be different for average young adults who do not attend colleges, however.

Note that by measuring this construct for both women and men, I don’t mean
those values have exactly the same meanings for women and men. The underlying
connotations of those conservative values (e.g., treasuring virginity before marriage)
for women and men are different although the outside form may be similar. From the
interview results and personal experience as a Chinese female student, for women,
treasuring virginity not only means being traditional and conservative, but more
importantly is related to the global worth and self-esteem of a woman since it is one
of major criteria for evaluating a good woman, and arouses emotions like shame when violated. For men, being traditional and conservative in terms of sexual relationships may only be related to such qualities as responsibility and reliability. Therefore, I would expect that on one hand women would be more traditional than men since those values are first designed to restrict women’s behavior and on the other possessing the same level of traditional values would have different impacts on men and women’s mental health in romantic relationships. In fact, one of my major focuses is to see the impacts of the internalization of such values on women in romantic relationships, although I also expect that men possessing such values are still impacted probably through different meaning-making mechanisms.

In sum, to examine the hypotheses specific to this study, traditional values are operationalized in the specific context of romantic relationships. Based on the literature review about the nature of value construct and the forgoing discussion on the underlying structure of this construct, I would agree that value is personal belief about what is important in life. Therefore, the value construct in the study would be measured by self-perceived importance of traditional values in romantic relationships. The two major areas in the value measure are chastity and obedience based on traditional Confucian values. As previously discussed, although these two value dimensions are initially requirements for women, I make it a measure for both women and men since men also possess such conservative values and use these values to define themselves as being traditional. In addition, those value requirements are measured from two perspectives, that is, for self and for the partner.

c. final items and pilot study results
The final items used in measuring the traditional values for non-marital romantic relationships are listed in Table 1. On a six-point Likert scale from “strongly disagree=1” to “strongly agree=6”, with the first question reversely coded, showing the higher a score on this scale, the more conservative and traditional a person is in terms of romantic relationships.

Table 1 Final Items in the Traditional Value Measure for Non-Marital Romantic Relationships

1. It is okay for me to change partners frequently.
2. I feel it is not good to have too many different relationship experiences.
3. I hope my partner has few or no relationship experience other than with me.
4. It is very important for me to marry the person whom I have my first sexual experience with.
5. If I live with my partner, it is very important for me to get married after cohabitation.
6. It is important to me to be a virgin before marriage.
7. It is important to me that my partner is a virgin before marriage.
8. I is important to me if my partner has the experience of cohabitation before me.
9. I think girlfriends should comply with boyfriend’s wishes most of time.
10. I think girlfriends should be always tender to boyfriends.
11. In general, I am a traditional person.
12. Being a traditional woman (or man) is an important part of who I am.

From both the pilot study for American students and in-depth interviews for Chinese students, I found that in general chastity-related items are more prevalent in students than obedience items. For both women and men, with women higher than men, the perceived importance of both self-chastity and the chastity of partners are
highly correlated with the overall value identity of being a traditional person. For obedience, the overall rate of advocating such values is low both in China and the U.S., which is consistent with current social trends of gender equality and with college students as a kind of avant-garde segment in society. It is likely that obedience is more related to gender economic and structural constraints while values related to chastity are often internalized deeply by individuals as major sources and criteria for self-evaluation. However, a small portion of traditional students (both men and women) still identify such values that women should submit to men’s will.

**d. CFA results and final items used in modeling**

The traditional value measure was tested by confirmatory factor analysis (CFA) with Chinese (N=520) and U.S. samples (N=428) separately in order to confirm the underlying structure of this construct and further examine its structure invariance across gender and nations. One way to specify the underlying factors of the traditional value measure is using four-factor model (i.e., being traditional in relationship experience, in sexual activities, in status of females and males, and in overall self-evaluation). This model moderately fits each sample. However, the measurement invariance test by multi-sample SEM shows that the factor loadings cannot be held equal between Chinese and American samples. That is, the measurement invariance of this factor structure and further the meaning of some of those factors may vary between the two countries.

After several rounds of model trimming, a final three-factor model including only 7 items (4, 5, 6, 9, 10, 11, 12) was decided which fit both samples pretty well. Furthermore, this model was tested by multi-sample SEM method across all
combinations of gender and nations and measurement invariance is found across all those groups. Based on this final model, a further second-order factor structure was specified which still shows good fit for both Chinese and U.S. data. Therefore, these 7 items included in the model are used to compute a composite score of traditional values by taking the average of them, which will be used as an observed variable in the following path modeling analysis.

**Dating couple identity commitment and identity salience**

Although not examining the moderating effects of those two variables in the Stress Process, they are included in the study to test their correlation with traditional relationship values, with a purpose of further clarifying the central status of personal values in self-system or the possible paths through which traditional values may work. Commitment and salience are measured specifically for dating couple identity, that is, as a girlfriend or boyfriend. First, girlfriend/boyfriend identity commitment is measured from two aspects, i.e. interactive commitment and affective commitment (Stryker, 1980; Owens and Serpe, 2003). The first type of commitment was measured by asking three questions involving the frequency of doing things with partners (1=never to 7=daily), time spent with partners per week (in hours), and money spent on buying things for partners (1=almost none to 5=almost all). Crobach’s alpha is somewhat low at .54. Affective commitment was measured by four questions, including the extent of missing partners if not being able to contact (1=not at all to 4=a great deal), perceived emotional closeness with partners (1=not at all close to 4=very close), perceived importance of partners (1=not at all important to 4=very important), and feeling happy after doing things with partners (1=strongly agree to
4=strongly disagree). This scale has a relatively higher Cronbach’s alpha at .66.

Second, girlfriend/boyfriend identity salience is measured by three items asking respondents about the possibility of telling someone else about your partners (e.g. classmates, a person of the opposite sex) when meeting them for the first time. Response categories are from 1=almost certainly would not to 4=almost certainly would, and Cronbach’s alpha is .69.

**Dependent Variables**

**Self-esteem (efficacy-based and worth-based)**

First, I adopted the worth-based self-esteem scale from Cast and Burke (2002). They constructed this scale based on the items from several reliable scales such as Rosenberg’s self-esteem scale (Rosenberg, 1979), Gecas and Schwalbe’s self-esteem scale (Gecas and Schwalbe, 1983), and Pearlin’s mastery scale (Pearlin et al. 1981). This scale consists of 7 items asking respondents to evaluate their own self-worth on a four point scale from strongly agree to strongly disagree, with an omega reliability score of .88. Second, efficacy-based self-esteem is measured by a scale developed by Burke (2010). This scale has 7 items with responses from “Strongly agree, agree, to disagree and strongly disagree”, with an omega reliability of .92.

**Depression**

Depressive symptoms are measured by a modified version of the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977, Simon, 2007). This version has a longer time frame (one-month) than the original one.
(one-week) and the reliability is .87. Respondents are asked to evaluate how often in past month they experience each symptom with response categories from not at all=1 to almost all of the time=4.

**Alcohol drinking and hostility**

Two male-typical mental health outcomes are also included, that is, the Rutgers Alcohol Problems Index (RAPI) (White and Labouvie, 1989) and a six-item Hostility subscale of the SCL-90 (Derogatis et al. 1971). The decision of selecting two male-type mental health outcomes is made based on the consideration that there may be cultural difference in the typical way of males expressing distress. American students may tend to drink more while Chinese students may just tend to show greater hostility. First, RAPI is a self-administered tool for assessing the problem drinking for adolescents and young adults, with 23 items asking about the frequencies of experiencing such problems as interpersonal conflict, psychological and physical problems, and difficulties in study. This scale has a high internal consistency of .92. The response frequency categories are from none=0 to more than 10 times=4 within last year. Hostility assesses the extent the respondents has been bothered in last 4 weeks by such problems as temper outbursts, urge to beat or smash something, getting into argument easily, etc. The response categories include 0=not at all to 4=extremely.

**Control Variables**

Gender, race, growing-up area (urban or rural), parents’ education, and GPA are measured as background control variables. Gender is a dichotomous variable (1=female and 0=male). Race is measured with four response categories including
White, Black, Asian, and other. Note that the response categories for this question are
different for Chinese students, with majority of Chinese college students belonging to
Han (=1) while another choice is minorities. The growing-up area variable is only
measured for Chinese student because of the great cultural and economic divergence
between rural and urban areas in China (urban=1). The categories for parents’
education include below high school, high school graduation, college degree, and
above college degree, with the occupation of parents filled in by the respondents. Last,
GPA is measured based on five-level rank scale including A, B, C, D, below D. The
last set of control variables are those which might be related to the mental health
outcomes in romantic relationships except for the major independent variables of
study interest. Those relationship control variables include having sex with ex or
current partners (Yes=1), number of relationships, love for partners (measured by a
Rubin’s love scale, 1970), the way the relationship ends.

Analytical Strategies

Structural equation modeling (SEM) is the major data analysis method used
in the study. SEM is a family of statistical techniques mainly consisting of such
techniques as path analysis and confirmatory factor analysis, serving similar purposes
as but having obvious advantages over OLS regressions. For example, SEM can
model and estimate multiple mediations, moderations and outcomes in a simultaneous
way compared with OLS regression’s one-equation-each-time approach. Furthermore,
SEM allows modeling of measurement error which is greatly superior to OLS
regression (assuming perfect measure of independent variables) in terms of accuracy
of estimates (Musil, Jones & Warner, 1998; Dilalla, 2000; Kline, 2005). SEM is in
nature a confirmatory rather than exploratory technique, which means a prior model specification should be given based on theoretical considerations, while multiple regression techniques could be both exploratory and confirmatory (Kline, 2005).

With SEM method, confirmatory factor analysis (CFA) was first conducted with both Chinese and U.S. samples for the traditional value measure in order to test its construct validity and measurement invariance across national groups (Byrne 2001). Second, before constructing models with SEM, a series of OLS regression models were conducted in order to find a series of important predictors. Then based on the theoretical considerations and the significant results of OLS regressions, SEM will be used to construct major hypothetical models.

Last, multi-group SEM will be used in comparing gender and nation groups which in fact tests the moderating effects of gender and nations. The simplified analytical model of the major hypothetical relationships is described in Figure 2 (The effect directionality of the control variables will be added after the real data analysis in a post-hoc way since they are not in the central interest of the study). The detailed SEM models will be presented when discussing the study results in next Chapter.
Summary of Study Hypothesis

1. There may be some gender and national differences in traditional values.
   
   1a. Female students generally possess traditional relationship values to a greater extent than male students in both China and U.S..

   1b. The Chinese students generally possess traditional relationship values to a greater extent than the U.S. students.

   1c. Gender differences in terms of traditional relationship values may be smaller for U.S. than for China.

2. Core Hypothesis: Traditional values moderate the relationship between romantic relationships and self-esteem and mental health for both Chinese and U.S. students.

   (This overall hypothesis is separated into 3 specific hypotheses)
2a. The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of decreases in self-esteem for students with high levels of traditional values than for students with low levels of traditional values.

2b. The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of decreases in mental health (increases in depression symptoms, alcohol drinking and hostility) for students with high levels of traditional values than for students with low levels of traditional values.

2c. Self-esteem and efficacy are negatively associated with depression, alcohol use and hostility.

3. Romantic relationships have direct effects on both self-esteem and mental health and self-esteem also works as a mediator between romantic relationships and mental health. (This overall hypothesis is separated into 3 specific hypotheses from 3a to 3c).

3a. The stressful aspects of romantic relationships (strain and break-ups) are associated with decreases in mental health (increases in depression symptoms, alcohol drinking and hostility).

3b. The stressful aspects of romantic relationships (strain and break-ups) are associated with decreases in self-esteem.

3c The strength of association between stress in romantic and mental health decreases when controlling for the level of self-esteem.

4. Gender moderates the relationship between romantic relationships and self-esteem and mental health. (This overall hypothesis is separated into 2 specific hypotheses).

4a. The stressful aspects of romantic relationships (strain and break-ups) will be
more strongly predictive of decreases in self-esteem for female student than for male students.

4b. The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of decreases in mental health (increases in depression symptoms, alcohol drinking and hostility) for female student than for male students.

(Or The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of increases in depression symptoms for female students than for male students and increase in alcohol drinking and hostility for male students than for female students.)

5. Culture moderates the relationship between romantic relationships and self-esteem and mental health. (This overall hypothesis is separated into 2 specific hypotheses).

5a. The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of decreases in self-esteem for Chinese students than for American students.

5b. The stressful aspects of romantic relationships (strain and break-ups) will be more strongly predictive of decreases in mental health (increases in depression symptoms, alcohol drinking and hostility) Chinese students than for American students.
CHAPTER IV

RESULTS

In this chapter, I first discuss the descriptive results presented in table 1. Afterwards, I focus on the report of multivariate results based on structural equation modeling (path modeling specifically), which is organized by the corresponding hypothesis they are designed to test. Covariance matrices used in path modeling are attached in the Appendix.

Descriptive Results

Descriptions by Nations and Gender

The descriptive statistics of all the variables used in data analysis including the demographic variables, relationship-related control variables, and the key independent and dependent variables are presented in Table 1.

First, only those demographic variables found consistently predictive of the outcomes are included in the analysis. The average age of American students is lower than that of Chinese students. Specifically, American students are mostly about 18 to 21 years old while Chinese students in the sample are mostly around 20 to 22 years old. In term of gender, both Chinese sample (67.5%) and American sample (71.7%) are overrepresented by women, largely resulting from the convenient sampling design. Similar situation happens to race. American sample is largely composed of White students (83.6%), while Chinese sample is mostly made up from Han (87.1%) (Han is the largest race population in China relative to other minorities). For father’s education level, the fathers of American students obviously have higher education
than the Chinese fathers, which should reflect the correct educational gap between China and U.S.A.

For the control variables related to romantic relationships, only having sex with ex or current boyfriends or girlfriends, and number of relationships experienced are kept in the final analysis. It is interesting and also reasonable to find that American students have a much higher proportion of pre-marital sex than Chinese students, and also have more relationship experience on average.

For the key independent variables, there are more American students who broke up within last 12 months (37.6%) than those Chinese students (29.8%), while the relationship strain (for those who are involved currently) is lower than Chinese. Another remarkable finding is that Chinese students are much more traditional in terms of relationship values than the American students. For the dependent variables, it seems that American students have higher self-esteem, efficacy, lower depression level, higher alcohol use and lower hostility level than the Chinese students.

In addition, those variables shown in Table 1 are also described by gender within each country in Table 2 and 3. For Chinese students, more male students experience pre-marital sex than female students as their self-report, and males also consume more alcohol drinking than female Chinese students. For American students, similarly, the alcohol use of male students looks like higher than female students. But in terms of pre-marital sex, American female students do not differ from male students as much as Chinese females and males do. For other variables, it seems that gender differences are not very clear in both China and U.S.
Table 2 Descriptive Statistics for All the Variables Included in the Analysis

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<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
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<td>China/U.S.</td>
<td>China/U.S.</td>
<td>China/U.S.</td>
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<td>Demographic Variables</td>
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<td></td>
<td></td>
</tr>
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<td>Age</td>
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<td>21.00 / 19.346</td>
<td>1.238 / 1.591</td>
<td>18-25/17-30</td>
</tr>
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<td>.469 / .451</td>
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<td>.871 / .836</td>
<td>.335 / .370</td>
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<td>.898 / .769</td>
<td>1-4/1-4</td>
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<td>Sex with EX (yes=1)</td>
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<td>.141 / .641</td>
<td>.348 / .480</td>
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<td>1.835 / 2.575</td>
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<td>1-7 / 1-10</td>
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<td>Break up in 12 months and</td>
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<td>.298 / .376</td>
<td>.458/.485</td>
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<td>Strain with current</td>
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<td>1.413 / 1.252</td>
<td>.353 / .305</td>
<td>1-3/1-2.8</td>
</tr>
<tr>
<td>Traditional values</td>
<td>520 / 428</td>
<td>4.125 / 2.954</td>
<td>.803 / .927</td>
<td>1.57-6/1.57</td>
</tr>
<tr>
<td>Major Dependents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>520 / 428</td>
<td>2.914 / 3.282</td>
<td>.447/.624</td>
<td>1.29/4-1.4</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>520 / 428</td>
<td>2.772 /3.045</td>
<td>.402 / .571</td>
<td>1.57-4/1.29-4</td>
</tr>
<tr>
<td>Depression</td>
<td>520 / 428</td>
<td>1.908 /1.859</td>
<td>.365 / .516</td>
<td>1.05-3/20/</td>
</tr>
<tr>
<td>Alcohol drinking</td>
<td>520 / 428</td>
<td>.228 / .339</td>
<td>.341 / .487</td>
<td>0-1.85/0-3.25</td>
</tr>
<tr>
<td>Hostility</td>
<td>520 / 428</td>
<td>.970 / .765</td>
<td>.654 / .671</td>
<td>0-3.3/0-4</td>
</tr>
</tbody>
</table>

Table 3 Descriptive Statistics for All the Variables Included in the Analysis (China)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
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</thead>
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<tr>
<td></td>
<td>Female/Male</td>
<td>Female/Male</td>
<td>Female/Male</td>
<td>Female/Male</td>
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<tr>
<td>Demographic Variables</td>
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</tr>
<tr>
<td>Race (Han = 1)</td>
<td>351 / 169</td>
<td>.846 / .923</td>
<td>.361 / .267</td>
<td>0, 1</td>
</tr>
<tr>
<td>GPA level</td>
<td>351 / 169</td>
<td>3.815 / 3.657</td>
<td>.758 / .810</td>
<td>2-5</td>
</tr>
<tr>
<td>Father’s education</td>
<td>351 / 169</td>
<td>1.966 / 1.905</td>
<td>.987 / .921</td>
<td>1-4</td>
</tr>
<tr>
<td>Relationship Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex with EX (yes=1)</td>
<td>249/113</td>
<td>.117/.194</td>
<td>.321 / .398</td>
<td>0, 1</td>
</tr>
<tr>
<td>Number of relationships</td>
<td>351/169</td>
<td>1.821 / 1.864</td>
<td>1.131 / 1.154</td>
<td>1-7</td>
</tr>
<tr>
<td>Sex with the current (yes=1)</td>
<td>208/108</td>
<td>.255 / .370</td>
<td>.437 / .485</td>
<td>0, 1</td>
</tr>
<tr>
<td>Major Independents</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break up in 12 months and</td>
<td>351 / 169</td>
<td>.311 / .272</td>
<td>.463/.446</td>
<td>0,1</td>
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<tr>
<td>currently being single (yes=1)</td>
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<td></td>
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<tr>
<td>Strain with current</td>
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<td>1.412 / 1.415</td>
<td>.340 / .377</td>
<td>1-2.6/1-3</td>
</tr>
<tr>
<td>Traditional values</td>
<td>351 / 169</td>
<td>4.076 / 4.227</td>
<td>.794 / .815</td>
<td>1.57-6/2-6</td>
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<tr>
<td>Major Dependents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>351 / 169</td>
<td>2.895 / 2.952</td>
<td>.428/.485</td>
<td>1.71-4/1.29-4</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>351 / 169</td>
<td>2.745 /2.828</td>
<td>.382 / .435</td>
<td>1.57-4</td>
</tr>
<tr>
<td>Depression</td>
<td>351 / 169</td>
<td>1.934 /1.854</td>
<td>.359 / .372</td>
<td>1.05-3/2/1-2.9</td>
</tr>
<tr>
<td>Alcohol drinking</td>
<td>351 / 169</td>
<td>.189 / .308</td>
<td>.304 / .396</td>
<td>0-1.65/0-1.85</td>
</tr>
<tr>
<td>Hostility</td>
<td>351 / 169</td>
<td>.981 / .947</td>
<td>.647 / .669</td>
<td>0-3.3/0-3</td>
</tr>
</tbody>
</table>

5 For China: Han=1, Minorities=0; For U.S.: White=1, Others=0
Table 4 Descriptive Statistics for All the Variables Included in the Analysis (U.S.A.)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Variables</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Age</td>
<td>307 / 121</td>
<td>19.117 / 19.926</td>
<td>1.257 / 2.212</td>
<td>17-27/18-30</td>
</tr>
<tr>
<td>Race (White=1)</td>
<td>305 / 121</td>
<td>.834 / .843</td>
<td>.373 / .365</td>
<td>0, 1</td>
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<tr>
<td>GPA level</td>
<td>303 / 119</td>
<td>4.277 / 4.042</td>
<td>.706 / .741</td>
<td>2-5/3-5</td>
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<td>Father’s education</td>
<td>307 / 121</td>
<td>2.612 / 2.587</td>
<td>.760 / .792</td>
<td>1-4</td>
</tr>
<tr>
<td>Relationship Controls</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sex with EX (yes=1)</td>
<td>263 / 102</td>
<td>.635 / .657</td>
<td>.482 / .477</td>
<td>0, 1</td>
</tr>
<tr>
<td>Number of relationships</td>
<td>307 / 121</td>
<td>2.567 / 2.595</td>
<td>1.565 / 1.891</td>
<td>1-10/</td>
</tr>
<tr>
<td>Sex with the current (yes=1)</td>
<td>178/ 53</td>
<td>.860 / .925</td>
<td>.348 / .267</td>
<td>0, 1</td>
</tr>
<tr>
<td>Major Independents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break up in 12 months and currently being single (yes=1)</td>
<td>307 / 121</td>
<td>.349 / .446</td>
<td>.477 / .499</td>
<td>0, 1</td>
</tr>
<tr>
<td>Strain with current</td>
<td>180/ 54</td>
<td>1.236 / 1.307</td>
<td>.273 / .394</td>
<td>1-2.4/ 1-2.8</td>
</tr>
<tr>
<td>Traditional values</td>
<td>307 / 121</td>
<td>2.942 / 2.984</td>
<td>.963 / .833</td>
<td>1-5.43/1.43-5.57</td>
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<tr>
<td>Major Dependents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>307 / 121</td>
<td>3.286 / 3.270</td>
<td>.619 / .638</td>
<td>1-4</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>307 / 121</td>
<td>3.029 / 3.084</td>
<td>.570 / .574</td>
<td>1.29-4/1.57-4</td>
</tr>
<tr>
<td>Depression</td>
<td>307 / 121</td>
<td>1.878 / 1.813</td>
<td>.521 / .505</td>
<td>1.05-3.8/1.05-3.35</td>
</tr>
<tr>
<td>Alcohol drinking</td>
<td>307 / 121</td>
<td>.301 / .438</td>
<td>.423 / .612</td>
<td>0-2.95/0-3.25</td>
</tr>
<tr>
<td>Hostility</td>
<td>307 / 121</td>
<td>.756 / .789</td>
<td>.664 / .692</td>
<td>0-4/0-3</td>
</tr>
</tbody>
</table>

Test of Hypothesis 1

Based on gender difference in traditional values within each country as shown in table 2 and 3, females seem not possessing higher level of traditional values than males in both China and U.S. while Chinese male students even look like more traditional than Chinese females (p = .045). Gender differences in China look like not greater than U.S. The national differences in those values, however, are found significant with Chinese students much more traditional than U.S. students in terms of these measured values items (p = .000).

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6 Because of the nature of the convenient sampling, the results of those t-tests should be generalized to the population with great caution because the basic assumption of random sample has been violated.
Multivariate Results

Test of Hypothesis 2

The most important hypothesis in the study focuses on the moderating effect of traditional values on the associations between breakups and mental health outcomes. Specifically, breakups are more strongly predictive of decreases in self-esteem and efficacy, and increases in depression, alcohol drinking and hostility for students with high levels of traditional relationship values than students with low-level traditional values. Meanwhile, esteem and Efficacy are negatively associated with depression, alcohol drinking and hostility so that these two self-evaluation variables in fact partially mediate the moderating effect of breakups on the three final mental health outcomes (i.e., mediated moderation).

The hypothesis is specified into the following path model in Figure 3, referred to as literature based model or the initial model, which was tested separately for China and U.S.A. samples. The key paths specified in the model are that traditional values (centered), breakup in 12 months, and their product interactional terms are regressed on all five endogenous variables (self-esteem, self-efficacy, depression, alcohol, and hostility) and meanwhile self-esteem and self-efficacy are regressed on all three final outcomes (depression, alcohol, and hostility). The model was analyzed by EQS 6.0 with default Maximum Likelihood estimation method. There are only a few missing item in the data and they have been manually imputed with person-scale mean (if the missing is one of the items from a scale) or with the grand mean if missing on a variable.
Fig. 3 Initial Model of the Interaction between Traditional Values and Breakups on All the Five Endogenous Variables for Hypothesis 1

After running the initial hypothesized model, only those control variables which have at least one significant path to at least one of the five endogenous variables are kept in the model. Meanwhile, only those significant key relationships are kept in the final trimmed model, which was shown in figure 4 for Chinese sample and figure 5 for American sample (standardized estimates). Meanwhile, reasonable covariances among the exogenous variables are added and the cases leading to high multivariate Kurtosis were deleted. In addition to the covariance among exogenous predicting variables, the error terms of self-esteem and efficacy are correlated and the errors of depression, alcohol use, and hostility are also correlated. This specification is based on the consideration that those variables may share common omitted causes.
The final interaction model for Chinese students fits data very well, $X^2 (39, N = 358) = 42.082, p = .339, CFI = .996, RMSEA = .015$. And the final interaction model for American students also fits very well, $X^2 (41, N = 359) = 26.684, p = .959$, CFI = 1.000, RMSEA = .000. I will first discuss the results about those core relationships proposed in the first hypothesis. Then I will move to other important findings concerning the relationships between a number of control variables and the endogenous variables in this model.

Fig. 4 China: Final Interactional Model of Traditional Values and Breakups for Hypothesis 1(standardized estimates)
Fig. 5 U.S.A.: Final Interactional Model of Traditional Values and Breakups for Hypothesis 1 (standardized estimates)⁷

Findings on the key relationships in both interaction models

Based on the significance test for non-standardized estimates⁸, traditional values have no significant moderating effects on the relationship between breakups and self-esteem and self-efficacy for both China and U.S. However, Traditional values do have significant moderating effects on the relationship between breakups and depression for Chinese students but not for American students. Specifically, the negative impacts of breakups within last 12 months on depression (β= .093) increases by .133 for each unit increase of traditional values for Chinese students. For alcohol

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⁷ Although the effects of values and the interactional term in US sample are not significant, they should still be kept in the model since the effect of breakups here is conditional on these two variables.

⁸ The path significance is based on the unstandardized estimates and their SE’s since EQS does not report corrected SEs for standardized estimates.
and hostility, no significant interactional effects of traditional values with breakups are found for both Chinese and U.S. samples. In terms of alcohol use, for Chinese students, experiencing breakup within last 12 months significantly increase alcohol use (β = .101). This effect, however, seems to be moderated by traditional values. That is, traditional values seem significantly reducing the negative impacts of breakup on alcohol use by .105 (p = .066). In other words, although traditional values may aggravate depression after breakups, they may also reduce alcohol use after breakups.

Note that when an interaction or product term is included, the effects of its two components are not the main effects any more. Rather they become the effects of one component on dependent variables when the value of the other component equals zero (Jaccard & Turrisi, 2003). For example, since traditional value variable was mean-centered, the effect of breakups on depression when including the breakup-value interaction term can be interpreted as the effects of breakups on depression when traditional values equal its mean. Meanwhile, the effect of centered values in this situation is the conditional effect of values on depression while the value of breakups equals 0 (i.e., for those students who did not experience breakups within last 12 months).

Here for those Chinese students having average traditional values, breakup in 12 months will significantly increase their depression by 0.093 and alcohol use by .101, while for those who did not experience breakup in last 12 months traditional values have trivial and non-significant effects on their depression, alcohol use and hostility. For American students, although there is no interaction effects of traditional values and breakup in 12 months on any of those five endogenous variables, breakup within 12 months (while values = mean) was found to significantly
reduce self-esteem/efficacy ($\beta = -0.114/-0.124$) and increase depression ($\beta = 0.089$). To see the real unconditional main effect of breakup and traditional values, another path model without including their interaction term will be tested and reported later.

In terms of the role of self-esteem and efficacy, results from Chinese students support that self-esteem and efficacy have significantly negative associations with both depression ($\beta = -0.307$ and $-0.344$) and hostility ($\beta = -0.176$ and $-0.188$). For alcohol use, only self-efficacy matters ($\beta = -0.243$). In addition, traditional values (when breakup=0) significantly reduce self-esteem by 0.125 points, which may indicate a mediating effect from traditional values to depression via self-esteem. This point will be further tested in the following main effect model without the interactional term of breakups and traditional values.

For American students, the picture looks like similar that esteem and efficacy significantly decrease depression ($\beta = -0.176$ and $-0.477$) but only efficacy significantly decreases alcohol use ($\beta = -0.134$) and hostility ($\beta = -0.343$). Meanwhile, based on the significant effects of breakups (when values=mean) on self-esteem and efficacy, it seems that the effects of breakups on depression are mediated by these two self-concept variables. Similarly, this mediation will be further tested in the main effect model later.

Based on those results about the key hypothesized relations, it may be concluded that for Chinese student sample there is a directly moderating effect of traditional values on the association between breakups and depression which is not mediated by self-esteem or efficacy (that is, the interactional terms has no significant effect on either self-esteem or efficacy), although self-esteem and efficacy have direct effects on all three final outcomes. That is, the (partial) mediated moderation
hypothesis is not supported but the core interactional hypothesis of traditional values was found in Chinese Sample in terms of depression outcome and thus hypothesis 1 was partially supported. For American sample, however, traditional values have no moderating effects on any of the five endogenous variables.

**Findings on control variables**

Except the core hypothesized relationships discussed above, the model also shows some other significant direct and indirect effects which may be worth attention. For Chinese students, first, sex has significant effects on depression, alcohol use, and hostility either directly or through the mediation of self-esteem and self-efficacy. Specifically, for depression, Chinese female students have significantly lower self-esteem and efficacy and thus higher depression with a significant indirect effects and total effects as .080. For alcohol use, however, although sex has a significant indirect effect via self-efficacy on alcohol use (.032), the direct effect of sex on alcohol use is also significant and much stronger in the opposite direction ($\beta = -.197$). Therefore, sex has a significant total effect of -.165 on alcohol use. That is, although lower self-efficacy may increase female’s alcohol use, female students generally still has significantly lower alcohol use than male students which may be caused by other unspecified factors. Similar situation happens to hostility. Although the significant indirect effect of sex on hostility shows that female has higher hostility level because of their lower self-esteem and efficacy (the indirect effect= .045), the total effect of sex on hostility was reduced to -.062 (N.S.) because of the stronger opposite direct effect ($\beta = -.107$) and may indicate generally females and males may not significantly differ in their hostility levels.
For U.S sample, however, sex does not have mediating effects through self-esteem or efficacy. Sex in U.S sample only shows direct effects on depression ($\beta = .083$) holding other predictors constant (For alcohol use, depending on different stage of model trimming, females generally shows less alcohol use than males either significantly or marginally significantly). In a word, American female students are significantly more depressed and may consume less alcohol than male students, but they do not differ significantly in hostility.

Second, GPA of Chinese students seems another important factor in the model, which significantly increases self-esteem ($\beta = .143$) and efficacy ($\beta = .103$) and thus decreases depression, alcohol use and hostility indirectly (indirect effect on depression = -.079; on alcohol use = -.025 [p = .068 ]; on hostility = -.045). In addition, GPA also directly reduces alcohol use ($\beta = -.116$) and hostility ($\beta = -.114$). For American students, GPA only significantly decreases alcohol use ($\beta = -.165$).

Third, father’s education in Chinese sample as an important indicator of family SES shows both significant direct ($\beta = -.094$) and indirect effects (-.080) on depression through influencing students’ esteem and efficacy. For American sample, however, father’s education did not show any significant effect.

Furthermore, race in Chinese sample (i.e. Han versus minorities) seems another important demographic factor in the model. Students from Han significantly drink less ($\beta = -.129$) and show less hostility ($\beta = -.155$). For American students, race, which embraces different meanings showing dichotomization of White and others, was found to significantly influence depression, and hostility. That is, White students have significantly lower level of depression ($\beta = -.089$) and hostility ($\beta = -.236$) than
other races (mostly Black in the sample).

Last, having sex with ex-boyfriends or girlfriends seems having great impacts on mental health outcomes for both Chinese and American students, which was found significantly increase depression, alcohol use, and hostility (Chinese: .160; .104; .156; Americans: .093; .129; .079 [p=.07-.10]).

Table 5 Summary of Decomposition of Direct and Indirect Effects in Figure 4 for Chinese Sample (otherwise marked, the following effects are significant at p< .05 level)

<table>
<thead>
<tr>
<th>Path Relationships</th>
<th>Total Effect</th>
<th>Indirect Effect</th>
<th>Direct Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex→Depression</td>
<td>.080</td>
<td>.80 (via esteem and efficacy)</td>
<td>---</td>
</tr>
<tr>
<td>GPA→Depression</td>
<td>-.079</td>
<td>-.079 (via esteem and efficacy)</td>
<td>---</td>
</tr>
<tr>
<td>Father’s edu.→Depression</td>
<td>-.174</td>
<td>-.080 (via esteem and efficacy)</td>
<td>-.094</td>
</tr>
<tr>
<td>Value (breakup = 0)→Depression</td>
<td>.032 (N.S.)</td>
<td>.038 (via esteem)</td>
<td>-.007 (N.S.)</td>
</tr>
<tr>
<td>Sex→Alcohol use</td>
<td>-.165</td>
<td>.032 (via efficacy)</td>
<td>-.197</td>
</tr>
<tr>
<td>GPA→Alcohol use</td>
<td>-.141</td>
<td>-.025 (via efficacy) (p = .68)</td>
<td>-.116</td>
</tr>
<tr>
<td>Father’s edu→Alcohol use</td>
<td>-.034</td>
<td>-.034 (via efficacy)</td>
<td>---</td>
</tr>
<tr>
<td>Sex→Hostility</td>
<td>-.062 (N.S.)</td>
<td>.045 (via esteem and efficacy)</td>
<td>-.107</td>
</tr>
<tr>
<td>GPA→Hostility</td>
<td>-.158</td>
<td>-.045 (via esteem and efficacy)</td>
<td>-.114</td>
</tr>
<tr>
<td>Father’s edu→Hostility</td>
<td>-.045</td>
<td>-.045</td>
<td>---</td>
</tr>
<tr>
<td>Value (breakup = 0)→Hostility</td>
<td>.022</td>
<td>.022 (via esteem) (P = .061)</td>
<td>---</td>
</tr>
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</table>
Table 6 Summary of Decomposition of Direct and Indirect Effects in Figure 8 Main Effect Model for American Sample (otherwise marked, the following effects are significant at p< .05 level)⁹

<table>
<thead>
<tr>
<th>Path Relationships</th>
<th>Total Effect</th>
<th>Indirect Effect</th>
<th>Direct Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakup→Depression</td>
<td>.171</td>
<td>.079 (via esteem and efficacy)</td>
<td>.092</td>
</tr>
<tr>
<td>Breakup→Alcohol use</td>
<td>.017</td>
<td>.017 (via efficacy) (p = .073)</td>
<td>---</td>
</tr>
<tr>
<td>Breakup→Hostility</td>
<td>.043</td>
<td>.043 (via efficacy)</td>
<td>---</td>
</tr>
</tbody>
</table>

*Test of Hypothesis 3*

In addition to the interactional effects between breakups and traditional values, there also are direct main effects of breakups and traditional values on depression, alcohol drinking, and hostility, which is partially mediated by self-esteem and self-efficacy (normal mediation). This hypothesis is specified into the conceptual model of the main effects of traditional values and breakups on all the five endogenous variables in Figure 6.

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⁹ The interactional model in figure 5 for U.S. sample has similar direct and indirect effects as the main effect model in figure 8, and figure 7 for the main effect model for China has no significant indirect effect
Specifically, I will examine the unconditional main effects of traditional values and breakup in 12 months (without including their product term) on all five endogenous variables (esteem, efficacy, depression, alcohol use and hostility) and further detect the mediation effects of esteem and efficacy in this process. The model was gradually trimmed in a similar way as the interactional model and the final trimmed models with standardized estimates are presented in figure 7 for China and figure 8 for American. For the main effect model of Chinese students, $X^2(44, N=360) = 48.117, p=.309, CFI=.994, RMSEA=.016$, while for American student, $X^2(35, N=362) = 26.604, p=.845, CFI=1.000, RMSEA=.000$.

Still, I will first talk about the core relationships in the model. That is, the effects of breakups and traditional values (non-centered) and their mediation through...
esteem and efficacy. Then I will move to other important findings concerning the relationships between a number of control variables and the endogenous variables in this model. In each of those parts, Chinese results will be followed by corresponding results from American sample. Note that there will be some overlapping results in this main effect model with the previously discussed interaction effect model. I will just mention those similar results and not get into more details in this section.

In terms of the main effects of traditional values and breakup in 12 months, for Chinese students, each unite increase in traditional values will significantly increase depression by .085 points controlling for relationship status and other relevant variables. The main effect of breakups is only significant for depression (β = .093) but not significant for esteem, efficacy, alcohol use and hostility. Traditional values also have no significant main (direct) effects on self-esteem and efficacy, alcohol drinking and hostility (note: for self-esteem, β = -.076, p = .088. Although not significant, I still keep it in the model based on theoretical consideration about the important impacts of values to self-esteem, and the indirect effects from values via esteem to depression [.023] and to hostility [.013] are both not significant). In sum, although self-esteem and efficacy have direct effects on depression, alcohol drinking and hostility (the effect sizes are similar as those in the interactional model), they are not mediating the main effects of breakups and values to those outcomes. That is, only depression are significantly and directly influenced by and positively associated with traditional values and breakup within 12 months.

For U.S. students, however, only breakups have significant direct effects on self-esteem, efficacy and depression. More specifically, breakup in 12 months significantly decreases self-esteem (β = -.119) and efficacy (β = -.123) and increases
depression ($\beta = .092$). Not as for Chinese students, traditional values show no significant main effects on any of the five endogenous variables. Meanwhile, the effects of esteem and efficacy on the three final outcomes are similar as the interaction model. That is, both esteem and efficacy are negatively associated with depression while only efficacy is related to alcohol use and hostility. Therefore, it seems that breakup in 12 months has both direct effect on depression ($\beta = .092$) and indirect effect through esteem and efficacy (For depression, indirect effect = .079). That is, for American students, breakup within last 12 months increases depression directly and also does so through decreasing esteem and efficacy. Last, breakups have only significant indirect effects on alcohol use and hostility through self-efficacy (For alcohol use, indirect effect = .017; For hostility, indirect effect = .042). Last, the significant relationships between the control variables and outcomes are almost the same as those shown in the interaction model so that I skip their discussion in this section.
Fig. 7 China: Final Main Effect Model of Traditional Values and Breakups for Hypothesis 2 (standardized estimates)

Causal relationships and standardized estimates are illustrated in the diagram. Variables such as AGE, SEX, RACE, GPA LEVEL, FATHEREDU, SEXWITHEX, #RELATIONS, VALUE, ESTEEM, EFFICACY, DEPRESSION, ALCOHOL, HOSTILITY are included. The diagram highlights the direct and indirect effects between these variables, with standardized estimates provided for each relationship.

Fig. 8 U.S.A.: Final Main Effect Model of Traditional Values and Breakups for Hypothesis 2 (standardized estimates)

Similar to Fig. 7, the diagram for the U.S.A. context shows the causal relationships and standardized estimates among variables like SEX, RACE, GPA LEVEL, SEXWITHEX, #RELATIONS, VALUE, ESTEEM, EFFICACY, DEPRESSION, ALCOHOL, HOSTILITY. The standardized estimates for each relationship are included, illustrating the strength and direction of the effects between these variables.
In addition to breakup events, those four models are also tested for relationship strain which may work as a chronic stressor in relationships. In terms of the interactional effect between relationship strain and traditional values on mental health outcomes, results from both Chinese sample and American sample (only for those students who are currently involved in relationships) show that values do not moderate the relationship between strains and any of the five mental health outcomes. However, the main effect model including strain and values without their interaction term indicates that the main effects of relationship strain on self-esteem, efficacy, depression, alcohol drinking, and hostility are all significant. Specifically, relationship strains significantly increase depression, alcohol drinking, and hostility directly or indirectly through decreasing self-esteem and efficacy.

Since both the moderating effect and main effect of traditional values was not found to influence the stress process from relationship strain to mental health outcomes, detailed results from this section of analysis will not be discussed. The only significant and important finding from this part is the effects of relationship strain on the mental health outcomes.

Last, the correlation among traditional values, dating couple identity commitment (interactive and affective), and identity salience was tested for those college students who are currently involved. It is only found that traditional values are significantly associated with affective component of identity commitment for both Chinese and American students; that is, the more traditional a student define him/herself to be, the more affectively committed to the relationship he/she is. The result offers further support for the central role traditional values play in the Stress Process through impacting emotions people devote to relationships. Meanwhile, for
those Chinese college students who experience breakups in 12 months, it was found that their self-evaluation of love for their ex-boyfriends or girlfriends significantly mediate the effect of traditional values on depression. That is to say, more traditional students may feel deeper love to their ex-partners and therefore get more depresses. These additional analyses may help us better understanding the further mechanisms through which traditional values work and it may be concluded that emotional impacts of those values may be an important avenue in the value-based meaning construction processes.

**Test of Hypothesis 4**

The fourth hypothesis focuses on the gendered pattern in the relationship between breakups and mental health outcomes, which can be tested by comparing the relationship in interest between gender groups. Meanwhile, the fourth hypothesis also is conceptualized to explain such gender patterns by the gender differences in the traditional values and further by the gender-specific effects of those values on depression after breakups. In other words, gender should to different extent moderate the key relationships as proposed in the interactional model and the main effect model within each country. Therefore, variant relationships will be seen for females and males within China and America. Because of the nature of convenient sample, not all gendered patterns are expected to be found. I will first talk about the gender differences found in the interactional model and then move to the main effect model separately for China and America.

The key relationships in the interactional model include the effects of breakups, traditional values, and their product term on self-esteem, efficacy,
depression, alcohol use, and hostility and the effects of self-esteem and efficacy on depression, alcohol use, and hostility (i.e., 21 parameters will be compared between females and males). For the main effect model the key relationships only include the direct effects of breakups, traditional values on self-esteem, efficacy, depression, alcohol use, and hostility and the effects of self-esteem and efficacy on depression, alcohol use, and hostility (i.e., 16 parameters will be compared between females and males).

Those relationships are tested by multi-sample SEM method. Specifically, first, Chinese sample was divided into female and male samples and each model was first run simultaneously for females and males without any constraint imposed on the parameters. Then the model was run again with all key relationships constrained to be equal for females and males. The increment of chi-square values caused by each constrained path will be used for deciding whether the gender variance in this path can be held. This step can be done by looking at the “Univariate Increment” of $\chi^2$ value along with each constraint and the corresponding probability value reported by EQS output in the section of LM Test (for releasing constraints). To locate the parameter that are non-invariant across gender groups, we look for those probability values associated with the incremental univariate $\chi^2$ values that are <.05. If this is the case, it will indicate that the constraint will lead to a significantly worse/bigger $\chi^2$ value than the unconstrained model and thus the equal constraint can not be held and the unconstrained or different parameters should be accepted. The same procedures will be done for both Chinese and American samples.

First, the interaction model with all the key relationships included was tested with multi-group SEM procedures described above for Chinese females and males.
and then for American females and males to see whether any gender difference exists. It should be pointed that since the purpose of this test is to find the variance across groups rather than find invariance as usual, the baseline model for females and males must have all those key relationships of research interest although some of them are not significant. In contrast, for purpose of testing invariance across groups, the baseline model was normally trimmed till the best fit and then the significant relationships based on one group are cross-validated in another group. It is noted that, however, although there are some non-significant paths included in either female or male model, the fit of each model is still very good and therefore can offer a good baseline combined $X^2$ value to be compared with the constrained model later. The following discussion will focus on the results of those multi-group comparisons. The unconstrained parameter estimates for each gender group will also be mentioned for possible further implications.

For Chinese students, the total 21 paths in the interaction model are compared across gender and the results show that the interactional effects of traditional values on all the five endogenous variables (self-esteem, efficacy, depression, alcohol use, and hostility) are all not significantly different for female and male students. In particular, the significant interaction effect of traditional values on depression found in Chinese whole sample is quite similar for Chinese female and male students (female: $\beta = .115$; male: $\beta = .147$, both marginally significant). For other outcomes, the interactional effect is neither significant for females nor for males.

In addition, for the effects of the two component variables of the interactional term (i.e., centered traditional values and breakup in 12 months) on all the five
outcome variables (i.e., 10 relationships constrained), multi-group test shows that only the relationship between centered traditional values and depression is significantly different between Chinese females and males ($\Delta X^2(1)= 5.425, p = .020$). Looking at the direction of the unconstrained parameter estimates for females and males (both non-significant), it seems that traditional values increase women’s depression while decrease men’s depression for those who did not experience breakup within last 12 months.

For other 9 relationships, no significant gender differences are found. However, from the unconstrained estimates of those relationships for females and males, some further implications may be seen. First, traditional values (when breakup in 12 months=0) significantly decrease Chinese female students’ self-esteem ($\beta = - .156$) but not significant for Chinese male students. Meanwhile, breakup in last 12 months (when value=mean) has significant effects on both depression ($\beta = .123$) and alcohol ($\beta = .128$) only Chinese female students not for males. The $X^2$ difference test, however, shows that there is no significant gender difference in those paths for Chinese students. Last, for the effects from self-efficacy and esteem to depression, alcohol use, and hostility (i.e., 6 parameters are compared), no significant gender differences between Chinese female and male students are found.

For American students, the non-significant interactional effect found in the whole U.S. sample is also not significant for both female and male students for depression, alcohol, and hostility. However, for self-esteem and efficacy, the interaction term shows significant effects only for males but not for females, and the $X^2$ difference test indicates that gender difference in the relationship between the
interaction term and self-esteem is significant ($\triangle X^2(1) = 4.444, p = .035$).

Specifically, it seems that the increase of traditional values of American male students will decrease the hurt brought by breakup to self-esteem and efficacy. In other words, there seem to be a buffering effect of traditional values on the relationship between breakups and self-esteem/efficacy for American male students but not female students.

In terms of the effects of the two components of the interaction term on all the five outcomes (i.e., 10 relationships compared), no significant gender difference was found for American students. Based on the unconstrained estimates of those parameter for females and males, however, breakup in last 12 months (while values=mean) seems only significantly decreasing females’ esteem, efficacy and thus increasing their depression but not impacting males. Another component of the interaction term, traditional values (when breakup=0), on the contrary were found to have significant effects only on males’ esteem and efficacy but not females, although $X^2$ difference tests do not show that these gender differences are significant.

Last, for American students, regarding the effects of self-esteem and efficacy on the three final outcomes (depression, alcohol use, and hostility), significant gender differences are found for the relationship between self-esteem and depression ($\triangle X^2(1) = 6.332, p = .012$) and relationship between efficacy and alcohol use ($\triangle X^2(1) = 9.378, p = .002$). Specifically, it seems that self-esteem only has a negative association with male’s depression and self-efficacy only significantly reduces males’ alcohol use.

Second, the main effect model of breakups and traditional values without including their product term was tested by the same multi-group SEM procedures for possible gender differences in the key relationship within each country.
For Chinese students, the main effects of traditional values seem differ for females and males. Specifically, first, traditional values only significantly increase females’ depression but not impact males and the X2 difference test shows that gender difference in the relationship is significant ($\Delta X^2(1) = 5.248$, $p=.022$). Also, the unconstrained estimate results show that traditional values only significantly reduce alcohol use for Chinese female students but not for male students. Multi-group analysis shows that this gender difference is not significant.

In terms of gender differences in the effect of breakups on all five mental health outcomes, no significant gender differences were found. The unconstrained estimates for Chinese females and males, however, indicate that breakups in 12 months only significantly increase depression and alcohol use of Chinese female students but not significantly influence any mental health outcomes of Chinese male students, although these seemingly gender differences are not statistically significant.

For American students, in terms of gender differences in the direct effects of breakups and traditional values on the five mental health outcomes, no significant gender difference is found. The unconstrained estimates for females and males, however, show that traditional values seem only significantly reducing female students’ alcohol use and only significantly increasing male students’ hostility and that breakups in 12 months only significantly decrease female student’s esteem and efficacy.

Last, regarding gender differences in the effects of esteem and efficacy on the three final outcomes, the results from this main effect model based on Chinese sample and American sample are the same as those from the interactional effect model.

In conclusion, for Chinese students, it seems that breakups significantly
increase not only depression but also alcohol drinking of female although there is no significant gender difference found in terms of relationship between breakups and any of the mental health outcomes. For American students, there are quite similar impacts of breakups for females and males. Therefore, the hypothesized gender pattern that females should be more depressed than males after breakups is not statistically supported. The relevant findings in comparing all the paths of the two models, however, do imply the disadvantageous status of female students especially Chinese female students in romantic relationships.

*Test of Hypothesis 5*

The last hypothesis involves the possible national differences between China and America in terms of the relationship between breakups and mental health outcomes. Similarly, national differences in the effect of traditional values are expected to be found to explain such possible national patterns. However, as for possible gender patterns, those hypothesized national patterns may not be detected in this small and truly convenient sample which even does not to some extent simulate population structure. Therefore, we will just attempt to find potential national differences by looking at all the key paths in the interactional and main effect model with multi-sample SEM method in a somewhat exploratory way.

First, the interactional model with all the key relationships included was compared between Chinese and American students. In other words, the aforementioned multi-group SEM analysis was employed to compare national differences in the key relationship of the interactional model. The results show that out of 21 key relationships, the path from traditional values (centered and when
breakup=0) to self-esteem significantly differ between Chinese and American students \((\Delta X^2(1) = 6.538, p=.011)\). The unconstrained estimates prompt that in this situation traditional values only significantly reduce self-esteem for Chinese but not for Americans. This gender difference is also found in the national comparison of the main effect model. That is, the main effects of traditional values on self-esteem significantly differ across nations \((\Delta X^2(1) = 5.984, p=.014)\). In addition, the interaction effect of traditional values (i.e., the effect of the product term) on depression is close to be significantly different across nations \((\Delta X^2(1) = 3.042, p=.081)\), implying that traditional values only significantly exacerbate depression brought by breakups for Chinese not for Americans.

National differences are further tested by comparing Chinese females versus American females, Chinese females versus American males, Chinese males versus American females, and Chinese males versus American males. First, in terms of interactional model, Chinese females and American females are significantly different in the relationships between values (breakup=0) and esteem \((\Delta X^2(1) = 5.088, p=.024)\), values (breakup=0) and depression \((\Delta X^2(1) = 4.040, p=.044)\), efficacy and alcohol \((\Delta X^2(1) = 6.533, p=.010)\). The directions for those relationships indicate that traditional values appear only significantly decreasing esteem, increasing depression for Chinese female students and efficacy only significantly decreases alcohol use for Chinese females students not for American females. No significant differences are found between Chinese females and American males, between Chinese males and American females, and between Chinese males and American males.

Second, for the main effect model, the results are consistent with those from
the comparison of the interaction model. That is, only for Chinese females and American females, national differences are found in the same three relationships as above. This result further confirms that traditional values only significantly decrease self-esteem and increase depression for Chinese female students. In addition, significant group difference was found between Chinese females and U.S. males in terms of the relationship between traditional values and hostility. It seems that traditional values significantly increase American male students’ hostility but have trivial effects for Chinese female students.

In sum, the potential national pattern of the relationship between breakups and mental health is not found. American students are not less depressed than Chinese students after breakups. However, the results show that traditional values do affect college students from the two countries to different extent. The implication of this result will discussed further in chapter 5.
Table 7 Summary of the Relationships with Significant Group (gender and nation)
Differences Based on Multi-group Chi-square Difference tests by Gender and by Nations

<table>
<thead>
<tr>
<th>Model</th>
<th>Compared Groups</th>
<th>Relationships</th>
<th>Chi-square ((\Delta X^2) [1], p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction model</td>
<td>Chinese females vs Chinese males</td>
<td>Value (\rightarrow) depression (breakup=0)</td>
<td>(\Delta X^2 (1) = 5.425, p=.020)</td>
</tr>
<tr>
<td>Interaction model</td>
<td>U.S. females vs. U.S. males</td>
<td>Value*breakup (\rightarrow) esteem; esteem (\rightarrow) depression; efficacy (\rightarrow) alcohol</td>
<td>(\Delta X^2 (1) = 4.444, p=.035); (\Delta X^2 (1) = 6.332, p=.012); (\Delta X^2 (1) = 9.378, p=.002)</td>
</tr>
<tr>
<td>Main effect model</td>
<td>Chinese females vs Chinese males</td>
<td>Value (\rightarrow) depression</td>
<td>(\Delta X^2 (1) = 5.248, p=.022)</td>
</tr>
<tr>
<td>Main effect model</td>
<td>U.S. females vs. U.S. males</td>
<td>Esteem (\rightarrow) depression; efficacy (\rightarrow) alcohol</td>
<td>(\Delta X^2 (1) = 5.365, p=.021); (\Delta X^2 (1) = 9.869, p=.002)</td>
</tr>
<tr>
<td>Interaction model</td>
<td>Chinese vs. Americans</td>
<td>Value (\rightarrow) depression (breakup=0)</td>
<td>(\Delta X^2 (1) = 6.538, p=.011)</td>
</tr>
<tr>
<td>Main effect model</td>
<td>Chinese vs. Americans</td>
<td>Value (\rightarrow) esteem</td>
<td>(\Delta X^2 (1) = 5.984, p=.014)</td>
</tr>
<tr>
<td>Interaction model</td>
<td>Chinese females vs. U.S. females</td>
<td>Value (\rightarrow) esteem (breakup=0); Value (\rightarrow) depression (breakup=0); Efficacy (\rightarrow) alcohol</td>
<td>(\Delta X^2 (1) = 5.088, p=.024); (\Delta X^2 (1) = 4.040, p=.044); (\Delta X^2 (1) = 6.533, p=.010)</td>
</tr>
<tr>
<td>Main effect model</td>
<td>Chinese females vs. U.S. females</td>
<td>Value (\rightarrow) esteem; Value (\rightarrow) depression; Efficacy (\rightarrow) alcohol</td>
<td>(\Delta X^2 (1) = 5.187, p=.023); (\Delta X^2 (1) = 3.591, p=.058); (\Delta X^2 (1) = 6.434, p=.011)</td>
</tr>
<tr>
<td>Main effect model</td>
<td>Chinese females vs. U.S. males</td>
<td>Value (\rightarrow) hostility</td>
<td>(\Delta X^2 (1) = 4.312, p=.038)</td>
</tr>
</tbody>
</table>
CHAPTER V

DISCUSSION AND CONCLUSION

The aim of this dissertation is not only providing a test of the Stress Process Model with the substantive examination of romantic relationships for college students, but also attempting to expand this model by investigating the role of values in this process, specifically by examining how personal values on one hand connect with cultural and structural factors and on the other hand generate personal meanings which eventually impact mental health outcomes. Through collecting data in both countries with survey method and analyzing data mostly with path modeling, the results provide some insights on those research questions.

Looking at the general picture of the whole results found in the study, three major conclusions could be made. First, breakups and strains occurring in relationships significantly harm mental health of both Chinese and American college students and part of those effects are mediated through self-esteem and efficacy; Second, traditional values work as a major social-psychological mechanism influencing Chinese students only by exacerbating the impacts of breakups on their depression level and this interactional effect does not differ between Chinese female and male students; Third and last, significant gender and national patterns in the association between romantic relationships and mental health are not found in the study. Meanwhile in terms of traditional values, only significant national differences are found. In other words, the link between traditional values and those patterns cannot be clearly solved in the study.

In this chapter, I discuss and interpret those important results based on the
hypotheses they are supposed to test. Specifically, I first talk about the important results from the interactional model of breakups and values for China and U.S., then move to the main effect models, along with emphasis on the important gender differences in the both types of models within each country. Third, national differences in those models will also enter into discussion and possible conclusions will be made for those important results. Finally, important results from control variables will be discussed.

Furthermore, the implications of those results will be discussed in terms of adding knowledge to the general Stress Process model and to the substantive field of romantic relationships and mental health. Last, limitations of the study and possible directions for future research will be briefly proposed.

**Results and Interpretation**

*The moderating effect of Traditional Values*

In terms of the first and core hypothesis of the study, the interactional effect of traditional values has been found only for Chinese students, not for American students. Specifically, traditional values moderate the relation of breakups within last 12 months to current depression level by significantly increasing the harmful effect of breakups on depression (i.e., the mean difference in depression before breakups and after breakups, or here between those experiencing breakups and those not).

Through examining this interactional effect, the meaning ascribed to relationship events such as breakups based on traditional values is in fact tapped although in a somewhat indirect way. Based on the result, both the core hypothesis
and the corresponding theoretical conception get partially supported. Personal values as an important component of self-concept are always theorized to influence individuals’ interpretation of meanings for particular life event, and therefore reasonably influence the mental health outcomes after events. The empirical examination of this theoretical conception, however, never enters into the literature. The result, although only found in Chinese sample, at least partially support the theoretical construction and meanwhile also adds to the meaning-related studies in mental health research. Furthermore, additional findings on the relationship between traditional values, affective commitment, and love for ex-partners also confirm the important emotional repercussion of those personal values.

An additional point in terms of this finding is that the interactional effect works to a similar extent for both Chinese women and men and no significant gender difference in this effect has been found. In other words, for both women and men the increase of traditional values will lead to similar increase in the effect of breakups on depression. That is, more traditional women and men will get similarly more depressed after experiencing breakups within last 12 months. Or, since the interactional effect is statistically symmetric, the result can be also stated in another way that for both Chinese women and men the effect of traditional values on depression is moderated by experiencing breakup in 12 months or not. More specifically, breaking up in 12 months will increase the effect of values on depression.

The result may imply that to similar extents traditional values influences both women and men’s meaning interpretations of breakup (as indicated by the interactional effect of traditional values on the relationship between breakups and depression) or breakups influences both women and men’s meaning interpretations of
traditional values (as indicated by the interactional effect of breakups on the relationship between values and depression). The underlying pictures which lead to this similar interactional effect for women and men may be quite different and will be further examined later in the discussion of the main effects of traditional values and breakups. Those underlying stories will tell us that although the effect size of the interactional effect is similar for men and women, the actual meaning interpretations for men and women are not so similar as the interactional effect reveals.

Furthermore, the findings from the interactional model of Chinese students also show that this effect does not mediated by self-esteem or efficacy to influence depression. That is, the interactional terms in the model has no significant effect on esteem or efficacy, which indicates that traditional values increase the harmful effect of breakups on depression in a direct way rather than through influencing esteem or efficacy first. The result is opposite to the hypothesis which expects that traditional values should first aggravate the decrease of self-esteem and efficacy after breakups and the increase of depression, alcohol use and/or hostility.

Given the theoretical importance of personal values to self-esteem, one of the possible explanations of the result is that individuals tend to maintain and protect positive self-evaluations by reporting higher esteem and efficacy and thus it looks like those more traditional students did not experience stronger attack to their self-evaluations after breakups than less traditional students. In contrast, the self-report of depression may be more accurately reflect the true mental health situation of individuals and therefore the interactional effect appears to be only significant for depression.

In addition to the interactional effect of traditional values on depression as
above discussed, traditional values may also moderate the relation of breakups to alcohol use. The findings show that for Chinese students the increase of traditional values reduces the harmful effect of breakups on alcohol use (i.e., increase in alcohol use), although the interactional terms is only close to be significant (p = .66). For American students, although non-significant, the direction of the interaction effect is the same as that for Chinese students. That is, more traditional American students also tend to drink less after breakups. The result may suggest that traditional values may be only harmful in terms of increasing depression level after breakups but protective in terms of decreasing alcohol drinking after breakups.

Finally, for American students, there is no significant moderating effect of traditional values on the relationships between breakups and depression, alcohol use and hostility for either the whole sample or gender groups. However, significant gender difference was found in the relationship between the interactional term and esteem/efficacy. Specifically, traditional values are found to significantly reduce the negative impacts of breakups on self-esteem and efficacy only for American male students. It seems that traditional values are protecting self-esteem and efficacy of those American male students who define themselves as traditional. But it may also possible that those traditional men are extremely defensive and thus highly over report their esteem and efficacy after breakups because the directions of the interaction effect for depression and hostility all show increasing effect though not significant.

*The Main Effect of Traditional Values and Breakups*

The main effect of traditional values is only significant for Chinese sample rather than for U.S. sample. Specifically, traditional values independent of breakup
status, significantly increase the depression level of Chinese students but have trivial impact on American students. Breakups, on the other hand, are similarly significant for both Chinese and Americans in increasing their depression. Furthermore, for Chinese students, the main effects of values and breakups happen only in a direct way to affect only depression outcome, while breakups for American students have both indirect and direct effect on depression and also have indirect effect on alcohol use and hostility through esteem and efficacy. I will first talk about the main effects of values and breakups for Chinese students and then discuss the main effect of breakups for American students.

Although the interactional effect of traditional values works the similar way for both Chinese women and men, the significant gender difference in the unconditional main effect of traditional values (i.e., controlling for breakups and other relevant variables) on depression was found. Traditional values only significantly increase Chinese women’s depression rather than men’s. In other words, for Chinese female students, traditional values not only increase the impacts of breakups on their depression level but also increase their depression no matter what relationship status they are in. In addition, for the relationship between values and esteem, it is also found that values only significantly decrease Chinese females’ esteem but no significant gender difference was found. The result connotes that there may be different underlying pictures for women and men which lead to similar interactional effects but different main effects.

By looking at the path estimates separately for women and men, a reasonable explanation for this gender difference surfaces. Specifically, for women, traditional values increase depression both before and after breakups and therefore still increase
women’s depression independent of this relationship status. For men, however, traditional values first decrease depression before breakups and then increase depression after breakups a little bit. Therefore, traditional values on average have trivial effect on depression independent of relationship status but the difference of the effect of values on depression before and after breakups (the interactional effect of breakups) is similar to that of women (note, to be precise, here we should use for those who did not experience breakup and for those who did since the cross-sectional nature of the study, here we discuss it in a longitudinal way to make the interpretation more meaningful because they actually express similar meanings). In a word, although the difference of the impacts of traditional values resulting from breakups or not (i.e., the interactional effect) is quite similar for women and men, the underlying pictures leading to this result may be different for women and men which show that traditional values on average may have greater harm on women whether in relationship or not while may be good for men in relationships and only slightly harmful for men after breakups and thus independent of breakup status have trivial effect on men.

In addition, for Chinese students, no significant gender difference was found in the main effect of breakups in 12 months. But the effect sizes for women and men in the unconstrained model show that the effect of breakup on depression for women is bigger than that for men although not significantly different. This main effect generally tells us that for both women and men breakups increase depression independent of being traditional or not. This result is consistent with the Stress Process model theory and also with precious literature. Breakups especially those occurring within last 12 months, as a negative life event, may still have strong
influence on individuals’ mental health status, especially for college students for whom relationship is another important part of life except for study.

The effect size difference, however, may imply that the main effect of breakups on men’s depression may be smaller than on women’s. Furthermore, given the interactional effect of traditional values on the relationship between breakups and depression is similar for women and men whether in sign and size, the difference of the effect of breakups on depression for more traditional and less traditional women should be similar to that for more traditional and less traditional men. In a word, although the difference of the impacts of breakups resulting from traditional value level is quite similar for women and men, the underlying pictures leading to this result may be different for women and men which show that breakups on average have greater impacts on women than on men independent of traditional value levels.

Finally, in terms of the main effect of breakups for American students, no gender difference is found. The results are also consistent with previous research showing that breakups increase depression level both directly and indirectly through decreasing self-esteem and efficacy and only indirectly increase alcohol use and hostility through decreasing self-efficacy. Besides, relationship strain is also found to significantly influence all the five outcome variables for both Chinese and U.S. samples. In sum, the results from both China and U.S. about the main effect of breakups and relationship strain confirm the Stress Process model on the process of negative life events and chronic strain impacting mental health outcomes.

An Interpretation Combining Interaction and Main Effect

Combining the similar interactional effect of traditional values for Chinese
women and men and the underlying pictures leading to the effect, some possible explanations of these results may be inferred. First, the similar interactional effect of traditional values for Chinese women and men may reflect to some extent the truth that more traditional persons generally attach more subjective importance to romantic relationships and therefore react more negatively to such event as breakups.

However, the similar interactional effect also may be partially caused by the characteristics of the college student sample. Similar education for those Chinese female and male students may reduce gender differences in values and the ways of interpreting meanings. For general Chinese populations, it is still theoretically expected that traditional values may to a greater extent increase the harmful effect of breakups on women’s depression than on men’s, partially because the larger social environment (e.g., structural constraints, cultural orientations, and interpersonal meaning negotiations) in China is still more tolerable and favorable for men than for women. For example, more failure experiences in romantic relationships may reduce the worth of a girl in marriage market but may be less influential for men. Also, interpersonal negotiations of meanings influenced by larger cultural orientations may further aggravate the adverse interaction effect of traditional values for women but may reduce such effect for men. Imagine after breaking up, social support from friends, families and even web forums is more likely to convey a male student the information that “this is not a big deal” than to do that to a female student.

Finally, although no gender difference was found in the interactional effect of traditional values, gender difference in the main effect of traditional values on depression may indicate that Chinese women are double-disadvantaged relative to Chinese men. This is because more traditional girls may get more depressed in
relationships and get even more strongly hurt after breakups while traditional values may protect those men in relationships and only slightly hurt them after breakups. Therefore, even though the statistical effect size of the interactional effect of breakups on the relation of values to depression is similar for women and men, the main effect of traditional values reveal the more disadvantageous status of women in romantic relationships.

In addition, for the main effect of breakups on depression independent of traditional values, although not statistically different from women to men, the effect size is almost twice for women than for men. This result may also suggest the disadvantageous status of female students in terms of the influence of breakups. In a word, although breakups generally increase depression for both female and male students and the mean difference of the effect between more traditional and less traditional students may be similar for females and males, breakups on average seem more strongly increase women’s depression.

National Differences in Interaction and Main Effect Models

In terms of national difference in the moderating effect of traditional values, although only marginally close to be significant, the unconstrained estimates for each country show that the interactional effect is only significant for Chinese sample and about twice the effect size than that of American sample. This result, first, may indicate that traditional values are more influential for Chinese students’ mental health after breakups. Second, it may also show that for both Chinese and American college students, more traditional persons get more depressed after breakups since the sign of the interactional effect of China and U.S. is in the same direction. In addition, the
interactional effect is further compared between all combinations of nations and
gender and no significant difference is found between any pair of those groups.

Regarding the national difference in the main effect of traditional values and
breakups, similar pictures are found between Chinese and American students just as
those between Chinese females and males. First, the main effect of breakups on
depression shows no national difference between any pair of groups, which may
indicate that for both Chinese and Americans and for both females and males a
breakup occurring recently is a major negative life event leading to worse mental
health especially in terms of depression.

Second, the main effect of traditional values is significantly different between
Chinese females and U.S. females. One of possible reasons for this picture is that only
Chinese females are double jeopardized by traditional values as discussed above
while for U.S. female students just as for Chinese male students the effect of
traditional values independent of breakup status is canceled out by the first beneficial
and then harmful effect of those values\textsuperscript{10}. In addition, similar result was also found in
terms of the relationship between values and esteem. That is, traditional values only
significantly decrease self-esteem of Chinese females compared with U.S. females.
This result further confirmed the disadvantageous status of Chinese female students
with high level of traditional values.

Summarizing those results, it may be concluded that traditional values
measured in the study may not work as a strong mechanism impacting American
college students’ mental health in relationships. Therefore, difference in traditional

\textsuperscript{10} For U.S. male students, traditional values first also decrease their depression but after breakups those values
increase their depression more strongly than for U.S. females and thus the main effect still shows that those values
increase depression of U.S. male students.
values between Chinese and U.S. students (i.e., American students are much less traditional) may not create national patterns in mental health and there may be other more important factors worth to be investigated impacting mental health of American students in relationships.

Finally, some other national differences were found which could also be explained in somewhat meaningful ways. First, significant national difference is found between Chinese and American female students in the relationship between efficacy and alcohol use. Specifically, high efficacy only greatly decreases alcohol use of Chinese females but trivially decrease that of American females. The possible reason for this result may be that drinking is a more common activity for U.S. students which may not be affected by efficacy levels while for Chinese students especially female students drinking is more of an expression of worse mental health situations such as lower efficacy. Another significant national difference is for the relationship between values and hostility. Specifically, traditional values significantly increase hostility level of American male students but slightly and insignificantly decrease that of Chinese female student.

**Important Results from Control Variables**

In addition to the key interactional and main effects of traditional values and breakups, results from some control variables also show some important implications. First, sex is a significant factor affecting all of the five endogenous variables. Generally speaking, female students in either China or U.S.A. show higher level of depression, lower level of alcohol use and hostility controlling for other predictors including values, relationship status and the interactional effect. This result is
consistent with previous literature about the gender-specific expression of mental health outcomes, while it may also indicate that there are some other important omitted factors in addition to traditional values which may influence women’s depression.

Second, for Chinese students, GPA seems a very important factor influencing mental health status, which is not strange given the general social environment in China emphasizing academic achievement. Also, for College students, studying is supposed to be another important life domain in addition to romantic relationships. Therefore, GPA significantly decreases depression, alcohol use and hostility both directly and through increasing esteem and efficacy. For American students, GPA seems not so powerful which only reduces alcohol use. In sum, it looks like students with better academic achievements usually doing better in both mental and behavioral problems.

Another finding involves the influence of father’s education. In China, father’s education (but not mother’s education) works as an important proxy of family SES, significantly correlated with another variable (i.e., growing areas: urban or rural areas). Fathers of students from rural areas often have education levels lower than high school and work as farmers. These variables influence self-esteem and efficacy of Chinese students and further their depression level. In China, college students from poor families especially those from rural poor families usually have very limited money for living\textsuperscript{11} and thus may feel inferior to other richer students. They usually talk less and have less social activities.

Race, also as a demographic variable, although indicating different meanings

\textsuperscript{11} In China, usually families afford all the cost of children attending colleges and there are not many options for college students to work and support themselves.
in China and America, shows some similar effects on the mental health status of those college students. For both China and U.S., students in the major race (Han for China and White for U.S.) show better mental health in terms of lower depression, hostility and less alcohol use. This result is not only consistent to current research findings about race patterns in mental health in U.S. but also remind us that similar patterns may also exist in China and more such studies focusing on mental health of Chinese racial groups should be launched.

Last, having sex with ex-boyfriends or girl friends is found to be a very significant factor influencing all the mental health outcomes in both China and U.S. The result is somewhat out of expectation since pre-marital sex in U.S. has been considered a very common behavior in American college students and thus should not have such a great impact on mental health. However, the finding may imply that such a popular behavior does not mean it is meaningless for college students and sexual behavior may be related to more emotional commitment and thus stronger mental reactions.

Implications

Meaning Study and the Stress Process Model

This significant interaction effect of traditional values to some extent supports previous arguments based on identity control theory and identity-relevant hypothesis (Thoits, 1991, 1995) by indirectly locating the role of self-related meanings in the Stress Process. More importantly, this result also provides support for the argument of the expanded Stress Process Model by McLeod (2012). This
expanded model on one hand explicitly places meaning construction processes in the center of the Stress Process including meaning negotiation processes in proximate environment, on the other hand also emphasizes the systematic connections of meanings with larger social structure and culture at component level.

Inherently this expanded model is consistent with the synthesized theoretical perspective guided by SSP framework proposed in the study. However, although McLeod (2012) mentioned the role of identities, beliefs, and values as the basis of personal meanings as one of the four types of current meaning-analyzing approaches, she did not actually differentiate values as a functionally different concept from identities and general beliefs and she did not propose any detailed empirical approach to examine this expanded stress process model.

Findings from this study not only offer empirical support to the expanded model but also further complement to it by pinpointing a key meaning process in the model which could be empirically examined in various substantive areas not only just in romantic relationships. An argument based on the research results could be made that values could be considered as the core of personal meanings, which not only works as a central meaning-generator in the Stress Process but also is shaped and connected with social structural and cultural factors. In other words, personal values may works as a nexus of bridging larger social structure and culture with subjective meaning evaluations. The empirical support and the theoretical clarification of this argument will no doubt facilitate further examinations of the expanded model in multiple substantive areas.

Furthermore, the study directly examined the structural and cultural origins of self-meanings by comparing the moderating effect of traditional values (which is
an indirect proxy measure of meanings) across nations and gender. McLeod (2012) proposed two approaches in such research that researchers could study systematical variations in narrative accounts by important social locations and by social ideologies. Those two types of research questions are more of qualitative nature and may be limited by its ability of generalization. The study, however, investigated such questions by quantitative methodologies also taking into account their qualitative nature and thus may offer a stronger support for the argument on the structural and cultural origins of subjective interpretations of life stress.

In terms of the significance of this study for the expanded stress process model, however, this study has a major limitation that the meaning negotiation processes in the model cannot be directly examined due to the quantitative survey methodology of this study. In order to test the model in a whole rather than piece meal way, this limitation seems inevitable since whenever meanings are subject to continuous negotiation they may become not stable enough to either find their connections with larger social structures or to find their moderating effects on mental health outcomes. Therefore, in the study personal values were chosen as a relatively stable proxy of those meanings and assume the negotiation of value-based meanings has been relatively settled or they are relatively more difficult to negotiate.

In addition, although not directly tested, the study results in gender and national differences do imply some effects of possible meaning negotiation processes. The potential negotiations of value-based meanings at proximal and interpersonal level shaped by different structural and cultural contexts help the interpretation of those results. For example, the national difference in the moderating effect of traditional values is close to be significant with the effect size for American students
much smaller than that for Chinese students. To interpret this result, possible meaning negotiation processes may be employed. Specifically, although both traditional American students and Chinese students get more depressed after breakups, a less stringent and more diverse social structural and cultural environment in U.S. may facilitate interactional-level meaning negotiations supporting more positive meaning interpretations of breakup events. In China, however, personal value-based meanings may be further aggravated by such negotiation processes which may eventually lead to even more negative meaning evaluations of such events and corresponding mental health outcomes.

*Romantic Relationships and Mental Health*

In the substantive research area of romantic relationships and mental health, this study could contribute to several aspects. First, in terms of explaining the mechanisms through which romantic relationships impact mental health, the discussions of current literature are often limited to theoretical level such as using gender socialization and role theories to explain gendered patterns in the association between romantic relationships and mental health, with rare research empirically examining specific mechanisms in the process. In contrast, this study contributes to the understanding of such an important mechanism, i.e., traditional values, by collecting empirical data and analyzing the mediation and moderation processes with path modeling.

Second, while focusing on the moderating mechanism of traditional values, this study also paid attention to the systematic connections of this mechanism with social structure and culture, making it a unique sociological contribution in this
substantive area. In contrast, currently rare literature in this area often comes from psychological fields focusing on purely individual-level affective and cognitive processes, as discussed in the literature review chapter.

Last, although this study only employed a convenient sample of college students, it still shed light on the gender and national patterns of the association between romantic relationships and mental health. For gender pattern, some findings agree with current opinions that there is no gender difference in the association between such as breakups and mental health outcomes. More importantly, the study reveals some more nuanced gender patterns such as the analysis concerning gender differences in the moderating effect of traditional values in romantic relationships. For national patterns, the study even filled a gap in this area since almost no literature is found investigating such cultural differences in romantic relationships.

Limitations

As aforementioned, the most constraining limitation of this study is the sampling method used. This is a truly convenient sample, drawn from one Northeast University of America and several Chinese Universities in north China. Several drawbacks result from this type of sampling method. First, the composition of gender and race is not appropriate with males and minorities highly under-represented, which may greatly constrain the generalization of the results to those groups and also may bias the results from gender comparisons. Second, the significance tests in the study may not make sense since the basic assumption of random sample for this kind of test cannot be met. Third, structural and cultural patterns can not be stably estimated and may look like quite complicated and irregular due to great possibility of capitalizing
on chance of the convenient data.

Although with those problems, I still believe that the findings from the study shed important light on the research topic since most of them still make theoretical sense and thus can be considered to some extent reflect some part of truth. Also, with the purpose of examining the proposed meaning theory in the Stress Process, the sample is not a perfect one but is a right one for theory-testing.

The second important limitation is the cross-sectional nature of the data. Due to this weakness, the causal relationships in the models can never be confirmed since both issues of time ordering and ruling out the third variables cannot be solved. In terms of the effect of breakups on depression, for example, the cross-sectional data can only compare students who did experience breakup in 12 months with those who did not. For the relationship between relationship strain and depression, the causal direction cannot be determined by the model using this data. To somewhat solve these problems, longitudinal especially panel data will be a good choice to investigate same college students along different time points probably from entering college to graduation.

The third limitation is about the development of traditional value measures. In fact, there might be multiple alternative ways to measure this construct. The one I chose here may not best capture the underlying meanings of traditional values impacting mental health in romantic relationships. Also, although the literal meanings of those measure items may be invariant between Chinese and American students, the underlying meanings those items imply to individuals may be different and thus the effect of those values may also differ across nations. This value measure may not capture those subtle underlying cultural differences. For example, the traditional
relationship values of Americans may mostly be based on Christian doxies, which approximately apply to both females and males in a similar way, while for Chinese those values are derived from Confucian ethos which usually more strongly regulates women’s self-concepts and behavior rather than men’s.

Furthermore, the analyzing strategy of using moderating effect of traditional values to indicate meaning interpretation process is still not a best choice. Such a strategy is an indirect measure of meanings and thus may miss a lot of details in this complicated meaning-making process. Meanwhile, such a strategy also has limited ability to investigating meaning negotiation process proposed in the expanded stress process model. To achieve these goals, we still need more independent studies investigating the meaning negotiation processes per se, although our focus here is to find an empirical cut-point which enables us examine both the altering effects of meanings for stressors and their systematic connections and paths with social structure and culture.

Future Directions

First, two issues in terms of further testing the expanded stress process model should be more directly addressed in future studies. The first one is about the ways directly examining meanings in the Stress Process and the other is concerning the meaning negotiation process central for the expanded stress process model which should be examined directly rather than just being implied by the results of this study. For these purposes, qualitative data should be gained to examine the direct meanings of those values to further improve the accuracy of predicting mental health outcomes, meanwhile also to investigate possible meaning negotiation processes. Mcleod (2012)
also suggested that combined methods can be used to investigating specific meaning construction processes and deal with such questions as who enter and left into the respondent’s networks and how meanings are negotiated in the interactions.

Second, since this study to some extent support the role of personal values as one of the central meaning-constructing mechanisms, continuing substantive studies of different types of values could be conducted to examine the meaning generating processes and related mental health outcomes in various life domains.

Third, in terms of methodological problems of the study, several improvements should be done. First, a random sample representing the population to which the study results are purported to generalize should be used in future studies. At least, the sample should simulate the population composition as much as possible. Second, longitudinal data can be collected to better establish causal directions in the model.

Furthermore, in terms of analyzing method, a real structure equation modeling with latent factors should be adopted in future research rather than just using path modeling. Although path modeling has some advantages over OLS regression analysis, it still does not overcome the biggest weakness of OLS, i.e., assuming predictors in the model perfectly measured without modeling measurement error. With latent structure equation modeling controlling for measurement error, the accuracy of the path estimates should be improved a lot. With true latent SEM, however, issues of model identification should become a prior consideration in research design stage.
Conclusion

The dissertation has proposed a distinctive way to examine meaning-constructing mechanisms in the Stress Process related to romantic relationships of college students. By investigating the moderating effect of traditional values in romantic relationships, both theoretical literature on the meaning-related studies especially the expanded stress process model and substantive literature on romantic relationships are enriched. Through future research on the meaning negotiation processes per se with improved sampling and research design, the processes of meaning construction in stress and mental health will get further clarified.
REFERENCE


APPENDICES

A: COVARIANCE MATRICES

B: SURVEY QUESTIONNAIRES
APPENDIX A COVARIANCE MATRICES

Covariance Matrices Analyzed in the Interactional Models for China and U.S. (Fig. 3 & 4) and the Main Effect Models for China and U.S. (Fig. 6 & 7)

Covariance Matrix for China Interaction Model (Fig. 4) (N=358)

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Covariance Matrix for U.S. Interaction Model (Fig. 5) (N=355)

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Covariance Matrix for U.S. Main Effect Model (Fig. 8) (N=358)

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APPENDIX B SURVEY QUESTIONNAIRE

Confidential. Please do not sign your name or any other identifying information.

QUESTIONNAIRE

PART 1: Please answer the following questions and circle the only one answer to each of them.
1. Have you been in a romantic relationship? (By “romantic relationship we mean a time in your life where you spent time with one person who were emotionally and physically involved)
   0. No → END SURVEY (Please do not circle your answer. Stop the survey and keep it clean)
   1. Yes → Continue...
2. What’s your romantic relationship status now?
   1. Currently single, my last relationship ended/broken-up
   2. I am in my second or more romantic relationship
   3. In my first romantic relationship please skip question 3.
3. When did your last break-up happen? (in months) __________
4. How old are you? __________
5. Your sex: 1. Female 0. Male
8. What is your major? __________
10. Using the following educational categories to describe your parents’ education level:
   1=Below high school; 2=High school graduation; 3=College graduation; 4=Above college graduation
   What is your father’s education level? __________
   What is your mother’s education level? __________
11. What is your father’s occupation? __________
12. What is your mother’s occupation? __________

PART 2
[Note: If you are currently involved, answer the questions in this part in terms of your current relationship; if you are currently single, answer them regarding your most recently broken relationship.]

Please respond to the following 6 statements with one of the following responses
(Strongly disagree=1; Disagree=2; Neither agree nor disagree=3; Agree=4; Strongly agree=5)
1. You feel very close to your partner? __________
2. Your partner always takes the time to talk over your problems with you? __________
3. When you are with your partner, you feel completely able to relax and be yourself? __________
4. No matter what happens, you know that your partner will always be there for you? __________
5. You know that your partner has confidence in you? __________
6. Your partner often lets you know that he/she thinks you are a worthwhile person? __________

Please respond to the following 5 statements with one of the following response categories
(Not true=1; Somewhat true=2; Very true=3)
1. You have a lot of conflict with your partner________
2. Your partner doesn’t understand you __________
3. Your partner expects too much of you __________
4. Your partner doesn’t show enough affection________
5. Your partner is not committed enough to your relationship________

PART 3
Please answer the following questions with one of the following response categories:
1. It is okay for me to change partners frequently. 
2. I feel it is not good to have too many different relationship experiences. 
3. I hope my partner has few or no relationship experience other than with me. 
4. It is very important for me to marry the person whom I have my first sexual experience with. 
5. If I live with my partner, it is very important for me to get married after cohabitation. 
6. It is important to me to be a virgin before marriage. 
7. It is important to me that my partner is a virgin before marriage. 
8. I is important to me if my partner has the experience of cohabitation before me. 
9. I think girlfriends should comply with boyfriend’s wishes most of time. 
10. I think girlfriends should be always tender to boyfriends. 
11. In general, I am a traditional person. 
12. Being a traditional woman (or man) is an important part of who I am. 
13. For me, Love is the most important factor in a romantic relationship.

Please select one answer to this question:
Romantic relationship and academic achievement, which one is more important for how you see yourself?
1. Relationship; 2. Achievement; 3. Equally important for me; 4. I am not sure

Please answer the following questions with one of the following responses
1=Very important; 2=Important; 3=Not sure; 4=Unimportant; 5=Very unimportant

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<th>Response Options</th>
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<td>How important is it to you that you are in a romantic relationship?</td>
<td>1=Very important; 2=Important; 3=Not sure; 4=Unimportant; 5=Very unimportant</td>
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<tr>
<td>How important is it to you that your family knows you are in a romantic relationship?</td>
<td>1=Very important; 2=Important; 3=Not sure; 4=Unimportant; 5=Very unimportant</td>
</tr>
<tr>
<td>How important is it to you that your friends know you are in a romantic relationship?</td>
<td>1=Very important; 2=Important; 3=Not sure; 4=Unimportant; 5=Very unimportant</td>
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For the following questions (Q1-Q7), unless otherwise instructed, please circle the number of the ONE response which best reflects your opinion.
[Note: If you are currently involved, answer these questions in terms of your current relationship; if you are currently single, answer them regarding your most recently broken relationship.]

1. How often do you do things (even via internet or cell-phone) with your boyfriend/girlfriend?
   1=Never; 2=Seldom; 3=Once a month; 4=Less than once a week; 5=Once a week; 6=Several times a week; 7=Daily

2. In an average week, about how many hours do you spend with your boyfriend/girlfriend doing things together, including eating, having a conversation (face or on-line chatting), talking on the telephone, watching movie, etc.?

3. Of the money you do not need for rent, food, clothing and other essentials how much do you spend on dating? Things like going to the movies and gifts.
   1=Almost none; 2=Less than half; 3=About half; 4=More than half; 5=Almost all

4. How much would you miss your boyfriend/girlfriend if you were not able to spend time or communicate with them?
   1. Miss them not at all; 2. Miss them a little; 3. Miss them somewhat; 4. Miss them a great deal

5. How close (in personal and emotional terms) to your boyfriend/girlfriend are you?

6. How important are your boyfriend/girlfriend to you?
   1. Not at all important; 2. Somewhat important; 3. Important; 4. Very important
important
7. After I do things with my boyfriend/girlfriend I often feel unhappy
   1. strongly agree  2. Agree  3. Disagree  4. strongly disagree

Please answer the following 3 questions with one of the following response categories:
[Note: similarly, If you are currently involved, answer these questions in terms of your current relationship; if you are currently single, answer them regarding your most recently broken relationship.]
1=Almost certainly would not; 2=Probably would not; 3=Probably would; 4=Almost certainly would
1. Think about meeting a classmate first time. How certain is it that you would tell this person about your girlfriend/boyfriend?

2. Think about meeting a person of the opposite sex for the first time. How certain is it that you would tell this person about your girlfriend/boyfriend?

3. Think about meeting a friend of your boyfriend/girlfriend for the first time. How certain is it that you would tell this person about your girlfriend/boyfriend?

PART 4
Please answer the following questions with one of the following response categories:
1=Strongly agree; 2=Agree; 3=Disagree; 4=Strongly disagree
1. I feel I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. I take a positive attitude toward myself.
4. On the whole, I am satisfied with myself.
5. I feel I do not have much to be proud of.
6. I wish I could have more respect for myself.
7. At times, I think I am no good at all.

Please answer the following questions with one of the following response categories:
1=Strongly agree; 2=Agree; 3=Disagree; 4=Strongly disagree
1. I feel as if what happens to me is mostly determined by other people.
2. I certainly feel helpless at times.
3. There is no way I can solve some of the problems I have.
4. Sometimes I feel that I'm not able to accomplish what I want.
5. I have little control over the things that happen to me.
6. I often feel unable to deal with the problems of life.
7. There is little I can do to change many of the important things in my life.

How often in the past month have you had each of the following feelings or experiences?

<table>
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<th>Feeling/Experience</th>
<th>not at all=1; occasionally=2; frequently=3; most of the time=4</th>
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<tbody>
<tr>
<td>1. You were bothered by things that usually don’t bother you?</td>
<td>1  2  3  4</td>
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<tr>
<td>2. You did not feel like eating?</td>
<td>1  2  3  4</td>
</tr>
<tr>
<td>3. You felt that you could not shake off the blues?</td>
<td>1  2  3  4</td>
</tr>
<tr>
<td>4. You felt that you were just as good as other people?</td>
<td>1  2  3  4</td>
</tr>
<tr>
<td>5. You had trouble keeping your mind on what you were doing?</td>
<td>1  2  3  4</td>
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<tr>
<td>6. You felt depressed?</td>
<td>1  2  3  4</td>
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<tr>
<td>7. You felt that everything you did was an effort?</td>
<td>1  2  3  4</td>
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<tr>
<td>8. You felt hopeful about the future?</td>
<td>1  2  3  4</td>
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<tr>
<td>9. You thought your life had been a failure?</td>
<td>1  2  3  4</td>
</tr>
<tr>
<td>10. You felt fearful?</td>
<td>1  2  3  4</td>
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<td>11. Your sleep was restless?</td>
<td>1</td>
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<tr>
<td>12. You were happy?</td>
<td>1</td>
</tr>
<tr>
<td>13. You talked less than usual?</td>
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<td>14. You felt lonely?</td>
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<tr>
<td>15. People were unfriendly?</td>
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<tr>
<td>16. You enjoyed life?</td>
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<tr>
<td>17. You had crying spells?</td>
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<td>18. You felt sad?</td>
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<tr>
<td>19. You felt that people disliked you?</td>
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<td>20. You could not get going?</td>
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Different things happen to people while they are drinking ALCOHOL or because of their ALCOHOL drinking. Several of these things are listed below. Indicate how many times each of these things happened to you WITHIN THE LAST YEAR.

**0** = None;  **1** = 1-2 times;  **2** = 3-5 times;  **3** = 6-10 times;  **4** = more than 10 times

**HOW MANY TIMES HAS THIS HAPPENED TO YOU WHILE YOU WERE DRINKING OR BECAUSE OF YOUR DRINKING DURING THE LAST YEAR?**

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<td>0</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>Not able to do your homework or study for a test</td>
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<tr>
<td>Got into fights with other people (friends, relatives, strangers)</td>
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<td>Missed out on other things because you spent too much money on alcohol</td>
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<tr>
<td>Went to work or school high or drunk</td>
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<tr>
<td>Caused shame or embarrassment to someone</td>
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<tr>
<td>Neglected your responsibilities</td>
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<td>Relatives avoided you</td>
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<td>Felt that you needed more alcohol than you used to in order to get the same effect</td>
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<td>Tried to control your drinking (tried to drink only at certain times of the day or in certain places, that is, tried to change your pattern of drinking)</td>
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<td>Had withdrawal symptoms, that is, felt sick because you stopped or cut down on drinking</td>
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<td>Noticed a change in your personality</td>
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<td>Felt that you had a problem with alcohol</td>
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<td>Missed a day (or part of a day) of school or work</td>
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<td>Wanted to stop drinking but couldn't</td>
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<td>Suddenly found yourself in a place that you could not remember getting to</td>
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<td>Passed out or fainted suddenly</td>
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<td>Had a fight, argument or bad feeling with a friend</td>
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<td>Had a fight, argument or bad feeling with a family member</td>
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<td>Kept drinking when you promised yourself not to</td>
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<td>Felt you were going crazy</td>
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<td>Had a bad time</td>
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<td>Felt physically or psychologically dependent on alcohol</td>
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<td>Was told by a friend, neighbor or relative to stop or cut down drinking</td>
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Please fill in the only one appropriate number (0 to 4, see below) which best describes how much the following problems have bothered or distressed you during the past 4 weeks including today.

**0** = not at all;  **1** = a little bit;  **2** = moderately;  **3** = quite a bit;  **4** = extremely;

1. Feeling easily annoyed or irritated_______
2. Temper outbursts that you could not control________
3. Having urges to beat, injure or harm someone________
4. Having urges to break or smash things________
5. Getting into frequent arguments________
6. Shouting or throwing things________
PART 5

✧ If you are currently single, with last relationship broken-up please answer question 1-6;
✧ If you are in your second or more romantic relationships please answer all the questions (1-8);
✧ If you are in your first romantic relationship please only answer question 6-8.

For the following questions, please circle the number of the ONE response which best matches you.

1. Did you have sex with your last ex-partner? 1. Yes; 0. No
2. Did you ever live together with your last ex-partner? 1. Yes; 0. No
3. How many relationships have you ever been in? 1; 2, 3, more (___)
4. Thinking about your last romantic relationship, which of the following best represents how you feel about that relationship:
   1. I’m completely over it.
   2. I’m mostly over it, but sometimes wish it had not ended.
   3. I often think about the relationship and I’m not completely over it.
   4. I’m still upset about the break-up and want the relationship to start again.
5. How did your last relationship end?
   1. I broke up with him/her;
   2. She/he broke up with me;
   3. Neither of us broke up our relationship, it ended with a mutually agreement
6. The following questions are about your attitudes and feelings toward your partner. If you are currently involved, answer these questions in terms of your current partner; if you are currently single, answer them regarding your most recent ex-partner. Select a number from 0 to 9 to describe your feeling and fill it in the underline after each statement.

<table>
<thead>
<tr>
<th>Not True</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Definitely True</th>
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<tr>
<td>If [loved one] were feeling badly, my first duty would be to cheer him (her) up.</td>
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<td>I feel that I can confide in [loved one] about virtually everything.</td>
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<td>I find it easy to ignore [loved one]’s faults.</td>
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<td>I would do almost anything for [loved one].</td>
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<td>I feel very possessive toward [loved one].</td>
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<td>If I could never be with [loved one], I would feel miserable.</td>
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<td>If I were lonely, my first thought would be to seek [loved one] out.</td>
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<td>One of my primary concerns is [loved one]’s welfare.</td>
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<td>I would forgive [loved one] for practically anything.</td>
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<td>I feel responsible for [loved one]’s well-being.</td>
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<td>When I am with [loved one], I spend a good deal of time just looking at him (her).</td>
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<td>I would greatly enjoy being confided in by [loved one].</td>
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<td>It would be hard for me to get along without [loved one].</td>
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7. Did you have sex with your current partner? 1. Yes; 0. No
8. Are you living with your current partner? 1. Yes; 0. No

PART 6

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Note: If you are a male, please read it as “he”, “his”, and “him”. If you are a female, please read “she”, “hers”, and “her”. Please put the number into brackets.

Very much like me; Like me; Somewhat like me; A little like me; Not like me; Not like me at all

1 | 2 | 3 | 4 | 5 | 6

1. He/she thinks it is important to do lots of different things in life. He/she always looks for new things to try. [ ]
2. He/she likes to take risks. He/she is always looking for adventures.

3. He/she likes surprises. It is important to him/her to have an exciting life.

4. He/she seeks every chance he/she can to have fun. It is important to him/her to do things that give him/her pleasure.

5. Enjoying life's pleasure is important to him/her. He/she likes to 'spoil' himself/herself.

6. He/she really wants to enjoy life. Having a good time is very important to him/her.

7. He/she believes that people should do what they're told. He/she thinks people should follow rules at all times, even when no-one is watching.

8. It is important to him/her always to behave properly. He/she wants to avoid doing anything people would say is wrong.

9. It is important to him/her to be obedient. He/she believes he/she should always show respect to his/her parents and to older people.

10. Tradition is important to him/her. He/she tries to follow the customs handed down by his/her religion or his/her family.

12. It is important to him/her to be humble and modest. He/she tries not to draw attention to himself/herself.