Bet on both sides of the coin to improve the organizational climate: The impact of congruent task and role clarity between leaders and staff

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The impact of congruent task and role clarity between leaders and staff

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***Abstract* – Four organizations at Stockholm-Arlanda airport are going through various organizational changes. They are preparing for present and future demands through structural changes, implementation of new technology, training, and other efficiency and capacity improving measures. The change processes will be followed during two years of which this paper presents the baseline measurement. The key factors in focus were situational leadership, work-oriented relationships by means of skills and psychological ability to handle social interactions (i.e., medarbetarskap), and congruent behavior between leaders and staff in work situations. Congruent behavior was believed to facilitate task- and role clarity and situational awareness. The final key factor was organizational climate due to its impact on for example productivity, job satisfaction, and profit. The results showed that leadership, medarbetarskap, and congruent behavior all had positive influence on organizational climate. The congruent behavior in collaborative settings between leaders and staff showed to have the strongest relationship to organizational climate. Thus, one of the conclusions concerning practical implication, was that collaborate training with both leaders and staff members participating, are preferred in order to obtain a positive development of the organizational climate, as well as it might have positive influence in obtaining the capacity and safety goals of SESAR.**

Keywords – leadership style adaptability; employee interaction style adaptability; medarbetarskap; psychosocial factors; organizational development

I. Introduction

Several organizations at Stockholm-Arlanda airport (ARN) are changing the organizational structure and implementing new technical systems. They do this in order to meet European harmonization, expand capacity, improve communication and transparency, and to adapt to the competitive and financial demands of a globalized market, to mention some. These external factors put additional demands on organizational efficiency and productivity. Even though the organizations' goals are not based on the goals of SESAR, they have several similarities, and therefore are of interest to compare. The SESAR goals and the key performance areas are divided into "societal outcome", "operational performance", and "performance enablers". The focus of this paper is the performance enablers and their influence to improve performance and outcome. More specifically from the SESAR perspective, it is about participation (performance enabler) and how such a process could have a desired effect on cost effectiveness, capacity, efficiency, and predictability (operational performance), as well as on safety (societal outcome).

One of the airport's ground handling companies is going through a major organizational change affecting almost all employees. They are changing the organizational structure, improving the communication channels, diagnosing and documenting employees' skills and qualifications followed by training, and implementing a new stab of leaders. The Air Traffic Services (ATS) is about to implement a strip-less system in the tower affecting all air traffic controllers (ATCOs). This new technology means that the ATCOs need to go through training before they can sit in position and master the new technology, tasks, and procedures. Ground control is as well going through some structural changes affecting all traffic planners (TPs). Finally, there is the operations division of an airline company where the employees will be affected by a complete structural change of the organization.

These four organizations will be followed throughout the whole change process between 2008 and 2009 with focus on situational leadership [1], medarbetarskap [2] [3], and their effect on organizational climate [4] [5]. The baseline measurement is presented in this paper describing 1) the impact leadership has on organizational climate, that is, a leadership-oriented approach to gain organizational benefits, 2) the impact medarbetarskap has on organizational climate, that is, an employee-oriented approach to gain organizational benefits, and 3) the impact leadership and medarbetarskap together has on organizational climate, that is, a holistic approach focusing on task and role clarity as well as behavioral style awareness to gain organizational benefits.

II. Background

New technology and work procedures are directly affecting organizational climate, and thus affecting productivity, efficiency, profit, and job satisfaction [4] [5]. In order to avoid a one-sided description by only study leadership as a

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dominating factor affecting organizational climate, the change might be better understood with a holistic leader-employee approach covering both the perspectives on equal terms. To balance leadership on the one side of the coin, medarbetarskap [2] [3] is the suggested counterpart to leadership in order to get a deeper understanding of work-oriented relationships. Thus, medarbetarskap focuses on intra- and inter-organizational issues to align management/leadership, staff/workers, and work tasks at different organizational levels. Medarbetarskap is measured in such a way that it is directly comparative to the leadership measurement. The approach creates the possibility to discuss a collaborative setting without omitting any participating parts. It gives the opportunity to highlight task and role clarity as well as situational awareness about behavioral style adaptability (i.e., congruent matching of behaviors) for optimal collaboration between staff members and between staff members and leaders (see Fig. 1 for expected benefits with congruent leadership style and medarbetarskap interaction style behavior).

Task-oriented – **Leadership** – Relation-oriented	Work-oriented – **Medarbetarskap** – People-oriented
Collaboration is dysfunctional between leaders and staff. Relationships are characterized by discrepant interaction style with a gap of behavior style leading to anxiety and low motivation.	Collaboration between leaders and staff is employee oriented and efficient. Relationships are characterized by congruent interaction and behavior style leading to task and role clarity, productivity, & situational awareness.
Collaboration between leaders and staff is leader oriented and efficient. Relationships are characterized by congruent interaction and behavior style leading to task and role clarity and high motivation.	Collaboration is dysfunctional between leaders and staff. Relationships are characterized by discrepant interaction style with overlapping behavior style leading to dissociation and irritation.

Figure 1. Expected effects of congruence and discrepancy between leadership style and medarbetarskap interaction style.

A. *Medarbetarskap*

Medarbetarskap focuses on social and organizational structures and processes that have an impact on the quality and maturity of relationships. Medarbetarskap is an established and practiced concept about each individual's maturity level characterizing the work-oriented relationships in the Swedish and to some extent other Scandinavian work cultures. It is based on democratic values, embraces a holistic perspective, and is a state of being more than a management process. Medarbetarskap is always present to some extent and thus can not be implemented like a system. It is, instead, developed and sustained based on a common understanding of values, attitudes, emotions, and behaviors [3].

Medarbetarskap consists of a psychosocial pillar and a technological-oriented pillar. The psychosocial pillar refers to the individual's psychological maturity to handle social interactions. In the medarbetarskap concept this pillar is called "social ability". The technical pillar refers to the knowledge and skills that are needed for given assignments. In the medarbetarskap concept this pillar is called "ableness". Both pillars contribute to the "maturity of the work-oriented relationships" [3].

B. *The Medarbetarskap-Leadership-Maturity Relationship Model (MLMR)*

Mature medarbetarskap, that is, mature work-oriented relationships by means of ableness and social ability, is the condition when co-workers are able to feel, understand, and act with empathy (interaction style) towards fellow workers. As Fig. 2 illustrates, medarbetarskap is a continuum ranging from work-orientation focusing on the assignments to be performed, to people-orientation focusing on individual interactions between people inside or outside the organization. Integrated with supervisors' leadership orientation and co-workers' relationship maturity, it is assumed that medarbetarskap influences the interaction style of people. Interaction style is important according to [6] when it comes to involving staff and participative processes. Medarbetarskap is intended to facilitate efficient and productive work processes and socio-technical systems aided by psychosocial aspects. This is achieved by increasing the maturity level of the relationship which results in a shift of focus: 1) from the assignments to the employees performing the assignments, 2) from authority being primarily on a higher organizational level and responsibilities on an operational level to integrating them with the employees' training and development (i.e., bridging the gap between responsibility and authority for more direct and efficient self-leadership), and 3) from a task-oriented to a relation-oriented leadership style.

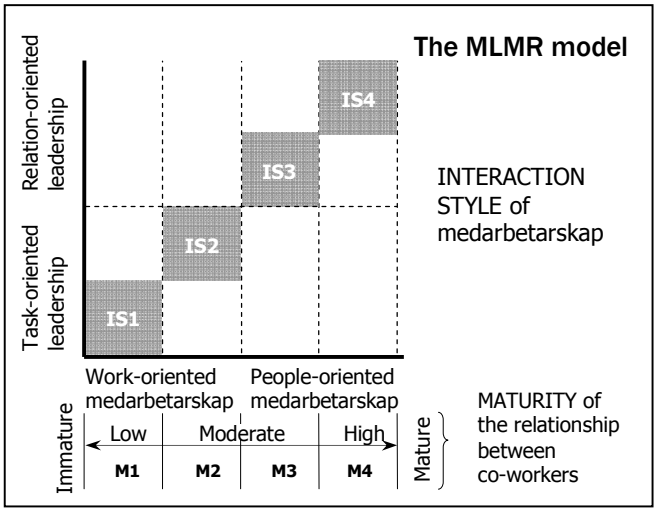

Figure 2. The Medarbetarskap-Leadership-Maturity Relationship model (MLMR).

C. *The four phases of the MLMR model*

The Medarbetarskap-Leadership-Maturity Relationship model (MLMR) presented in Fig. 2 offers interesting possibilities to investigate medarbetarskap and leadership to formulate hypotheses about what are the most productive and

efficient interaction styles in different work settings regarding leadership style, social ability, and ableness [3].

Depending on the maturity level of the relationship between the co-workers (ableness and social ability), they can act according to different interaction styles (IS). Congruent medarbetarskap and leadership orientation are indicated by the four interaction styles IS1, IS2, IS3, and IS4. These are assumed to be the most adequate and effective interaction styles in organizational settings. The white fields in Fig. 2 denote interaction styles that are assumed to be less adequate and effective in ordinary organizational settings; assumptions that have to be empirically examined [3].

Fig. 2 indicates that social ability and ableness are on a continuum ranging from low to high relationship maturity. Maturity 1 (M1) points to a low relationship maturity between co-workers and denotes that medarbetarskap is only slightly developed. As relationship maturity increases from M1 to M4, co-workers increase their possibilities to change their interaction styles from IS1 to IS4 depending on the given situation according to the MLMR model. The styles are according to [3] defined as:

- IS1: Task-professional medarbetarskap and leadership
  People have leadership and collegial support, ableness, and social ability to communicate and learn when the situation relates to task-professional relationships at work framed by specific assignments.
- IS2: Collegial-professional medarbetarskap and leadership
  People have leadership and collegial support, ableness, and social ability to communicate and learn when the situation relates to collegial-professional relationships at work important for managing collaborative assignments.
- IS3: Socio-collegial medarbetarskap and leadership
  People have leadership and collegial support, ableness, and social ability to communicate, understand, and learn when the situation relates to socio-collegial relationships at work. Assignments and relationships are permeated with shared values, attitudes, and perceptions influencing the professional self important for professional development and efficiency.
- IS4: Socio-emotional medarbetarskap and leadership
  People have leadership and collegial support, ableness, and social ability to communicate, understand, and learn when the situation relates to socio-emotional relationships at work. Assignments and relationships are permeated with shared values, attitudes, perceptions, and emotions influencing the personal self important for personal and organizational development and efficiency.

D. *Medarbetarskap and leadership in change processes*

Reference [6] argue that a change-communication strategy, leadership commitment, and employee involvement along with the ability to influence are crucial elements in change processes. In other words, [6] speak of the need to establish a participative approach. This probably requires trustful relationships and task-oriented skills among the employees for them to be able to contribute to the process. Within the medarbetarskap concept this is described by the two pillars as: 1) the participants' psychosocial condition characterized by social ability, and 2) work maturity [1] characterized by ableness (technical knowledge and skill for the given assignment).

The interest in why participative-, people-, and relation-oriented leadership and medarbetarskap influence organizational climate is due to the accumulated body of research indicating that the climate makes a difference in organizational outcomes [5]. Reference [5] describes in his theory that organizational and psychological processes influence quality, productivity, innovation, job satisfaction, well-being, and profit. No causal relationships have been established and therefore the influence might also be valid in the opposite direction.

With regard to the leadership-medarbetarskap approach, it is possible to study how work-oriented relationships and behaviors influence individual well-being, create profitable business scenarios, and facilitate organizational outcomes (i.e., establish competitive advantages through trustful collaboration). Organizations emphasizing this holistic psychosocial approach, as a complement to investments in technological and management systems, are assumed to create a sustainable and competitive advantage according to the medarbetarskap concept. That is, medarbetarskap and congruence between leadership and medarbetarskap will have augmented value to leadership in predicting organizational climate. Leadership has demonstrated to influence organizational climate in earlier studies [5]. The approach facilitates psychological stability and security as well as the ability to be innovative and proactive, thus strengthening the stability regarding internal and external factors that have a negative impact on organizational flexibility [3].

The complexity of many socio-technical systems in modern organizations makes daily operations and changes difficult to manage, not the least because of the psychosocial turbulence it engenders. According to [7] the single most important change in society to handle a turbulent environment is to democratize working life. Democratization simplifies the flow of information [8] by offering the opportunity for equal communication [9], and hence increases the system's flexibility. Medarbetarskap as well as leadership and communication should therefore be collaboratively studied in order to capture the interaction between individuals to emphasize its impact on the organizational climate throughout a change process. An open, committed, and informed process will probably prolong the process initially in the planning phase, but finalize the implementation and optimize the results faster due to stakeholder buy-in and hence less resistance [3].

Ineffective psychosocial aspects and socio-relational processes are believed to hamper daily operations and delay changes and implementations. Medarbetarskap pays attention to these aspects in general and to open and free communication [10] [11] [12], experiential learning [13], cross-boundary relationships [9] [14] [15], interpersonal psychological processes [16] [17], and leadership [1] in particular.

E. *Purpose and hypotheses*

The purpose with this study is twofold. The first is to test the operationalization and newly developed questionnaire of medarbetarskap. The second is to study whether leadership, medarbetarskap, and the congruence factor (i.e., congruent leadership style and medarbetarskap interaction style) based on the comparative results of the leadership and medarbetarskap questionnaires influence the organizational climate. The hypotheses are as follows:

- Leadership and medarbetarskap adaptability and congruent behavior have a positive influence on organizational climate (hypotheses 1-3).
- The split-half sample that experiences a better organizational climate is also the sample that is characterized by better leadership and medarbetarskap adaptability as well as congruent behavior (hypothesis 4).
- Medarbetarskap adaptability and congruent behavior have augmented value to leadership in predicting organizational climate (hypothesis 5).

III. Method

A. *Participants*

The study was conducted during spring 2008 at one ground handling company (both the passenger service and the apron division), ATS, ground control, and an airline company's operations division at Stockholm-Arlanda airport. The questionnaires were distributed to (number and percentage of returned completed questionnaires in parenthesis): all 62 (21, 34%) employees at ATS, of which 49 (14, 29%) were nonmanagers and 13 (7, 54%) were managers; to all 19 (6, 32%) employees at ground control, of which 17 (6, 35%) were nonmanagers and 2 (0, 0%) were managers; to all 227 (29, 13%) employees at the ground handling company's passenger service division, of which 218 (24, 11%) were nonmanagers and 9 (5, 56%) were managers; to all 396 (91, 23%) employees at the ground handling company's apron division, of which 370 (75, 20%) were nonmanagers and 26 (16, 62%) were managers; and to all 23 (6, 26%) employees at the airline company's operations division, of which 16 (5, 31%) were nonmanagers and 7 (1, 14%) were managers. Altogether, 34 respondents did not complete the study as they ended their employment between the administration of the questionnaires and the answering period. The numbers presented here are corrected for this positive non-response. In total the questionnaires were distributed to 727 (153, 21%) respondents, of which 670 (124, 19%) were nonmanagers and 57 (29, 51%) were managers.

B. *Instruments*

1) The CCQ questionnaire [18] was used to study the organizational climate. It consists of 50 statements formulated in the following way: "People usually feel welcome when presenting new ideas here". The statements are answered on a four-point scale: do not agree at all (0), agree to some extent (1), agree to a great extent (2), and fully agree (3). The 50 statements are grouped in ten different organizational climate dimensions with five statements in each dimension [18]. The dimensions mainly focus on innovation and change within an organization, but other aspects are covered as well. Brief descriptions of these dimensions extracted by factor analysis and presented in the manual are as follows [18]:

- Challenge: The employee's involvement in and commitment to the organization.
- Freedom: The extent to which employees are allowed to act independently in the organization.
- Support for ideas: The overall attitude towards new ideas.
- Trust: The emotional security and trust in the relations within the organization.
- Liveliness: The dynamics within the organization.
- Playfulness/Humor: The spontaneity and ease that is displayed in the organization.
- Debate: To what extent different views, ideas, and experiences exist in the organization.
- Conflicts: The presence of personal and emotional tensions.
- Risk taking: The willingness to tolerate insecurity in the organization, such as new ideas, news, and initiative rather than the conventional definitions of hazardous risk taking.
- Idea time: The time devoted to development of new ideas.

2) Leader Effectiveness and Adaptability Description (LEAD) questionnaire [19] in a modified version [20] was used to assess the situational leadership. LEAD is a standardized instrument that measures specified aspects of leadership behavior in terms of the Situational Leadership Theory [21] with documented reliability and validity [22]. The questionnaire consists of 32 items, reflecting different situations, which are described to the respondent. Each item is answered by one of four alternatives. The alternatives describe different leadership behavior strategies. The respondent is asked to choose the alternative that best describes the respondent's expected behavior of their leader in each situation. Each of the four alternative actions reflects a specific leadership style, S1-S4. Thus, the method generates data concerning a leader's leadership style profile (the frequency of the four leadership styles used by the leader across the 32 situations). This profile provides an overview of a leader's task-oriented and relation-oriented leadership behavior.

3) Your Medarbetarskap (MAS) was used to measure the medarbetarskap, that is, the maturity of work-oriented relationships and interaction style behavior by means of ableness and social ability. MAS was based on the same platform as LEAD. It is also an instrument that measures specified behavioral aspects, but in terms of the MLMR theoretical model [3]. As with LEAD, the MAS questionnaire consists of 32 items reflecting different situations, which are described to the respondent. The 32 items are each and one comparable to the LEAD items. The difference is that the respondent answer from the own perspective how he/she will

and can act as a co-worker in the given situations. Each item is answered by one of five alternatives that best describes the respondent's expected behavior. The alternatives describe different interaction style strategies, from pre-mature medarbetarskap to IS1, IS2, IS3, and IS4. Each of the five alternative actions reflects a specific interaction style. Thus, the method generates data concerning the respondents interaction style profile (the frequency of the five interaction styles used by the respondent across the 32 situations). This profile provides an overview of a respondent's work-oriented and person-oriented medarbetarskap behavior.

By comparing the answers for each of the 32 situations of the LEAD and MAS questionnaires, the congruence factor is extracted in terms of the Situational Leadership Theory [21] and the MLMR theoretical model [3]. When congruence (i.e., congruent behavior) is achieved there is a match between the staff member's behavioral style by means of ableness and social ability and the leader's leadership behavioral style.

C. *Procedure*

The questionnaires were distributed to the staff through the internal post system. Before the questionnaires were distributed, several informational meetings were conducted with managers. The employees were informed about the study by posters and circulars at the four organizations. The questionnaires were answered anonymously and the study participants were informed to return the questionnaires in a pre-stamped envelop within three weeks. Three reminders were sent out during this period. The last reminder also declared a one week extension of the deadline.

D. *Statistical analysis*

Following the hypotheses, all statistical analyses were made on variable level with those respondents who answered the required questionnaires. Before starting any analyses, the material was checked and corrected for missing values, univariate (+/- 3 standard deviations) and multivariate outliers (Malahanobis distance; χ^2 set to $p = .001$), and outliers in the solution (residual exceeding 3.29). The analyses were also checked for multicolliniarity. No multicolliniarity were present (tolerance level between 0.73 and 0.97) [23]. No singularity or normal distribution problems were detected during the analyses.

The CCQ questionnaire were calculated as mean scores, both for each sub dimension (applicable for hypotheses 1-3) (see Table I) but also as one overall climate dimension (applicable for hypotheses 4-5) (see Table II).

Leadership data was calculated as mean scores with respect to leadership style adaptability for each situation (see Table II). The leadership style adaptability scale ranges from -32 (no adaptability) to +32 (full adaptability). The weighting was based on the Situational Leadership Theory [21]. The leader with the highest probability of success of the alternatives offered in the given situation was weighted +2. The leadership behavior with the lowest probability of success was weighted -2. The second best alternative was weighted +1 and the third best was weighted -1.

Medarbetarskap data was calculated as mean scores with respect to medarbetarskap interaction style adaptability for each situation (see Table II). The medarbetarskap interaction style adaptability scale ranges from 0 (no adaptability) to 64 (full adaptability). The weighting was based on the MLMR theoretical model [3]. The respondent with the highest probability of success of the alternatives offered in the given situation was weighted 4. The medarbetarskap behavior with the lowest probability of success was weighted 0. The second best alternative was weighted 3, the third was weighted 2, and the fourth was weighted 1. (Notice that the adaptability scales for LEAD and MAS both stretch over 64 units. To make the comparison more easily understood in the analysis, the LEAD scale was transformed to 0-64.)

The congruence factor was extracted by comparing the answers from each situation of the LEAD and MAS questionnaires. The congruence factor scale ranges from 0 (discrepant behavior) to 96 (congruent behavior) (see Table II). The style profiles, S1-S4 for LEAD and IS1-IS4 for MAS, were used for this analysis. The weighting was based on the Situational Leadership Theory [21] and the MLMR theoretical model [3]. The respondent with the highest probability of success of the alternative pairs offered in the given situation was weighted 3. The discrepant behavior with the lowest probability of success was weighted 0. The second best alternative was weighted 2, and the third was weighted 1. Examples of pairs that generate full congruence (weighted as 3) are S1-IS1 and S2-IS2 etc. The second best pairs could be S2-IS3 and S2-IS1 etc. The third best pairs could be S1-IS3 and S2-IS4, and the discrepant pairs are S1-IS4 and S4-IS1.

To study whether leadership, medarbetarskap, and congruent behavior have a positive influence on organizational climate, a regression analysis was performed for each and one of them (hypothesis 1-3). In order to analyze if leadership, medarbetarskap, and congruent values are higher for those staff member that experience a more positive organizational climate than those who experience a less positive one, the organizational climate variable was divided in two groups: 1) above mean value and 2) mean value and below. T-test for independent samples was used to test for statistically significant differences between the groups concerning leadership style adaptability, medarbetarskap interaction style adaptability, and congruent behavior (hypothesis 4). To study whether medarbetarskap and the congruent behavior have augmented value to leadership in predicting organizational climate, a hierarchical regression analysis was performed (hypothesis 5).

TABLE I. MEANS, STANDARD DEVIATIONS, NUMBER OF CASES PER VARIABLE, AND CRONBACH'S ALPHA

Variable	Mean	SD	N	*α*
Challenge/ Motivation	1.46	0.71	148	0.85
Freedom	1.37	0.55	148	0.64
Support for ideas	1.10	0.67	148	0.89
Trust/ Openness	1.42	0.57	148	0.72
Liveliness/ Dynamics	1.74	0.56	147	0.72
Playfulness/ Humor	1.95	0.59	148	0.80
Debate/ Diversity	1.37	0.55	148	0.68
Absence of conflicts	1.80	0.67	145	0.83
Risk taking	1.16	0.51	148	0.57
Idea time	0.80	0.56	147	0.80

TABLE II. MEANS, STANDARD DEVIATIONS, NUMBER OF CASES PER VARIABLE, INTERCORRELATIONS (N = 105), AND CRONBACH'S ALPHA

Var.[a]	M	SD	N	Intercorrelations			
				1.	*2.*	*3.*	*4.*
1. OC	1.41	0.44	148	(0.92)			
2. LEAD	37.9	7.23	124	0.43**	(0.86)		
3. MAS	39.0	6.61	128	0.29*	0.37**	(0.86)	
4. Congr.	57.3	8.77	110	0.47**	0.61**	0.63**	(0.80)

a. OC is the organizational climate, LEAD is the leadership style adaptability, MAS is the medarbetarskap interaction style adaptability, and Congr. is the congruence factor.

*p < 0.01. **p < 0.001.

IV. Results

A. *The influence of leadership, medarbetarskap, and congruence on organizational climate – hypotheses 1, 2, and 3*

To depict the relationships between leadership, medarbetarskap, and congruence on the one hand, and organizational climate on the other, the organizational climate is presented both in total and divided in its ten dimensions (see table III, IV, and V). The results presented in Table III illustrate that there is a strong relationship between situational leadership adaptability and organizational climate. All analyses are statistically significant which supports hypothesis 1. About medarbetarskap adaptability the relationship is statistically significant concerning the total dimension of organizational climate (see Table IV). Furthermore is the relationship between medarbetarskap and six of the ten sub dimensions statistically significant. This supports hypothesis 2. According to Table V the results confirm a clear relationship between the congruence factor and the organizational climate. Even though one sub dimension is not statistically significant, all the other are, which then supports hypothesis 3.

TABLE III. REGRESSION ANALYSIS OF LEADERSHIP STYLE ADAPTABILITY (LEAD) AND TEN ORGANIZATIONAL CLIMATE DIMENSIONS AS WELL AS ORGANIZATIONAL CLIMATE (OC) TOTAL, N = 119

	Organizational climate dimension										OC – total
	Challenge/ Motivation	*Freedom*	*Support for ideas*	*Trust/ Openness*	*Liveliness/ Dynamics*	*Playfulness/ Humor*	*Debate/ Diversity*	*Absence of conflicts*	*Risk taking*	*Idea time*	
Model summary	R^2= 0.21	R^2= 0.08	R^2= 0.26	R^2= 0.17	R^2= 0.11	R^2= 0.03	R^2= 0.11	R^2= 0.11	R^2= 0.08	R^2= 0.13	R^2= 0.24
ANOVA	F(1, 117) = 31.14, p < 0.001	F(1, 117) = 9.53, p < 0.01	F(1, 117) = 41.17, p < 0.001	F(1, 117) = 24.73, p < 0.001	F(1, 117) = 14.62, p < 0.001	F(1, 117) = 4.17, p < 0.05	F(1, 117) = 15.20, p < 0.001	F(1, 117) = 14.38, p < 0.001	F(1, 117) = 9.65, p < 0.01	F(1, 117) = 17.66, p < 0.001	F(1, 117) = 37.07, p < 0.001
Variable	β	β	β	β	β	β	β	β	β	β	β
LEAD	0.46***	0.27**	0.51***	0.42***	0.33***	0.19*	0.34***	0.33***	0.28**	0.36***	0.49***

*p < 0.05. **p < 0.01. ***p < 0.001.

TABLE IV. REGRESSION ANALYSIS OF MEDARBETARSKAP INTERACTION STYLE ADAPTABILITY (MAS) AND TEN ORGANIZATIONAL CLIMATE DIMENSIONS AS WELL AS ORGANIZATIONAL CLIMATE (OC) TOTAL, N = 124

	Organizational climate dimension										OC – total
	Challenge/ Motivation	*Freedom*	*Support for ideas*	*Trust/ Openness*	*Liveliness/ Dynamics*	*Playfulness/ Humor*	*Debate/ Diversity*	*Absence of conflicts*	*Risk taking*	*Idea time*	
Model summary	R^2= 0.14	R^2= 0.01	R^2= 0.10	R^2= 0.04	R^2= 0.02	R^2= 0.00	R^2= 0.08	R^2= 0.05	R^2= 0.00	R^2= 0.07	R^2= 0.09
ANOVA	F(1, 122) = 19.18, p < 0.001	F(1, 122) = 0.94, p > 0.05	F(1, 122) = 13.63, p < 0.001	F(1, 122) = 5.59, p < 0.05	F(1, 122) = 2.82, p > 0.05	F(1, 122) = 0.00, p > 0.05	F(1, 122) = 11.33, p < 0.01	F(1, 122) = 6.13, p < 0.05	F(1, 122) = 0.59, p > 0.05	F(1, 122) = 9.87, p < 0.01	F(1, 122) = 11.62, p < 0.001
Variable	β	β	β	β	β	β	β	β	β	β	β
MAS	0.37***	0.09	0.32***	0.21*	0.15	0.00	0.29**	0.22*	0.07	0.27**	0.29***

*p < 0.05. **p < 0.01. ***p < 0.001.

TABLE V. REGRESSION ANALYSIS OF CONGRUENCE FACTOR (CONGR.) AND TEN ORGANIZATIONAL CLIMATE DIMENSIONS AS WELL AS ORGANIZATIONAL CLIMATE (OC) TOTAL, N = 106

	Organizational climate dimension										OC – total
	Challenge/ Motivation	*Freedom*	*Support for ideas*	*Trust/ Openness*	*Liveliness/ Dynamics*	*Playful/ Humor*	*Debate/ Diversity*	*Absence of conflicts*	*Risk taking*	*Idea time*	
Model summary	R^2= 0.26	R^2= 0.09	R^2= 0.27	R^2= 0.12	R^2= 0.06	R^2= 0.00	R^2= 0.07	R^2= 0.11	R^2= 0.06	R^2= 0.21	R^2= 0.23
ANOVA	F(1, 104) = 36.38, p < 0.001	F(1, 104) = 10.67, p < 0.01	F(1, 104) = 39.04, p < 0.001	F(1, 104) = 14.49, p < 0.001	F(1, 104) = 6.72, p < 0.05	F(1, 104) = 0.44, p > 0.05	F(1, 104) = 8.31, p < 0.01	F(1, 104) = 12.46, p < 0.001	F(1, 104) = 6.74, p < 0.05	F(1, 104) = 28.46, p < 0.001	F(1, 104) = 31.36, p < 0.001
Variable	β	β	β	β	β	β	β	β	β	β	β
Congr.	0.51***	0.31**	0.52***	0.35***	0.25*	0.06	0.27**	0.33***	0.25*	0.46***	0.48***

*p < 0.05. **p < 0.01. ***p < 0.001.

B. *Higher leadership, medarbetarskap, and congruence values for those who experience a positive organizational climate – hypothesis 4*

Table VI presents means and standard deviations for leadership style adaptability, medarbetarskap interaction style adaptability, and congruence factor for both *above* and *below mean value group* of the organizational climate sample. Specified T-values demonstrate differences in leadership style adaptability, medarbetarskap interaction style adaptability, and congruence factor between the two variable groups. The above mean group has higher values for all three variables. These differences are all statistically significant and therefore support hypothesis 4.

TABLE VI. M, SD, AND T-VALUES FOR ABOVE AND BELOW MEAN ORGANIZATIONAL CLIMATE SAMPLES

Var.[a]	M		SD		df	t-value
	***A.M.*$_{OC}$**[b]	***B.M.*$_{OC}$**[c]	***A.M.*$_{OC}$**	***B.M.*$_{OC}$**		***A.M.*$_{OC}$/ *B.M.*$_{OC}$**
LEAD	40.67	35.08	6.53	6.84	120	4.62**
MAS	40.55	37.52	6.12	6.73	125	2.66*
Congr.	60.64	53.29	6.82	9.34	107	4.75**

a. LEAD refers to leadership adaptability, MAS refers to medarbetarskap adaptability, and Congr. refers to the congruence factor.

b. A.M.$_{OC}$ refers to the above mean value group of the organizational climate.

c. B.M.$_{OC}$ refers to the mean and below mean value group of the organizational climate.

*p < 0.01. **p < 0.001.

C. *Medarbetarskap's and congruence factor's augmented value to leadership in predicting organizational climate – hypothesis 5*

Two analyses were made to test this hypothesis, which is illustrated in table VII. In both models leadership was entered into the analysis at step one, but in the first model it was followed by medarbetarskap in step two, and in the second model it was followed by congruence. Adding medarbetarskap to the model of explaining organizational climate only added 2% to the goodness of fit, which is not statistically significant. On the other hand, adding congruence to the model improved the goodness of fit with 7%, a result that is statistically significant. Altogether the results partly support hypothesis 5.

TABLE VII. HIERARCHICAL REGRESSION RESULTS FOR ORGANIZATIONAL CLIMATE

Model	Predictors	Standardized betas			
		Step 1	***Step 2***	***R^2***	***ΔR^2***
1	Leadership	0.41**	0.35**	0.16**	0.16**
2	Medarbetarskap		0.15	0.18**	0.02
1	Leadership	0.40**	0.19	0.16**	0.16**
2	Congruence[a]		0.35*	0.23**	0.07*

a. When inserting congruence at the first step, the standardized beta was 0.46 indicating that congruence is a stronger predictor than the leadership variable.

*p < 0.01. **p < 0.001.

V. Discussion

According to hypotheses 1, 2, and 3, it was assumed that the leadership style adaptability, medarbetarskap interaction style adaptability, and congruence between leadership and medarbetarskap styles all have a positive influence on organizational climate. Overall the results give strong support for these hypotheses (see Tables III-V). Concerning leadership the results indicate a relationship to all sub dimensions. Even though the strength of the relationships towards the different sub dimensions vary, it is clear that leadership is an important key factor at an organizational-wide level. When organizations are going through changes this puts responsibility on leaders to monitor, stabilize, and even facilitate those sub dimensions that might suffer negatively. About medarbetarskap the relationships are more uneven. Still, some of the relationships are considered important to keep momentum both during changes but also in daily operations. In order to have idea time, support for presented ideas, a positive debate without conflicts, and motivation and challenge, medarbetarskap by means of ableness and social ability is supported by the results as a key factor. Considering that these dimension are about what employees are able to contribute with, and how they handle the interactions, the results show that the medarbetarskap questionnaires to some extent measure the level of knowledge and skills employees have to manage given tasks, and their ability to handle work-oriented relationships. The congruence factor came out strong like leadership adaptability. The congruence factor is not about adaptability like the other two. Instead it is about how employees' and leaders' behavioral styles match each other in collaborative settings. Congruent behavior creates situational awareness. That is, both employees and leaders know each other so well that they know what to expect from each other. It creates a clear picture of where they stand, and given a task, that facilitates the process of how to solve it. Following the results it is fair to say that this task and role clarity and behavioral style awareness is important for the overall organizational climate.

It was further assumed according to hypothesis 4, that those who experience a positive organizational climate engender this by contributing to a better leadership and medarbetarskap adaptability as well as congruent behavior. In a way this is just a different approach to support the results of hypotheses 1-3. Still, it strengthens the results as they are replicated with another statistical analysis. The organizational climate dimension was divided at the mean value in order to make it harder to find any statistically significant differences in the leadership, medarbetarskap, and congruence variables. In spite of this, the results came out strong implicating that these three variables are important in order to develop and sustain a positive organizational climate (see Table VI).

The final hypothesis assumed that congruent behavior and medarbetarskap have augmented value in explaining the organizational climate. The first model in table VII shows that medarbetarskap does not add any unique variance and thus the hypothesis is not supported. On the other hand, congruence is adding unique variance improving the goodness of fit. It is remarkable that when congruence is entered into the model, the statistically significant contribution of leadership is lost. This means that leadership does not predict organizational climate when controlling for congruence. In other words – congruence has a mediating effect. It is also stated in the notes of Table VII that when

congruence is entered in the first step, it has a stronger beta value than leadership.

A. *Conclusions and practical implications*

Leadership has in earlier studies shown to be a strong contributing factor to the organizational climate [5]. Even though the same relationship finds support in this study as well, there are some other results that might have stronger practical implications. New results are presented concerning the relationships of medarbetarskap and congruence on the one hand and organizational climate on the other. The results show that both variables influence organizational climate, and that they need to be considered in order to understand the holistic nature of the organizational climate. Still, it is the strong results of congruent and participative behavior between employees and leaders that are of specific interest. Not only does congruence contribute with augmented value, but it is also the strongest variable when entered at step one in the hierarchical regression, as well as it has a mediating effect (see Table VII). This could mean that the holistic perspective of congruent behavior in collaborative settings is a more powerful factor than traditional leadership concerning the contribution to the organizational climate and hence various organizational outcomes. A practical implication might well be that collaborative training sessions with focus on enhancing task and role clarity, with both leaders and staff members participating, have a greater impact on organizational climate and outcomes than traditional leadership training.

If it is the case that this approach is of greater importance to facilitate organizational climate and outcomes, it should be of interest to the SESAR goals. The SESAR D2 document [24] clearly states ambitious goals concerning for example capacity and safety. From a psychosocial perspective it is the employees and the system surrounding them (e.g., procedures, task, communication, technology) that are the important enablers to reach the desired goals. Participation as a performance enabler is also a SESAR goal, but it differs in the way that participation facilitates the process and thus it is not desired for its own purpose. Participation is desired because it is believed to have a positive effect on various organizational outcomes which is in line with SESAR. To have task and role clarity and behavioral style awareness, participation is an important element. And from the results given here, the effects of a functional participative and congruent approach that facilitates organizational climate, could lead to a better use of important information [25], increased competitiveness [26], employee commitment [27], improved performance [26], productivity [28], safety climate [29] [30] [31], and safety behavior [32]. Even though this paper does not established any relationship between these outcomes and the specified goals of SESAR, it still is a qualified conclusion that capacity, efficiency, predictability, and safety should gain from this development.

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