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# My Fate Is My Decision: The Differential Effects of Fate and Criticality of Decision Beliefs on Career Decision Making Self-Efficacy

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**ABSTRACT**

Dysfunctional career decision-making beliefs (DCB) impede career decision making (CDM) process in several ways. This study proposes to delineate the profiles of two career-specific dysfunctional beliefs, fate (FB) and criticality of decision (CB) through their differential effects on career decision self-efficacy (CDSE) in undergraduate students. A sample of 157 undergraduate students (aged M = 21.07, SD = 1.78, 87.2% female) completed the fate and criticality beliefs subscales of Dysfunctional Career Decision-Making Beliefs Scale, Career Decision Self-Efficacy Scale and Career Satisfaction Scale. Two-step cluster analyses was provided for delineating the profiles of combined variables of fate and criticality beliefs. As the result, four clusters emerged: criticality of decision beliefs (CB), fate beliefs (FB), negotiable fate beliefs (NFB) and no dysfunctional beliefs (NB) group. Clusters did not differ in terms of gender, age, GPA or career satisfaction. The profiles of DCB did not differ in CDSE; statistically significant group differences were only found for career goal selection. More specifically, FB group showed significantly less self-efficacy in setting their career goals as compared to CB or NFB groups. Results indicate that dysfunctional fate beliefs are associated with low perceived self-efficacy regarding the selection of goals in the process of career decision-making. However, the effect of FBs can be buffered by CBs, dysfunctional of their kind, suggesting that negotiable FBs have a more favourable effect on career related goal selection self-efficacy as they draw back the process of CDM under personal influence.

## 1. Introduction

Leaving school and getting a first job is a major developmental transition and a substantial step in shaping adult career identity. Low career related self-efficacy is associated with limited ability to recognize career alternatives and goals and negatively affects decision making. Career related self-efficacy is conceptualized as a dynamic set of self-beliefs concerning one's behavioural capability of making proper career decisions (Bullock-Yowell, 2014). The concept of career self-efficacy grounds in social cognitive career theory (SCCT,

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e.g., Lent et al., 1994, Lent et al., 2016), an expanded version of Bandura's social cognitive theory with respect to career development. SCCT takes over the concepts of self-efficacy, outcome expectations and goals and applies them on the process of career decision-making.

Vocational research acknowledges that making choices regarding one's career is highly influenced by career related thoughts and beliefs. Dysfunctional career beliefs challenge career decision-making (Kulcsar et al., 2019). High levels of dysfunctional career thoughts and procrastination are associated with career indecision (Jamali et al., 2015).

Negative career thoughts predict low career decision-making self-efficacy (Bullock-Yowell et al., 2011, Kleiman et al., 2004), increased career indecision (Saunders et al., 2000) and career decision-making difficulties (Kleiman et al., 2004, Fouad et al., 2009). According to El-Hassan and Ghalayini (2017), dysfunctional career beliefs predicted career decision-making self-efficacy.

Sidiropoulou-Dimakakou et al. (2012) found that compared to students who already took a certain career decision, indecisive students present higher level of dysfunctional thoughts.

Dysfunctional career beliefs impede the career decision making process via lack of motivation, regret, procrastination, less than optimal decisions and unnoticed vocational alternatives, extremely low or high level of invested effort, or low career related self-efficacy (see Hechtlinger et al., 2019). Throughout this study we follow Hechlinger et al. (2017) conceptualization of dysfunctional career beliefs as beliefs that lead to undesirable consequences in the process of career decision making and/or career choices.

Decision difficulty and decision stress increases the *belief in fate* (Tang, 2014). Belief in fate is conceptualized as the belief that all that happens was supposed to happen and all outcomes are ultimately predetermined (Norenzayan & Lee, 2010). Several vocational theories highlight the inevitable role of chance events in the formation of one's career path (e.g., chaos theory of careers; Bright et al., 2005; planned happenstance theory, Mitchell et al., 1999; career adaptability, Savickas, 1997). As related to career, belief in fate refers to how strongly individuals believe that chance or fate determines their career path. Those who believe in fate do not invest enough time and effort in career planning and decision-making because of the maladaptive external attribution of control. In Rotter's (1966) conception the external locus of control implies the perception that personal outcomes are results of external forces, such as fate, chance or luck, while internal locus of control assumes that personal outcomes are contingent upon one's behaviour (Specht 2010). As in other fields of life, internal locus of control is more beneficial than external locus of control in CDM as well (Gadassi et al., 2012).

When the fundamental need for personal control is compromised, fate belief might arise as the attribution of constraints one faces. The idea that fate and personal control are against each other is, however, an exploded notion. The belief in fate and its influence on individual outcomes does not imply the loss of personal control. One can negotiate with fate for control within predetermined limits through personal agency, trying to make the best out of the situation. These beliefs of negotiable fate overcome the sense of helplessness, mobilize personal and social resources and lead to active coping despite constraints fixed by fate (Au et al, 2012).

The *criticality of the decision* as a dysfunctional career belief refers to how crucial and irreversible the career choice is perceived. Seeing CDM as a once-in-a lifetime choice, though it implies adaptive internal control and investment of effort (Gadassi et al., 2012), is dysfunctional through its rigidity and inability to assume the justification of lifelong career

development. Strong beliefs in the criticality of career decisions cause stress and may favour the procrastination of career related choices (Lipshits-Braziler et al., 2015, 2016).

The present study proposes to delineate the profiles of two career-specific dysfunctional beliefs, *fate* and *criticality of decision* through their differential effects on career decision self-efficacy (CDSE) in undergraduate students.

## 2. Materials and Methods

### *2.1. Participants and Data Collection*

One hundred fifty-six undergraduate students (87.2% female, mean age M = 21.07, SD = 1.78) attending the programs of the Faculty of Psychology in Cluj-Napoca, all White Caucasian, were invited to take part in an online study, in exchange for course credit. The given web link delineated the description of the study and informed consent was obtained prior to participation. The study conforms to international ethical standards.

### *2.2. Measures*

Dysfunctional Career Decision-Making Beliefs were assessed using the Dysfunctional Career Decision-Making Beliefs Scale (DCB; Hechtlinger, et al., 2019). The scale explores dysfunctional beliefs in five aspects of career decision-making (3 item per scale): the role of chance or fate, the criticality of the decision, the role of significant others, the role of professional help, and perceived gender barriers. Respondents rated how much their agreed on each statement on a nine-point Likert scale (1 = don't agree at all, 9 = highly agree). The first item was a warm-up item ("Choosing a career that suits my preferences is important, as it will determine whether I will be satisfied with it"). Career decision proved to be a very important issue for respondents as 98.67% of them marked 5 or greater (58.27% marked the maximal 9). Hechtlinger et al. (2019) reported estimated internal consistency reliability of scales score .80 for the 15 items. Cronbach's alpha for the subscales were .75, .72, .82, .81, and .83 for chance or fate, criticality, significant others, professional help, and gender, respectively. In this study, however, lower Cronbach α reliabilities were found, .75 for total scale and .63, .77, .76, .77, and .67 for fate, criticality de decision, others, professional help and gender, respectively.

Career decision self-efficacy was measured using the short form of the Career Decision Self Efficacy Scale (CDSE-SF; Betz et al., 2005). Participants were asked to rate their confidence ("How much confidence do you have that you could:") in their career choice competencies on the 25-item five-point Likert scale (1= no confidence at all; 5= complete confidence). Self-efficacy expectations were assessed on five 5-item subscales: accurate self-appraisal, gathering occupational information, goal selection, making plans for the future and problem solving. Total CDSE-SF scores range from 25 to 125. The CDSE-SF has been shown to be psychometrically sound, with reliability estimates of .94 (total scale), .73 (SA subscale), .78 (OI subscale), .83 (GS subscale), .81 (PL subscale), and .75 (PS subscale) (Betz et al., 1996). In this study, Cronbach $\alpha$ reliabilities were .91 (total scale), .73 (self-appraisal), .73 (gathering occupational information), .59 (goal selection), .77 (planning), and .72 (problem-solving). The alpha if item deleted results indicated that item nr. 16 should be removed from goal selection subscale as this increases Alpha to .80.

Career Satisfaction was assessed with the one-factor Career Satisfaction Scale (CSS; Greenhaus, et al., 1990), a measure of subjective career success. Respondents were asked to indicate on a five-point Likert scale to what extent they agreed with each statement (1 = strongly disagree, 3 = uncertain, 5 = strongly agree). High internal consistency of the scale

.88 (Greenhaus et al, 1990) was repeatedly found in several studies using this measure (e.g., Spark, et al., 2011). In this study Cronbach's Alpha was .75.

### *2.3. Data Analysis*

The data were analysed with SPSS version 20 (IBM; Armonk, NY, USA). Prior to data analysis, each variable was examined using frequency distribution to identify any coding errors or missing data. Then descriptive statistics were calculated. Pearson r correlations were conducted to investigate the association between variables. Next, a two-step cluster analysis was carried out to delineate profiles of dysfunctional career beliefs. Cluster analysis allows for the grouping of individuals who share psychological or behavioural properties in common. The two-step cluster method is an algorithm that first (1) pre-clusters the cases into many small sub-clusters, then (2) clusters the sub-clusters resulting from pre-cluster step into the desired number of clusters. The distance between two clusters is related to the decrease in log-likelihood as they are combined into one cluster; observations in the same group are more similar to each other than to those in other groups. Subjects were assigned to the cluster through log-likelihood distance measure. No prescribed number of clusters was suggested. The Swartz's Bayesian Information Criterion (BIC) was used to choose the most adequate model, with smaller values of the BIC indicating better models. Silhouette index of cohesion and separation was taken into account to appreciate the quality of clustering. Fate and criticality of decision beliefs were set as classifiers. Differences in sample characteristics according to cluster membership were compared using univariate ANOVA for CDSE, then multivariate ANOVA for CDSE subscales. Levene's Test of Equality of Error Variances was performed to check for the error variance of the dependent variable is equal across the groups. Box's Test of Equality of Covariance Matrices was checked and when the covariate matrices for dependent variables were not equal across groups, Pillai's Trace criterion was taken into account instead of Wilk's Lambda. For all tests performed, the significance level was set at .05, two-tailed, except for multivariate ANOVA where Bonferroni alpha correction was set with statistical significance at $p < .025$.

## 3. Results

### *3.1. Preliminary Analysis*

Outliers were identified by Cook's distance technique, n = 6 respondents were excluded from further data analysis.

Table 1.
*Means and standard deviations for main study variables*

| | N | Range | M | SD |
|---|---|---|---|---|
| Fate beliefs | 151 | 3.00 -21.00 | 7.58 | 3.69 |
| Criticality of decision beliefs | 151 | 5.00 - 27.00 | 17.68 | 4.99 |
| CDSE | 151 | 61.00-118.00 | 93.47 | 12.17 |
| Self-appraisal | 151 | 7.00 - 25.00 | 19.22 | 3.01 |
| Occupational information | 151 | 7.00 - 25.00 | 18.40 | 3.24 |
| Goal selection | 151 | 7.00 - 25.00 | 18.83 | 2.79 |
| Planning | 151 | 7.00 - 25.00 | 18.64 | 3.61 |
| Problem solving | 151 | 9.00 - 25.00 | 17.69 | 3.57 |
| Career satisfaction | 151 | 12.00 - 25.00 | 19.79 | 2.8 |
| Age | 151 | 18.00 - 31.00 | 21.08 | 1.81 |
| GPA | 150 | 5.60 - 10.00 | 7.97 | 1.06 |

Means and standard deviations for all variables are presented in Table 1 and intercorrelations among major variables are presented in Table 2.

Table 2.
*Correlation Matrix of Variables*

| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| 1. Fate Beliefs | -.27** | -.19* | -.24** | -.13 | -.19* | -.14 | -.23** | -.13 |
| 2. Criticality of Decision Beliefs | 1 | .13 | .11 | .06 | .26** | .16 | .01 | .11 |
| 3. CDSE | | 1 | .76** | .76** | .68** | .81** | .72** | .53** |
| 4. Self-appraisal | | | 1 | .69** | .73** | .72** | .59** | .43** |
| 5. Occupational Information | | | | 1 | .62** | .79** | .495** | .381** |
| 6. Goal Selection | | | | | 1 | .63** | .48** | .38** |
| 7. Planning | | | | | | 1 | .56** | .45** |
| 8. Problem Solving | | | | | | | 1 | .38** |
| 9. CS | | | | | | | | 1 |

### *3.2. Cluster Analysis*

Four clusters with no exclusion of cases emerged when analysing fate and criticality of decision beliefs. The composition of the clusters and the importance of variables within a cluster were then examined. The clusters were identifiable as "criticality of decision beliefs" group (CB: low fate, high criticality, n = 54, 35.8 %), "fate beliefs" group (FB: high fate, low criticality, n = 22, 14.6%), "negotiable fate beliefs" group (NFB: high fate and high criticality, n = 24, 15.9%) and "no dysfunctional beliefs" group (NB: low fate, low criticality, n = 51, 33.8%) (see Table 3). The Silhouette clustering quality index (average .05) proved to validate this two-step cluster solution; the model fit was fair to good within each field. The three clusters significantly differed from each other in terms of fate and criticality beliefs, *p*s were <.001. Criticality of decision proved to be a stronger predictor (= 1) than fate (=.72).

Table 3.
*Two-step cluster analyses*

| **Input variables (classifiers)** | | | | |
|---|---|---|---|---|
| Cluster descriptor | CB<br>Low fate/<br>High criticality | FB<br>High fate/<br>Low criticality | NFB<br>High fate/<br>High criticality | NB<br>Low fate/<br>Low criticality |
| Cluster size | 35.8 % (n = 54) | 14.6 % (n = 22) | 15.9 % (n = 24) | 33.8 % (n = 51) |
| Fate beliefs mean score (*SD*) | 5.00 (1.68) | 12.09 (3.67) | 11.87 (1.91) | 6.36 (1.97) |
| Criticality of decision beliefs mean score (*SD*) | 22.92 (2.28) | 10.31 (2.81) | 20.95 (2.86) | 14.80 (2.23) |

*Note. CB* criticality of decision belief, *FB* fate belief, *NFB* negotiable fate belief, *NB* no dysfunctional belief

When differences among the cluster groups were examined, no significant differences were found with regard to age, gender, GPA or CS (career satisfaction).

### *3.3. Group Comparisons*

One-way between-subjects ANOVA was conducted to compare the combined effect dysfunctional career decision beliefs on CDSE in fate beliefs, criticality of decision beliefs, negotiable fate beliefs and no dysfunctional beliefs conditions (see Figure 1).

There was a non-significant effect of dysfunctional carrier beliefs on CDSE $F(3, 147) = 1.299$, $p = .277$.

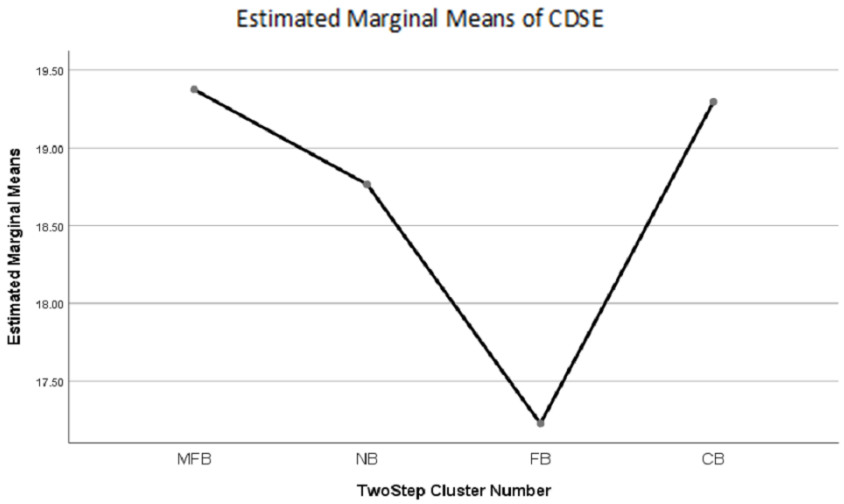


Figure 1. *Career goal selection self-efficacy differences in clusters of dysfunctional career beliefs*

A multivariate one-way ANOVA was then performed to test whether there are any group differences for self-appraisal, gathering occupational information, goal selection, planning and problem-solving subscales of CDSE. For the descriptive statistics of the CDSE clusters see Table 4.

Table 4.
*Descriptive statistics of CDSE for clusters of dysfunctional career beliefs*

| | | Mean | Std. Deviation | Min. | Max. |
|---|---|---|---|---|---|
| CDSE | NFB (n = 24) | 92.86 | 9.91 | 72.00 | 109.00 |
| | NB (n = 51) | 93.31 | 12.08 | 68.00 | 115.00 |
| | FB (n = 22) | 89.53 | 11.90 | 63.00 | 109.00 |
| | CB (n = 54) | 95.50 | 13.11 | 61.00 | 118.00 |
| self-appraisal | NFB (n = 24) | 18.79 | 2.15 | 15.00 | 23.00 |
| | NB (n = 51) | 19.24 | 2.78 | 14.00 | 25.00 |
| | FB (n = 22) | 18.36 | 3.63 | 8.00 | 24.00 |
| | CB (n = 54) | 19.74 | 3.23 | 7.00 | 25.00 |
| gathering occupational information | NFB (n = 24) | 18.54 | 2.50 | 12.00 | 23.00 |
| | NB (n = 51) | 18.45 | 2.96 | 12.00 | 25.00 |
| | FB (n = 22) | 18.09 | 3.21 | 8.00 | 22.00 |
| | CB (n = 54) | 18.41 | 3.83 | 7.00 | 25.00 |
| goal selection | NFB (n = 24) | 19.38 | 2.04 | 15.00 | 23.00 |
| | NB (n = 51) | 18.76 | 2.64 | 13.00 | 24.00 |
| | FB (n = 22) | 17.23 | 3.52 | 7.00 | 21.00 |
| | CB (n = 54) | 19.30 | 2.70 | 9.00 | 25.00 |
| planning | NFB (n = 24) | 19.13 | 2.97 | 14.00 | 23.00 |
| | NB (n = 51) | 18.73 | 3.07 | 13.00 | 24.00 |
| | FB (n = 22) | 17.14 | 3.97 | 8.00 | 22.00 |
| | CB (n = 54) | 18.96 | 4.10 | 7.00 | 25.00 |
| problem solving | NFB (n = 24) | 17.04 | 3.30 | 11.00 | 23.00 |
| | NB (n = 51) | 18.14 | 2.96 | 10.00 | 23.00 |
| | FB (n = 22) | 16.50 | 3.91 | 9.00 | 22.00 |
| | CB (n = 54) | 18.04 | 4.00 | 9.00 | 25.00 |

There was a significant difference in CDSE subscales based on cluster membership, $F(15, 435) = 1.846$, $p = .027$; Pillai's Trace = .18, partial $\eta^2 = .060$. Dysfunctional career beliefs had a significant effect only on goal selection subscale of CDSE ($F(3, 147) = 3.405$, $p = 0.019$, partial $\eta^2 = .065$); for all other subscales *p*s were >.025. Tukey's HSD post-hoc tests showed

that goal-selection was statistically significantly different between fate beliefs and negotiable fate beliefs groups ($p$ = .041) and fate beliefs and criticality of decision beliefs groups ($p$ = .016).

## 4. Discussion

Dysfunctional career related beliefs have an impact on how one approaches the process of career decision making. This study proposed to explore the effect of two specific dysfunctional career beliefs (fate and criticality of decision) on career related self-efficacy. Strong beliefs in fate - seen as having a decisive role in determining one's career path - are associated with external regulation that may impede the active involvement in managing CDM. Contrary, criticality of decision beliefs may accentuate the urge of making a (the) perfect career choice, suggesting that one must not fail making the right choice as this will have an irreversible effect on one's career and future. When fate beliefs are associated with criticality of decision beliefs, one does not see fate as preordained, but rather negotiable. Negotiable fate can be changed through intentional choices.

Results of the study showed that only fate beliefs, but not criticality of decision beliefs were associated negatively with CDSE. Further analyses revealed that fate beliefs were negatively associated with career related self-appraisal, goal selection and problem solving, while criticality of decision beliefs were positively associated with career goal selection self-efficacy, but unrelated to other subscales of CDSE.

Although respondents with relatively high fate beliefs scored lower on CDSE and all of its subscales, only career related goal setting differentiated the fate beliefs cluster from the criticality of decision beliefs and negotiable fate beliefs clusters. Low perceived internal control might reasonably account for low self-efficacy in setting the career goals, though this explanation needs further examination.

In the profile of negotiable fate beliefs, the criticality of decision seems to have a stronger relevance concerning goal setting self-efficacy. Criticality of decision beliefs seem to overwrite the pattern of underestimated personal control and efficiency associated with strong fate beliefs. Our results are in concordance with the findings of Zhou et al. (2009) and Au et al. (2019) that the dualistic belief in fate and personal agency has some adaptive functions as contrasted to fatalism. Still, the question remains whether in the context of career decision making believing in negotiable fate does indeed favour optimal choices.

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