

Consideration of Future Consequences: A Closer Look at Gender and Cultural Differences

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Abstract

Consideration of future consequences (CFC) has been established as an important predictor of employee work behaviors and leadership abilities. While a few studies have assessed gender differences in the general CFC construct, only one (using a sample of Dutch adolescents) that we know of has analyzed these differences with the use of (i.e., the most recently supported) separate immediate (CFC-I) vs. future sub-scales (CFC-F). Using a sample of U.S. college students, our results suggest that CFC gender distinctions may be dependent on a focus on the construct as a whole vs. a more specific breakdown of these sub-components. Implications and suggestions for future research are discussed, including the need for this stream of research to recognize potential cultural differences across nationalities.

Keywords: Consideration of future consequences, gender differences, cultural differences

1. Introduction

One's Consideration of Future Consequences (CFC), a construct first introduced by Strathman, Gleicher, Boninger & Edwards (1994), represents stable individual differences in the degree to which people focus more on future vs. immediate consequences, (i.e., one's willingness to make tradeoffs in benefits from one vs. the other). An individual who is low in CFC is more focused on immediate outcomes of their behaviors or actions and at the extreme does not consider what might transpire in the future as a results of present actions (Strathman, et al., 1994). On the other hand, one who is high in CFC is willing to forgo immediate benefits for the sake of long term consequences. One's CFC has been established as a predictor of various behaviors such as aggressive or risky driving (Moore & Dahlen, 2008; Zimbardo, Keough Boyd, 1997), fiscal responsibility (Joireman, Spratt & Spangenberg, 2005), preventative health (Orbell, Perugini & Rakow, 2004), among many others. For a brief, but thorough summary of the variables linked to CFC in prior research, see Toepoel (2010). Looking more specifically in the business literature, CFC has been found to predict whether one exhibits transformational leadership behavior (Zhang, Wang, Pearce, 2014), engages in organizational citizenship behaviors as well as counterproductive work behaviors (Cohen, Panter, Turan, Morse & Kim, 2014).

Although a plethora of studies have established CFC as a predictor of multiple important criterion variables, few studies have addressed gender differences within CFC, and most of those have been solely with the use of the overall CFC construct. Scant attention has been given to potential gender differences when CFC is separately analyzed as two factors. A few exceptions (Petrocelli, 2003 ; Rappange, Werner & Van Exel, 2009) have offered mixed results.

An analysis of gender differences among CFC more extensively and appropriately as a two factor construct (Joireman, Balliet, Sprott, Spangenberg & Schultz, 2008) should offer more conclusive and in-depth findings. Petrocelli (2003) did not use the same two factors that have been supported more recently and his choice of factor items has been specifically contradicted in a later study (Joireman, et al., 2008). The other exception (Rappange, et al., 2009) used a sample of young adolescents (average age of 13.2) in the Netherlands as well as a translated and simplified version of the CFC measure, the latter in which the authors themselves note as a potential limitation. As a result, an analysis of gender differences in CFC overall, as well as within the sub-scales, with an adult sample in a different county (i.e., U.S. college students) may shed some light on potential age and cultural differences between these two.

2. Research Methods

Our sample consisted of students enrolled in several sections of a Principles of Management course at a southeastern university in the United States. The survey was administered twice to individuals approximately three months apart. The subjects used an anonymous code by which their responses for both surveys could be matched up. Approximately 450 students participated in the first survey and about 370 completed the follow-up survey. Two-hundred and seventeen students completed both surveys.

Consideration of Future Consequences was measured with the use of a 12-item scale (shown in the appendix) that was first developed and validated by Strathman, et al. (1994) and has since been used extensively with additional validation (e.g., Toepoel, 2010). This original scale has been “one of the most commonly used future time perspective (FTP) measures in social psychological research” (Petrocelli, 2003, p. 406). Very recently, this measure was chosen in other studies because of its “robust reliability and validity” (Zhang, et al., 2014, p. 331).

However, as discussed above, since a distinction between CFC-Immediate and CFC-Future sub-scales has been supported and encouraged (e.g., Joireman, et al., 2008; Petrocelli, 2003; Rappange, et al., 2009), we also measured these at two time periods to offer a richer perspective on any potential differences among gender. Five of the 12 items reflect a concern with future (Joireman et al., 2008) vs. seven that focus on a concern for immediate consequences. (See the appendix for an identification of these statements). In sum, all CFC variables, were measured at two different times, originally, i.e., the overall construct, 1) CFC, the immediate sub-scale, 1) CFC-I and the future sub-scale, 1) CFC-F, and then repeated with same subjects approximately three months later, i.e., 2) CFC, 2) CFC-I and 2) CFC-F, to further corroborate the reliability of the results. The measures are represented with these acronyms in all the tables that follow in the next section.

3. Results

Descriptive Statistics for all CFC measures at both times are shown in Table 1.

Table 1: Descriptive Statistics

Gender	N	Mean	Std. Deviation	
Female	1) CFC	178	36.25	4.25
	1) CFC-F	178	18.92	2.77
	1) CFC-I	178	17.33	4.94
	2) CFC	155	37.21	4.20
	2) CFC-F	155	18.57	2.73
	2) CFC-I	155	18.63	4.63
Male	1) CFC	273	37.60	4.55
	1) CFC-F	273	18.66	2.62
	1) CFC-I	273	18.94	4.89
	2) CFC	220	38.58	5.25
	2) CFC-F	220	18.06	2.71
	2) CFC-I	220	20.52	4.97

In order to test for significant gender differences, we ran a simple ANOVA test on all the CFC variables (CFC as one construct as well as broken down into future vs. immediate sub-scales) at both times. As shown in Table 2, nearly all these variables showed a significant ($p < .05$) difference. The only exceptions were for CFC-Future, in which case the gender differences were not significant, though the second data collection was nearly significant.

When CFC was measured in totality (i.e., the 12-item measure), men scored significantly higher than women in both the first and second data collections. However, when looking at the CFC-F and CFC-I sub-scales separately, women scored higher, albeit marginally significant, on CFC-F in the second survey. In contrast, men scored higher on the CFC-I sub-scale at both time periods.

Table 2: ANOVA Tests for Differences

		Sum of Squares	df	Mean Square	F	Sig.
1) CFC	Between Groups	195.77	1	195.77	9.94	0.002
	Within Groups	8841.10	449	19.69		
	Total	9036.87	450			
1) CFC-F	Between Groups	7.40	1	7.40	1.03	0.311
	Within Groups	3234.22	449	7.20		
	Total	3241.61	450			
1) CFC-I	Between Groups	279.27	1	279.27	11.59	0.001
	Within Groups	10818.51	449	24.09		
	Total	11097.77	450			
2) CFC	Between Groups	170.88	1	170.88	7.27	0.007
	Within Groups	8763.08	373	23.49		
	Total	8933.96	374			
2) CFC-F	Between Groups	24.13	1	24.13	3.27	0.072
	Within Groups	2756.13	373	7.39		
	Total	2780.26	374			
2) CFC-I	Between Groups	323.42	1	323.42	13.85	0.000
	Within Groups	8708.97	373	23.35		
	Total	9032.39	374			

Since there is an inherent assumption within ANOVA that the variances between the groups will be equal, we ran two additional tests to alleviate this concern. Table 3 is a t-test for the differences between the groups with both assuming and not assuming equal variances. Because we can't guarantee equal variances, the second condition seems most appropriate, and with this, none of the results were affected.

Table 3: Independent Sample Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
1) CFC	Equal variances assumed	0.18	0.668	3.15	449	0.002	1.35	0.43	0.51	2.19
	Equal variances not assumed			3.20	396.36	0.001	1.35	0.42	0.52	2.18
1) CFC-F	Equal variances assumed	0.00	0.986	-1.01	449	0.311	-0.26	0.26	-0.77	0.25
	Equal variances not assumed			-1.00	363.11	0.317	-0.26	0.26	-0.78	0.25
1) CFC-I	Equal variances assumed	0.02	0.885	3.40	449	0.001	1.61	0.47	0.68	2.54
	Equal variances not assumed			3.40	375.32	0.001	1.61	0.47	0.68	2.54
2) CFC	Equal variances assumed	8.30	0.004	2.70	373	0.007	1.37	0.51	0.37	2.37
	Equal variances not assumed			2.80	367.03	0.005	1.37	0.49	0.41	2.33
2) CFC-F	Equal variances assumed	0.06	0.813	-1.81	373	0.072	-0.52	0.29	-1.08	0.05
	Equal variances not assumed			-1.81	330.75	0.072	-0.52	0.29	-1.08	0.05
2) CFC-I	Equal variances assumed	1.47	0.226	3.72	373	0.000	1.89	0.51	0.89	2.88
	Equal variances not assumed			3.77	345.56	0.000	1.89	0.50	0.90	2.87

Table 4 shows the results of a more robust test for gender differences. This test uses the median values, rather than the mean, thus avoiding situations where nonlinear data or data affected by outliers might alter the results. As shown in Table 4, the significant gender differences were corroborated with these additional analyses.

Table 4: Robust Test of Equality of Means

		Statistic	df1	df2	Sig.
1) CFC	Brown-Forsythe	10.23	1	396.36	0.00
1) CFC-F	Brown-Forsythe	1.00	1	363.11	0.32
1) CFC-I	Brown-Forsythe	11.54	1	375.32	0.00
2) CFC	Brown-Forsythe	7.85	1	367.03	0.01
2) CFC-F	Brown-Forsythe	3.26	1	330.75	0.07
2) CFC-I	Brown-Forsythe	14.20	1	345.56	0.00

4. Discussion

Some results of our study are consistent with past research but others are surprisingly different and almost reversed. When using the overall CFC measure, men scored significantly higher, suggesting that men do consider the future consequences of their behavior to be more important than women. These results are inconsistent with Petrocelli (2003), as well as other results (e.g., Rappange, et al., 2009) that have found no significant gender differences. Furthermore, our sub-scale findings are opposite of those found with the adolescent Dutch sample. In our study, men scored higher on the CFC-I scales whereas Rappange, et al. (2009) found that girls in the Netherlands sample of adolescents showed a higher CFC with present or immediate-oriented items. Furthermore, women in our study scored higher on the future sub-scale whereas in the Rappange, et al. (2009) sample, boys had higher CFC-F scores. These findings support cultural and age differences with respect to CFC findings, particularly by gender. Although two or more countries may be similar with the respect to Hofstede's cultural dimensions, there may be important gender distinctions within the general orientations. Also, differences in gender roles, gender equality and similar variables could very well be at the root of the differences found between these two cultures (i.e., the Dutch vs. Americans).

4.1 Implications and Suggestions for Future Research

Inferences in gender differences among many other behaviors can also be drawn from the results of this study. For example, using a different measure of time perspective, Zimbardo, et al., (1997) found differences in gender that carried over to differences in risky driving. If these differences follow through to influence other variables linked to CFC in very recent research (e.g., Zhang, et al., 2014) our findings suggest gender differences in CFC and its sub-factors may carry over to predict differences in leadership styles and effectiveness. Furthermore, when combined with the results of another study (Cohen, et al, 2014), our results suggest there may be gender distinctions in the degree to which employees engage in helpful work behaviors or organizational citizenship behaviors rather than counterproductive work behaviors. Of course, future research is needed to directly address these relationships.

An additional area ripe for future research would be to see if the gender differences in CFC and its sub-factors may explain the same distinction in ethical perceptions and standards found in prior studies (e.g., Borkowski & Ugras, 1998; Franke, Crown & Spake, 1997). Many variables (e.g., empathy, caring, nurturing, social desirability or sensitivity) have been suggested to be behind gender differences in ethicality. See Marta, Singhapakdi, A. & Kraft (2008) & Wang & Calvano (2015) for summaries of this literature. However, to our knowledge, gender differences in one's consideration of future consequences (CFC) have not been thoroughly explored as a potential underlying cause.

In conclusion, prior research that has established the distinct predictability of the CFC-I and CFC-F sub-factors (Joireman, et al., 2008) has called for more analysis of the unique contributions of both. The results of our study suggest that future research should look more specifically at potential gender and cultural differences in these sub-scales as well. Such a dissection may offer more explanation into the processes underlying the effects of the one's consideration of future consequences.

Appendix: CFC Scale*

For each of the statements below, please indicate whether or not the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please type a "1" to the left of the question; if the statement is extremely characteristic of you (very much like you) please type "5" next to the question. And, of course, use the numbers in the middle if you fall between the extremes. Please keep the following scale in mind as you rate each of the statements below.

1	2	3	4	5
extremely uncharacteristic	somewhat uncharacteristic	uncertain	somewhat characteristic	extremely characteristic

1. I consider how things might be in the future, and try to influence those things with my day to day behavior.
2. Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.
3. I only act to satisfy immediate concerns, figuring the future will take care of itself.
4. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.
5. My convenience is a big factor in the decisions I make or the actions I take.
6. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.
7. I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.
8. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.
9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.
10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.
11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.
12. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.

*CFC - I items (also reversed scored) are represented by items 3, 4, 5, 9, 10, 11, and 12. CFC -F items are represented by the remaining five (1, 2, 6, 7 & 8).

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