LEADING VIRTUALLY OR VIRTUALLY LEADING?

A QUALITATIVE STUDY OF HOW VIRTUAL LEADERS PERCEIVE LEADERSHIP

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Abstract

The pandemic has changed the organizational landscape. Possibilities to work away from the office have increased, specifically through the wide adoption of digital tools for communication and collaboration. Nevertheless, new challenges arise, particularly regarding managing people and teams. Research on the issue has been conducted for decades. However, two limitations were found: the studies have often investigated global virtual teams, and traditional leadership theories have been used with the assumption that interactions are equivalent to face-to-face communication. Through a qualitative study with 12 interviews, the study aimed to understand how leaders in virtual teams perceive their role in managing employees from a distance. The data was analyzed through a theoretical lens based on the Transformational Leadership theory. The study found that leaders perceive the role as more hands-off regarding task-related issues, mainly by seeking to help employees to become more independent and by delegating responsibility to a greater extent. On the other hand, the leader's role as a supporter has become more important because of issues regarding social isolation. The importance of adjusting leadership behavior to each individual was understood as a way to capitalize on the freedom that comes with virtual work and better address individuals who have different needs regarding social interaction. The implications are of theoretical importance since, with the help of subjective accounts, the theoretical framework could be modified to explain the phenomena better. The implications are also of practical relevance with suggestions for how organizations can embrace opportunities of virtual work.

Keywords:

Virtual teams, Virtual leadership, Trust, Transformational leadership, Transactional leadership, Remote work

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Abbreviations

Abbreviation	Definition
GDP	Gross Domestic Product
KPI	Key Performance Indicator
TFL	Transformational leadership
TSL	Transactional leadership
VT	Virtual Team

Figure 1: Abbreviations

Contents

1. Introduction

1.1. Background

The covid pandemic impacted the world in many ways, not the least economically, and estimations show that the global GDP declined by 3,3% in 2020 (International Monetary Fund 2021). Even though many parts of the economy were affected negatively by the pandemic, some data indicate that workers' productivity, on the contrary, increased. One possible explanation is the quick adaptation to new technology due to remote working (Lopez-Garcia, Szörfi 2022). Furthermore, employee well-being seems to have increased with remote working (ibid), and employees have shown increased autonomy, psychological safety, and work engagement (Mehta 2021). Many organizations have realized that they can function without a physical office as the primary workplace and have adjusted to new technological infrastructure and policies to facilitate virtual work (Henry, le Roux et al. 2021). Many companies already offer permanent remote work (Stoller 2022) and considering the possibility of future pandemics (Desmond-Hellmann 2022), other organizations might be influenced to also pivot from in-person to remote work.

For organizations to keep thriving in the post-pandemic economy, they will need to embrace opportunities with remote work (Nyberg, Shaw et al. 2021). Significant difficulties regarding virtual work are management issues, along with communication and technical issues (Ferreira, Pereira et al. 2021). According to some scholars, leading a virtual team (VT) is essentially the same as leading a co-located team (Purvanova, Kenda 2018), while others say that "managing a virtual team as though it were a traditional one is a recipe for disaster" (Paré & Dubé 1999, p.483). The authors of this thesis conclude that leaders need to know the most crucial aspects of leading employees in the virtual workplace to embrace the opportunities with virtual work.

1.2. Prior Research and Research Gap

The phenomenon of virtual leadership introduced in the previous chapter will be defined as:

"A social influence process mediated by Advanced Information Technology (AIT) to produce a change in feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations" (Garcia 2020, p.19).

Researchers have studied difficulties with virtual leadership (Pulley, Sessa 2001) and how to address the new challenges (Feitosa, Salas 2021). The research on virtual leadership often brings up key success factors such as establishing procedures and promoting close cooperation (Cascio, Shurygailo 2003; Malhotra, Majchrzak et al. 2007), but without contributing to a new theoretical framework (Contreras et al. 2020). The literature regarding virtual leadership has been dominated by traditional leadership models (Liu, Van Wart et.al 2020), with theories such as transformational leadership theory and leader-member exchange theory (Whitford, Moss 2009; Goh, Wasko 2012). Transformational leadership theory suggests that transformational leadership (TFL) inspires followers to pursue goals and aspirations with encouragement and vision. This is contrasted to transactional leadership (TSL) where rewards and monitoring is used to get followers to comply (Guarana, Avolio 2022). TFL theory was used in the two most cited studies on virtual leadership (Garcia 2020) because the TFL style was expected to facilitate technological change (Avolio 2000) and because of earlier empirical findings of its effectiveness in the context (Purvanova, Bono 2009). Another reason is that TFL is relevant in uncertainty and lack of trust, which virtual work may cause (Ben Sedrine, Bouderbala et al. 2021). On the other hand, Avolio, Sosik et al. (2014) suggests the need to look past traditional leadership theories when studying virtual leadership. However, there is no consensus on how to study virtual leadership (Contreras et al. 2020), and there is no universal theoretical framework. Still, it can be concluded that TFL theory is relevant and could serve as the theoretical basis for this study.

Furthermore, a large part of virtual leadership research before the pandemic was mainly targeting global VTs (Kerber, Buono 2004; Jarvenpaa, Leidner 1999). These are characterized by globally distributed members working on a specific project within a limited timeframe (Chamakiotis, Panteli et al. 2021). On the other hand, research is scarcer regarding local VTs, which are locally dispersed in the same country and have permanent members. Furthermore, teams that adjusted to virtual settings because of the pandemic differ in some regards, e.g., a more enforced nature, and are often hybrid (ibid). The authors concluded that a study of leadership in VTs, specifically local VTs, would contribute to the academic discussion.

1.3. Purpose and Research Question

Leadership is essential for successful virtual collaboration (Chamakiotis, Panteli et al. 2021). The purpose of the study is to explore how leaders perceive their role in virtual settings to get more insight into how leaders have adjusted to the virtual context and how virtual leadership is conducted compared to physical leadership. In addition, an investigation of subjective experiences of virtual leadership may reveal gaps in current theoretical models and give practical implications for future virtual leaders. The aim is to understand virtual leadership through a theoretical lens based on the transformational leadership theory.

The research question is:

How do leaders perceive leadership in virtual teams?

1.4. Focus and Delimitations

The study will not be limited to one specific case but rather seek patterns across organizations based on the research question. The study will focus on leaders that have led a team remotely during the last two years. However, the study does not exclude teams that have worked remotely for a more extended period. The study will be limited to VTs with permanent members; however, members may be widely dispersed (see criteria in figure 3). These differences regarding time spent in the virtual setting, and dispersion, allow for a more nuanced study, where similarities and patterns could be more generalizable. However, limitations with small sample studies need to be considered (see 3.4 method criticism). Finally, the study will be limited to organizations based in Sweden. Estimates show that 6 out of 10 people in Sweden want to work from home, at least part time, after the pandemic (Söderqvist 2021), indicating that the geographical scope of Swedish organizations would be relevant.

2. Theoretical Framework

2.1. Literature Review

In this section, literature in relevant research areas will be reviewed. The section will be divided into three parts: Firstly, a review of virtual work in general. Secondly, a review of qualitative studies using the TFL theory to determine how the theory can be applied in such studies. Lastly, a literature review on virtual work based on the TFL theory will be conducted to determine how the theory can help the authors answer the research question.

2.1.1. Defining and Reviewing the Virtual Work Setting

Work that is physically or geographically distributed can be related to many concepts such as "telework, telecommuting, remote work, distributed work and virtual work, as well as virtual teams" (Henry, le Roux et al. 2021 p.2). The study will use the term virtual work with the following definition:

"Work environments where employees are physically separated and/or temporally separated from their co-workers or their work location some or all of the time, and perform interdependent work activities" (Watson-Manheim and Belanger 2002, p.1).

Research suggests that virtual work can increase productivity and satisfaction for reasons such as fewer sick days and breaks, as well as a quieter work environment (Bloom, Liang et al. 2015). Other explanations are lower commute time, fewer distractions, and better flexibility (Nyberg, Shaw et al. 2021). However, research suggests that positive outcomes with virtual work are limited to certain personalities. Employees with a higher need for achievement or social interaction seem less suited for virtual work. On the other hand, employees with a higher need for autonomy may perform better because of the ability to structure the day and work without direct supervision (O'Neill, Hambley et al. 2009). Moreover, employees with high neuroticism could lose motivation more easily when working remotely and employees with high conscientiousness seem more engaged and motivated to work remotely (O'Neill, Hambley et al. 2014). There may also be challenges with virtual work. For example, having clear communication, introducing new people to the workplace, and for new employees to adapt to the organization (Nyberg, Shaw et al. 2021). Also, problems

involve the absence of monitoring and lower motivation. The problem of monitoring can be mitigated with electronic monitoring, but that can instead lead to increased stress and turnover (ibid).

2.1.2. Transformational Leadership in Qualitative Research

By studying leadership qualitatively, Trudel, Sokal et al. (2022) found TFL necessary in a virtual context to raise engagement and maintain involvement when individuals face complex challenges. Another study, based on semi-structured interviews with subordinates (Sondaité, Keidonaité 2020), implied that TFL is relevant during organizational change specifically because of perceived empowerment, individual attention, and support. Furthermore, Toader, Howe III (2021) suggested that millennial leaders use all components of TFL, but individualized consideration and idealized influence to a higher degree, indicating that leaders may emphasize different components of TFL.

2.1.3. Transformational Leadership in Virtual Teams

The Effect of Transformational Leadership

While the virtual context proposes challenges for leaders, the effect of TFL is not consistent among studies. Purvanova, Bono (2009) found in a study with 301 students that TFL had a higher effect on performance in VTs than traditional teams. TFL has also been shown to influence group cohesion which is essential for VTs since it reduces problems with communication (Ben Sedrine, Bouderbala et al. 2021). However, benefits of TFL only seem to appear in virtual environments if the followers are motivated by aspirations rather than pursuing obligations (Whitford, Moss 2009). In addition, the effectiveness of TFL is suggested to decrease with more dispersion since the leader may be too far away to be perceived as helpful (Eisenberg, Post et al. 2019).

Transformational and Transactional Leadership

Another theme in virtual leadership literature is the comparison of TFL and TSL in virtual setting. By comparing transformational and transactional leadership in face-to-face and virtual contexts, Hoyt & Blascovich (2003) suggested that TSL leads to higher quantitative performance, and TFL to higher qualitative performance, in both contexts. Ruggieri (2009), however, argued that TFL is more suitable than TSL in VTs, based on

follower satisfaction. Moreover, another study suggested that TFL is useful for virtual leaders, but leaders were shown to be weaker in TFL than in TSL, with the implication that to improve virtual leadership, leaders should focus on improving transformational behavior (Liu, Van Wart et al. 2020).

Trust and Self-leadership

In earlier studies, TFL has been connected to the concepts of trust and self-leadership. Mutha, Srivastava (2021) proposed that TFL is relevant to maintain engagement in virtual settings. This was strongly linked to trust, because of indications that trust among team members is crucial for leaders to raise engagement. Ben Sedrine, Bouderbala et al. (2021) suggested that TFL is essential to build trust in VTs, and in turn, that followers need to trust the leader to perform in VTs. In the study, trust was defined as "waiting that the other part will perform important actions, […] without any necessary control or supervision" (ibid, p.369). Furthermore, member satisfaction and group cohesion may increase with TFL, but that requires members to trust the leader (Hoyt, Blascovich 2003). Trust is likely the outcome when a relationship has been established between a leader and follower, which is more probable with TFL than TSL since transformational leaders' express concern for followers needs and empower them (ibid).

Moreover, empowerment has been emphasized by transformational leaders (Trudel, Sokal et al. 2022; Hoyt, Blascovich 2003). Andressen, Konradt et al. (2012) suggested that transformational leaders encourage self-leadership by empowering followers. Self-leadership is to manage tasks and facilitate behaviors that are either intrinsically motivating or not, to raise self-direction and motivation (Manz 1986). This is, for example, done by setting own goals and giving oneself rewards (Andressen, Konradt et al. 2012). Furthermore, self-leadership was shown to have a higher impact on motivation in virtual settings than in co-located settings (ibid).

2.1.4. Summary and Implications of the Literature

From the literature review, it can be concluded that to understand leadership in VTs, the concepts of personality, trust, and self-leadership are essential to consider. Furthermore, most of the reviewed studies that used TFL in virtual settings used standardized questionnaires. Bass and Avolio's Multifactor Leadership Questionnaire (MLQ), which is based on TFL theory (Bass, Jung et al. 2003) has frequently been used

in the studies to determine leadership behaviors (Hoyt, Blascovich 2003; Purvanova, Bono 2009; Andressen, Konradt et al. 2012; Mutha, Srivastava 2021; Ben Sedrine, Bouderbala et al. 2021). Since the MLQ was first introduced more than three decades ago (Bass, Avolio 1990), assumptions may be outdated in the virtual setting. Getting a deeper understanding and bringing these assumptions to the surface can contribute to the discussion of virtual leadership, to reveal not only whether the theory is relevant but also why it is relevant or not.

2.2. Theory Usage

Based on the previous research and reviewed literature, TFL seems relevant for leadership in the virtual context and can be helpful in answering the research question. Even though the effect in virtual settings compared to teams in face-to-face context is ambiguous, the theory has shown to be related to positive effects in VTs, including better employee engagement, (Mutha, Srivastava 2021) trust (Ben Sedrine, Bouderbala et al. 2021) and motivation (Andressen, Konradt et al. 2012). TFL theory will therefore be the basis of the theoretical framework for this study.

2.2.1. Transformational Leadership Theory

Before the transformational leadership theory was established, researchers saw transactional reinforcement as the basis for effective leadership (Bass, Jung et al. 2003). With the introduction of TFL (Burns 1978; Bass 1985), the concept of transactional leadership was further clarified. Burns (1978 p.425) referred to TSL as "a bargain to aid the individual interests". Bass (1985) nuanced it by using the concepts of contingent reward and management by exception. The first refers to the exchange of efforts for rewards and the second refers to either actively evaluating performance or passively waiting for problems to arise to take corrective action if expectations are not met (Northouse 2018). TSL can be summarized as influencing followers to reach expected outcomes by monitoring performance, offering praise and rewards, or using disciplinary actions (Bass, Jung et al. 2003; Guarana, Avolio 2022).

Burns (1978) compared this with what he saw as the opposite type of leadership, a transforming leader who elevates followers' motivation by supporting them and helping them grow. Bass (1985) further developed the concept of transformational leadership

and focused on the relationship between leaders and followers. The aim of this type of leadership is to help followers go further than normal expectations and reach higher maturity levels. The components charisma, inspiration, intellectual stimulation, and individual consideration were used to recognize transformational leadership (ibid). Transformational leaders make followers more interested, create a common awareness of shared goals, and make followers look beyond their self-interest by using one or more of these components (Bass 1990). Rather than seeing transactional and transformational leadership as opposites, they may be seen as two independent continua, where leaders usually do both but to different extents (Bass 1985).

Through years of research, the components of transformational leadership have been further clarified (Bass, Jung et al. 2003; Guarana, Avolio 2022) as follows:

Idealized influence: followers want to identify with leaders who are respected and trusted. The leadership is guided by values and high moral standards and considers followers' needs over their own, motivating followers to reach their common goals.

Inspirational motivation: with visions and belief in followers, leaders inspire followers to believe in themselves to become more self-sufficient. In addition, leaders provide meaning and challenge to followers and encourage team spirit.

Intellectual stimulation: leaders encourage followers to find new ways to reach goals and challenge them to think independently. As a result, followers are stimulated to be innovative, creative, and included in problem-solving.

Individualized consideration: leaders recognize each follower, create a supportive climate, and pay attention to their needs to help them grow. The goal is to develop followers to their highest potential.

While transactional leaders strive to make followers reach objectives, transformational leaders encourage followers to take more responsibility and lead themselves. They encourage independent thinking and the development of new ideas, with the goal of follower self-management (Dvir, Eden et al. 2002). The four factors are used by effective transformational leaders and are suggested to be additive, meaning that the effects of the different factors can be added together for the total effect of performance beyond normal expectations (Hay 2006).

2.3. Summary of Theoretical Framework

Leaders use TSL to motivate followers by offering something of value or TFL to influence followers to do more than expected. Based on the literature, this leadership theory is applicable in face-to-face and virtual settings. Furthermore, followers' personalities are relevant to understanding virtual work, and the concepts of self-leadership and trust are important, specifically regarding TFL and virtual work (see figure 2).

Theory	Literature

Transformational leadership Theory
• Transformational leadership
  o Idealized influence
  o Inspirational motivation
  o Intellectual stimulation
  o Individualized consideration
• Transactional leadership
  o Contingent reward
  o Management by exception
	Personality
	Trust
	Self-leadership

Figure 2: Theoretical Framework

2.4. Theory Discussion

TFL theory served as the basis for the theoretical framework, however the theory has some limitations. One limitation is the conceptual ambiguity regarding whether the four dimensions are descriptions or instructions (Andersen 2015). The dimensions are also partly described as outcomes. For example, idealized influence could be seen as a description of leaders who achieve trust - without explaining the corresponding leadership (Tracey, Hinkin 1998). Another criticism of TFL is that it is meant to influence followers and gain trust, which sometimes may have adverse effects such as manipulation (Hay 2006). Another theoretical weakness is that according to Burns (1978), leaders are either transformational or transactional, while Bass (1985) saw the styles as complementary (Andersen 2015). Furthermore, limitations with TSL are that it is suggested to have both positive and negative effects on follower performance. While having positive effects on task performance, contingent reward has been shown to lower followers' intrinsic motivation due to decreased autonomy (Young, Glerum et al. 2021). Another limitation could be that the physical distance in a virtual context may magnify an impersonal leadership style, potentially lowering motivation.

3. Research Method

3.1. Social Constructivist and Interpretive Study

The authors viewed virtuality itself as a social construct that needs to be interpreted to have a meaning. Individual interpretation of virtual interactions were also considered likely to influence behaviors and perceptions. Because of this, a constructivist ontological viewpoint was adapted, considering reality to be a social construct (Saunders, Lewis et al. 2012). The study was based on an interpretivist approach, which strives to understand the research subjects' social world, viewing each situation as complex and unique (ibid). This epistemology was chosen to emphasize the leader's subjective experiences and how these affect their leadership. The interviewees' answers and behaviors had to be interpreted, and follow-up questions such as "how" and "why" were asked to create empathy and understand the situation of virtual work from the subject's point of view (ibid).

3.2. Qualitative and Abductive Research Approach

With the assumption that social phenomena are complex and cannot be divided into variables, and with the aim to bring in new perspectives, qualitative research was appropriate (Lanka, Lanka et al. 2021). With this approach, an inductive method was suitable since it is a way to find new patterns through observation (Lanka, Lanka et al. 2021) and may bring forth new explanations to a phenomenon (Saunders, Lewis et al. 2012). As inductive research strongly emphasizes the context, a qualitative study of small samples was appropriate. Furthermore, qualitative research interviews are often non-standardized, which made semi-structured interviews appropriate for the study (Saunders, Lewis et al. 2012). The interview-guide was based on a list of themes and questions to be covered, although the focus varied from interview to interview. This suited the inductive approach and enabled the authors to explore the phenomenon and seek new insights. Furthermore, the empirical findings influenced the theoretical framework, with the effect that the concepts of personalities, self-leadership, and trust were more emphasized.

The study also had deductive elements since theory and literature guided the research and helped the authors ask more accurate questions. Thus, an abductive method was adopted, which has the potential to yield more than a pure inductive method because of the possibility

to rely not only on patterns in the empirical world but also on theoretical knowledge (Dubois, Gadde 2002). Furthermore, since the study aimed to investigate subjective experiences of virtual leadership and not observe changes or developments, the study used a cross-sectional design to study the phenomena at individual points in time (Saunders, Lewis et al. 2012).

3.3. Data Collection

3.3.1. Sample

The first step of the sampling process was to define the target population: every individual that legitimately can be part of the sample (Robinson 2014). Then, inclusion and exclusion criteria were developed to draw the boundary of the target population (see figure 3). Since the study would be based on a small sample, purposive sampling was appropriate. Thus, cases that were most likely to contribute to an answer to the research question would be selected (Saunders, Lewis et al. 2012). The authors also strived for a homogenous sample with similar members, allowing a more in-depth study (ibid).

Inclusion criteria	Exclusion criteria
The participant has responsibility over personnel (subordinates)	The participant has worked in the same location as other team-members away from a central location
The participant has worked a majority of the time virtually during the last two years	
Subordinates to the participant have worked a majority of the time virtually during the last two years	
The participant works in an organization based in Sweden	

Figure 3: Target population

The study was based on 12 participants from 5 different companies (see appendix 1). As all participants fit the criteria above, the sample was considered relatively homogenous. However, deviations in industry, organization size, geographical dispersion, and time spent in virtual settings may have made the sample less homogenous. One common factor is that none of the participants worked in their VT physically before going virtual and lacked initial physical collaboration. Thus, nothing can be said about VTs that transitioned during the pandemic. The aim was to focus on

local VTs, which was considered to be achieved even though the character of dispersion differed (see appendix 2). The particular difference was that 7 participants had more geographically dispersed teams. However, they all shared many characteristics of a local VT. To conclude, the sample is not entirely homogenous, and the variations need to be considered when viewing the findings of this study.

3.3.2.   Interviews

Since the theoretical framework was based on TFL theory, the main questions were based on key aspects of the theory. To emphasize the inductive element of the study, questions in the interview guide were designed to be open, and the authors also included questions about virtual leadership unconnected to TFL theory (see appendix 3). Thus, the authors would cover more than the theory and could capture other aspects to potentially form a broader conceptual framework.

One interview was conducted physically, and all other interviews were conducted digitally using video meetings because of social distancing and the location of participants. The interviews varied between 36 and 72 minutes, with an average of 47 minutes (see appendix 1). Furthermore, the authors strived to achieve saturation, which is the point in the data collection where no new information adds to the overall framework (Mason 2010). Since no new and relevant codes emerged in the last three interviews, the authors' believed saturation was achieved after 12 interviews. Since ten interviews were held in Swedish (and two in English), most quotes presented in the empiric section have been translated to capture the quote's meaning.

3.3.3.   Process and Analysis

All interviews were recorded after approval and later transcribed, enabling text analysis. With thematic analysis, data was categorized into themes (Lehmann, Murakami et al. 2019). Concepts were identified through coding of terms used by participants (see appendix 4), which were combined to form themes relevant to the research question (Saunders, Lewis et al. 2012). The concepts were condensed to ten themes and then three aggregate dimensions (see figure 4). The codes for the categories were derived from participants own words (in vivo coding), which suits a constructivist ontology. Themes were later compared with existing theory in the analysis, appropriate for the abductive method.

3.3.4. Ethical Considerations

The study was conducted with consideration of the ethical principles of research presented by Saunders, Lewis et al. (2012) and the SSE GDPR guidelines to reduce the risk of harm for any participant. The purpose and aim of the study, and the implications of participation, were included in the first email, to ensure informed consent of all participants (see appendix 5). This was also repeated during the interviews. It was further clarified that the interviews were voluntary and completely anonymous for both interviewee and organization and that the participant could end the interview at any time. Pseudonyms were used in the study to ensure the privacy of those taking part. Furthermore, the participants were informed that the material would only be used for the study. All participants were asked if the interview could be recorded for later transcription, which also increased the objectivity and accuracy of the study.

3.4. Method Criticism

According to Saunders, Lewis et al. (2012), important data quality issues to consider when conducting qualitative research with semi-structured interviews are *reliability, bias, generalizability*, and *validity.*

This method lacks standardization, and other researchers may find it hard to replicate the study with similar results, reducing the *reliability*. But since the purpose was to reflect a subjective reality at a particular time, standardization would not be suitable. However, this method requires rigor (Saunders, Lewis et al. 2012) which was considered with a thorough description of the method and a continuous audit from a supervisory group. Also, the data was first individually analyzed by the authors, then discussed together to reduce the risk of personal bias. Furthermore, since qualitative research often is conducted through a dialogue, contextual factors like interviewer behavior can affect the responses and cause *bias*. This was addressed through Saunders, Lewis et al. (2012) advice: most interviews were virtual, where participants could feel comfortable, and the interviews were unlikely to be disturbed. Furthermore, the opening comments of the interviews were used to explain the research and ask for consent regarding participation and recording. The authors used as clearly phrased questions as possible in a neutral tone to avoid leading the interviewee, and theoretical concepts were avoided to minimize the risk of misunderstanding. Self-selection bias was another consideration, regarding that those who agreed to participate may differ from those

who did not (Robinson 2014). One consequence of this was that most of the participants were men. The study of a small and unrepresentative sample leads to issues with *generalizability* and cannot be used to make statistical generalizations about a broader population. As Saunders, Lewis et al. (2012) proposed, the authors addressed this by connecting the research to existing theory, and building upon related literature, to strive for a broader relevance. The issue of *validity* concerns whether the authors were able to access the participants' knowledge, where language and meaning can be important. The authors addressed this by asking follow-up questions and providing clarification when necessary (ibid).

4. Empirical Material

Many similar points were raised by the respondents in how they perceive virtual leadership. Ten second order themes were found, which were grouped together in three aggregate dimensions (see figure 4), and the empirical material is presented accordingly.

Aggregate dimensions	Second-order themes
Effects of virtual work	Changes in leadership Employees relation to virtuality
Virtual leadership behaviors	Attentive and open Clarity and expectations Delegate responsibility Personal conversations Physical and digital activities
Prerequisites for virtual leadership	Trust Freedom and flexibility Group cohesion

Figure 4: themes in empirical material

4.1. Effects of Virtual Work

4.1.1. Changes in Leadership

Leaders expressed that the distance to their followers and the need to rely on digital tools to communicate impacts their leadership.

Virtual leadership is much like traditional leadership, it is really just the medium that has changed. The difference is that it is harder to notice how people feel. – Clas

Some participants emphasized the differences more, for example not seeing each other or being reachable to the same extent.

The difference is that it is hard to control people from a distance. It is harder with engagement. The key is to be clear. This is what I expect of you and if you deliver, I will be happy. - Elias

Virtual leadership is about addressing the challenge of delivering at the same high level even if the most part of the day you are not even reachable because of different time zones for example - Erik

The role of leadership has changed more to a mentor relationship [when virtual], so you have someone that inspires you to move forward. You don't need a parent that checks your homework - Birgitta

4.1.2. Employees Relation to Virtuality

Regarding virtual work, participants expressed that it is very individual and that the personal connection to work does not have to be so strong.

Some people think that they like this lifestyle, but it doesn't suit everyone. You sit by yourself with the computer and just work. Occasionally you get to speak with someone, but it is your own responsibility that things get done. - Emil

On the other hand, many participants pointed out that if followers do not enjoy working alone, or have low discipline, they are not fit for remote work.

We lost two people last year, who missed the physical meeting. They were not suited to work remotely. Other people get more motivated and think that working remotely is great. – Daniel

When it is chosen by us [to work remotely] it shows who are suited to work this way. People work more focused if they have discipline and do not watch TV all day – Cecilia

Working remotely is a problem for some people. It depends on personality. If you are raised to be lazy it does not work. – Anders

Leaders also perceived it favorable to lead people that are more self-sufficient.

When hiring a senior, they might only need a month of onboarding while someone else may need 6 months. We schedule work sessions twice a week for 2 hours and just work together. They may need a lot of support, but the important thing is to identify what the person needs to become more self-sufficient. – Erik

If we can achieve that people are motivated by themselves and have self-sufficiency then micromanagement is not needed, and the long-term goal is mentoring and establishing relationships rather than managing employees. - Birgitta

To conclude, there are patterns but some discrepancies both regarding how leaders perceive virtual leadership, and how the leaders interpret followers' relation to virtual work.

4.2. Virtual Leadership Behaviors

4.2.1. Attentive and Open

The emphasis put towards caring and reaching out to followers to make sure that everyone is feeling alright have been an occurring theme throughout the interviews. In the virtual working space, it has become harder to notice how people feel.

Follow-ups on how people are and not only assigning tasks is a necessity [...] this aspect is not easy to catch over the screen and therefore you need to catch the human behind the screen sometimes. – Elias

Another essential component to virtual leadership that has been brought up frequently in the interviews is the need to create an open atmosphere.

It is about being human and showing that I do not know everything, I have my weaknesses, but I am open with this and show that we do this together. That builds trust and mutual respect. - Clas

4.2.2. Clarity and Expectations

A common aspect of working virtually that has been brought up by the interviewees is how the working conditions have changed in comparison to being in a physical work environment. The difficulty to catch up at the workplace and rarely being close to people have put a higher emphasis on structure and processes.

It is more important to be clear about what to do and how when working remote, because we cannot talk about the small things by the coffee machine or when you walk by. – Carl

If there is a lack of clarity when assigning tasks when working virtually it creates a delay because people will not be completely sure on what to do [...] increased clarity will therefore lead to increased efficiency. – Elias

From the empirics, clarity about tasks is important, but what might be even more important is to clarify what the end goal is.

It is important to have clear expectations, otherwise you are unfair as a leader. I want the individuals to know what the goal is and how they achieve that is up to them. – Clas

Furthermore, the management programs seem to have substituted a large part of the active leadership regarding task management

The project management tools we use have us synced through every step of the process. Everyone sees what they must do when they log in in the morning. Everything you need is there; you cannot miss it." – Anders

Leadership is 20% and tools are 80% because everyone is so self-sufficient. The tools have become much more important for how things are done. Leaders are here to support - Emil

4.2.3. Delegate Responsibility

Responsibility is necessary to make employees engaged and motivated, and for remote work to be efficient. To give employees a clear goal to strive for is one thing, but interviewees also emphasized involving the employee in setting the goal.

It is important that a leader does not have to tell people what to do all the time, because then no one will develop, and projects will not advance at a pace so that the customer is satisfied. You must make your own decisions. – Elias

It is important to give the individual ownership of the projects. If we achieve to involve the individual in the process from setting estimates to deadlines, engagement will follow. – Clas

When delegating responsibility and not assignments, they will try to find a way to do it even better, and they have incentives to do something good. - Erik

4.2.4. Personal Conversation

Personal conversations are not as natural in virtual settings and the empirics shows that some substitute in the form of meetings is needed, either spontaneous or scheduled.

A big difference when you work virtually is that there is no space for spontaneous leadership to the same extent. You must schedule feedback and check-ins to create room for spontaneous meetings. Most of it does not come naturally when you do not meet by the coffee machine – Cecilia

The scheduled meetings are hygiene factors. It makes people do their job and sit tight, nothing to worry about. The spontaneous ones are the ones that creates energy - Carl

4.2.5. Physical and Digital Activities

A common theme in the empirics is the importance of creating human connections physically to be able to work well virtually. When a physical connection is established, you can keep up the connection by meeting mostly virtually.

It is something else to get a physical connection with a person, to easier understand how they are, and I think that it is important. When the connection is established, it does not have to be so frequent. We gather the whole team at least two times a year. After the physical meet-up, energy and motivation peaks and the team works better and more efficiently together and then it decreases until the next meet-up. – Clas

In some situations, the possibility for physical meetings is limited, for example due to the geographical distance between team members. Digital activities were suggested to complement physical interaction.

We get motivation by trying to do things like parties. I sit at home dressed up and drinking, it is very fun. – Anders

We have a lot of game-nights together with the whole team, there are a lot of games to play, quizzes for example, and then we have a drink and talk and have a good time. It is important to feel a connection when we don't meet physically. - Emil

4.3. Prerequisites for Virtual Leadership

4.3.1. Trust

A vital factor for the success of VTs that most interviewees emphasized is trust. In the physical workplace it is easier to see that people are working. However, when working virtually, leaders may have to trust that people are doing what they should.

If people work remotely you might start to wonder what they do and be suspicious and that will be problematic. We have tried tools where you report time and what you have done, and it created a lot of stress, and we did not like it. You must trust your employees. – Emil

If you as a leader must monitor what your people are doing and micromanage a little bit you are either a bad leader or have the wrong people on board. I think it's about setting the expectations, having the proper KPIs and targets and letting a person do it – Birgitta

There are some discrepancies in the empirics, for example that the feeling of potentially being monitored might lead to employees working harder.

We have the tools in place [to monitor] even if we do not use them as hard as we could have. They might still have some effect though, because if employees knew they were not there they might have cheated more with time. – Daniel

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Furthermore, the employees need to feel that they are trusted.

Trust is very important. If the employee feels that the boss trusts them, then they feel that if they fail or things do not go according to plan, the fall is not as high. Because they know they can fall back on this trust. – Anton

To build trust, personal connection from, for example, personal conversation and openness are important.

Trust is the first thing you must establish in a virtual team. It has become even more important versus the physical face-to-face. It's about asking questions and getting to know everything about family life, private life and it takes time. - Birgitta

In the beginning we must be very open with our strengths and weaknesses and show who we are as a person. it is important that we observe that from the start to trust each other - Emil

4.3.2. Freedom and Flexibility

Working remotely sets limitations on some parts of daily work, for example seeing team members face-to-face. But it also opens up possibilities for freedom and flexibility, something that seems to motivate.

Most people want to be able to structure their days to the way they want. The freedom and flexibility make it possible for everyone to live their life the way they want it. (...) This gives everyone an individual carrot in a way. – Elias

Everyone does the same boring tasks, but everyone contributes […] many employees come to our organization because they search for a certain lifestyle, where they can work flexibly, it makes people motivated to stay on board. - Emil

If you want to be a factory worker and do 8-17 you can do that but otherwise its freedom with responsibility and then trust is needed - Carl

If a person can deliver as good in 4 hours as in 8 hours a day, I do not see any problems, they just get more time to do what they want. But they must keep up the quality so that's what I follow up on. – Erik

For leaders to be able to offer freedom and flexibility trust seems to be required and the leader needs to know that they are doing what they should.

4.3.3. Group Cohesion

The interviewees also brought up the need to feel like being part of a team even when not seeing each other as often.

When working remotely with no one to discuss with, it is easy to lose the joy in the work and thus the motivation [...] we must work on the team spirit so that they know that there is support if you need it. – Clas

From the empirics, the group cohesion seems to be created with the personal conversations and digital activities previously brought up.

As a leader, you must see for the individual but also how the individual works with the rest of the team and how to create a group cohesion and a common understanding. And that can be hard when you only see them in virtual meetings, and not any interaction between them in other situations. For this, it is important to have time to just talk about nonsense, and then there are of course a lot of digital activities we can do. – Anton

4.4. Summary of Empirical Material

To conclude, the empirics shows that the virtual work setting has a large impact on how work and leadership is conducted and perceived. Leaders perceive that some employees expect it to be like usual work, while others are motivated by the distance to the office. Participants express efforts to motivate and support employees and point out that it is important to let them take more responsibility for the virtual work process to be effective. Furthermore, no clear patterns could be used to distinguish the perception of leading a locally contra globally dispersed VT.

5. Analysis

Based on the empirics, virtual work is more independent than co-located work, and leaders have adjusted. The empirics will be analyzed through the theoretical framework to understand how leaders perceive virtual leadership.

5.1. Follower Maturity and Attitude

A majority of the interviewees mentioned that not all people are fit for virtual work. Through the theoretical lens, some personalities are more fit to work virtually (O'Neill, Hambley et al. 2009; O'Neill, Hambley et al. 2014). In the light of this, empirics indicate that self-discipline is an essential characteristic for virtual workers, and followers need to have the discipline to work from home. Furthermore, of those who leave a team, the reason is often the limited interaction.

However, leaders may reduce this issue by adjusting to different needs since employees seem to relate to virtual work differently. Some followers see virtual work as a way to balance their personal and work life and are satisfied if they can structure their work in the way they prefer. Others see it as working traditionally but with digital tools and seem to need more from their leader to compensate for the limitations of virtual work settings. Another aspect is that some workers require less interaction because they can be more self-sufficient, while others require more support and personal leadership. Therefore, the leader needs to consider how the follower relates to virtual work to suit their needs.

Sub conclusion

In the virtual setting, leadership behavior must be adjusted to fit follower attitude on the one hand and maturity of the follower on the other hand. Leaders' interpretation of followers can be divided into two dimensions. Followers are either seen as close or distant based on interpreted attitude, and either low or high maturity, based on their level of self-sufficiency (see figure 5).

Attitude	Follower characteristics
Close attitude	Expect a lot of social interaction and involvement in the team. Needs cohesion with colleagues for motivation.
Distant attitude	Want to structure their own schedule and are motivated by flexibility.
Maturity	**Follower characteristics**
Low maturity	Need instructions and relatively high support.
High maturity	High self-sufficiency and can take responsibility.

Figure 5: Leader's interpretation of follower attitude and maturity

In the following part, the authors will analyze how leaders address the different needs of followers. Firstly, what is required to meet the needs of close-attitude followers. Secondly, how leaders relate to distant-attitude followers. Thirdly, how leaders help followers go from low to high maturity.

5.2. Addressing Social Needs

5.2.1. Caring About the Individual

Showing attentiveness to followers' needs and creating openness for emotional discussion is essential for VTs to function well. It is more difficult to see how people feel behind the screen or talk about feelings in a virtual setting. Therefore, leaders must focus more on listening, asking uncomfortable questions, reaching out, and sharing their problems to create an open atmosphere where everyone feels comfortable and safe. Individualized consideration refers to what extent a leader attends to followers' needs (Bass, Jung et al. 2003; Guarana, Avolio 2022). Thus, openness and attentiveness can be connected to individual consideration because a supportive environment is created for each follower. The leaders take an active role in attending to each follower, implying that individualized consideration requires more effort in virtual teams than co-located teams.

5.2.2. Delegation of Responsibility

Based on the empirics, leaders should let followers take responsibility for their work. It increases involvement in tasks and growth of followers by encouraging them to find their own way to meet objectives. This corresponds to intellectual stimulation, the

extent that leaders stimulate followers to be innovative and solve problems by themselves (Bass, Jung et al. 2003; Guarana, Avolio 2022). Followers may feel disengaged and less motivated when isolated at home and not being at an office or seeing other people. Empowerment and delegation can lead to increased motivation (Andressen, Konradt et al. 2012), and delegating responsibility to make followers feel more empowered and stimulated seems to reduce this issue and increase engagement.

5.2.3. Clarity and Group Cohesion

Inspirational motivation refers to a leader's ability to inspire, communicate expectations and create a sense of community towards the vision (Bass, Jung et al. 2003; Guarana, Avolio 2022). Clarity in setting and communicating expectations for the long run is important to have effective virtual work. When people know what they must do and why, they become more motivated to achieve it. Also, group cohesion regarding relationship strengthening activities was emphasized in the empirics. This is important to retain motivation and effective collaborations, which otherwise may quickly deteriorate. Consequently, this shows that inspirational motivation is important in the virtual setting and leaders engage actively in efforts to motivate and create team spirit.

Sub conclusion

Leaders' perception of virtual leadership can be understood through the components of individualized consideration, inspirational motivation, and intellectual stimulation. The efforts to fulfill the needs of followers are more extensive because of the limitations in the virtual work environment (e.g., isolation). It is important for virtual leaders to help followers feel stimulated, motivated, and considered. Increasing consciousness of long-term goals and attending to followers' needs fosters engagement, motivation, and safety. This seems to be relevant in the virtual setting because the connection to the team is weaker, and motivation is harder to maintain. With feedback being less frequent, short-term efforts might also be less rewarding. A critical aspect of virtual leadership thus seems to be to give followers a broader perspective. To work virtually may feel lonesome, but by making sure that the follower knows that someone cares, and that the work contributes to something bigger, leaders can increase engagement. TFL thus compensates for these missing parts of work and creates value. This type of leadership seems to be more necessary for followers who expect virtual work to substitute physical work to a higher degree (close attitude).

5.3. Motivation Through Exchange

5.3.1. Freedom and Flexibility

The empirics show that being free to choose when and where to work has advantages, especially in terms of motivation. The ability to structure everyday life opens opportunities for people to do things they enjoy outside of work to a greater extent. Being able to structure work that enables higher levels of enjoyment can be connected to a form of motivation through an exchange. Through the theoretical lens, this shows that motivation does not necessarily need relational or personal leadership but can stem from followers' self-interests. It is more an exchange of efforts and reliability for freedom and flexibility, a reward for fulfilling tasks. Thus, this behavior is more connected to contingent reward in accordance with TSL (Bass, Jung et al. 2003; Guarana, Avolio 2022) rather than TFL because the efforts and motivation from the follower come from the interest of having freedom and flexibility.

5.3.2. Clear Assignments

The empirics show that management systems and communication tools have emerged to facilitate information flow and structure with the transition to virtual work. Followers know everything that needs to be done when they sign into the program in the morning, which decreases delays and questions to the leader. In some instances, the systems have offset the leader's role by taking control of the day-to-day assigning and follow-up of tasks. These instruments simplify the leader's role in managing followers and with the impersonal interaction, it corresponds with transactional leadership behavior (Bass, Jung et al. 2003; Guarana, Avolio 2022).

Sub conclusion

Leaders can capitalize on the independence characteristic of virtual work by giving the worker more flexibility and simultaneously managing them more efficiently. For some followers, the freedom and flexibility that virtual work makes possible is enough to motivate them to do a good job, which can be interpreted as motivation stemming from self-interest. This goes hand-in-hand with a more automated task-management, where leaders help followers to complete tasks by using digital tools. This hands-off leadership style seems to suit the distant attitude follower because they do not require as much of the social aspects of

work. Furthermore, for the tools to be of use, the leader needs to trust that the follower is engaged in and will perform the tasks. Moreover, for leaders to capitalize on the virtual work setting, followers need to have reached a certain level of maturity, being self-sufficient and able to take responsibility.

5.4. Helping Followers Grow

Virtual work can be more independent than co-located work. The problems that arise are that it is harder to control employees and make them feel engaged. There are some contradictions in the empirics regarding how to address this, either through monitoring or by making followers feel ownership. The former seems, however, to demotivate and create more stress, while the latter raise motivation. Thus, encouraging empowerment and ownership of tasks are ways to decrease the need for task management which saves time for the leader and lets the employee grow in their role. Through the theoretical framework, TFL is a way to encourage self-leadership and make employees take more control over their tasks (Andressen, Konradt et al. 2012). Self-leadership can be a way to move the supervision of work from the leader to the followers themselves, which is convenient when communication and supervision is limited. It is important because it is not as easy to ask questions about the tasks when the team is dispersed, and encouraging independent work helps avoid bottlenecks. This implies that TFL is not only a solution to a problem of social needs but also a necessity to retain efficiency in the way it is being adapted in the virtual setting.

Sub conclusion

TFL is essential to empower followers to take more responsibility for their work and encourage self-leadership. By delegating more responsibility, the need to micromanage decreases. This shows why virtual leaders should help followers become more independent (high maturity)

5.5. Trust

Another essential element brought up by most interviewees is trust. However, the empirics are not fully encompassed by the trust in the leader as a role model which idealized influence refers to (Bass, Jung et al. 2003; Guarana, Avolio 2022). Instead, empirics refer to a trust from the leader to the follower, which seems essential since remote work has become more

independent. Trust in the follower is needed for delegation of responsibility for two reasons. Firstly, it requires trust since the leader needs to give up control over the task. Secondly, it requires trust because it makes employees feel a layer of safety and not afraid to fail, which is essential for independent decision-making.

Monitoring is central for the evaluation of performance by a transactional leader, as interactions have the purpose of exchange rather than personal influence (Guarana, Avolio 2022). In remote settings, monitoring is problematic. Paradoxically, one exchange that has shown to be essential in virtual settings is that of efforts and reliability for freedom and flexibility - which often means less monitoring. For TSL to be effective, the leader needs to trust that the follower fulfills their part of the agreement - working without monitoring. Furthermore, trust requires a certain level of personal relationship, which can be developed through TFL as shown in the empirics and in line with Hoyt, Blascovich (2003). Thus, the combination of TFL and TSL is favorable for virtual leaders.

Sub conclusion

The analysis shows that trust is important both in situations where the follower is driven by self-interest (distant attitude), and where the follower needs more motivation from encouraging leadership (close attitude). In both cases, the leader needs to be able to delegate important tasks to the follower in order to lead effectively. Furthermore, TFL is crucial for building trust, and a certain trust is required for delegation of responsibility. This further clarifies why TFL is important to enable more independent work.

6. Discussion

6.1. Answer to Research Question

Through a qualitative study based on interpretations of leaders' perception of virtual leadership, a proposed conceptual framework will constitute the answer to the research question: *How do leaders perceive leadership in virtual teams?*

Leadership has become more contextual in the sense that leaders need to adapt their behavior to followers to a high degree, based on followers' attitudes and maturity. The social part of leadership has become more important since leaders need to compensate for the lack of social interactions in virtual settings and help followers grow by encouraging self-leadership. Leadership is also perceived as less task-oriented where digital tools are of great use. Leaders can capitalize on the independence characteristic of virtual work by offering freedom under responsibility to motivate and leave supervision to the individual. Virtual work is also perceived to demand more effort for building personal relationships and trust.

When considering leadership styles, TSL could be argued to fit the distant follower because the follower expects freedom and flexibility in exchange for their efforts and reliability. Offering freedom in exchange for hard work is enough to motivate. On the other hand, TFL is more suitable for the close attitude follower because the follower expects more from their work. They do not appreciate the flexibility of virtual work enough for it to compensate for the lacking aspects of virtual work and need more from the leader. Making work more meaningful with TFL is essential to encourage these followers. Still, the empirics suggest that the connection to the team always carries relevance to some extent, for example, through personal conversations. For any occasion, helping a follower go from being perceived as low maturity to high maturity is favorable - by using TFL to help the follower grow in their role, become more self-sufficient, and lead their own work. Trust is necessary for the move - trusting the followers' high maturity will allow more TSL in the form of freedom under responsibility. Furthermore, with self-sufficient and independent followers, using tools to manage is suitable to reduce the need for task-management and monitoring. To conclude, this is summarized in figure 6.
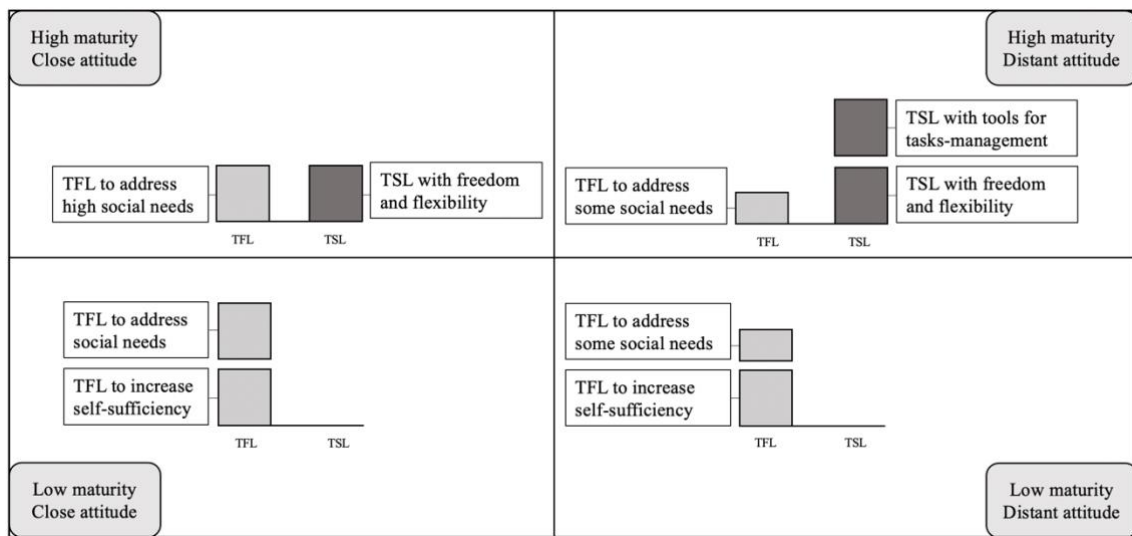
Figure 6: Virtual leadership model, by Jakobsson & Åstrand 2022

6.2. Contributions and Theoretical Implications

This study contributes with implications of how leaders perceive virtual leadership and how this perception is important for embracing appropriate leadership behaviors. There has been an academic discussion regarding whether TFL is applicable in virtual settings. Following previous findings of e.g., Purvanova et.al (2009) and Mutha, Srivastava (2021), this study indicates that TFL is relevant in the virtual setting. The effects of TFL on employee empowerment and engagement (Andressen, Konradt et al. 2012; Trudel, Sokal et al. 2022) can be further understood through this study. However, in line with Hoyt, Blascovich (2003), TSL is also found to be useful. This study also corresponds better with the reasoning of Bass (1985) than Burns (1978) regarding that the styles should be seen as complementary. With a different approach than Ruggieri (2009), who compared the styles, this study indicates that combining TFL and TSL is critical for virtual leadership to be effective. Furthermore, while the current view is that TFL is favorable to TSL (Guarana, Avolio 2022), this study shows that it highly depends on how the follower relates to work in the virtual setting. Followers' needs are more distinct and, in some situations, TSL is more favorable. In the virtual context, the theory needs to adjust to this contextual aspect to better explain virtual leadership, as shown in figure 6.

Moreover, Ben Sedrine, Bouderbala et al. (2021) found that TFL is important to build trust in VTs, and that trust in the leader increases team performance. Trust among team members has also been found important (Mutha, Srivastava 2021). However, this study indicates a

broader concept of trust, with a higher emphasis on trust in followers - something both necessary for TFL and an outcome of it. Earlier criticism stated that the dimensions of TFL are partly descriptions of outcomes of behaviors, e.g., trust (Tracey, Hinkin 1998). This study suggests that idealized influence as a description of trusted leaders (Bass, Jung et al. 2003; Guarana, Avolio 2022) does not suit this context. Reshaping the description to explain how trust is established (e.g., with personal conversations) and why it is necessary (e.g., to enable more delegation) adds something that the TFL theory is missing in the virtual context. To conclude, traditional leadership theories such as TFL may be used to understand virtual leadership, in contrast to Avolio, Sosik et al. (2014), but needs to be adjusted.

6.3. Managerial Implications

Implications from this study are that dispersion should not be seen as a problem stemming from monitoring issues. Instead, it should be seen as an opportunity to offer something that is difficult to achieve in a physical setting: freedom of working when and where the followers want. This aligns with the benefits of more independent followers and creates possibilities that come from less interaction: less managing and more freedom. Fewer task-related interactions combined with the distance from an office generate much freedom for followers. However, it can also create social gaps that lead to de-motivation and turnover. Leaders need to make each follower feel seen and a part of something larger than themselves to address this problem, hence creating more meaning to virtual work.

6.4. Limitations With the Study

A limitation of this study is that it is based solely on the leader's perspective of virtual leadership, which does not give a complete picture of the phenomenon of virtual leadership. Another limitation is that since the study is based on a constructivist and interpretivist approach, subjective expressions of the participants have been the basis for reflecting their reality and the authors' interpretation has been important in analyzing the material. The data could therefore not be said to represent an objective view, and the analysis may have been affected by personal biases. Moreover, most of the participants were men, which may not be representative for the phenomenon. Finally, since the study is based on participants from five different organizations, variables such as policies, culture, and resources may differ between cases.

6.5. Suggestions to Future Research

A suggestion for future research is to investigate if the proposed model of virtual leadership holds from the follower's perspective since leadership is an interaction between parties and cannot fully be analyzed from the leader's perspective. Furthermore, the study did not find a connection between the perception of virtual leadership and the idealized influence dimension of TFL and future studies could strive for a deeper understanding of the component in virtual settings. The study also indicated that any personality could be suitable for virtual work if leadership styles are adjusted to personal needs. However, earlier studies have indicated that some personalities are not suitable for virtual work, which could be investigated deeper in future studies. Furthermore, the study focused on local VTs but based on the prior research, these local VTs differed from those that had to transition to a virtual setting during the pandemic, which would be an interesting focus for future studies. Finally, Eisenberg, Post et al. (2019) suggested that geographical dispersion reduce the effect of TFL in VTs. However, since no clear patterns distinguished the perception of leadership in locally and globally dispersed teams, this study implies that leaders do not necessarily have to change leadership behavior because of high dispersion which could be further investigated.

6.6. Conclusion

Organizations are today making the virtual workplace a permanent office, but there are still struggles with how to adapt, and leading employees is one main consideration. This study contributes by shedding light on the importance of evaluating the pros and cons of the changing organizational landscape. Employees still have individual needs, even if they are harder to see behind the screen. In the sense of social relations, some aspects of traditional leadership may have become even more critical. Moreover, capturing the benefits of virtuality does not end with cost-savings in the form of office-room but extends to possible efficiency regarding self-sufficient employees. The answer to the research question is that leaders perceive that their role has changed in the virtual setting. They need to a greater extent act as a supporter, and their goal is to help every individual reach their highest potential of independence.

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Appendices

Appendix 1: Interview Sample

Alias	Company	Industry	Title	Years virtually*	Date	Interview time	Interview form
Anders	A	Music	Project Manager	2	2022-02-17	72 min	Physical
Birgitta	B	Appliance	Project Manager	2	2022-02-18	45 min	Virtual
Cecilia	C	Digital consultancy	Project Manager	4	2022-02-21	36 min	Virtual
Daniel	D	Digital consultancy	CEO	9	2022-02-21	54 min	Virtual
Elias	E	Digital consultancy	Project Manager	2	2022-02-22	54 min	Virtual
Emil	E	Digital consultancy	Head of team	11	2022-02-25	46 min	Virtual
Clas	C	Digital consultancy	CEO	4	2022-02-28	49 min	Virtual
Erik	E	Digital consultancy	Head of Team	4	2022-03-01	53 min	Virtual
Carl	C	Digital consultancy	COO	4	2022-03-02	37 min	Virtual
Anton	A	Music	Project Manager	2	2022-03-09	40 min	Virtual
Bella	B	Appliance	Head of team	2	2022-03-16	42 min	Virtual
David	D	Digital consultancy	Head of team	2	2022-03-22	39 min	Virtual

* Number of years of experience as a leader in virtual setting

Appendix 2: Virtual Team Characteristics

Participant	Anders	Birgitta	Cecilia	Daniel	Elias	Emil	Clas	Erik	Carl	Anton	Bella	David
VT configuration												
Local												
Locally (or nationally) dispersed	X	X	X				X		X			X
Established/permanent teams	X	X	X	X	X	X	X	X	X	X	X	X
Intra-organisational	X	X	X	X	X	X	X	X	X	X	X	X
Some face-to-face communication	X	X	X	X	X	X	X	X	X	X	X	X
Global												
Globally dispersed				X	X	X		X		X	X	
Temporary teams												
Inter-organisational												
Purely virtual												

Source: Chamakiotis, Panteli et al. (2021)

Appendix 3: Interview Guide (Translated to English)

Interview guide - English

- Your answers will be used for a research study as part of a bachelor's degree in management at Stockholm School of Economics
- Your participation is voluntary and anonymous, and no one will be informed of your participation
- You don't have to answer the questions and you can stop the interview at any time
- Do we have your consent to record the interview to enable later transcription?
- Is there anything you would like to ask before we start the interview?

Background

- Can you tell us about your role in the company?
- Can you tell us about your team and what you do?
- To what extent have you and the rest of your team worked remotely during the last two years?

What is virtual leadership to you?

- What do you think is good virtual leadership?

Do you have to do something to make team members engage in work when remote?

- Are you clear with what is expected from you team members and what they gain from reaching these expectations?

Do you have to do anything to motivate team members when they work remote?

- Is the engagement in your team affected by the remote setting?

Is it necessary for you to do anything to keep up the creativity among the team members when remote?

- What is your view on innovation and thinking outside the box in a virtual setting?
- Can you facilitate problem solving?
- Is it important to make decisions individually?

Is it necessary to show compassion for team members when working virtually?

- How do you show compassion virtually?

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- How do you find out what your team members need when you are dispersed?

Is it necessary with trust among you and team members when working virtually?

- How can you as a leader create and maintain trust?

Appendix 4: Examples of Identified Codes

Vad är virtuellt ledarskap för dig?

Clarity

Appreciation

Att leda folk på distans. Det handlar ju mycket om att folk får veta vad de ska göra och att folk känner sig trygga och att folk känner sig uppskattade även ifall dom sitter typ som den som är längst i väg sitter i Grekland där och jobbar som flyttade dit och ordnade så att även hon ska känna att hon har närhet till oss och kunna fråga mig saker och förtroende för mig så fast vi ses typ 3 gånger om året

Trust

Vad tycker du kännetecknar bra virtuellt ledarskap?

Attentiveness

Nej men det är så här man kan ju inte se hur dom mår varje dag så att mycket mer direkt och att vara mycket mer obekväm som ledare och ställa jobbiga frågor. Ja men att verkligen prata om stress till exempel för att om man är på ett kontor i varje fall dom här stressade direkt liksom men om det är virtuellt då kan jag inte se den känslan och jag får

Openness

vara väldigt öppen med det. Att det är svårt för mig som ledare att se dig och verkligen förstå hur du känner dig för att vi ses inte så mycket. Man får vara mer så här direkt på saker och inte känna så mycket utan lyssnar mycket

Appendix 5: Email to Prospective Interviewees (Translated to English)

Hi [Name]

My name is [name] and I am currently writing my bachelor's thesis in Management at Stockholm School of Economics together with my thesis partner [Name]. The focus of our thesis is virtual leadership, and since we have understood that [Organization] highly emphasizes virtual work, we are contacting you.

Since the pandemic started, many organizations have had to adjust to more virtual work. However, the results have varied, and many organizations are facing challenges with how to manage employees from distance. Our aim is to get insights into what role leadership has in this changing organizational landscape.

We would be grateful for the opportunity to talk to you about how your organization have adapted to the virtual context, and how you perceive working and leading virtually.

We wish to speak with someone who during the last two years have had a leading role in virtual context. Preferably we would like to have the interview during week 7-10, and we are flexible regarding time for the interview. The study is anonymous for both the organization and interviewee, and the material will only be used for this study.

We look forward to hearing from you.

Best Regards,

[Name]