

Perceived similarity in achievement and integration process among first year at the university

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1. Transition to higher education

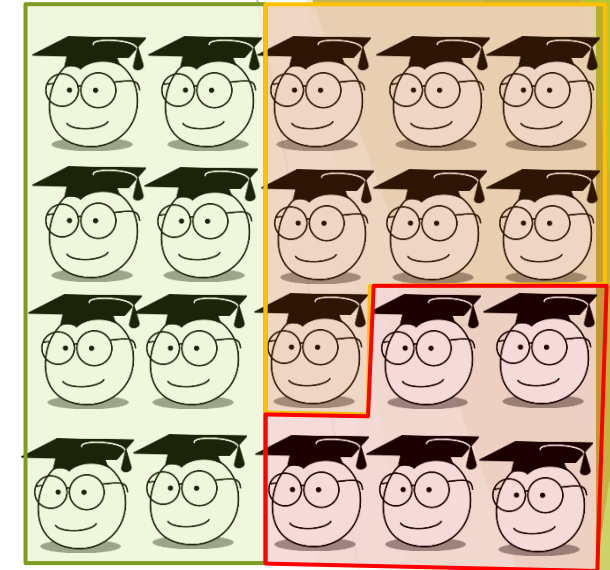
► Challenging transition

- In Belgium:

- Fail the year (+/-35 %)
- Leave university (+/-25 %) (Droesbeke et al., 2008)

► Important number of adjustment challenges (Trautwein & Bosse, 2017)

- Facing heightened academic requirements
- Conciliating various aspects of daily-life
- Developing an autonomous learning
- Managing the competition
- Dealing with new administrative rules
- Building a new social network



2. Social integration: a crucial component of academic adjustment

- ▶ Theoretical importance:
 - ▶ Tinto's model of student departure (1997)
 - ▶ Social integration = important determinant of intention to persist and involvement
 - ▶ Self-determination theory (Ryan and Deci, 2017)
 - ▶ Relatedness = direct predictor of student's motivation and engagement
- ▶ Empirical evidences:
 - ▶ Significant direct impact on motivation, engagement and persistence (Kahu, 2013, Krause & Coates, 2008)
 - ▶ Weak effect ($p=.03$ to $.09$) on academic achievement (Richardson et al., 2012)

3. A positive effect to nuance

- ▶ **Quantitative evidence of an ambivalent effect** (De Clercq, Galand, Frenay, submitted)
 - ▶ The effect of social integration is not the same for every students
 - ▶ **Strong +** effect for students coming from an humble SES background
 - ▶ **0 to -** effect for “thoughtless” students (low choice; low high school grade; high confidence)
- ▶ **Qualitative evidence of an ambivalent effect** (De Clercq, Roland, Brunelle, Galand & Frenay, 2018)
 - ▶ Important lever for motivation and engagement for some students

I042: « We were on the same wavelenght, we have to do it well! We were constantly helping each other and their is no doubt that it was thank to them that I passed the year »

- ▶ Impede student's adjustment of other students

I102: « We were all in the same situation. It was a mass effect. Somebody said 'let's have a drink' and everyone followed. We pulled each other down and we all failed the year.»

- ▶ The impact doesn't lied in the level of integration but in the quality of the social group (Tinto, 2006)

4. Social psychology principles

► Homophily principle

- Students tied with students similar to themselves (Kossinets & Watts, 2009)
 - Endogroup similarities validate student's norms, attitudes and behaviors (Suls & Wheeler, 2012)
- Positive or negative effects
 - High achievers together ↑ engagement (Dawson, 2010)
 - Binge drinkers together ↑ alcohol consumption (Duncan et al., 2005)
- Lack of consideration of this principle among the transition to higher education

5. Purpose of the study

- ▶ *Investigate the effect of perceived similarities on motivation and engagement*
- ▶ *Grounded in Expectancy-value theory (Eccles and Wigfield, 2002)*
- ▶ *3 Hypotheses:*
 - ▶ H1: Freshmen tie with student's expressing similar level of motivation and engagement
 - ▶ H2: Endogroup motivation determine student's engagement
 - ▶ H3: Endogroup engagement determine student's achievement

6. Our study

- ▶ **140 freshmen in Psychology**
 - ▶ Mean age= 19 years old
 - ▶ 81% of girls
- ▶ **Self-assessment questionnaire:**
 - ▶ Social integration (8 items, $\alpha=.74$)
 - ▶ Value
 - ▶ Utility (3 items, $\alpha=.63$) , Interest (3 items, $\alpha=.73$) , Importance (3 items, $\alpha=.53$) , Cost (3 items, $\alpha=.67$)
 - ▶ Expectancy (12 items, $\alpha=.82$)
 - ▶ Behavioral engagement (4 items, $\alpha=.60$)
- ▶ **Friends' assessment questionnaire:**
 - ▶ List 1 to 10 friends
 - ▶ Relative score of the friends on integration, value, expectancy and engagement (Higher, equal, lower level than me)

6. Our study

- ▶ Ego network analyses (Scott & Carrington, 2011)
 - ▶ Each participant is considered as the ego of the network
 - ▶ Each reported friend is considered as 'alter'
- ▶ For each variable → creation of an **homogeneity score**
 - ▶ Recoding
 - ▶ 0 = friend judged as dissimilar (higher or lower level)
 - ▶ 1 = friend judged as similar (the same level)
 - ▶ Means scores * 100
 - ▶ Percentage of perceived similarity on each variable
- ▶ Example: Student 1
 - ▶ 5 friends (4 judged similar & 1 dissimilar on engagement)
 - ▶ Mean score of $0,8 * 100 = 80\%$ of engagement similarity in the social group.

7. Results

- **H1: Freshmen tie with student's expressing similar level of motivation and engagement**
 - **Multiple regression on individual social integration**

	β	t	Sig.
(Constante)		14,313	,000
Homogeneity Interest	-,065	-,630	,530
Homogeneity Cost	,220	2,210	,029
Homogeneity Utility	-,078	-,791	,431
Homogeneity Importance	-,166	-1,613	,109
Homogeneity Engagement	,310	3,367	,001
Homogeneity Expectancy	,256	2,803	,006

► **$R^2 = 19,4\%$**

7. Results

- H2: Endogroup motivation determine student's engagement
 - 5 Multiple regressions on individual engagement

	β	t	Sig.
(Constante)		9,873	,000
Interest	,227	2,724	,007
Homogeneity interest	,070	,842	,401
InterestXHom.interest	,077	,927	,356

No significant effect of utility, importance or expectancy

R^2 engagement = 15,9%

	β	t	Sig.
(Constante)		20,813	,000
Cost	-,226	-2,912	,006
Homogeneity Cost	,248	3,032	,004
CostXHom.Cost	-,252	-3,177	,002

7. Results

- ▶ H3: Endogroup engagement determine student's achievement
 - ▶ Multiple regression on individual achievement

	B	t	Sig.
(Constante)		14,788	,000
Engagement	,337	3,815	,000
Homogeneity engagement	,038	,436	,664
EngagementXHom.engagement	,196	2,363	,020

- ▶ $R^2 = 16,9\%$

6. Discussion

► Homophily principle partially replicated

- Better integration when similarities on cost, expectation and engagement
- Positive group effect when high and similar engagement
- Negative group effect when high and similar cost

► Limitations

- Self-reported measures & student's self-perceptions
- Dichotomization of the perception of similarity

► How to avoid negative group effect?

- Try to manipulate the homophily tendency?
 - Encourage heterogeneous groups by additional exposure to classmates from different backgrounds

Thank you for your attention!

Do you have any question or concern?

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