Innovativeness and Creativity: The Dark Side of Homogeneous Teams

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Study objectives

Person-environment fit (PE fit) literature describes the impact of a match between individual and environmental characteristics. Since the 1990s, this idea of fit received gradually more attention in organizational literature (Ostroff & Judge, 2007). Seen their strategic focus, modern organizations are increasingly opting for teamwork (Lawler, Mohrman, & Ledford, 1995). In the light of this development, the current study will approach PE fit on a team level. We will consider the match between individuals and the team they belong to (interpersonal fit, person-group/person-team fit; Kristof, 1996). Besides a needs-supply fit based on the skills and abilities of the members, there is also a need to attain a good match in terms of members' values and personalities. An interesting question is, whether this fit in values and personality must be a complementary or a supplementary one. Although Schneider (1987) elaborates in his ASA model on how and why overtime fit in terms of homogeneity and similarity in the characteristics of employees is attained in organizations, he also warns for a potential paradox. Many scholars focus on the positive consequences of supplementary fit or value congruence (within-group homogeneity) on the individual level (e.g. motivation, commitment, satisfaction) as well as on the group level (team performance; Werbel & Johnson, 2001). Nevertheless, we are interested in the potential negative consequences that are described in the paradox proposed by Schneider. On the group level, value congruence may reduce innovativeness and creativity of the output, outcomes that become even more important in the competitive environment where organizations are confronted with today. Thus, besides the positive outcomes, on the long-term this homogeneity within teams may be bad for an organization in terms of survivability and ability to adapt to changes in external environments.

We plan to set up multiple samples to collect multi-wave data on functioning teams. In obtaining a carefully controlled design, it is important to evaluate teams based on a well-defined, tangible assignment. Therefore, three samples of teams of university students will be tracked during the completion of a group project. Within the samples, students' values will be measured in a pretest and objective person-group (P-G) fit (supplementary as well as complementary fit) will be calculated. Next, the students will be randomly divided into teams. During the period of their group project their perceived P-G fit (value congruence) will be measured at several moments. This, in order to evaluate the evolution in within-group homogeneity (it is predicted that congruence will increase due to socialization). After task completion, work outcomes (e.g. team performance, innovativeness and creativity) and attitudes (work satisfaction) will be measured as well as a final measurement of perceived person-group fit.

Proposed study design

Sample 1: Bachelor students in a college in Belgium

- About 150 students will be divided into teams of 4 to 6 members.

- The teams will have to complete a group project during 3 to 4 months. The output of the project is reflected in a group presentation as well as in a written group report.

- The study will include several measurement moments:

  - T1 (before the start of the project): measurement of team members' values and personality; based on this, an objective P-G fit will be calculated using polynomial regression
  - T2, 3, 4 (one week, one month and two months after starting the project): measurement of members' perceived value congruence (subjective P-G fit); based on these multiple measures an increase in homogeneity can be tested.
  - T5 (after completion of the project): measurement of individuals' satisfaction with team performance, the supervisor's evaluation of team performance in terms of quality (final mark)[1], innovativeness, and creativity (control variable: Did the team members work together in earlier assignments?)

Sample 2: Bachelor students in a university in the Netherlands

- Exactly the same procedure as in sample 1 will be followed for a group of about 150 students divided into teams of 3 to 4 members.

Sample 3: Bachelor students in a university in Belgium

- About 60 students will be divided into 10 teams consisting of 6 members.

- The teams will work together on several tasks during a management seminar for 2 days. Assignments will include result-oriented as well as process-oriented tasks, with a variety of objectives.

- The study will include several measurement moments:

  - T1 (before the start of the seminar): measurement of team members' values and personality; based on this, an objective P-G fit will be calculated using polynomial regression
  - T2: (end of day one): measurement of members' perceived value congruence (subjective P-G fit)
  - During the two days: participative observation of team performance, innovativeness and creativity (two observers for each team)
  - T3 (end of day two): measurement of individuals' satisfaction with team performance, the supervisor's overall rating of team performance in terms of quality, innovativeness, and creativity (control variable: Did the team members know each other before the seminar started?)

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[1] There is also the possibility to use the results of peer and self evaluation.

Proposed measurement instruments

Independent variables

- *personality*: scales measuring Big five personality traits (Saucier, 1994, Goldberg, 1992 or Costa & McCrae, 1991).

- *values*: Schwartz value survey (Schwartz, 1992) measuring 10 general values or the personal values scale developed in Ostroff, Shin & Kinicki (2005) measuring the dimensions human relations, open system, rational goal, and internal processes.

- *perceived person-team (group) fit*: an adaptation of DeRue & Morgeson's (2007) perceived value based person-team fit scale changing organization into team, an adaptation of Piasentin & Chapman's (2007) subjective PO fit scale changing organization, company and employer to team. Some of the items of Vogel & Feldman's (2009) perceived person-group scale. Piasentin & Chapman's (2007) scales to measure complementary and supplementary fit are interesting seen the study's objectives, but several changes need to be done in order to use them in the present study.

Dependent variables

- *creativity:* Choi's (2004) self-rated and other-rated, some changes are needed

- *innovation:* Based on Choi (2004). The items cannot be used as they are, but maybe we can adopt the same dimensions (risk taking, change orientation, openness in communication, sharing common goals, autonomy, belief in action)

- *satisfaction with the team* (Kristof-Brown & Stevens, 2001)

- *individual performance*: task & interpersonal contribution (Kristof-Brown & Stevens, 2001)

- *team performance*: scales will be developed

Control variables

- age, gender, study results

- *interpersonal skills:* Adkins, Russel & Werber (1994)

- *desire for control:* Backhaus (2002)

- *cohesion, social cohesiveness*: Boxx, Odom & Dunn (1991) or Stokes (1983)

Issues we are struggling with

- Use of terminology: value congruence (supplementary fit), complementary fit, misfit.

- As industrial psychologists, we are mainly interested in the consequences of fit in an organizational setting. However, we feel that the present study will facilitate the use of a well-controlled design. The opportunity to combine data collected on different moments seems interesting. Moreover, we feel that the analyses on team-level could provide interesting results about the influence of homogeneity and value congruence on crucial work outcomes. Especially in the context of modern organizations that increasingly consist of multiple teams pursuing a similar strategy and organizational objectives. Therefore, we consider this study as an opportunity to examine, in an indirect manner, the

influence of interpersonal fit on organizational outcomes. Do you consider this as a good rational?

- Work values instruments are less appropriate for students with none or hardly any working experience. Therefore, we suggest including a general value scale to calculate value congruence. Do you approve this choice?

- Are there any suggestions concerning the proposed measurement instruments and methods of analyses? Maybe including an additional construct, additional control variables?