Now and Later: The Role of Personality and Cognition in Considering the Future

The first of the current studies examined relationships among Future Time Perspective, Consideration of Future Consequences, Desire for Control, Achievement Motivation, and Integrative Complexity. A mediational model was proposed, in which Consideration of Future Consequences would mediate the relationship between Future Time Perspective and Desire for Control. It was also expected that Integrative Complexity would moderate the relationship between Future Time Perspective and Consideration of Future Consequences. Although these hypotheses were not supported, the results suggested that Consideration of Future Consequences mediates the relationship between Future Time Perspective and Achievement Motivation. A second study replicated the unpredicted mediational relationship, suggesting that an open-ended time perspective relates to greater Achievement Motivation because of increases in Consideration of Future Consequences.

Each individual appears to vary in how important the future is to her or him. One individual can be completely consumed by the future that she or he wishes to have, whereas another individual focuses purely on the present and what has immediate payoffs. The purpose of the current study was to examine potential reasons why people differ in terms of how much they focus on the future. It could be that a differing view of future possibilities or length of the future determines how important the future is to an individual. Alternatively, personality traits could potentially explain the future focus of an individual. Finally, the thought processes of an individual may determine the importance of the future for that individual. The present study examined these specific potential explanations.

Future Perspectives

How an individual views his or her future has been defined in a number of ways by multiple researchers. Future Time Perspective (FTP) as a construct has been studied widely; however, no specific operational definition has been consistently used in research. Trommsdorff (1983) pointed this out in a review of some of the literature concerning FTP, noting that FTP has been previously viewed as having either solely cognitive (i.e., what an individual thinks may happen in the future), solely motivational (i.e., a focus on the future is the basis for all drive for activity), or solely affective (i.e., how a person views the future in terms of optimism versus pessimism) dimensions, as well as a combination of any or all of these definitions. For instance, Peetsma (2000) considered one’s FTP to be a complex construct composed of the individual’s concept of the future, as well as the affective experience of the future in multiple personal life areas. On the other hand, Husman and Lens (1999) viewed FTP as a much simpler notion. In that case, FTP was seen as how far a person’s future goals tend to extend, as a general rule, for that individual.

Socioemotional selectivity theory breaks FTP down into an even simpler construct. According to this theory, FTP is simply how long (in terms of time) an individual appears to vary in how important the future is to her or him. One individual can be completely consumed by the future that she or he wishes to have, whereas another individual focuses purely on the present and what has immediate payoffs. The purpose of the current study was to examine potential reasons why people differ in terms of how much they focus on the future. It could be that a differing view of future possibilities or length of the future determines how important the future is to an individual. Alternatively, personality traits could potentially explain the future focus of an individual. Finally, the thought processes of an individual may determine the importance of the future for that individual. The present study examined these specific potential explanations.

Author note. I would like to thank The College of Saint Rose for providing financial support for my study. I would like to thank Dr. Nancy Dorr for all of her input, assistance and guidance. Additionally, I would like to thank Dr. Robert Flint for his assistance in gaining financial support, as well as for his input. I would also like to extend my appreciation to Elizabeth Demeter for scoring the PCT.

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individual sees his or her life lasting or how much longer that individual thinks that she or he has left (Lang & Carstensen, 2002). If an individual perceives the period of time that she or he has remaining in life as short, then that individual is said to have a limited time perspective (because his or her time is limited). Alternatively, individuals who see their futures extending for a long period of time or as not being finite are considered to have an open-ended time perspective.

Socioemotional selectivity theory claims that time perspective determines the goals and priorities of the individual in an almost adaptive manner, meaning that individuals act in ways that best ensure their well-being for the length of their respective time perspectives (Lang & Carstensen, 2002). In other words, if an individual thinks that she or he will live for a long time, then that individual will focus on goals for the future, whereas an individual who thinks that she or he only has a short period to live would focus more on events that have present benefits. In particular, individuals with limited time perspectives tend to focus on emotionally fulfilling goals whereas individuals with open-ended time perspectives tend to focus on goals associated with gaining knowledge and establishing a career (Lang & Carstensen, 2002). Unfortunately, the concept and measurement of FTP, as seen by socioemotional selectivity theory, is relatively new and has received little research focus. As such, the current study sought to examine the finer details of future perspective using this particular operational definition.

The concept of Consideration of Future Consequences is one that has often been included in the definition of FTP by researchers in this area. For example, according to Lens (1987), one half of a two-part definition of FTP is a propensity for taking future consequences into account in current behavior. However, Strathman, Gleicher, Boninger, and Edwards (1994) established Consideration of Future Consequences (CFC) as a stable personality trait in and of itself. As such, CFC is defined as the degree to which an individual takes possible future outcomes of present behaviors into account when deciding upon current actions. In other words, CFC is how much the future influences present behaviors. Individuals’ high in CFC consider future consequences heavily when deciding on present actions, whereas individuals’ low in CFC may completely disregard potential future consequences for the sake of immediate satisfaction.

In the present study, CFC differs from FTP in that CFC is concerned with the implementation of future concerns in present behavior, whereas FTP simply focuses on individuals’ perceptions of time. To illustrate, an individual scoring extremely high on the CFC scale is likely to weigh future consequences so much in present behaviors that she or he sacrifices current satisfaction for the sake of the future. However, an individual scoring extremely high in FTP would simply see the future as an extended or infinite period of time.

The Role of Personality in Future Perspectives

Given that there are differences in FTP, it seems plausible that personality may account for these differences. One likely candidate is the construct of control. In a review of control constructs, Skinner (1996) showed that past research has focused on both the perception of control and actual objective control over a situation, motivation for control, reactions to loss of control, the long term effects of one’s level of control, and so on. Burger and Cooper (1979) labeled the idea of a motivation for control over one’s life as a stable personality trait entitled Desire for (or Desireability of) Control (DC). In application, the more that a person wished to control his or her life and environment, the higher that individual’s DC would be.

DC is considered a motivational factor because a desire to control one’s environment influences the behaviors of the individual and this level of motivation appears to be somewhat stable within an individual (Burger & Cooper, 1979). Thus, it stands to reason that an individual who shows a high level of DC may behave in ways that gets her or him the control that is desired (such as being decisive). Whereas many control constructs (e.g., Locus of Control; Rotter, 1966) appear to be very popular for personality researchers, it seems that DC has not attracted comparable attention. As a result of the limited use of DC, the present study includes it as a variable in order to expand upon previous research.

Another personality variable that may potentially account for differences in FTP is Achievement Motivation (AM). Spence and Helmreich (1983) divided AM into three subcategories: a drive to work hard, a drive to master difficult tasks, and a drive to compete. According to this perspective of achievement motivation, individuals with a high level of AM in any of the three specific types have a great push to achieve in that manner (e.g., individuals high in Work AM feel a great need to work hard). As motivation is generally focused towards the future (Seijts, 1998), it seems reasonable to suggest that people with a higher level of AM may need a longer FTP in order to maintain motivation.

An exploration of the literature on FTP, CFC, DC, and AM suggest several relationships. Specifically, CFC tends to positively relate to academic and goal achieve-
ment (Joireman, 1999), whereas length of FTP tends to positively correlate with concern for future achievement (Husman & Lens, 1999) and academic achievement (Lessing, 1968). Similarly, mastery drive tends to positively relate to the value that one puts on his or her future (Husman & Lens, 1999) and DC appears to positively predict achievement (Burger, 1985, 1992). As previously mentioned, Seijts (1998) noted that motivation is generally focused towards the future. As such, it would logically follow that many motivational personality variables (e.g., DC, AM) may relate to FTP and CFC.

**The Role of Cognition in Future Perspectives**

In addition to examining what relationships exist among variables, it is also necessary to examine why the relationships exist. Thus, the present study attempted to explain why individuals with longer time perspectives tend to achieve more and to be concerned with more future oriented concepts as well as why some individuals are concerned with the future whereas others are not. According to Zimbardo and Boyd (1999), it is an individual’s thought process that determines his or her view of the future and from there, the actions of the present are determined. Following from this, it seems plausible to suggest that individual differences seen in concern for the future may be due to an individual’s ability to cognitively generate future possibilities.

Integrative Complexity (IC) can be considered as an individual’s thought processes. IC has been defined as a person’s level of differentiation and integration (Baker-Brown, Ballard, Bluik, de Vries, Suedfeld, & Tetlock, 1992). In simpler terms, this means that individuals with a higher level of IC are able to take a greater number of perspectives when examining an issue and these multiple perspectives have a greater number of conceptual links among them. According to Scott (1962), the structure of an individual’s thoughts is determined by the relationships among thoughts. Thus, IC is not concerned with the content of the individual’s thoughts, but rather the structure of his or her thoughts. It is reasonable to suggest, then, that individuals with a higher level of IC might be able to generate more future possibilities for themselves as a result of these multiple links and viewpoints.

**Study 1**

In essence, the purpose of the present study was to examine why future oriented people are concerned with the future. It was also hoped that a sparsely used construct might be brought more attention (specifically, FTP). Therefore, the current study examined individuals’ future perspective in terms of Lang and Carstensen’s (2002) definition of FTP (as length of expected future), and Strathman et al.’s (1994) construct of CFC as two separate variables. Additionally, the current study examined DC (Burger, 1979) and AM as defined by Spence and Helmreich (1983).

Based upon past research and theory, it was expected that FTP would positively relate with DC, and that CFC would mediate this relationship. In other words, it was suggested that the reason that individuals with a longer FTP will have a greater DC is because these individuals will have a higher level of CFC. It was also proposed that the relationship between FTP and CFC would be moderated by IC. If IC plays a moderating role in the relationship between FTP and CFC, then it means that the relationship between FTP and CFC changes dependent upon the level of complexity that the individual exhibits. Consider, for example, an individual who has an open-ended time perspective, a low level of complexity, and a low level of CFC. If IC is a moderating variable in this relationship and this individual had shown a high level of complexity, then she or he would also show a greater level of CFC.

**Method**

**Participants**

The sample consisted of 73 students (63 women and 10 men) from a medium sized liberal arts college in New York, who ranged in age from 18 to 36 (M = 20.6, SD = 2.8). All but two participants were Caucasian. Course credit was given in exchange for participation, and participants were also given candy for participating. Participants were contacted via direct classroom contact, and the investigator either made appointments for the volunteer to take part in the study at a later date or administered the materials at that time.

**Materials**

Preexisting measures were used to acquire data. The constructs assessed were Desire for Control (DC), Achievement Motivation (AM), Consideration of Future Consequences (CFC), Future Time Perspective (FTP), and Integrative Complexity (IC). Self-report measures were used for assessing DC, AM, FTP and CFC. A semi-projective measure was used to measure IC.

Burger and Cooper’s (1979) Desirability of Control Scale was used for determining DC. The scale quantifies the extent to which an individual seeks to be in control over her or his life and environment, and consists of 20 statements with which participants indicate their degree of agreement from 1 (disagree very much) to 7 (agree very much). Sample statements include, “I enjoy making my own decisions” and, “I try to avoid situations where someone else tells me what to do.”
Spence and Helmreich’s (1983) Achievement Motivation scale was used for assessing AM. The scale consists of 19 items with which participants indicate their level of agreement, from 1 (disagree very much) to 5 (agree very much). There are three subscales within the scale: work (e.g., “I like to work hard.”), mastery (e.g., “If I am not good at something, I would rather keep struggling to master it than move on to something I may be good at.”), and competitiveness (e.g., “It annoys me when people perform better than I do.”).

CFC was measured using Strathman et al.’s (1994) Consideration of Future Consequences scale. The scale assesses the degree to which an individual considers distant or immediate consequences when deciding to engage in a behavior. The CFC scale contains 12 items for which participants are asked to rate how characteristic the given statements are of themselves, from 1 (very uncharacteristic) to 5 (very characteristic). Examples of the statements include, “I only act to satisfy immediate concerns, figuring the future will take care of itself” and “I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.”

FTP was assessed using Carstensen and Lang’s (1996) Future Time Perspective Scale. The scale consists of 10 statements with which participants indicate their agreement with the statements from 1 (disagree very much) to 7 (agree very much). Total scores of less than 50 indicate a limited time perspective (e.g., “There are only limited possibilities in my future.”) whereas scores higher than 50 are considered an open-ended time perspective (e.g., “Most of my life lies ahead of me.”).

The Paragraph Completion Test (Schroder, Driver & Steufert, 1967) was used to assess IC. The PCT is a series of six stems (e.g., “Rules...” or “When others criticize me...”) that participants are asked to complete. Participants are generally given 120 seconds to complete each root; however, due to experimenter error, only 80 seconds was allotted for completion of each root. Paragraphs are scored from 1 (extremely low level of complexity) to 7 (extremely high level of complexity), depending on the level of differentiation and integration shown. Integrative Complexity scores were assigned by a trained scorer (see Baker-Brown et al., 1992).

### Results

#### Tests of hypotheses

In order to test the hypothesis that CFC would mediate the relationship between FTP and DC, mediational analyses were conducted using the Baron and Kenny (1986) method. To establish mediation, significant relationships must first be shown between each pair of variables in the model (i.e., A must predict B, B must predict C, and A must predict C). If all three of these conditions are met, then a multiple regression is computed. If the significant relationship remains between the mediator and response variable, but disappears between the predictor and response variable, then mediation is supported.

Bivariate regressions were computed to examine the mediational hypothesis. FTP was found to significantly predict CFC, $b = .19, \beta = .34, t(69) = 3.00, p < .05$. Unfortunately, in the present case, DC failed to show a significant relationship with either FTP, $b = -.06, \beta = -.13, t(69) = -1.10, p > .05$, or CFC, $b = .16, \beta = .14, t(69) = 1.16, p > .05$. Thus, because the first condition of mediation was not met, the hypothesized mediational relationship was not supported and further mediational analysis was not merited.

It was also predicted that IC would moderate the relationship between FTP and CFC (i.e., there would be an interaction among the variables). In order to test this hypothesis, scores on the PCT and FTP scales were centered before conducting a multiple regression with IC, FTP, and the interaction of these variables as predictors and CFC as the response variable. Again, analysis failed to show the predicted interaction, and moderation was not shown, $\beta = -.05, t(76) = -.49, p > .05$.  

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<tr>
<th>DC</th>
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<td>AM–M</td>
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Note. $^* p < .05$, $^{**} p < .01$

DC = Desire for Control, FTP = Future Time Perspective, CFC = Consideration of Future Consequences, AM–W = Achievement Motivation Work Subscale, AM–M = Achievement Motivation Master Subscale, AM–C = Achievement Motivation Competitiveness Subscale, IC = Integrative Complexity
Additional analyses

Correlational analyses were conducted to investigate the intercorrelations among the variables (see Table 1). Analysis yielded several significant relationships among variables. AM Mastery positively related to DC ($r = .44$, $p < .01$), as well as CFC ($r = .39$, $p < .01$).

Interestingly, additional bivariate regressions revealed an unexpected mediational relationship. Specifically, FTP was shown to positively predict CFC, $b = .19$, $\beta = .34$, $t(69) = 3.00$, $p < .01$, as well as Work AM, $b = .10$, $\beta = .24$, $t(69) = 2.05$, $p < .05$. CFC also positively predicted Work AM, $b = .33$, $\beta = .46$, $t(69) = 4.26$, $p < .01$. From this, the first three conditions of a mediational model were satisfied. For the final step in mediation, AM Work was regressed onto CFC and FTP. The results suggest that CFC still significantly predicted AM Work, $b = .31$, $\beta = .42$, $t(68) = 3.71$, $p < .01$, whereas FTP no longer significantly predicted AM Work, $b = .04$, $\beta = .10$, $t(68) = .84$, $p > .05$, thus showing support for the mediational model (see Figure 1).

Discussion

The first proposed hypothesis was that Consideration of Future Consequences would play a mediational role in the relationship between Future Time Perspective and Desire for Control. This hypothesis was not supported by the results of the current study. No significant relationship was found between DC and FTP or CFC, and therefore CFC did not play a mediating role between the two variables in the present study.

The second proposed hypothesis was also not supported. It was proposed that Integrative Complexity would moderate the relationship between FTP and CFC. Unfortunately, IC failed to show a relationship to any of the examined variables. It is difficult to draw...
conclusions from these results, however. Due to experimen
ter error, it would appear that the participants might not have been allowed a sufficient period of
time to complete the Paragraph Completion Test used
to assess IC. Had the participants been given the typi
cally allotted amount of time (i.e., 120s instead of 80s), the analysis may have yielded different results.
Consistent with this notion, Coren and Scudellaro (1990)
asserted that short time periods do not allow for the
participants to suitably generate responses, and there
therefore do not accurately represent complexity levels.
However, Gardiner and Schroeder (1972) argued that
giving the participants longer periods of time allows
them to rationalize the answers, and thus reduces the
validity of the test. It would be beneficial for future
research to continue to examine the relationship
between IC and CFC as a result of the ambiguity of
the present results.

The results also showed that individuals high in
DC show a high level of Achievement Motivation on
the subscale of Mastery. One possibility is that indi
guals might see mastering a task as a way to gain a
certain level of control over his or her environment.
Thus, it would make sense that individuals with a
greater DC have a greater desire to master tasks because
it would be a way for those individuals to gain the con
control that they desire. Given the dearth of research
examining DC, further research using the construct
should be conducted.

Although unexpected, it was found that CFC
mediates the relationship between FTP and AM on
the work subscale. The mediational model suggests
that it is how much individuals consider the future in
determining daily behaviors that makes those
individuals with open-ended time perspectives moti
evated to achieve. Of course, this mediational model
was not hypothesized, and thus it was necessary to
replicate the current study in order to substantiate
this inference.

Study 2

The discovered mediational relationships shown
in Study 1 were unexpected, and thus a second study
was conducted to replicate the results. The second
study examined the relationships among FTP, CFC,
and AM.

Method

The sample consisted of 102 participants (77
female, 18 male). Due to a photocopying error, data
from 7 participants were omitted. The same self-report
measures were employed in the second study as in the
first to assess AM, CFC and FTP. Data from additional
measures was also collected for use at a later time.

Results

Initially, bivariate regressions were conducted to
determine if the conditions of mediation were met
(Baron & Kenny, 1986). This analysis showed that FTP
positively predicted CFC, \( b = .11, \beta = .24, t(93) = 2.39,\)
\( p < .05 \), as well as AM Work, \( b = .10, \beta = .26, t(93) =
2.61, p < .05 \). Additionally, analysis showed that CFC
positively predicted AM Work, \( b = .29, \beta = .35, t(93) =
3.57, p < .01 \). Thus, the first three conditions of medi-
ation were met. AM Work was then regressed onto
CFC and FTP. Results suggest that CFC still signifi-
cantly predicted AM Work, \( b = .25, \beta = .30, t(93) = 3.06,\)
\( p < .01 \), whereas FTP no longer significantly predicted
AM Work, \( b = .07, \beta = .19, t(93) = 1.91, p > .05 \). Thus,
the mediational relationship uncovered in Study 1
was supported by the results of Study 2.1

General Discussion

Consistent with research by Joreman (1999), it
appears that individuals who consider the possible
future consequences of their actions tend to possess
a greater AM Work. In addition, the current study
showed, consistent with Husman and Lens (1999),
that the longer an individual sees her or his life
extending, the more AM Work and CFC that same
individual exhibits. According to Socioemotional
Selectivity Theory (Lang & Carstensen, 2002), indi-
viduals with longer FTPs are more concerned with
events that gain them knowledge and possibly a career,
and thus it is possible that AM could be one way that
these concerns could manifest themselves in an indi-
vidual with an open-ended FTP.

One potential reason that FTP relates to AM is
because of how much that individual takes future con-
sequences into account when acting in the present.
In other words, it may be that an indefinite FTP leads
to a greater CFC (in present behaviors) and that it
may be this concern for the future and not the actual
time perspective that leads to a greater level of AM.
This suggests that how long one thinks he or she has
may be less important than how important the future
is when one is acting. If an individual thinks that she
or he has quite a bit of time left but does not really
care about what happens, then that individual
probably would not be motivated to achieve.

1In both Study 1 and Study 2, the sample consisted of many
more women participants than men. Thus, to ensure that the small
number of men included in the sample were not skewing the data,
the bivariate and multiple regressions reported were also conducted
using only the data from the women participants. Analysis yielded
the same mediational relationship when the data from the male
participants was omitted. Thus, it was decided that the data from
the male participants would remain in the analysis, since there was not
a significant difference when the male participants were removed.
Past research examining FTP has pointed out that older individuals tend to have a shorter FTP (Kastenbaum, 1961; Lang & Carstensen, 2002). The present study was conducted using primarily college students of a fairly young age. As a result, it is difficult to generalize the findings involving FTP to the general population or to an older population. It would be interesting to conduct future research examining the same relationships as the current studies, but using older adults to see if the found relationships are robust.

The current results have potential implications in educational settings. If it is indeed the case that one’s FTP leads to one’s level of CFC which in turn determines AM, then if we can find a way to help to increase the AM of that student. Future research attempting to show just this outcome may be warranted. Additionally, such research may help to further explain why some children are not as motivated as others.

Research examining the roles of poverty and child maltreatment in motivation and scholastic performance suggest that both factors have a detrimental effect on the achievement and motivation of the child (Barnett, Vondra & Shonk, 1996). It might then be reasonable to apply the current research when trying to motivate such at-risk children. It seems plausible that the child who lives in a volatile and/or poverty-stricken environment needs to pay attention to the here and now and to surviving in the present. Such a child might not see the future as extending and thus may not place emphasis on achieving. Thus, if we can find a way to show these children a potential future beyond the dangerous situation that they are familiar with, then perhaps they might be more motivated to work hard and achieve.

References