Adolescent Self-Identity and Mental Health:
The Function of Identity Importance, Identity Firmness, and Identity Discrepancy

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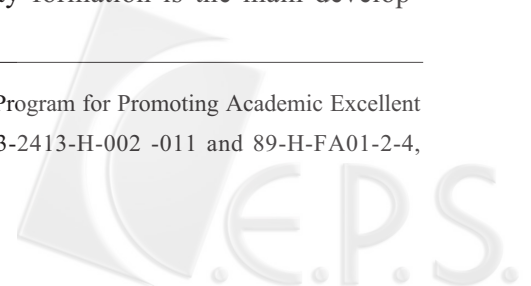*Department of Psychology, National Taiwan University*

This study examines how three features of self-identity, namely, identity importance, identity firmness, and identity discrepancy, are related to adolescent mental health. In Study 1 (N = 203), college students designated as the healthy-control group (N = 85) demonstrated higher identity firmness and lower identity discrepancy than those designated as the psychosomatic group (N = 56). Three multiple regression analyses indicated that identity discrepancy was a better predictor of psychosomatic reactions than identity importance, yet its predictability did not differ from identity firmness. Findings of Study 1 were replicated in Study 2 (N = 185). Another group of college students designated as the healthy-control group (N = 65) demonstrated higher identity firmness and lower identity discrepancy than those designated as the neurosis group (N = 56). Study 2 also indicated that identity discrepancy was a better predictor than identity firmness for almost all of the subscales included in the SCL-90R. The present study concluded that the newly developed concept of identity discrepancy" offers a unique view for understanding adolescent mental health, provided that the individual is not at a state of both low identity importance and low identity firmness.

Keywords: *Identity importance, Identity firmness, Identity discrepancy, Adolescence, Mental health*

Introduction

Adolescence is often regarded as a transitional stage between dependent childhood and independent adulthood. Adolescence also is often viewed as a stage with heightened risks to healthy development (Adams, Gullotta, & Markstrom-Adams, 1994; Adams, Bennion, Openshaw, & Bingham, 1990; Irwin, 1987; Johnston, O'Malley, & Bachman, 1988). Erik Erikson (1953, 1968) postulated that identity formation is the main develop-

mental task during adolescence and believed that the quality of identity formation plays a role in developmental psychopathology. However, the contribution of self-identity to adolescent mental health has received little attention (Adams et al., 1994). This study investigates adolescent mental health such as psychosomatic reactions and various psychological symptoms through three empirical indices of features of identity development, namely, sense of "identity importance," sense of "identity firmness," and the discrepancy between the two.

According to the Eriksonian identity theory, a more confirmed sense of identity is more likely to lead to positive mental health (Erikson & Erikson, 1950; Jahoda, 1958) and/or optimal psychological functioning (Waterman, 1992). Several studies have also shown that individuals with a strong sense of identity are more likely to report lower levels of various debilitating emotional states (Bronson, 1959; Constantinople, 1970; Marcia & Friedman, 1970). Over the past three decades, Marcia's identity-status paradigm has dominated the research in self-identity. Marcia's (1966) taxonomy approach indicates that individuals with a moratorium status consistently report the highest anxiety levels, while those with a committed identity status report the lowest levels (Marcia, 1967; Waterman, 1992). However, null findings have also been reported in a number of studies using Marcia's model (Cross & Allen, 1970; Orlofsky, 1978; Tobacyk, 1981), and this model has also been sharply criticized for distorting and trivializing Erikson's notions of crisis and commitment (Bourne, 1978a, b; Blasi, 1988; Cote & Levine, 1988). For example, van Hoof (1999) argued that there is no developmental continuum underlying the notion of identity statuses–both Marcia's definition and his taxonomy of identity statuses neglect individuals' sense of temporal-spatial continuity. Other researchers have suggested that identity formation is a lengthy process and, in many instances, a more gradual and less cataclysmic transition than the taxonomy of statuses implies (Baumeister, 1991; Erikson, Erikson, Kivnick, 1997; Lay, 1999).

Features of Self-Identity in Adolescence

Drawing from Erikson's definition of identity as "accrued confidence in the inner sameness and continuity of one's meaning for others" (Erikson, 1950, p. 235), Chen, Lay, and Wu (2005) proposed that the conception and measurement of identity should include how clearly, how firmly, and the certainty individuals perceive their commitments and the extent to which they believe that they will continuously fulfill these personal commitments. Their postulation coincides with Waterman's (1984) definition of self-identity as "having a clearly delineated self-definition comprised of those goals, values, and beliefs to which the person is unequivocally committed. These commitments evolve over time and are made because the chosen goals, values, and beliefs are judged worthy of giving a direction, purpose, and meaning to life." (p. 331)

Chen et al. (2005) proposed the construct of identity firmness based on Erikson's (1950) concepts of self-continuity and sameness and Waterman's (1984) emphasis on self-commitment. Specifically, identity firmness is defined as the degree of certainty about personal goals, values, abilities, and beliefs that help the individual to experience and expect personal continuity and sameness regardless of temporal and spatial change in life. If it is firm and positive enough, this sense of certainty gives the individual direction, purpose, and meaning in life.

Chen et al. (2005) developed a quantitative assessment, the Questionnaire of Identity Firmness (1st edition, QIF-I), that operationalizes the feeling of certainty regarding sameness and continuity of self-identity. It requires participants to answer questions regarding their identity firmness (i.e., whether and to what extent they feel certain about particular aspects of their lives relating to goals, values, and beliefs). The QIF-I consists of three subscales, each measuring a distinct aspect of identity firmness, namely, image identity firmness, personal identity firmness, and social identity firmness. Image identity refers to the characteristics of

the external-self that are formed based on an individual's superficial and concrete attributes. It is a new concept that emerged from Chen et al.'s factor analysis of the QIF-I. In the Eriksonian perspective, the concept of image identity, which is similar to the idea of superficial identity (Dollinger, Preston, O'Brien, & DiLalla, 1996), relates to the preoccupation with self-image that prevails during adolescence.

The other two aspects of identity firmness, personal and social identity, are concepts derived from Cheek's (1989) research. According to Cheek (1989), personal identity is rooted in private self-attributes including personal values, goals, self-knowledge, and unique psychological states. Social identity is grounded in elements of the public self such as personal reputation, popularity, and impressions managed for the benefit of others.

Other than the certainty of fulfilling commitment (i.e., identity firmness), the need for self-definition (i.e., identity importance) is also critical in understanding the development of self-identity. Cheek designed the Aspects of Identity Questionnaire (AIQ) to investigate the extent to which items related to personal and social identity fulfill personal needs for defining the sense of self. Specifically, participants answered questions about whether a certain attribute is important to their personal sense of who they are. In other words, the AIQ primarily tackles what attributes are important to an individual's personal sense of their own identity.

According to Cheek's concept of the needs in self-definition, the personal and social aspects of identity are dialectical rather than diametrical opposites. That is, a person could score high on either, both, or neither of these aspects. Chen et al. (2005) expands Cheek's concept with the proposition that the set of needs important for a particular individual's self-identity can be viewed as a profile of desires to fulfill a particular self-configuration. In accordance, Chen et al. (2005) developed the Questionnaire of Identity Importance (1st edition, QII-I), which contains, as in the QIF, three sub-scales of Personal, Social, and Image Identity

Importance; each scale of identity importance is an index of personal desire to fulfill a certain aspect of self-definition.

Chen et al. (2005) compared the personal, social, and image identity of junior high, senior high, and college students with respect to identity importance and identity firmness. They found distinctive developmental trend of identity firmness and identity importance. Younger adolescents (i.e., junior and senior high school students) were more concerned with image identity and social identity than their older counterparts. The sense of continuity and sameness (i.e., identity firmness) of the older adolescents (i.e., college students) was firmer than that of the younger adolescents for all three aspects of identity. These results captured the change in self-identity during the sub-stages of adolescence. In the same study, Chen et al. also found that identity firmness is independent of identity importance, particularly for older adolescents. That is, with development, adolescents gradually construe a distinctive understanding of their identity importance versus identity firmness.

In summary, *identity firmness* measures the extent to which one feels that one will be the same person continuously regardless of temporal or spatial changes. *Identity importance* measures one's desire to fulfill a set of specific self-configurations. Both constructs are essential features of identity development. To achieve successful self-understanding and self-integration, individuals not only must recognize the characteristics that are important to their personal sense of who they are (i.e., identity importance), but also believe that their personal characteristics are stable in the long run (i.e., identity firmness). Moreover, the current study also considers that maintaining balance between the degree of identity importance and identity firmness may benefit the ultimate development of individuals.

The construct of identity discrepancy

Seeking balance between two distinct psychological features during the process of striving for

healthy development has been suggested in various theories as the major mechanism for self-development. For example, Rogers (1951) considered that the congruence between the perceived self and the true experience contributes to one's psychological health; in contrast, neurotic diseases are often led by incongruence between the two. Moreover, Rogers considered the discrepancy between the perceived self and the true experience may produce a sense of failure and self-criticism and can even trigger depression. The self-discrepancy theory of Higgins (1987) posits that discrepancies between the actual and ideal selves may lead to depression while discrepancies between the actual and ought selves may lead to anxiety. Moretti and Wiebe (1999) also suggested that self-discrepancy, independent of actual-self positivity, was predictive of internalizing and externalizing problems. Additionally, Erikson (1953) emphasized that, to achieve a mature identity, individuals must find balance between their psychological needs and social demands.

A logical skepticism may arise concerning how the concept of identity importance differs from the concept of ideal-self and identity firmness from actual-self. According to Chen et al. (2005), the concept of identity importance is defined as an ever-developing sense of vital inner need to establish the hierarchy of self-verification. Specifically, identity importance may indeed overlap with the concept of ideal-self in that both emphasize individuals' desire to accomplish (or avoid) certain aspects of life goals. Yet the concept of ideal self does not capture the Eriksonian sense that self-definition re-emerges from each crisis with an increased sense of inner unity. It is for this reason that Chen et al. (2005) depicted the vicissitude of the three aspects of identity importance in the different sub-stages during adolescence and found that junior high and high school students are more concerned about social and image identity, whereas college students are more concerned about personal identity. Moreover, according to Erikson, a central component of identity development in adolescence is determining what is important to one's sense of

self as well as what is not. Someone with a strong sense of identity does not rate everything as important to self, but clearly differentiates between the important and the unimportant. Therefore, the sub-scale scores of personal, social, and image identity in the measurement of identity importance are never summed together. Instead, a profile of most, least, and indifferent characteristics of one's personal need may help reflect a clearer picture of the self-identity of each individual. The unimportant and the indifferent part of self, although is not a part of the ideal-self, is as crucial as the important part of self for defining the particular individual.

The above rationale of developmental epigenesis also applies to the concept of identity firmness. The rating on the degree of firmness in terms of the continuity and sameness of self is neither a rating of actual self nor that of self-esteem in that it is over and above the current self-evaluation but a feeling of how certain the individual knows who she is while being situated in any temporal or spatial circumstances. For example, when the individual rates herself on how sure she feels about her popularity with people, her answer is not about the degree of her popularity per se, but to what extent she is certain about her social status. Identity firmness also undergoes dynamic change during development. As Chen et al. (2005) indicated, older adolescents were not as over-concerned about their image identity as their younger counterparts, yet their score of identity firmness at the same aspect is higher than their younger counterparts.

By subtracting the standard score of identity firmness from identity importance, the present study proposes that "identity discrepancy" reflects the incongruence between the desire to fulfill a particular aspect of identity need and the commitment and certainty over the same identity aspect. In other words, identity discrepancy reflects the disagreement within each individual between the perspective of regarding oneself as a continuous being and her preoccupation of defining who she is over the same specific identity aspect.

The score of identity discrepancy could be either larger than zero (identity importance > iden-

tity firmness), smaller than zero (identity importance < identity firmness), or equivalent to zero (identity importance = identity firmness). To compare the effect of high and low identity importance and identity firmness, Chen, Lay, and Wu (2003) separated subjects into four groups according to their mean scores on identity importance and identity firmness. For example, participants with identity importance score higher than group mean and identity firmness score lower than group mean were assigned to the "high importance / low firmness group (HL Group)," and so forth. All subjects were thus assigned to one of the four groups, namely, "high importance/high firmness" (HH Group), "high importance/low firmness" (HL Group), "low importance/high firmness" (LH Group), and "low importance/low firmness" (LL Group). Results indicated subjects of HH Group and LH Group demonstrated higher scores in self-esteem, positive self-efficacy, and subjective well-being and lower scores in negative self-efficacy than HL Group and LL Group. Chen et al. concluded that identity firmness seemed a more essential protective factor for mental health than identity importance. Meantime, in one of the samples included in Chen et al., college students in the HL Group of image identity tended to have marginally better self-efficacy than in the LL Group. However, in the other two college samples, subjects in the HL Group of image identity showed marginally lower self-esteem, less positive self-efficacy, and more negative self-efficacy than in the LL Group. That is, Chen et al. (2003) indicated a complicated picture of the effect of identity importance on mental health.

The current study suspects that the results of Chen et al. (2003) may come from the analytical strategy of group comparisons, which sometimes loses important information that can be picked up by linear regression analyses. Based on findings in Chen et al. that high identity firmness predicts better mental health and identity importance may have negative, or no effect on mental health, the present study specifically expects a positive correlation between identity discrepancy and psychological

maladjustment. That is, individuals with low identity importance and high identity firmness (i.e., negative identity discrepancy) are expected to be mentally healthier than those with high identity importance and low identity firmness (i.e., positive identity discrepancy). Specifically, the easiness of feeling content with a particular characteristic of oneself (low identity importance) and the capability of clearly delineating one's own status concerning that characteristic (high identity firmness) are both positive contributors to mentally health since one is satisfied as well as not preoccupied with the particular need. On the other hand, feeling of uncertainty in a particular personal characteristic (low identity firmness) could be quite depressing, especially when it is accompanied by a particular high demand to prove oneself over that personal characteristic (high identity importance).

When the score of identity importance and identity firmness are both high, the score of identity discrepancy is near zero and the mental health of the individual is expected to be on a medium level. Under such circumstances, even though one cares very much and may even feels anxious about a particular characteristic that she owns or not owns, she is also very certain about what she contains and how well she can perform at this particular area. The strength of mental health may come from the individual's desire to prove her own self-definition while not being circumscribed by lack of certainty.

The score of identity discrepancy is also near zero if an individual does not feel certain on the sameness and continuity in her personal goal, social status, or external image (low identity firmness) and, in the mean time, does not have the mobility and needs to even define herself according to any of such matters (low identity importance). There are two alternative hypotheses. First, low identity importance in a certain aspect may lead to a care-free feeling that no specific standard is desired so that either high or low firmness is tolerable. Or alternatively, when one does not care and cannot delineate her own beliefs in a commonly acknowledged field related to adolescent identity and in the meantime is not certain about her current and future

perspective on the same matter, one may become a total surrender in the particular aspect of self-identity. Erikson (1968/1994) cited a patient's statement of self-depreciation as "that people do not know how to succeed is bad enough. But the worst is that they do not know how to fail. I have decided to fail well." (p. 213) In other words, for individuals who suffer from low identity firmness as well as low identity importance, they may have lost their hope all together at least for that particular aspect of identity. Hence, based on Erikson's theoretical framework, score of identity discrepancy is not a good predictor for mental health among those who lack both identity importance and identity firmness.

The aims of the study

The present study attempted to investigate the relation between features of self-identity, including identity importance, identity firmness, and identity discrepancy, and psychological symptoms (e.g., psychosomatic reactions, depression, anxiety, phobia anxiety...etc.) of adolescents. The "known-group method", which is suggested by Portney and Watkins (2000) as the most general evidence supporting construct validity, was applied to distinguish individuals who are known to have the proposed trait and those who do not. That is, by comparing college students designated as the "healthy-control group," the "psychosomatic group" (Study 1), or the "neurosis group" (Study 2) on the three identity features, the present study intended to investigate whether the constellation of the three identity features within an essentially normal sample differ from the pattern demonstrated in a high risk sample. The identity characteristics that only occur in the high risk sample may be indicative of psychological maladjustment.

Besides analyzing group differences, the present study implemented hierarchical regression analyses to examine whether identity importance, after controlling for the influence from identity firmness, contributes uniquely towards mental health, and vice versa. Next, multiple regression analyses of the three aspects of identity (i.e., personal, social, and image identity) were implemented to predict various types of maladjustment indices. By comparing the results of multiple regression analyses from identity importance, identity firmness, and identity discrepancy, the present study further demonstrated whether identity discrepancy as a whole (i.e., including personal, social, and image identity) contributes to the mental health of college students more than those contributed by identity importance or identity firmness. Finally, another set of regression analyses was also implemented after removing the participants who were both low in identity importance and identity firmness. According to the abovementioned logical derivation, it was anticipated that the predictability of identity discrepancy to mental health would increase considerably with this partial data set.

Study 1

Based on Eriksonian view of identity development as well as findings from Chen et al. (2003), the present study proposed that both identity importance and identity firmness are related to mental health. It was also expected that a large discrepancy between identity importance and identity firmness may lead to maladjustment. Specifically, individuals in the "healthy-control" group were anticipated to score higher in identity firmness but lower in identify importance and identity discrepancy than the psychosomatic group. It was also expected that identity discrepancy contributes to mental health independently of identity firmness or identity importance.

After examining the general trend and predictability of the three identity features toward mental health, those whose scores of identity importance and identity firmness were both lower than the means in any one identity aspect were then removed from the sample and the predictability of identity discrepancy to mental health was reexamined. It was hypothesized that without participants of the LL Group, the predictability of identity discrepancy to mental health would improve significantly.

Method

Participants. A total of 203 college students from three different schools in Taiwan participated in Study 1. Among these students, 60 undergraduate students (27 males and 33 females, Mean age = 20.17) from a major university in Taiwan participated in the study to fulfill the course requirement of introductory psychology. Another 97 participants (29 males and 68 females, Mean age = 20.35) were students of a technology institute. The remaining 46 participants were all female students (Mean age = 19.16) from a two-year college of nursing and medical care. All three schools were located in the metropolitan Taipei area.

Measures

Questionnaire of Identity Importance, 1st edition (QII-I). QII-I contains a total of 43 items, including 16 items of personal identity (e.g., "my dreams and imagination"), 12 items of social identity (e.g., "my popularity with other people"), and 15 items of image identity (e.g., "my academic performance"). Most items of QII-I are revised and translated (Chen et al., 2005) into Chinese from Cheek's (1989) "Aspects of Identity Questionnaire" (AIQ), which evaluates the needs for defining the sense of self. On a Likert's scale, ranging from 1 (not important for the task of defining and understanding who I am) to 5 (extremely important), participants indicate the extent to which each item is important in defining their own identity characteristics. Accordingly, the mean subscale scores range from 1 to 5. Chen et al. (2005) revealed the internal reliabilities of Cronbach's α for personal, social and image identity importance were .88, .89, .83 for junior-high-school students (N = 472); .84, .90, .86 for high-school students (N = 588); and .86, .88, .88 for college students (N = 225). In the current sample, the internal reliabilities are .85, .88, and .86 for personal, social, and image identity importance.

Questionnaire of Identity Firmness, 1st edition (QIF-I). The QIF-I developed by Chen et al.

(2005) assesses the sense of identity firmness. Items in QIF-I are either derived from the definition of "identity firmness" or are modified from the items in QII-I. For example, the statement of "I am sure of my personal value system" in the QIF-I is modified from the statement "my personal value system is important in defining who I am" in the QII-I. QIF-I contains a total of 23 items, including 11 items of personal identity (e.g., "I am sure of my value system"), 8 items of social identity (e.g., "I am sure of the appropriateness of my behaviors"), and 5 items of image identity (e.g., "I am sure of my academic achievement in the future"). On a Likert's scale, ranging from 1 (extremely not agree) to 5 (extremely agree), rating of each item indicates the extent to which one feels certain about that particular item as his/her own identity. Accordingly, the mean subscale scores range from 1 to 5. Chen et al. (2005) revealed that the internal reliabilities of Cronbach's α for personal, social and image identity firmness were .85, .85, .68 for junior-high-school students (N = 472); .86, .86, .72 for high-school students (N = 588); and .89, .89, .74 for college students (N = 225). In the current sample, the internal reliabilities are .90, .85, and .78 for personal, social, and image identity firmness respectively.

Scores of Identity Discrepancy (ID). First, the item scores of the QII-I and QIF-I are transformed individually into standardized z scores. Then the average of the item z scores within each subscale in each questionnaire is designated as the subscale score. The personal, social, and image identity discrepancy score is then calculated by subtracting the subscale score in QIF-I from that in QII-I for the particular identity aspect.

Psychosomatic Symptoms Investigation (PSI). The PSI is a 44-item scale developed by Chen and Wu (1987) to survey a wide range of psychosomatic symptoms of insomnia, headache, dizziness, back pain, weakness of extremities...etc. Participants are requested to evaluate each symptom by a 0 to 5 six-point scale. Accordingly, the mean score of PSI ranges from 0 to 5. A higher score indicates more obvious psychosomatic symp-

toms. By retaining items that can discriminate the "chronic illness" and "non-chronic" illness groups, Chen and Wu (1987) constructed the PSI using the empirical criterion keying method. Chen and Wu (1987) also provided the average PSI score for the chronic-illness, non-chronic illness, and positive-coping groups as 1.61, 1.06, and 0.17, respectively.

PSI is used in the current study to select the "healthy-control" and "psychosomatic" groups. Participants were assigned to the psychosomatic group with PSI scores being higher than 1.61 (the average score of the chronic-illness group), and to the healthy-control group with PSI scores being lower than 1.06 (the average score of non-chronic illness group). The internal reliability is .92 for the present sample.

Results and Discussion

Among the 203 college students participating in Study 1, 56 (14 males and 42 females) were assigned to the psychosomatic group and 85 (26 males and 59 females) to the healthy-control group based on their PSI scores. The gender distributions of the two groups were not significantly different ($\chi^2 = 0.46$, ns). Three separate one-way ANOVA's

using personal, social, and image identity firmness as the dependent variables yielded significant main effects of group difference in personal, $F(1, 139) = 9.18$, $p < .01$, and social identity, $F(1, 140) = 5.28$, $p < .05$, but non-significant effect for image identity. The means of personal and social identity firmness in the healthy-control group were larger than those in the psychosomatic group. Three ANOVA's using the three aspects of identity importance as dependent variables revealed no significant differences between the psychosomatic and the healthy-control group. Another three ANOVA's using identity discrepancy as the dependent variable yielded a significant main effect of group difference for personal identity, $F(1, 135) = 8.00$, $p < .01$, and a marginally significant effect for social identity, $F(1, 136) = 3.64$, $p = .059$, but no significant effect for image identity. The mean of personal and social identity discrepancy in the psychosomatic group were larger than that in the healthy-control group. Table 1 lists the means and SD's of the three identity features for each identity aspect of each group.

Next, to examine whether identity importance and firmness are independent contributors to psychosomatic symptoms, two hierarchical regression analyses were implemented to examine whether

Table 1
Group Comparisons on Aspects of Identity Firmness, Importance, and Discrepancy in Study 1

	Psychosomatic Group Mean (SD)	Healthy-Control Group Mean (SD)	$F_{(df1, df2)}$ value
Personal Identity Firmness	3.05 (.70)	3.39 (.63)	9.18 (1, 139)**
Social Identity Firmness	3.24 (.60)	3.48 (.62)	5.28 (1, 140)*
Image Identity Firmness	2.86 (.84)	3.08 (.77)	2.63 (1, 139)
Personal Identity Importance	3.85 (.51)	3.84 (.40)	0.03 (1, 136)
Social Identity Importance	3.89 (.56)	3.87 (.46)	0.04 (1, 136)
Image Identity Importance	3.21 (.63)	3.25 (.62)	0.19 (1, 136)
Personal Identity Discrepancy	0.20 (.75)	-0.17 (.73)	8.00 (1, 135)**
Social Identity Discrepancy	0.25 (1.00)	-0.06 (.88)	3.64 (1, 136)+
Image Identity Discrepancy	0.09 (.97)	-0.10 (.91)	1.30 (1, 135)

Note. Entries are mean ratings measured on 5-point scales, with higher scores indicating higher identity firmness, importance, and discrepancy. Each identity discrepancy score is calculated by subtracting the standardized z score of QIF-I from that of QII-I.
**$p < .01$, *$p < .05$, +$p = .077$
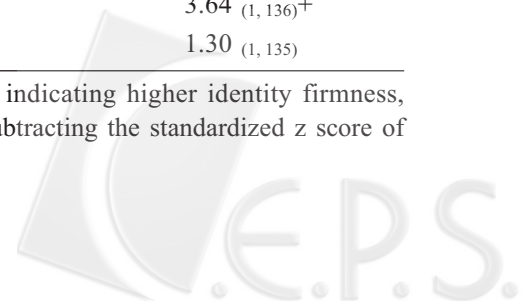
identity importance, after controlling for the influence from identity firmness, has a unique contribution toward psychosomatic symptoms, and vice versa. The results indicated that the three aspects of identity firmness altogether can significantly predict psychosomatic reactions after controlling for the three aspects of identity importance (R square change = .09, F (3, 165) = 5.71, p < .05), while the three aspects of identity importance altogether cannot predict psychosomatic reactions after controlling for the three aspects of identity firmness. (Detailed statistics of these two analyses can be acquired from the corresponding author.)

There is a widely accepted rule-of-thumb in regression analysis which states that one can never include a variable in the analysis whose scores are completely dependent on the scores of other variables included in the analysis. Therefore, in the present study, it is not feasible to compare the predictability of identity discrepancy with either identity importance or identity firmness on psychosomatic symptoms in the same regression analysis. Consequently, three multiple regression analyses were conducted separately on psychosomatic symptoms using the three (personal, social, and image) identity aspects of identity importance, firmness, or discrepancy respectively as the predictor variables. The results indicated that the three aspects of identity firmness altogether and the three aspects of identity discrepancy altogether significantly predict psychosomatic reactions respectively, but not for

the three aspects of identity importance. Table 2 indicates that identity discrepancy is not a better predictor of psychosomatic reactions than identity firmness (explained variance: 7% vs. 7%).

In another set of regression analyses (see the last two columns in Table 2) that had removed the participants whose scores of identity importance and identity firmness were both lower than the means in any one identity aspect, the explained variance of identity discrepancy in predicting psychosomatic reactions did not increase considerably.

The present study found no difference in identity importance between the healthy-control and the psychosomatic group. However, since identity importance is defined as an index of the personal needs for self definition, it was suspected that identity importance may still be a factor contributing to psychosomatic symptoms, just that the regression analysis may be insufficient to reveal its function. Therefore, the present study next calculated the simple correlations between the degree of identity importance and PSI score within each group. Personal identity importance was found to have a marginally significant negative correlation of -.22 (p = .07) with the PSI score in the healthy-control group, while image identity importance had a marginally significant positive correlation of .26 (p = .06) with the PSI score in the psychosomatic group. Besides, the Fisher's z tests of group differences of correlation (p < .05) were found significant in the aspects of personal and image identity. That is, in

Table 2

Explained Variance in Multiple Regression Predicting Psychosomatic Reactions from Identity Importance, Identity Firmness, and Identity Discrepancy

Predictive Variables	Three Aspects of Identity Importance (N=203)	Three Aspects of Identity Firmness (N=203)	Three Aspects of Identity Discrepancy (N=203)	Three Aspects of Identity Firmness (N=109[a])	Three Aspects of Identity Discrepancy (N=109[a])
Psychosomatic Reactions	.01	.07**	.07**	.04	.07

[a] : Participants whose identity firmness and identity importance scores are both lower than the mean in any one aspect of self-identity were excluded from this analysis.

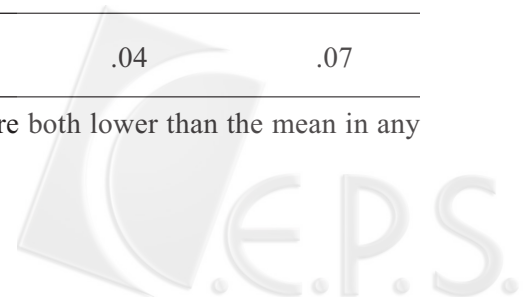*** p < .01   **p < .01   *p < .05

Table 3

Simple Correlations of Each Aspect of Identity Importance and Psychosomatic Reactions between the Psychosomatic and the Healthy-Control Group

	Psychosomatic Group	Healthy-Control Group
Personal Identity Importance	$.17_a$	$-.22^+_b$
Social Identity Importance	$.08_a$	$-.14_a$
Image Identity Importance	$.26^+_a$	$-.08_b$

Correlations with different subscripts differ significantly at $p < .05$.

$+p < .10$ (two-tailed)

the healthy-control group, individuals that received higher scores in the personal identity importance subscale were more likely to have lower risk in psychosomatic reactions (see Table 3). This tendency differed significantly from that in the psychosomatic group. Meanwhile, in the psychosomatic group, individuals that received higher score in the image identity importance subscale were more likely to have higher risk in psychosomatic reactions. Again, this tendency differed significantly from that in the healthy-control group.

In sum, Study 1 investigated whether identity importance, firmness, and discrepancy can predict psychosomatic reactions. The results indicated that identity firmness is significantly associated with psychosomatic reactions. Individuals who suffered from psychosomatic symptoms received lower scores in identity firmness in the personal and social aspects. This finding supports the hypothesis that a firmer sense of sameness and continuity in self-identity helps ensure personal direction, purpose, and meaning of life, which may subsequently contribute to individuals' resiliency against psychosomatic reactions in stressful situations. In contrast, the psychosomatic group and the healthy-control group were not different in the three aspects of identity importance.

Study 1 also found that college students in the healthy-control group scored significantly lower in personal and social identity discrepancy than those in the psychosomatic group. Identity discrepancy is designated the indicator of the incongruence of one's perspective of regarding oneself as a continuous being and her preoccupation of defining who she is. Therefore, the current findings indicate that individuals suffering psychosomatic symptoms are also simultaneously experiencing a high standard but low perspective of personal and social self-identity. Meanwhile, according to the results of multiple regression analyses, identity discrepancy is a better predictor for psychosomatic reactions than identity importance, despite its prediction strength not differing from identity firmness.

The above results may point to a notion that "identity discrepancy" as a newly construed concept derived from the concept of identity firmness and identity importance is not an independent and efficient factor for predicting psychosomatic symptoms. The reason is twofold. First, identity discrepancy did not further contribute to the prediction of psychosomatic symptoms other than the contribution of identity firmness. Second, even if identity discrepancy seemed a better predictor for psychosomatic symptoms than identity importance, since identity importance was not a valid predictor, the contribution of identity discrepancy seemed not necessarily essential.

Further analyses on the correlations between PSI and identity importance suggested that it might be too early to conclude that identity importance does not contribute to mental health. The current study found while being examined in specific samples, identity importance served either as an enhancer (in the "psychosomatic group") or inhibitor (in the "healthy-control group") of participants' psychosomatic reactions. Therefore, the degree of identity importance, although apparently not a direct predictor of psychosomatic reactions of

college students, should still be taken into account in understanding the relation between self-identity and mental health.

Finally, after removing the participants possessing both low identity importance and low identity firmness, Study 1 still did not reveal the predictability of identity discrepancy. One possible reason for failing to find identity discrepancy as a better predictor for psychosomatic reactions than identity firmness may be due to the features of psychosomatic reactions chosen for investigation in Study 1. Psychosomatic reactions are usually regarded as the outcome of experiencing prolonged stressful situations (Lazarus, 1966). Previous studies have suggested that lingering psychological stress can successfully forecast mental health maladjustment. Thus a predictor such as identity discrepancy that does not take into account how long and how stressful that one has been experiencing incongruence between the need and the perspective of self-identity may be too static to reflect the characteristics of psychosomatic symptoms. An alternative reason may be owing to only a single indicator of psychological symptoms being used. Therefore, Study 2 attempted to expand the indicator of mental health in order to cover a broad range of psychological symptoms (e.g., depression, anxiety, phobic anxiety, interpersonal sensitivity...etc.) and cross-validate the findings in Study 1.

Study 2

Study 2 maintained the same research design as Study 1, with the only difference being that Study 2 adopted improved measurements for all the variables, including identity importance, identity firmness, and mental health. Group comparisons were implemented again between the healthy control group and the psychologically maladjusted group. Multiple regression analyses were again applied to investigate the contribution of identity importance, firmness, and discrepancy on psychological adjustment. Study1 revealed significant group differences of the correlation between identity importance and psychosomatic symptom.

Therefore, identity importance, although did not demonstrate group differences in Study 1, was still included in all the analyses in Study 2.

Method

Participants. A total of 185 undergraduate students (88 males and 97 females, Mean age = 20.39) from a major university in Taiwan participated in this study to fulfill course requirement of introductory psychology.

Measures

Participants were asked to complete a booklet of questionnaires including the "Questionnaire of Identity Importance, 2nd edition" (QII-II), the "Questionnaire of Identity Firmness, 2nd edition" (QIF-II) and the Symptom Check List-90 Revised (SCL-90R) scales.

Questionnaire of Identity Importance, 2nd edition (QII-II) and Questionnaire of Identity Firmness, 2nd edition (QIF-II). Items of QII-I and QIF-I administered in Study 1 were modified to balance the total item numbers in both scales as well as to achieve one-to-one item correspondence between the two scales. For example, the statement "Being a useful person is important for defining and understanding who I am" in QII-II corresponds with the item "I am sure I am a useful person" in QIF-II. Besides, the total number of items in QIF-I (23 items) is considerably less than those in QII-I (43 items). Hence, Study 2 reconstructed the QII-I and the QIF-I. The resulting scale of QII-II and QIF-II both comprise 11 items for the personal identity, 10 items for the social identity, and 10 items for the image identity subscale. Both QII-II and QIF-II are five-point Likert's scale, and the mean subscale scores range from 1 to 5. In the current sample, the internal reliabilities for personal, social, and image identity importance are .83, .86, .85, while those for personal, social, and image identity firmness are .88, .82, .78, respectively.

Scores of Identity Discrepancy (ID). First, the item scores of QII-II and QIF-II were trans-

formed individually into standardized z scores. Then the average of the item z scores within each subscale in each questionnaire was designated as the subscale score. The personal, social, and image identity discrepancy score was then calculated by subtracting the subscale score in QIF-II from that in QII-II for the particular identity aspect.

Symptom Check List-90 Revised (SCL-90R). Participants in the current study also rated the Symptom Checklist (SCL-90R) scale (Derogatis, 1977), which is widely used and consists of ten subscales of psychological symptoms.

The General Symptom Index (GSI), which is an index derived from six of the subscales in SCL-90R, including Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, and Hostility subscales, was used in the current study to identify the "healthy-control" and the "neurosis" group. Tsai, Wen, Lin, Soong, and Chen (1978) created the GSI for the purpose of clinical screening. They offered the average score of GSI for the neurosis, non-neurosis, and normal groups as 1.36 (SD = 0.68), 0.74 (SD = 0.46), 0.33 (SD = 0.21), respectively.

Results and Discussion

Among the 185 college students participating in Study 2, only 28 received GSI score exceeding 1.36 (i.e., the average score of the neurosis group in Tsai et al., 1978) while 33 received GSI score below 0.33 (i.e., the average score of the normal group in Tsai et al., 1978). In order to include more participants in the statistical analyses, the cut-off points for the neurosis and the healthy-control group in the present study were set at half a standard deviation below 1.36 and one standard deviation exceeding 0.33, respectively. Therefore the new criteria score for the neurosis group was 1.02 (1.36 - 0.68/2 = 1.02) and that for the healthy-control group was 0.54 (0.33 + 0.21 = 0.54). Fifty-seven participants (25 males and 32 females) thus were assigned to the neurosis group and 65 (30 males and 35 females) to the healthy-control group based on their GSI scores. The gender distributions of the two groups were not significantly different ($\chi^2 = 0.06$, ns). Three separate one-way ANOVA's using personal, social, and image identity firmness as the dependent variables yielded significant main effects of group difference on personal, $F (1, 119) = 52.61$, $p < .001$, social, $F (1,$

Table 4

Group Comparisons on the Aspects of Identity Firmness, Importance, and Discrepancy in Study 2

	Neurosis Group Mean (SD)	Healthy-Control Group Mean (SD)	$F_{(df1, df2)}$ value
Personal Identity Firmness	3.02 (.56)	3.75 (.55)	52.61 (1, 119)***
Social Identity Firmness	3.22 (.48)	3.79 (.46)	43.43 (1, 119)***
Image Identity Firmness	3.40 (.59)	3.78 (.54)	13.53 (1, 119)***
Personal Identity Importance	4.08 (.49)	4.12 (.47)	0.23 (1, 119)
Social Identity Importance	3.72 (.63)	3.70 (.57)	0.04 (1, 119)
Image Identity Importance	2.72 (.72)	2.64 (.74)	0.38 (1, 119)
Personal Identity Discrepancy	0.36 (.65)	-0.31 (.65)	32.63 (1, 119)***
Social Identity Discrepancy	0.32 (.79)	-0.36 (.75)	23.78 (1, 119)***
Image Identity Discrepancy	0.22 (.92)	-0.23 (.84)	8.14 (1, 119)**

Note. Entries are mean ratings measured on 5-point scales, with higher scores indicating higher identity firmness, importance, and discrepancy. Each identity discrepancy score is calculated by subtracting the standardized z score of QIF-II from that of QII-II.

***$p < .001$ **$p < .01$ *$p < .05$
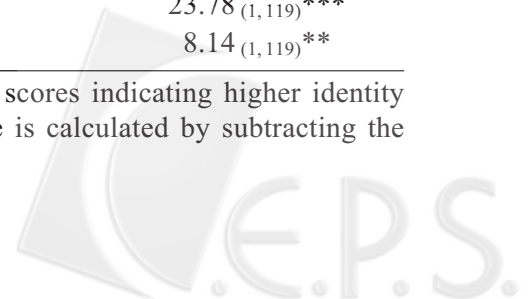
119) = 43.43, $p < .001$, and image identity, F (1, 119) = 13.53, $p < .001$. Mean scores of identity firmness were larger in the healthy-control group than those in the neurosis group in all three aspects of identity. Three ANOVA's using the three aspects of identity importance as dependent variables revealed no significant differences between the neurosis and the healthy-control group. Moreover, another three ANOVA's using identity discrepancy as the dependent variable yielded significant main effects of group difference on personal, F (1, 119) = 32.63, $p < .001$, social, F (1, 119) = 23.78, $p < .001$, and image identity, F (1, 119) = 8.14, $p < .01$. Table 4 lists the means and SD's of the three identity features for each identity aspect of each group.

To examine whether identity importance, after controlling for the influence from identity firmness, contributes uniquely to psychological symptoms, and vice versa, Study 2 once again conducted hierarchical regression analyses on the ten symptoms using SCL-90R as the criterion variables. The results revealed that both the three aspects of identity importance altogether (R square change = .01 ~

.10, F (3,176) = 0.76 ~ 7.45) and the three aspects of identity firmness altogether (R square change = .02 ~ .25, F (3,176) = 1.47 ~ 19.14) have made unique contributions in predicting some of the psychological symptoms. Specifically, in eight of the ten subscales of SCL-90R, the three aspects of identity firmness altogether can significantly (ps < .05) predict psychological symptoms after controlling for the three aspects of identity importance. Moreover, unlike the findings of Study 1 that identity importance did not at all contribute to psychosomatic symptoms, the current analyses indicate that, in four of the ten SCL-90R subscales, the three aspects of identity importance altogether independently predict psychological symptoms after controlling for the three aspects of identity firmness. (Detailed statistics of these two sets of analyses can be acquired from the corresponding author.)

As in Study 1, to compare the predictability of each feature of identity (i.e., importance, firmness, discrepancy) toward psychological symptoms, three sets of multiple regression analyses on the 10 subscales in SCL-90R were conducted using the three (personal, social, and image) identity aspects
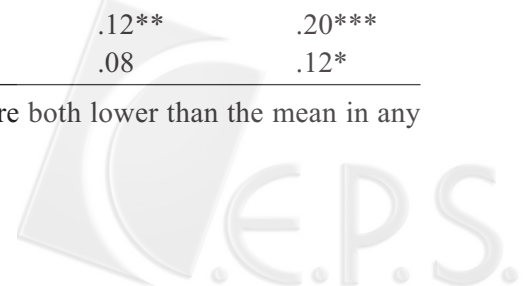
Table 5

Explained Variance in Multiple Regressions Predicting SCL-90R from Identity Importance, Identity Firmness and Identity Discrepancy

Criteria Variables	Predictive Variables: Three Aspects of Identity Importance (N=185)	Three Aspects of Identity Firmness (N=185)	Three Aspects of Identity Discrepancy (N=185)	Three Aspects of Identity Firmness (N=93[a])	Three Aspects of Identity Discrepancy (N=93[a])
Somatization	.01	.03	.03	.04	.06
Obsessive-Compulsive	.02	.17***	.26***	.27***	.43***
Interpersonal Sensitivity	.01	.18***	.23***	.28***	.33***
Depression	.01	.23***	.20***	.27***	.33***
Anxiety	.01	.14***	.15***	.18***	.28***
Hostility	.02	.07**	.06*	.07	.12*
Phobic anxiety	.01	.08**	.12***	.20***	.23***
Paranoid	.03	.09***	.15***	.17**	.24***
Psychoticism	.00	.08**	.10***	.12**	.20***
Addition	.02	.04	.04*	.08	.12*

[a] : Participants whose identity firmness and identity importance scores are both lower than the mean in any one aspect of self-identity were excluded from this analysis.

***$p < .01$ **$p < .01$ *$p < .05$

of identity importance, firmness, or discrepancy respectively as the predictor variables. As demonstrated in Table 5, identity firmness and identity discrepancy were significantly related with eight of the ten subscales of psychological symptoms (see Table 5). Meanwhile, in four of the ten subscales, the three aspects of identity discrepancy altogether appeared to have better predictability than the three aspects of identity firmness altogether (explained variances in Obsessive-Compulsive subscale, 26% vs. 17%; in Interpersonal Sensitivity subscale, 23% vs. 18%; in Phobic Anxiety subscale, 12% vs. 8%; in Paranoid subscale, 15% vs. 9%). Furthermore, in another set of regression analyses (see the last two columns in Table 5) that has removed the participants whose scores of identity importance and identity firmness were both lower than the means in any one identity aspect, the three aspects of identity discrepancy altogether appeared to increase considerable predictability on almost all of the psychological symptoms (e.g. the explained variance in the Obsessive-Compulsive subscale from 26% up to 43%). All of the predictabilities of identity discrepancy were, again, better than those of identity firmness (e.g. the explained variance in the Obsessive-Compulsive subscale is 43% vs.

27%) when participants with low identity importance and low identity firmness were removed from analysis.

Consistent with the results of Study 1, Study 2 indicated no difference in identity importance between the healthy-control and the neurosis group. The comparison of simple correlations of identity importance and various psychological symptoms between the neurosis and the healthy-control group was again conducted. Personal identity importance was found to have significant positive correlations of .28 ($p < .05$) with "Obsessive-Compulsive symptom", .35 ($p < .01$) with "Interpersonal Sensitivity symptom", .30 ($p < .05$) with "Phobic Anxiety symptom", and .27 ($p < .05$) with "Psychoticism symptom" in the neurosis group. Social identity importance was also found to have significant positive correlations of .30 ($p < .05$) with "Obsessive-Compulsive symptom", .40 ($p < .01$) with "Interpersonal Sensitivity symptom", .30 ($p < .05$) with "Paranoid symptom", as well as a marginally significant positive correlation of .24 ($p = .07$) with GSI score in the neurosis group. Moreover, image identity importance was found to have significant positive correlations of .28 ($p < .05$) with "Interpersonal Sensitivity symptom", and .32 ($p < .05$) with

Table 6

Simple Correlations of Each Aspect of Identity Importance and subscales of SCL-90R between the Neurosis and the Healthy-Control Group

	Somatization		Obsessive-Compulsive		Interpersonal Sensitivity		Depression		Anxiety		Hostility	
	Neu	Health	Neu	Health	Neu	Health	Neu	Health	Neu	Health	Neu	Health
Personal Identity Importance	$.00_a$	$-.06_a$	$.28^*_a$	$.15_a$	$.35^{**}_a$	$-.17b$	$.10_a$	$-.14_a$	$.17_a$	$-.13_a$	$-.04_a$	$-.19_a$
Social Identity Importance	$.11_a$	$.09_a$	$.30^*_a$	$.18_a$	$.40^{**}_a$	$.05b$	$.12_a$	$.02_a$	$.17_a$	$-.00_a$	$.02_a$	$-.05_a$
Image Identity Importance	$.15_a$	$.12_a$	$.15_a$	$.12_a$	$.28^*_a$	$-.07_a$	$-.01_a$	$.00_a$	$.08_a$	$-.18_a$	$.20_a$	$-.14_a$

	Phobic anxiety		Paranoid		Psychoticism		Addition			GSI	
	Neu	Health	Neu	Health	Neu	Health	Neu	Health		Neu	Health
Personal Identity Importance	$.30^*_a$	$-.07b$	$.18_a$	$-.11_a$	$.27^*_a$	$-.07_a$	$.02_a$	$-.02_a$		$.18_a$	$-.12_a$
Social Identity Importance	$.21_a$	$.05_a$	$.30^*_a$	$.09_a$	$.18_a$	$.07_a$	$.05_a$	$.06_a$		$.24^+_a$	$-.07_a$
Image Identity Importance	$.10_a$	$-.17_a$	$.32^*_a$	$.03_a$	$.15_a$	$-.12_a$	$.06_a$	$.11_a$		$.20_a$	$-.14_a$

Correlations with different subscripts differ significantly at $p < .05$.

$**p < .01$ $*p < .05$ $+p < .10$ (two-tailed)

Note. Neu = Neurosis Group; Health = Healthy-Control Group
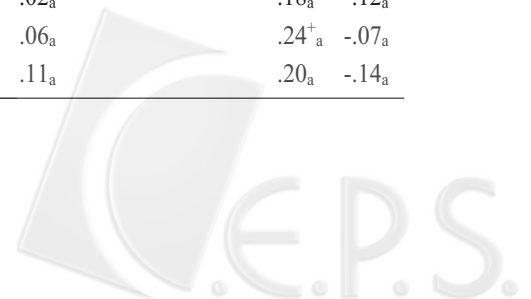
"Paranoid symptom" in the neurosis group. The Fisher's z tests of group differences of correlation ($p < .05$) were found significant between personal identity importance and "Interpersonal Sensitivity" as well as "Phobic Anxiety" symptom. Another group difference of correlation ($p < .05$) was found between social identity importance and "Interpersonal Sensitivity symptom." In sum, only three out of 30 Fisher's z comparisons between the neurosis and the healthy-control group were significant.

Another three Fisher's z comparisons on the correlations between each aspect of identity importance and the GSI score were also conducted and no difference was found. However, the results of the correlation between identity importance and GSI score in Study 2 revealed the same tendency as found in Study 1, with positive correlations in the neurosis group, but negative correlations in the healthy-control group (see Table 6).

In conclusion, Study 2 found similar results to Study 1. Group comparisons of identity importance, firmness, and discrepancy revealed that the neurosis and the healthy-control group were significantly different in their identity firmness, and discrepancy, but not in identity importance. As found in Study 1, multiple regression analyses conducted in Study 2 revealed that identity discrepancy can predict most indices of SCL-90R while none of the SCL-90R subscale scores can be predicted by identity importance. Study 1 indicated no difference between the predictictability of identity discrepancy and identity firmness toward psychosomatic reactions. However, after removing participants with both low identity importance and low identity firmness, Study 2 demonstrated that identity discrepancy is a better predictor for all the symptoms included in the SCL-90R than identity firmness just that the difference was slim (explained variance: 6% vs. 4%) in the subscale of Somatization. The result shown in the Somatization subscale corresponds with the finding from Study 1 that identity discrepancy could not explain the variance of psychosomatic reactions better than identity firmness.

Investigation on the patterns of group differences of correlation between identity importance

and indices of mental health also supported the findings of Study 1 that, in the neurosis group, those who received higher scores in identity importance were more vulnerable to psychological symptoms. Meanwhile, in the healthy-group group, those who received higher scores in identity importance were more resilient to psychological symptoms.

General Discussion

Achievement versus confusion of identity is the fifth developmental crisis that individuals normally encounter along with development (Erikson, 1953). Identity crisis does not necessarily begin or end with adolescence. Adolescence, however, is the stage at which, for the first time, physical, cognitive, and socioemotional developments advance to the point that individuals can sort through and synthesize childhood identities to create a viable path towards adult maturity. Consequently, the issue of how to define oneself (identity importance) and the perspective of continuity for future development (identity firmness) may be laden with special personal meaning for adolescents. The present study applied quantitative methods to measure identity-importance and identity firmness in the three aspects of personal, social, and image identity and their relation with mental health. Although the quantitative approach disallows each individual to personally choose the areas that are personally considered important in fulfilling self-need, by pre-defining domains of identity in the assessments, the present study gave a clear operational definition on what are included as areas of self-identity.

Identity Firmness

The present study applied the "known groups method" to examine the identity features (including identity importance, firmness, and discrepancy) that may be distinctive for high risk adolescents. As hypothesized, both Study 1 and Study 2 demonstrated significant group differences in various aspects of identity firmness between the healthy-control group and the psychosomatic group (in

Study 1) or the neurosis group (in Study 2). These results correspond with the findings of Chen et al. (2003) that adolescents with higher scores on identity firmness demonstrated higher "self-esteem," "positive self-efficacy," and "subjective well-being" and lower "negative self-efficacy."

It may be that psychological maladjustment leads to a sense of low identity firmness, or alternatively a higher degree of identity firmness helps prevent psychological maladjustment, or perhaps both identity firmness and psychological maladjustment are induced by a third variable. The present design does not afford to determine the role of identity firmness in the complex mechanisms that underlie the resiliency and risk of adolescent psychological adjustment. However, according to the current findings that the healthy-control participants have significantly higher sense of identity firmness, it is not too early to suggest that identity firmness may play a protective role against psychological maladjustment. A better sense of sameness and continuity of self-identity may provide with direction, purpose, and meaning in life, thus helping ameliorate or buffer the risk of psychological symptoms. Additionally, Studies 1 and 2 indicated that adolescents with higher personal and/or social identity firmness are less likely to suffer from psychological symptoms. These findings may imply that the aspects of personal and social identity firmness are particularly useful in protecting against psychological symptoms at least for the specific age group of college students.

Identity Discrepancy

The present study proposed that identity discrepancy reflects the degree of incongruence between the projected identity needs and the perceived identity perspective and it contributes to adolescent mental health. The results of Studies 1 and 2 supported the present hypotheses that significant group differences existed in various aspects of identity discrepancy between the healthy-control and the psychosomatic group (in Study 1) or the neurosis group (in Study 2). The consistent significant group

effect of identity discrepancy in the personal aspect found in Studies 1 and 2 suggests that a larger discrepancy between personal identity importance and firmness may be particularly harmful for adolescent mental health and/or personal growth. According to Cheek (1989), personal identity is rooted in private self-attributes including personal values, goals, self-knowledge, and unique psychological states. During late adolescence, individuals may put more emphasis on the internal characteristics of the self, such as values, goals, and self-understanding, rather than the external attributes, such as social and image identity, as the core issues for self-development. The discrepancy between importance and firmness over these internal attributes thus may lead to greater damage in mental health.

Contradictory to the hypothesis, multiple regression analyses conducted in Study 1 found that identity discrepancy was not a better predictor of psychosomatic reactions than identity firmness. A possible explanation is that the present study only studied the measured size of discrepancy, but rather the combination of the characteristics of identity discrepancy, such as the frequencies, onset, and duration of felt discrepancy that may be more critical to the emergent of psychosomatic reactions. Lazarus (1966) noted that individuals exposed to prolonged stressful situations tend to become rigid and unable to react spontaneously to new situations and are apt to display psychosomatic symptoms. In the landscape of identity development, the stressful state that experienced by an individual may be submerged within a prolonged incongruence between the projected identity needs (i.e., identity importance) and perceived identity perspectives (i.e., identity firmness). The lingering and uncontrollable feeling of identity discrepancy but not the size of discrepancy per se, in turn, may be harmful to the resiliency of adolescents towards healthy adjustment.

Future studies are needed to measure when and for how long each individual has experienced identity discrepancy. For fulfilling this inquiry, longitudinal follow-up studies may be necessary to clarify the relation among identity discrepancy, psychological stress and psychosomatic reactions.

There are other alternative explanations for that identity discrepancy did not reveal more prediction on psychosomatic reactions than did identity firmness in Study 1. The dependent measure of psychosomatic reactions in Study 1 may not have reflected the aversive effect caused by identity discrepancy. Moreover, even the same aspect of identity discrepancy may evoke different reactions in different people, and/or in the same person at different times (Wolman, 1988). Edelbrock (1988) specifically suggested that, while encountering with stress, adolescents may express through different psychopathological symptoms such as depression, truancy, and drug abuse rather than through somatic complains. Accordingly, Study 2 expanded the criterion measures, and demonstrated that, in four categories of psychological symptoms, identity discrepancy was a better predictor than identity firmness while all participants were included in the analyses. Furthermore, since it is not yet clear theoretically and empirically concerning those suffering from both low identity importance and low identity firmness, Study 2 next applied multiple regression analysis with the LL Group excluded to examine the contribution of identity discrepancy to mental illness. The result demonstrated that identity discrepancy appeared a better predictor than identity firmness for almost all of the symptoms. The only symptom that identity discrepancy seemed not have the advantage of its predictive power compared to identity firmness was "Somatization"; this result corresponds with the finding from Study 1.

According to its definition, identity discrepancy reflects the degree of incongruence between identity importance and identity firmness. The current study anticipated that there is a linear relation between identity discrepancy and mental health, especially when participants of both low identity importance and low identity firmness are not included in the analysis. Therefore, provided that the individual is not at a state of both low identity importance and low identity firmness, identity discrepancy may be regarded as an operationally and quantitatively well-defined risk factor against healthy development that can be used clinically in predicting and helping adolescents suffering from mental maladjustment. As for those with both low identity importance and low identity firmness, further investigation on the developmental process of such adolescents and their adjustment problems is desirable.

Identity Importance

The present study also expected that sense of identity importance may contribute to mental health. Both Study 1 and Study 2 indicated different correlation tendencies of identity importance and psychological symptoms between the healthy-control and the unhealthy group. The distinctive patterns of the associations between identity importance and psychological symptoms suggest that identity importance may play a particular role in contributing to adolescent mental health. The desire to fulfill a set of specific self-configurations may suggest no harm and even positive inclinations towards healthy psychological development, provided the individual does not suffer from psychological maladjustment. However, higher identity importance significantly increased the risk of psychological maladjustment when individuals already belong to the maladjusted group. It may be that the strong desire to fulfill a set of self-imposed standards is inevitably loaded with responsibility and obligation, creating extra stress for adolescents. The stress may easily become too much for already maladjusted adolescents. On the other hand, the challenge may be welcomed and eagerly coped by healthy adolescents. The present findings did not provide a clear model for the role of identity importance in the development of healthy psychological adjustment, yet they pointed out the necessity in future studies to elucidate the mechanism through which identity importance influences adolescent mental health.

Clinical Implication

The present study provided three identity fea-

tures that often surface during adolescence, to understand adolescent mental health. The present research has indicated that these three indicators provide differential perspectives for studying adolescent psychopathology and positive development. Future research can further explore the specific mechanism of how identity importance, firmness, and discrepancy moderate or influence adolescent mental health. Meanwhile, clinical programs designed to promote adolescent self-awareness of identity importance, facilitate sense of identity firmness, and reduce identity discrepancy may be implemented to test whether changing these identity features leads to improved adjustment. Longitudinal follow-up is also worthwhile for exploring the maintenance of the effect of these identity features on healthy adjustment.

Limitation of the present study

Using the "known groups" approach has many potential drawbacks. For example, the "empirical cut-offs" derived from a particular sample may not apply to another sample. In Study 2 of the present research, the cut-off values for the neurosis group and the healthy control group being readjusted have illustrated this problem nicely. Another problem related to the "known groups method" is that, in both Study 1 and 2, the samples were drawn from the general population of college students. Under such circumstances, whether the true clinical samples will illustrate the same kind of tendency as those identified in the college samples needs to be explored in future studies.

A theoretical limitation of the present study is the lack of specific prediction concerning identity discrepancy as a psychological indicator to particular psychopathological symptoms. Even Erikson did not specify the type of psychological symptoms suffered by patients with identity problems. Consequently, given the absence of clear hypothesis, Study 2 adopted a fishing-expedition style of data analysis and found identity discrepancy has a larger capacity in predicting symptoms listed in the SCL-90R than that of identity firmness. Future studies

may be devoted to formulate a clearer model of the psychopathology of identity discrepancy and specific maladjustment.Acknowledgement

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青少年自我認同與身心健康：
認同重要性、認同確定性、及認同落差之功能

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Erik Erikson 主張「自我認同」為青少年期的主要發展要務，並認為認同概念可解釋心理病理的發展。本研究承襲 Erikson 之理論，藉「認同重要性」與「認同確定性」的構念探討青少年之心理健康。「認同重要性」由 Chen, Lay, and Wu（2005）根據 Cheek（1989）對於認同需求的實徵測量方法與對認同面向的區分，而設計出對個人、社會、與形象認同需求之測量。「認同確定性」源自 Erikson 所強調認同的連續性與同一性，而由 Chen et al.（2005）發展個體對於認同同一感之確定程度的測量，亦區分為個人、社會、形象認同三個面向。此外，本研究另提出「認同重要性」與「認同確定性」之落差概念，並主張「認同落差」可預測心理健康。研究一（N = 203）採用「已知群體法」，比較「健康控制組」（N = 85）與「身心疾病組」（N = 56）的大學生在以上三種認同指標上的差異。結果顯示「認同確定性」與「認同落差」的組間差異達到顯著。研究一進一步以迴歸分析檢視「認同落差」的涵意，結果發現雖「認同落差」對於「身心症狀量表」之預測力較「認同重要性」佳，但卻與「認同確定性」無

異。此外，認同重要性與身心症狀指標在身心疾病組為正相關，在健康控制組卻為負相關。研究二（N = 185）重複檢驗研究一的結果，比較「健康控制組」（N = 65）與「神經官能症組」（N = 56）的大學生在以上三種認同指標上的差異。結果仍顯示「認同確定性」與「認同落差」的組間差異達到顯著。迴歸分析的結果則發現，「認同落差」對於以 SCL-90R 為測量工具之十項心理疾病指標之預測力較「認同重要性」為佳且亦幾乎皆較「認同確定性」佳。此外，認同重要性與 SCL-90R 之 GSI 指標在神經官能症組為正相關，在健康控制組卻為負相關。整體而言，本研究指出認同確定性與認同落差對身心健康之正、負向預測力，而認同重要性在健康個體與適應不良的個體中，可能分別扮演正面與負面的不同角色。但在認同重要性與確定性同為低分的受試者中，認同落差的作用方式及其與身心健康的關係，則仍需於未來研究中進一步探討。

關鍵詞：認同重要性、認同確定性、認同落差、青少年、身心健康