

Processes Underlying Gender-Role Flexibility: Do Androgynous Individuals Know More or Know How to Cope?

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ABSTRACT This research examined gender-role flexibility across a variety of stressful events, and tested two proposed hypotheses that explicate the processes underlying gender-role flexibility. The *knowing-more hypothesis* posits that androgynous individuals have a broad coping repertoire. The *knowing-how hypothesis* posits that androgynous individuals know how to cope according to changing situational characteristics. The coping responses of Chinese university students were assessed in both real-life (Study 1) and hypothetical (Study 2) stressful situations. Results revealed that androgynous participants, who were less depressed than others, were characterized by (a) cognitive astuteness in distinguishing among situational characteristics and (b) deployment of strategies that fit specific situational demands. Results supported the *knowing-how hypothesis* only.

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Bem (1974) proposed the construct of psychological androgyny, which refers to the combined presence of socially desirable agentic (e.g., assertive, independent) and communal (e.g., gentle, nurturing) characteristics. Her perspective on psychological androgyny provided an alternative perspective to the traditional bipolar view on gender-related personality. In this theory, masculine individuals are those who are characterized by desirable agentic characteristics, whereas feminine individuals are those who are characterized by desirable communal characteristics.

Although Bem's theory of psychological androgyny has stimulated considerable interest among researchers who are exploring differences among androgynous, masculine, and feminine individuals, two major issues remained inconclusive. First, inconsistent results were found in the body of studies on gender-related personality (e.g., Cheng, 1999; Lapointe & Marcotte, 2000; Lu & Wu, 1998; Upmanyu, Upmanyu, & Lester, 2000). Some findings revealed that individuals with masculine qualities are less depressed than others; a small but significant number of studies, however, revealed that individuals with feminine qualities are less depressed than others. Which of these gender-related characteristics are buffers of depression remains unclear. Second, although results have shown a relationship between gender-role flexibility—the display of different gender-related behaviors in distinct types of situations—and psychological adjustment (Burchardt & Serbin, 1982; Doescher & Sugawara, 1990; Hafner, 1989; Kapalka & Lachenmeyer, 1988), not many attempts have been made to explore the processes underlying it. The present research aimed at filling these knowledge gaps.

The Androgyny Model or the Masculinity Model?

Previous findings on the relationship between gender-related personality and psychological well-being can be summarized by two models, the *androgyny model* and the *masculinity model* (see Whitney, 1983). The androgyny model proposes that desirable agentic and desirable communal qualities jointly enhance psychological well-being. Compared to masculine individuals who possess socially desirable agentic characteristics and feminine individuals who possess socially desirable communal characteristics, androgynous individuals are speculated to experience higher levels of psychological

well-being. This model received support from a number of studies (e.g., Aube, Norcliffe, Craig, & Koestner, 1995; Langis, Sabourin, Lussier, & Mathieu, 1994; Lippa, 2001; Tang & Lau, 1995).

The masculinity model proposes that desirable agentic qualities promote psychological well-being. This model is derived from cultural values and demands, which emphasize the social desirability of agentic characteristics (see e.g., Bassoff & Glass, 1982; Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Individuals with desirable agentic qualities, including both masculine and androgynous individuals, are proposed to experience higher levels of psychological well-being than do their feminine counterparts. This model was supported by a number of studies (e.g., Dimitrovsky, Singer, & Yinon, 1989; Hall, Workman, & Marchioro, 1998; Lau, 1989; Radecki & Jaccard, 1996). Moreover, results from meta-analyses (Bassoff & Glass, 1982; Whitney, 1983, 1985) revealed that desirable agentic qualities are stronger predictors of psychological well-being than are desirable communal qualities, thus providing further support for the masculinity model.

Usefulness of Desirable Agentic and Desirable Communal Characteristics

As described above, previous findings (e.g., D'Zurilla & Sheedy, 1992; Hall et al., 1998; Lau, 1989; Radecki & Jaccard, 1996) have indicated that desirable agentic qualities are associated with psychological well-being. A close examination of these studies revealed that most researchers have adopted either achievement-related tasks (e.g., academic performance and competition) as adjustment outcomes or adjustment measures laden with items tapping agentic qualities (e.g., assertiveness and independence). This body of findings, which revealed a positive relationship between desirable agentic qualities and psychological adjustment, may be confounded by the agentic nature of the adjustment measures. Hence, it seems more precise to conclude that desirable agentic qualities are beneficial to the achievement-oriented aspect of adjustment rather than to adjustment in general, and thus the masculinity model may be more applicable to the context of achievement than to non-achievement-related contexts.

Although meta-analyses (Whitney, 1983, 1985) showed that desirable communal characteristics had weak associations with

psychological adjustment in general, such characteristics were found adaptive in studies on interpersonal adjustment, such as marital adjustment (e.g., Aube et al., 1995; Ickes, 1993; Langis et al., 1994; Peterson, Baucom, Elliott, & Farr, 1989) and postdivorce adjustment (Alain & Lussier, 1988). Despite the relatively few studies on interpersonal-oriented adjustment compared to the vast number on achievement-oriented adjustment, there is evidence for the beneficial role of communal characteristics, at least in the realm of interpersonal relations.

Taken together, these two bodies of research can be integrated in meaningful ways, with an implication that both desirable agentic and desirable communal characteristics are beneficial for psychological adjustment. Desirable agentic characteristics may be beneficial for handling achievement-oriented stressful events, whereas desirable communal characteristics may be beneficial for handling interpersonal stressful events. This notion parallels Flaherty and Dusek's (1980) findings, which revealed an association between gender-related characteristics and multidimensional self-concept. They found that desirable agentic characteristics were associated with the achievement/leadership dimension of self-concept, whereas desirable communal characteristics were associated with the congeniality/sociability dimension. More important, both desirable agentic and desirable communal characteristics were associated with the dimension of adjustment. These findings accord well with Bem's (1974) theory in proposing that mental health should be "genderless" or nonspecific to the characteristics of either gender. The androgynous model, rather than the masculinity model, was thus proposed to account for adjustment across a wide array of situations.

Processes Underlying Gender-Role Flexibility

Androgynous individuals are characterized by gender-role flexibility or adaptability (see Bem & Lewis, 1975), which facilitates the handling of a broad spectrum of tasks. With higher levels of gender-role flexibility, androgynous individuals vary the use of desirable agentic and desirable communal characteristics in different situations. With lower levels of gender-role flexibility, masculine and feminine individuals are more consistent in exhibiting gender-appropriate behaviors, regardless of the nature of situations. This research

further examined how gender-role flexibility facilitates adaptation by exploring the processes underlying this construct. Gender-role flexibility was proposed to involve breadth of knowledge in responses, sensitivity and responsiveness to situational characteristics, or both.

The Knowing-More Hypothesis: Breadth of Knowledge in Responses

As shown in the studies by Bem and colleagues (Bem, 1977; Bem & Lewis, 1975; Bem, Martyna, & Watson, 1976), androgynous participants performed well in both agentic (e.g., making independent decisions under pressure to conform) and communal (e.g., being sympathetic to a distressed person) tasks. However, masculine participants performed well in agentic tasks only, whereas feminine participants performed well in communal tasks only. Hence, it is possible that androgynous individuals may know a broader range of behaviors than do both masculine and feminine individuals, who may only be familiar with behaviors appropriate for their gender.

Knowing a broader repertoire of strategies may be more adaptive because it provides androgynous individuals with more alternatives to choose from, thus enabling them to take advantage of the strength of both agentic and communal qualities by choosing behaviors deemed the most appropriate to the situation. However, masculine individuals and feminine individuals may know a more limited repertoire of strategies comprising only those that are gender appropriate. The beneficial role of gender-role flexibility on the coping process may be associated with the breadth of knowledge in behaviors of androgynous individuals. Such a broader strategy repertoire may equip them with more choices to handle a wider range of life tasks.

The Knowing-How Hypothesis: Sensitivity and Responsiveness to Situational Characteristics

Androgynous individuals are proposed to be more adaptive due to their greater responsiveness to situational characteristics. Androgynous individuals may be more attuned to situational characteristics when perceiving situations and thus more responsive to situational circumstances and demands. This proposition stems from Vonk and Ashmore's (1993) study, which revealed that androgynous

participants used the greatest number of situational qualifiers in describing themselves among all participants in the study. They were the most frequent among other participants in using different or even opposite attributes when describing themselves in distinct situations. For instance, an androgynous person may describe herself as quiet and aloof when with her colleagues in the office, but talkative and warm when with her children at home.

Such results imply that, compared to masculine individuals and feminine individuals, androgynous individuals may be more prone to perceive themselves as possessing distinct characteristics in different contexts. They may be more sensitive to situational characteristics. By contrast, masculine and feminine individuals may evaluate the appropriateness of behaviors according to their gender rather than situational demands. By being more attuned to situational characteristics, androgynous individuals may be more adaptive to a wide range of situations because they are more capable of discerning among situational characteristics and behaving according to specific demands of distinct situations.

In summary, two hypotheses, the knowing-more hypothesis and the knowing-how hypothesis, were proposed in this research. Despite their distinct emphasis, these hypotheses are not necessarily mutually exclusive. Both hypotheses may explain processes underlying gender-role flexibility: Androgynous individuals may have a wide behavioral repertoire, and they may also know how to behave appropriately according to situational demands.

Overview of this Research

The present research aimed at examining two unexplored issues in research on gender-related personality. First, the androgyny model and the masculinity model were tested in the context of an array of stressful situations. Second, the knowing-more hypothesis and the knowing-how hypothesis were scrutinized. The deployment of coping strategies was compared among androgynous, masculine, and feminine individuals in a variety of stressful situations.

In examining coping with stressful situations, the controllability of stressful events is an important factor influencing coping effectiveness (e.g., Averill, 1973; Miller, 1980; Rothbaum, Weisz, & Snyder, 1982; Thompson, 1981). The important role of situational controllability has been spelled out in detail in the transactional

theory of coping (Lazarus & Folkman, 1984), the most comprehensive theory of coping to date. According to this theory, effective coping is a function of the goodness of fit between the use of coping strategies and the controllability of stressful situations. Specifically, problem-focused coping is proposed to be more beneficial in controllable stressful situations. Emotion-focused coping is proposed to be more useful in uncontrollable stressful situations. Hence, the controllability of stressful situations would be examined in both Studies 1 and 2.

This research examined coping in the context of real-life (Study 1) and hypothetical (Study 2) stressful situations. Study 1 aimed at exploring how first-year university students coped with a variety of real-life stressors encountered in the first three months of university life. Differences in coping flexibility across stressful life tasks among androgynous, masculine, and feminine participants were examined. Study 2 extended Study 1 by a vigorous test of the knowing-more hypothesis and the knowing-how hypothesis. Participants were asked to play both the female and the male roles when deciding how to cope with various stressful situations. Variability in deployment of coping strategies across situations was examined in both gender conditions.

An *intraindividual approach* was adopted to examine variability in deployment of coping strategies across situations. Specifically, the deployment of coping strategies across a variety of stressors was examined for each participant. However, not every participant displayed the same pattern of variable behaviors in different situations. An *interindividual approach* was adopted to compare the extent of coping flexibility among participants with different gender-related personalities. In short, variability in coping both within the participant and between participants was assessed in this research.

STUDY 1

Method

Participants

Participants were 75 Chinese first-year university students (32 males and 43 females). Their age ranged from 18 to 20 ($M = 19.08$, $SD = .65$). Participants either earned course credits or were paid \$HK50 (about \$US6) for participating in this study. No significant differences were found in

any measures between these two groups relating to the different remuneration methods, $ts < .64$, *ns*.

Measures

Gender-related personality. The Bem Sex Role Inventory (BSRI, Bem, 1981; Lau, 1989) was used for identifying participants by gender-role orientation (see the Procedures section). This measure is made up of the masculinity and the femininity subscales, each comprising 20 items. In every item, respondents rate how characteristic they are on a 7-point scale, ranging from 1 (“never or almost never true”) to 7 (“always or almost always true”). The Chinese version of the BSRI has good internal consistency, criterion-related validity, and construct validity (Cheng, 1999; Lau, 1989). Both the masculinity and femininity subscales were internally consistent in this study (Cronbach’s alphas = .95 and .93, respectively).

Stressful events. A self-report, open-ended questionnaire was designed to sample a variety of stressful life changes experienced within the first 3 months of university life. The format of this questionnaire is very similar to the first part of the Coping Flexibility Questionnaire (CFQ; Cheng 2001), except that participants were asked to list 10 experienced events in major aspects of university life, including (a) family relations, (b) relations with university teachers (i.e., course instructors, teaching assistants), (c) relations with new classmates/roommates, (d) relations with close friends, (e) studying, (f) health, (g) financial conditions, (h) living habits, (i) commuting, and (j) others. These aspects of stress were identified from the results of a pilot study in which 120 first-year university students were asked to report all the stressful events encountered in university life.

Participants were instructed to list a stressful event in each of these 10 categories, and they were informed that the listed events should have had a significant effect on their lives or had led to changes in how they felt about themselves, their relationships with others, and their well-being (see Compas, Davis, Forsythe, & Wagner, 1987). If participants experienced more than one event in any category, they were instructed to list the one that had the greatest impact on their lives. If they had not experienced any events in certain categories, they could list more than one event in the other categories. All participants could report 10 stressful events. The 10 listed events were labeled by numbers (e.g., Event 1, Event 2, and so on) for convenient referral in subsequent reporting of coping strategies. As in the CFQ, participants were asked to rate the perceived controllability of each event along a 6-point scale. A rating of 1 indicates that the event is appraised as extremely uncontrollable, whereas a rating of 6 indicates that

the event is appraised as extremely controllable. In the present statistical analyses, a stressful event with a rating between 1 and 3 was categorized as controllable, whereas a stressful event with a rating between 4 and 6 was categorized as uncontrollable.

To examine whether androgynous, masculine, and feminine participants differed in the types of stressful events reported, two judges classified the events by type into one of the six categories (see e.g., Ellard, Beaurepaire, Jones, Piper, & Tennant, 1990), namely death, employment, finances, living environment, interpersonal relations, and illness. Participants' endorsement of stressful events in each event type was aggregated, and the MANOVA results revealed no between-participants differences in the types of stressful events reported, $F_s < 1.24$, *ns*.

Coping strategies. Another self-report, open-ended questionnaire was designed to examine how participants cope with each of the listed stressful life events. The format of this questionnaire is very similar to that of the second part of the CFQ, except this questionnaire comprises two separate booklets. In Booklet 1, respondents were instructed to describe briefly how they actually handled the listed stressful life events.

After completing Booklet 1, participants were given Booklet 2 in which the definitions of nine coping categories were printed on each page. The coping categories are (a) diverting attention, (b) perspective taking, (c) direct action, (d) catharsis, (e) acceptance, (f) social support, (g) relaxation, (h) religious support, and (i) others. The first eight categories were adopted from the open-ended coping questionnaire (see Cheng, Hui, & Lam, 1999, 2000; Stone & Neale, 1984). Any strategies that could not be classified into the first eight categories were classified as "others." For each of the listed events, participants were instructed to classify every strategy reported in Booklet 1 into one of the nine coping categories. Then they rated the effectiveness of each strategy along a 6-point scale. A rating of 1 indicated that the strategy was evaluated as extremely ineffective, whereas a rating of 6 indicated that the strategy was evaluated as extremely effective. A sample questionnaire was included so that participants could refer to it when they had problems in completing the questionnaire.

Depression. Depression is a common outcome related to maladjustment among first-year university students (e.g., Kashani & Priesmeyer, 1983; Rich & Bonner, 1987), and thus depression was included in this study as an outcome variable. The Beck Depression Inventory (BDI, Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Chan & Tsoi, 1984) was adopted to assess depression. This inventory consists of 21 items, in which respondents choose one among four alternative statements that best described

how they felt over the past week. The Chinese version of the BDI has adequate internal consistency and criterion-related validity (Chan & Tsoi, 1984; Shek, 1990, 1991). The internal consistency of the Chinese BDI was also adequate in this study (Cronbach's $\alpha = .83$).

Procedures

The BSRI was distributed in several introductory classes from various disciplines for initial screening. Participants were selected based on their BSRI scores: Participants with high levels [i.e., BSRI scores that fell 1 *SD* above the subscale mean obtained in Zhang and colleagues' (2001) study] of masculinity and femininity were classified into the androgynous group. Those with high levels of masculinity and low levels [i.e., BSRI scores that fell 1 *SD* below the subscale mean obtained in Zhang and colleagues' (2001) study] of femininity were classified into the masculine group. Those with low levels of masculinity and high levels of femininity were classified into the feminine group. The undifferentiated gender-related personality, which is characterized by low levels of both masculinity and femininity, was excluded due to its theoretically unclear nature (see Deaux & LaFrance, 1998).

All questionnaires were administered in small groups of 8 to 10 participants under the direction of a research assistant, who oriented them. Written consent was obtained before the study began. The stressful-event questionnaire was distributed first. After reporting 10 stressful events, participants were given Booklet 1 of the coping questionnaire. Participants reported strategies deployed for handling each listed event in this booklet. Then Booklet 2 was distributed for participants to classify each strategy into one of the coping categories. To avoid the problem of contamination due to mood influence, the BDI was distributed last. After completing the BDI, participants were paid and debriefed.

Results and Discussion

This study aimed at examining the efficacy of the androgynous model and the masculinity model in explicating adaptive coping. Coping adaptiveness was indicated by greater flexibility in strategy deployment and lower depression levels. The androgynous model predicts that androgynous participants would display the greatest adaptiveness in coping. The masculinity model predicts that both androgynous and masculine participants would be the most adaptive in coping.

A multivariate analysis of variance (MANOVA) was employed to examine between-participants effects of sex and group (i.e., androgynous, masculine, feminine) on coping flexibility, perceived controllability, and depression. Coping flexibility was assessed by first calculating the

variance (standard deviation) of a particular coping strategy across the 10 stressful situations and then averaging the variances of the eight coping strategies (cf. Cheng, 2001, 2003). A significant main effect of group was found, $F(6, 136) = 8.37, p < .0001$. However, the main effect of sex and the Sex \times Group interaction effect were not significant, $F_s < .35, ns$.¹

Table 1 shows the means and standard deviations of the major variables for the groups. The groups differed in coping flexibility, $F(2, 69) = 11.13, p < .001$; and in depression levels, $F(2, 69) = 16.18, p < .001$. No significant group differences were found, $F(2, 69) = 1.85, ns$. Post hoc Bonferroni tests were performed to control for possible inflated errors commonly found in multiple comparisons. Results revealed that androgynous participants were more flexible in coping and were less depressed than were masculine and feminine participants, $p_s < .001$. These results indicate that androgynous participants, who are less depressed than others, tend to cope more flexibly across situations. The method of situational analysis of behaviors was conducted to further examine how they (a) deployed different strategies and (b) evaluated the effectiveness of various strategies used in distinct situations.

Group Differences in Coping Flexibility Across Situations

Differences in cross-situational flexibility in coping among androgynous, masculine, and feminine participants were examined by a $3 \times 2 \times 8$ (Group \times Event Controllability \times Coping) MANOVA.² The variable of group is a categorical between-participants variable, whereas event controllability and coping are within-participant variables. There were significant main effects for group and for coping, $F_s = 8.87$ and $45.09, p_s < .01$. Significant interaction effects were found between group and coping, $F(14, 504) = 46.66, p < .001$, and between event controllability and coping, $F(7, 504) = 11.72, p < .001$. However, these significant effects

1. Although only the group effect but not the effect of sex was significant, it is possible that there is an association between group and sex. A chi-square test was conducted to examine the possible multicollinearity effects between sex and group. A significant chi-square was found, $\chi^2(2, N = 75) = 16.13, p < .0001$. These results showed that sex and group were related, at least in the masculine and the feminine groups. There were more males (i.e., 18 out of 25) in the masculine group, and more females (i.e., 21 out of 25) in the feminine group.

2. To examine the possible confounding effect between group and perceived controllability, a chi-square test was performed. The chi-square was not significant, $\chi^2(4, N = 75) = 7.58, ns$. These results showed that group and perceived controllability were unrelated. Most participants (i.e., 84%) perceived some of their experienced stressful events as controllable, but others as uncontrollable.

Table 1
 Descriptive Statistics of Major Variables for Groups With Different Gender-Related Personality (Study 1)

	Androgynous (<i>n</i> = 25)		Masculine (<i>n</i> = 25)		Feminine (<i>n</i> = 25)	
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)
Masculinity	49.44 _b	(2.34)	52.40 _c	(2.17)	29.96 _a	(3.92)
Femininity	49.98 _b	(1.99)	30.52 _a	(3.82)	51.18 _b	(1.87)
Perceived controllability	39.88 _a	(6.09)	42.68 _a	(7.77)	37.68 _a	(7.93)
Coping flexibility	.62 _b	(.37)	.31 _a	(.16)	.29 _a	(.15)
Depression	7.68 _a	(4.51)	11.32 _b	(5.31)	16.92 _c	(4.97)

Note. Within each row, means that do not share a common subscript differ from each other by the post hoc Bonferroni tests at .01 level, which is equivalent to an overall alpha level of less than .05 by the Bonferroni procedures. These procedures are used for adjusting the observed significance level for multiple comparisons.

should be interpreted in light of the significant three-way interaction, $F(14, 504) = 10.69, p < .001$. This three-way interaction indicated that the three groups of participants used the eight coping strategies differently across stressful events of distinct extents of controllability.

Figure 1 shows the percentages of using the eight coping strategies in controllable and uncontrollable stressful events for the three groups. To further examine the three-way interaction effect, a 2×8 (Event Controllability \times Coping) MANOVA was conducted on each group. For androgynous participants, a significant main effect of coping was found, $F(7, 168) = 11.60, p < .001$. The Event Controllability \times Coping interaction effect was also significant, $F(7, 168) = 22.41, p < .001$. Post hoc paired *t*-tests revealed that these participants used more direct action when handling controllable stressful events, $t(24) = 2.68, p < .05$, but used more acceptance when coping with uncontrollable stressful events, $t(24) = -5.02, p < .001$.

For masculine participants, only the main effect of coping was significant, $F(7, 168) = 69.55, p < .001$. Among the eight strategies, they tended to use more direct action regardless of the controllability of the stressful situations. Similarly, for feminine participants, only the main effect of coping was significant, $F(7, 168) = 100.71, p < .001$. They tended to use more acceptance, social support, and religious support than other strategies regardless of the controllability of the stressful situations.

As expected, these results indicate that androgynous individuals varied their deployment of different strategies according to the controllability of

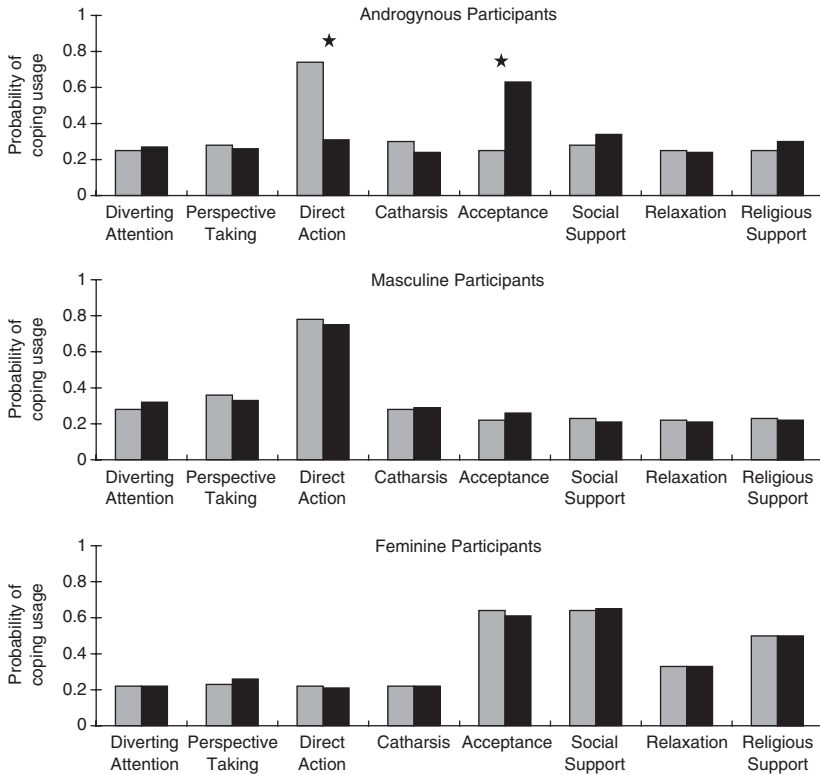


Figure 1

Probabilities of coping usage across real-life stressful situations for groups with different gender-related personality (Hatched bars = controllable stressful situations. Filled bars = uncontrollable stressful situations. Stars indicate differences in coping usage between controllable and uncontrollable stressful situations).

stressful events. Both masculine and feminine participants were more consistent in strategy deployment regardless of event controllability.

Group Differences in Perceived Coping Effectiveness Across Situations

Differences in appraisals on the effectiveness of using the eight coping strategies among the groups were examined by a $3 \times 2 \times 8$ (Group \times Event Controllability \times Coping) MANOVA. Significant main effects were found for group and for coping, $F_s = 20.06$ and 33.86 , $p_s < .001$. Significant interaction effects were also found between group and coping, $F(14, 504) = 7.31$, $p < .001$, as well as between event controllability and coping, $F(7, 504) = 26.62$, $p < .001$. These significant effects should be

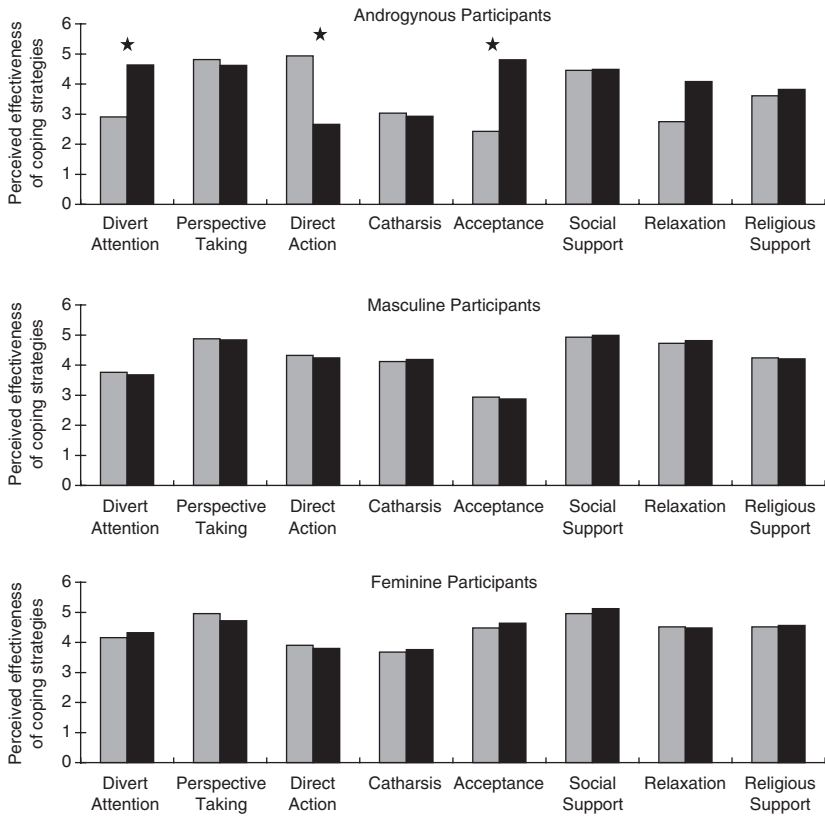


Figure 2

Perceived effectiveness of coping strategies across real-life stressful situations for groups with different gender-related personality (Hatched bars = controllable stressful situations. Filled bars = uncontrollable stressful situations. Stars indicate differences in perceived effectiveness between controllable and uncontrollable stressful situations).

interpreted in light of the significant three-way interaction, $F(14, 504) = 23.96$, $p < .001$. This significant three-way interaction showed that the three groups of participants gave different effectiveness ratings to different coping strategies across stressful situations with distinct extents of controllability.

Figure 2 depicts the perceived effectiveness of the eight coping strategies in controllable and uncontrollable stressful events for the three groups. For a more detailed examination of the three-way interaction effect, a 2×8 (Event Controllability \times Coping) MANOVA was conducted on each group.

For androgynous participants, results showed a significant main effect of coping, $F(7, 168) = 15.81, p < .001$. There was also a significant Event Controllability \times Coping interaction effect, $F(7, 168) = 43.03, p < .001$. Post hoc paired t -tests showed that androgynous participants perceived the use of direct action as more effective in controllable than in uncontrollable stressful events, $t(24) = 8.43, p < .001$, but perceived the use of diverting attention and acceptance as less effective in controllable than in uncontrollable stressful events, $t_s = -4.66$ and $-12.73, ps < .001$. However, only the main effect of coping was significant for both masculine participants, $F(7, 168) = 18.96, p < .001$, and for feminine participants, $F(7, 168) = 12.49, p < .001$.

Consistent with the set of results on coping flexibility, the set of results on coping effectiveness indicate that only androgynous individuals tend to distinguish the effectiveness of some coping strategies among stressful situations of distinct controllability.

Possible Roles of Coping Flexibility and Depression

The present results show that androgynous participants were more flexible in coping and were less depressed than both masculine and feminine participants. It is possible that androgynous participants were less depressed because they were more flexible in coping. The possible mediating role of coping flexibility between androgyny and depression was examined. According to Baron and Kenny (1986), three regression equations should be conducted to verify the mediating effects: The mediating variable (coping flexibility) was regressed on the antecedents (masculinity and femininity; Equation 1), the dependent variable (depression) was regressed on the antecedents (Equation 2), and then the dependent variable was regressed on both the antecedents and the mediating variable (Equation 3). A mediator should meet the following conditions: In the first, the antecedents should have a significant effect on the mediating variable; in the second, the antecedents should have a significant effect on the dependent variable; and in the third, the significant relationships between the antecedents and the dependent variable should wane when the effects of the mediating variable were controlled. Results showed that both masculinity and femininity had significant effects on coping flexibility, $t_s = -3.50, ps < .001$; and on depression, $t_s = -2.44, ps < .05$. The effects of masculinity and femininity on depression became nonsignificant after the effect of coping flexibility had been partialled out, $t_s < -1.45, ns$. Such results showed that the three conditions were met, thus providing some evidence that the lower depression levels of androgynous participants were accounted for by their greater flexibility in coping.

It is also possible that androgynous participants displayed greater coping flexibility because they experienced less negative emotions. This possibility stems from Fredrickson's (1998) broaden-and-build model of emotions. This model posits that positive emotions function to broaden an individual's cognitive-behavioral repertoire, which builds his or her cognitive, behavioral, and social resources to cope with stress. Hierarchical multiple regression analysis was conducted again to explore this possibility. As revealed in the above analysis, both masculinity and femininity had significant effects on depression as well as on coping flexibility (i.e., conditions 1 and 2 were met). The effects of masculinity and femininity on coping flexibility remained strong when the effect of depression was controlled (i.e., condition 3 was not met), $t_s = 3.05$ and 2.83 , $ps < .01$. These results thus ruled out the possibility that the flexible coping of androgynous participants was confounded by depression. Hence, these findings suggest that Fredrickson's model is applicable to positive emotions but not negative emotions.

Conclusions

Results from this study extended previous studies by expanding the variety of stressful situations. When a range of real-life stressful situations was examined, androgynous first-year university students differed from masculine and feminine participants in three major ways. First, androgynous, first-year university students tend to be more sensitive to subtle differences among distinct stressful events, as reflected by their flexible deployment of different strategies and their ability to distinguish situational effectiveness of coping strategies. Second, their flexible pattern of strategies does not just represent an array of random behaviors, but rather a meaningful pattern. Specifically, they endeavor to change the situation (e.g., direct action) when encountering stressors perceived as controllable, but to change themselves (e.g., acceptance) when encountering stressors perceived as uncontrollable. This pattern of results accords well with the goodness-of-fit hypothesis of coping (see Lazarus & Folkman, 1984). Third, androgynous individuals experience a lower depression level in a stressful period of life transition than do others, thus providing support for the androgyny model but not the masculinity model.

STUDY 2

Study 1 revealed that androgynous participants displayed greater coping flexibility in handling stressful tasks of a distinct nature. A likely explanation for the greater flexibility of androgynous individuals

is that these individuals are sensitive to situational characteristics. Both masculine and feminine individuals deploy less flexible strategies across situations because they are more sensitive to personality than to situational characteristics. This explanation remained speculative because previous studies, including Study 1 in this research, have only examined participants' own gender-related personality. Results thus revealed the tendency of masculine and feminine individuals to display behaviors related to their own sex. This study extended previous research by adopting a role-play task, in which participants were instructed to play the female and the male roles, respectively. If androgynous participants have a broader repertoire of behaviors than do masculine and feminine participants, they will use a greater aggregate amount of coping strategies. If they are more responsive to situational characteristics than are masculine and feminine participants, they will vary their deployment of different strategies as the nature of stressful situations changes, rather than as their gender role changes.

Method

Participants

Participants were selected from a pool of undergraduates, based on their BSRI scores. The selection criteria were identical to those adopted in Study 1. Seventy-five participants (37 males and 38 females) were recruited, with 25 in the androgynous, masculine, and feminine groups, respectively. Their average age was 20.83 years ($SD = 1.46$). All participants were paid HK\$50 (about US\$6) for taking part in this study. Informed consent was obtained from all of them before the study began.

Materials

Hypothetical stressful situations. A self-report questionnaire comprising four hypothetical stressful situations was designed to examine coping flexibility. These situations were adopted from the Extended Miller Behavioral Style Scale (EMBSS, Cheng, Chiu, Hong, & Cheung, 2001). Two of them (i.e., Dinner Party, Early Cancer) are controllable, stressful situations, whereas the other two (i.e., Dentist, Terminal Cancer) are uncontrollable, stressful situations. For each of these situations, participants were asked to vividly imagine themselves encountering the situation. Their task was to decide whether they would deploy a given strategy in handling the situation. In each hypothetical situation, eight different coping strategies were constructed. Each strategy represented one of the

following coping categories: diverting attention, perspective taking, direct action, catharsis, social support, acceptance, relaxation, or religious support.

Gender-Role indicators. Participants were required to play the role of a person of a specified gender role and to judge what that person should do in each of the four stressful situations mentioned above. In each trial, a gender-role indicator was presented to specify a role as the target for subsequent judgments. The male role and the female role were examined. Four different indicators were used to represent each of these roles. Specifically, the male-role indicators included "Wai-keung" (a popular Chinese boy's name), "Chi-kin" (a popular Chinese boy's name), "an engineer," and "a fire fighter." The female-role indicators included "Suk-ling" (a popular Chinese girl's name), "Mei-ki" (a popular Chinese girl's name), "a nurse," and "an office secretary." The occupations indicating a particular gender role were derived from a pilot study in which 182 university students estimated the percentage of Hong Kong males taking up a pool of occupations in a recent year. The percentages of the male-dominated occupations adopted in this study ranged from 90% to 99%, whereas the percentages of the female-dominated occupations ranged from 3% to 16%.

Procedures

Asll questionnaires were administered in small groups of 4 to 6 participants under the direction of a research assistant, who oriented them with instructions. Participants were instructed to complete four sets of answer booklets, two of the male-role condition and two of the female-role condition, respectively. For instance, some participants were instructed to imagine themselves as an engineer (the male-role condition), Suk-ling (the female-role condition), Chi-kin (the male-role condition), and an office secretary (the female-role condition), respectively, and report how each "self" would cope with four different stressful situations. To prevent participants from copying answers given in the previous condition, only one answer booklet was distributed at a time. After participants had finished one answer booklet, they were asked to hand it in before the next one was given out. On completion of all the answer booklets, the research assistant fully debriefed participants.

Results and Discussion

This study tested two hypotheses for explicating the processes underlying gender-role flexibility. To examine whether androgynous participants had

a broader repertoire of coping strategies (the knowing-more hypothesis), participants' endorsement of coping responses across the four stressful situations was aggregated. The total number of coping strategies endorsed was compared among the androgynous, masculine, and feminine groups. To examine whether androgynous participants were more responsive to characteristics of stressful situations (the knowing-how hypothesis), participants' patterns of coping responses were compared across stressful situations in different gender-role conditions.

Before the hypotheses were tested, a MANOVA was conducted to examine between-participants effects of group and sex on the probability of using the eight coping strategies. Results revealed a significant overall group effect, $F(16, 126) = 6.15, p < .001$. The main effect of sex and the Group \times Sex interaction were both nonsignificant, $F_s < .98, ns$. The groups differed in the use of diverting attention, direct action, and catharsis, $F_s > 7.39, p_s < .001$. Table 2 shows the probability of using the eight coping strategies in hypothetical stressful situations for the three groups.

Table 2
Aggregated Number and Probability of Coping Strategies Used in Hypothetical Stressful Situations for Groups with Different Gender-Related Personality (Study 2)

	Androgynous (<i>n</i> = 25)		Masculine (<i>n</i> = 25)		Feminine (<i>n</i> = 25)	
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)
Number of strategies	3.75 _a	(.75)	4.09 _a	(.52)	3.98 _a	(.52)
Diverting attention	.22 _a	(.04)	.30 _b	(.03)	.37 _c	(.04)
Perspective taking	.35 _a	(.01)	.39 _a	(.04)	.35 _a	(.05)
Direct action	.42 _b	(.06)	.40 _b	(.04)	.35 _a	(.04)
Catharsis	.22 _a	(.04)	.32 _b	(.04)	.34 _b	(.05)
Acceptance	.34 _a	(.11)	.37 _a	(.06)	.37 _a	(.04)
Social support	.42 _a	(.09)	.40 _a	(.04)	.40 _a	(.03)
Relaxation	.32 _a	(.07)	.34 _a	(.03)	.33 _a	(.10)
Religious support	.31 _a	(.04)	.31 _a	(.09)	.35 _a	(.05)

Note. Within each row, means that do not share a common subscript differ from each other by the post hoc Bonferroni tests of planned comparisons at .006 level, which is equivalent to an overall alpha level of less than .05 by the Bonferroni procedures. These procedures are used for adjusting the observed significance level for multiple comparisons.

Testing the Knowing-More Hypothesis

To test the knowing-more hypothesis, an ANOVA was performed to examine possible differences in the breadth of coping repertoire among androgynous, masculine, and feminine individuals. The aggregated endorsement of coping strategies for the four hypothetical stressful situations was compared among the three groups of participants in the ANOVA. The main effect of group was not significant, $F(2, 72) = 1.77$, *ns*. Because the sample size was relatively small, planned comparisons (see Keppel, 1991) were conducted to compare any possible differences between androgynous and masculine participants as well as between androgynous and feminine participants. However, results also showed nonsignificant results for these two post hoc tests ($ps = .28$ and $.44$, respectively). These results indicate that androgynous participants did not use a greater variety of coping strategies than did the other two groups of participants. Hence, the present findings fail to support the knowing-more hypothesis, which posits that androgynous individuals are more flexible due to their broader coping repertoire compared to others' coping repertoire.

Testing the Knowing-How Hypothesis

To test the knowing-how hypothesis, a $3 \times 2 \times 2 \times 8$ (Group \times Gender-Role Condition \times Event Controllability \times Coping) MANOVA was conducted to examine differences in responsiveness to situational characteristics. The variable of group is a categorical between-participants variable, whereas the other three variables are within-participant variables. Variations in coping responses according to changes in gender-role and controllability conditions were compared among the three groups. The MANOVA results revealed a significant four-way interaction, $F(14, 504) = 5.77$, $p < .001$. Figure 3 shows the probability of strategy deployment in controllable and uncontrollable stressful events for the groups. The left panel of Figure 3 depicts their strategy deployment in the male-role condition, and the right panel depicts their strategy deployment in the female-role condition.

For androgynous participants, a significant Event Controllability \times Coping interaction was found, $F(7, 168) = 20.56$, $p < .001$. Post hoc paired *t*-tests revealed that androgynous participants used more perspective taking and direct action in controllable stressful situations than in uncontrollable stressful situations, $ts > 4.16$, $ps < .001$. However, they used more strategies of diverting attention, catharsis, acceptance, social support, relaxation, and religious support in uncontrollable than in controllable stressful situations, $ts < -2.99$, $ps < .01$.

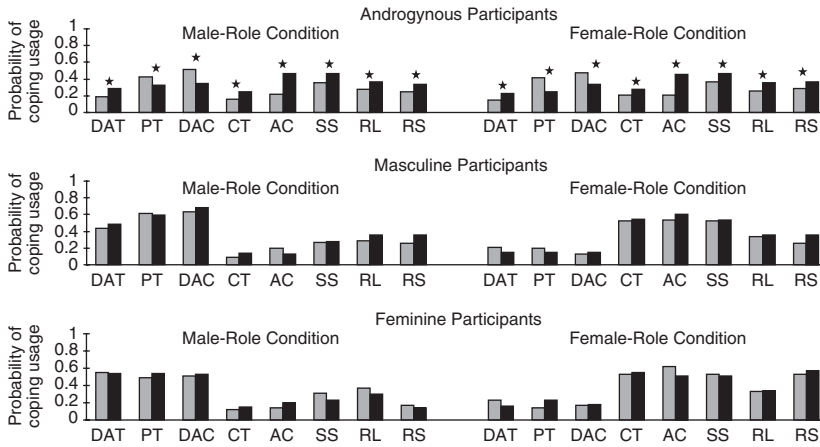


Figure 3

Probabilities of coping usage across hypothetical stressful situations for groups with different gender-related personality in male and female role-play conditions (DAT = diverting attention, PT = perspective taking, DAC = direct action, CT = catharsis, AC = acceptance, SS = social support, RL = relaxation, RS = religious support. Hatched bars = controllable stressful situations. Filled bars = uncontrollable stressful situations. Stars indicate differences in coping usage between controllable and uncontrollable stressful situations).

For masculine participants, a significant Gender-Role Condition \times Coping interaction was found, $F(7, 168) = 346.79, p < .001$. Post hoc paired t -tests revealed that masculine participants used more diverting attention, perspective taking, and direct action when playing the male role than when playing the female role, $t_s > 20.10, p_s < .001$. However, they used more catharsis, acceptance, and social support when playing the female role than when playing the male role, $t_s < -15.03, p_s < .001$.

Similarly, a significant Gender-Role Condition \times Coping interaction was found for feminine participants, $F(7, 168) = 541.71, p < .001$. Post hoc paired t -tests revealed that feminine participants used more diverting attention, perspective taking, and direct action when playing the male role than when playing the female role, $t_s > 17.75, p_s < .001$. However, they deployed more catharsis, acceptance, social support, and spiritual support when playing the female role than when playing the male role, $t_s < -15.82, p_s < .001$.

Taken together, these results revealed significant differences in coping flexibility among groups with different gender-related personalities. Androgynous participants tended to vary their use of coping strategies according to the controllability of stressful situations, regardless of the

gender role they took up. In contrast, both masculine and feminine participants tended to vary their use of coping strategies according to the specific gender role they played, regardless of the controllability of stressful situations. These results thus provided support for the knowing-how hypothesis.

Conclusions

The present results reveal that androgynous individuals may not have a broader knowledge of coping strategies than do others, but may be more flexible in deploying coping strategies according to the controllability of different stressors. These results supported the knowing-how hypothesis but not the knowing-more hypothesis. Androgynous individuals are more responsive to the characteristics of stressful situations and alter their coping strategies according to changes in the nature of situations rather than changes in the gender role. Therefore, their decisions on how to cope with stressors tend to be situation driven. Both masculine and feminine participants, however, tend to evaluate the appropriateness of behaviors according to gender. Although they also behave “flexibly” when playing different gender roles, their pattern of coping behaviors is relatively consistent in real life, in which they only play a particular gender role. These results imply that both masculine and feminine individuals may evaluate the appropriateness of their own behaviors in terms of sex. They may also evaluate the appropriateness of the behaviors of people of both the same sex and the opposite sex.

General Discussion

The present research aimed at unveiling the processes underlying gender-role flexibility. By adopting a situational analysis of behaviors, Study 1 provided support for the androgynous model in showing that androgynous individuals are more flexible in strategy deployment and have lower levels of depression across a variety of stressful situations than masculine and feminine individuals. Results from Study 2 further revealed that androgynous individuals tend to deploy situation-appropriate coping strategies, rather than having a wide repertoire of strategies. Both masculine and feminine individuals tend to deploy strategies related to their own gender.

This research may contribute to the existing literature by reconciling the inconsistent findings on the beneficial role of gender-related personality. This research increased the diversity of stressful situations and yielded findings showing that individual differences in depression are associated with situation-appropriateness in coping patterns: Androgynous individuals, having both desirable agentic and desirable communal

characteristics, experience lower levels of depression than others. As our daily life comprises a vast variety of situations, the ecological validity can be enhanced by examining coping and depression in a context with a variety of situations, a context closer to our everyday life than that with a single event or a particular type of event. Besides, this research may have broader conceptual and theoretical implications.

Conceptual and Theoretical Implications

The notion of gender-role flexibility as a desirable characteristic of androgynous individuals has been proposed for more than three decades. Gender-role flexibility has been conceptualized as an adaptive quality due to flexible display of behaviors across situations (Bem, 1974). Attempting to provide a further refinement of this notion, this research extends the current conceptualization from a behavioral perspective to a cognitive-behavioral perspective. The present findings suggest that behavioral flexibility is a necessary but insufficient condition for defining gender-role flexibility. To illustrate, androgynous individuals do not flexibly alter their behaviors as the gender-role context changes. They vary their behaviors according to changes in situational demands. More interesting, both masculine and feminine individuals also displayed “flexible” coping strategies in an experimental setting when taking up different gender roles, and their behaviors vary as the target role changes. The major difference that distinguishes the flexible behaviors of androgynous individuals from those of masculine and feminine individuals may be the sensitivity and responsiveness to situational demands, or, specifically, the ability to discern subtle differences in the changing environment and to behave differently accordingly to situational demands. Androgynous individuals tend to be more sensitive to the changing characteristics of situations and vary their behaviors accordingly, suggesting that they have the “cognitive freedom” to jump out of their gender-related belief system (cf. Sinnott, 1993) to determine which coping strategies are more effective for handling specific situational demands. Both masculine and feminine individuals, however, may be more sensitive to the gender role that they play and be more rigid in their deployment of coping strategies.

Taken together, successful coping refers to not only the display of different coping behaviors across situations but also to the discrimination among the nature of different stressors for appropriate responses. In this respect, the present research may add to the existing definition of gender-role flexibility a *cognitive* perspective. The present findings imply that gender-role flexibility may be conceptualized as individuals’ cognitive astuteness in discerning characteristics among different situations. Such a new perspective on gender-role flexibility accords well with Scribner’s

(1997) view, in which flexibility is regarded as a kind of skilled practical thinking for solving life problems. In this light, gender-role flexibility may reflect a distinct thinking process that enables androgynous individuals to detect situational characteristics, thus facilitating the adoption of diverse coping strategies to handle different demands of situations. Gender-role flexibility is thus proposed as a cognitive asset that fosters successful coping with the changing conditions in daily life.

Findings from this research enrich a *cognitive-mediated, person-environment* conception of gender-role flexibility. Consistent with the gender-in-context theory (Deaux & LaFrance, 1998) and the person-environment interactionist theories (Magnusson & Endler, 1977), this research revealed that the characteristics of individuals and the demands of the environment may both be essential constituents of gender-role flexibility and coping style. Moreover, a cognitive factor has been added to account for this person-environment relationship. The present results suggest that individuals with different gender-related personalities tend to have distinct cognitive styles and to cope with stress in distinct manners. Androgynous individuals tend to be more attuned to their coping strategies and characteristics of the current situation, suggesting their coping process involves both person-oriented and situation-driven thinking. Theories on gender-related personality (e.g., Bem, 1977; Windle, 1987) posit that androgyny denotes the ability to integrate facets of one's personality. In this light, the adaptive aspect of gender-role flexibility may be represented in the form of integration of one's person-oriented and situation-driven thinking when deciding how to respond to a situation. Both masculine and feminine individuals tend to pay more attention to the gender-appropriateness of their coping strategies and largely ignore the changing features of the environment, suggesting that their cognitive process may be more person-oriented. In short, this research may highlight the key role of gender-role flexibility—as a kind of skilled practical thinking—in fostering smooth integration of personality and environmental characteristics in adaptive manners.

Cautionary Notes, Research Directions, and Concluding Remarks

Before concluding, several cautionary notes should be addressed. First, the small sample size of the present research should be noted. Results from Study 2 showed that participants generally adopted a similar number of coping strategies, and the knowing-more hypothesis was not supported. Although results regarding this hypothesis failed to reach significance, it is worth noting that a trend did exist in the predicted direction of the hypothesis. Androgynous individuals tended to possess a wider repertoire of coping strategies than others, but these differences were not

statistically significant. Given the small sample size, these nonsignificant results may be attributable to a lack of statistical power. Moreover, the possible confound between group and sex should be noted. These shortcomings should be tackled by a more sophisticated design. Specifically, the sample size should be expanded, together with a more equal distribution of men and women in each gender-role group, to provide a more robust test of this hypothesis.

Second, with regard to the correlational nature of our research design, the directions of relationships among gender-role, coping flexibility, and depression remained largely speculative. It is possible that, compared to masculine and feminine individuals, androgynous individuals are less depressed because they are more flexible in coping. It is equally possible that androgynous individuals are more flexible in coping because they are less depressed. This research should be supplemented with multiwave longitudinal and experimental designs to clarify the causal relationships among these variables.

Third, gender-role flexibility is operationalized by coping flexibility in this research. It is important to note that coping flexibility may constitute only a part of gender-role flexibility. The adaptive role of gender-role flexibility may also be applicable to daily events other than stressors. For instance, gender-role flexibility may also refer to interpersonal flexibility (see, e.g., Darling, 1986; Leary, 1957), which plays a beneficial role in interpersonal relationships. Further studies should broaden the scope of research on gender-role flexibility by examining different kinds of non-stressful daily events in the study of gender-role flexibility.

Finally, it is important to note that participants in this research were Chinese university students. Cross-cultural studies (Chang, 1999; Chia, Moore, Lam, Chuang, & Cheng, 1994) have revealed complex relationships between culture and the area of gender-related attitudes. The study by Chia and colleagues (1994) revealed cultural differences in attitudes toward the female role and interpersonal-related events. Specifically, American university students are more liberal in attitudes toward these areas than are their Chinese counterparts. Chang's (1999) study showed that American university students are more liberal toward work-related events than are Chinese university students. Cross-cultural studies should be conducted to examine possible cultural differences in gender-role flexibility across a variety of daily events.

As the saying goes, "Life consists not in holding good cards but in playing those you hold well." Both masculine and feminine individuals are similar to androgynous individuals in having "good cards" (i.e., desirable characteristics) that facilitate adjustment to stressful situations. However, their rigid deployment of certain types of strategies facilitates the handling of only a particular type of event (e.g., achievement,

interpersonal relations). For androgynous individuals, their set of “good cards,” together with the cards that they “hold well” (i.e., characteristics that fit situational demands), may jointly enhance their ability to adjust to a variety of life tasks.

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