

Beware of Non-Supportive Leaders

Moderating Effects of Supportive Leadership on
the Risks and Effects of Workplace Bullying

Stefan Blomberg



Linköping Studies in Arts and Sciences No. 845
Linköping Studies in Behavioural Science No. 247

Beware of Non-Supportive Leaders

Moderating Effects of Supportive Leadership on
the Risks and Effects of Workplace Bullying

Stefan Blomberg



Department of Behavioural Sciences and Learning,
Faculty of Arts and Sciences
Linköping University, SE-581 83 Linköping, Sweden
Linköping 2022

© Stefan Blomberg, 2022

Creative Common Licence: CC-BY

Printed in Sweden by LiU-tryck, 2022

ISBN 978-91-7929-531-8 (print)

ISBN 978-91-7929-532-5 (PDF)

<https://doi.org/10.3384/9789179295325>

ISSN 0282-9800

ISSN 1654-2029

Cover image: Stefan Blomberg

Abstract

The aim of the present thesis is to investigate how supportive leadership affects workplace bullying—both in terms of risk factors that may lead to bullying but also in terms of the effects of workplace bullying. There is a need for more studies that investigate the mechanisms involved with the origins and effects of workplace bullying. The present thesis addresses that need.

The thesis includes three survey studies based on different Swedish cohorts and using different research design in terms of the number of data collection waves and timeframes.

Based on the well-known association between workplace bullying and poor health—and drawing on the social learning theory, the theory of social information processing, the social identity theory, and the self-categorisation theory—a circular and multilevel theoretical interaction model was created. It is presented together with six hypotheses, as well as with an open research question, that were all investigated. The hypotheses are as follows:

- (1) Role ambiguity is a long-term risk factor of being exposed to bullying behaviours at work.
- (2) A hostile work climate is a mediator for the long-term association between ambiguous roles and exposure to bullying behaviours at work.
- (3) Poor general health, including both physical and mental health problems, is over time a risk factor of being exposed to bullying behaviours at work.
- (4) a. Perceived support from close co-workers moderates the negative association between exposure to bullying behaviours and health.
b. Perceived supportive leadership moderates the negative association between exposure to bullying behaviours and health.
Following hypotheses (4) a. and (4) b. an open research question was formulated: How do the two forms of perceived support—from supervisors and co-workers—interact in understanding the association between exposure to bullying behaviours and health?
- (5) Supportive leadership moderates the expected association between role ambiguity and exposure to bullying behaviours, mediated by a hostile work climate—a moderated mediation.

- (6) Supportive leadership moderates the expected association between poor health and exposure to bullying behaviours.

The summarised and combined results can be divided into two major parts concerning (a) two studied risk factors (role ambiguity and individual poor health), and (b) the investigated moderator (supportive leadership).

Concerning the two risk factors, the result showed that role ambiguity—an organisational risk factor in line with the work environment hypothesis—is a long term (almost four years) predictor of being exposed to bullying behaviours at work, and that a hostile work climate is a mediator for that association. The result also showed that poor general health—an individual risk factor in line with the general approach of the individual disposition hypothesis—is a predictor of being exposed to workplace bullying. This means that the first three hypotheses received support.

Concerning supportive leadership as a moderator, the results showed that a supportive leadership fully moderated the effects on exposure to bullying behaviours by (a) ambiguous roles, mediated through a hostile work climate, and (b) poor general health. This means support for hypotheses 5 and 6. The result also showed that a supportive leadership have an effect on the association between exposure to bullying behaviours and health. The effect was in terms of a moderated moderation also including co-worker support. The results showed that supportive leadership may act as a moderator for the buffering effect of co-worker support. That is, the level of leadership support may have a potential of opening for—or blocking—the buffering effect of co-worker support on the association between exposure to bullying behaviours and poor health. This was an answer to the open research question and also giving support to hypotheses 4a and indirectly to 4b.

The results also point to the direct positive effects of both supportive leadership and co-worker support on individual health as well as to the direct mitigating effect of a supportive leadership on workplace bullying.

Altogether, the thesis points to very important moderating effects of a supportive leadership and especially the fundamentally destructive effects in association with non-supportive leadership.

Keywords: Workplace bullying, supportive leadership, health, role ambiguity, hostile work climate, moderation, longitudinal

Preface and Acknowledgement

I first came in closer contact with the phenomenon of workplace bullying as a practitioner and organisational psychologist in the first decade of the new Millennium when I worked in a large occupational healthcare company. Sometimes I was called to investigate individual cases with claimed exposure to bullying at work. Other times I was asked to give support and counsel to employees who claimed to be exposed to bullying and harassment. In general, I thought that working with workplace bullying was difficult.

In 2011 I changed my job and started to work at an occupational and environmental medicine centre where I did assessments of hazardous work environments. After only one year in my new job, and after some assessments of workplaces with bullying problems, I was to my great surprise regarded a Swedish national expert on the concept and phenomenon of workplace bullying! In the autumn of 2012, I did several interviews in national radio, television, and newspapers. This unexpected development is described in my Swedish textbook about workplace bullying that was published a few years later (Blomberg, 2016).

In the autumn of 2013, I started my doctoral work aiming for this thesis. As I was a so called industrial doctoral student combining part time doctoral studies with part time work as a psychologist at the Department of Occupational and Environmental Medicine at Linköping University Hospital, I knew from the beginning that my PhD studies would be carried on for many years, maybe as much as 8 to 10 years. Why not make that an advantage? Having that many years opened possibilities for long term data collections with multiple data waves.

After my years as a consultant in occupational healthcare I also had a lot of experience of analysing organisations and working with organisational development. In that work I had been responsible for the development of a broad semi structural interview guide used for organisational assessments and analyses. In 2012 I had started to translate and convert that semi structural interview guide, based on the experience of many

organisational assessments during several years, into an extensive work environment questionnaire with over 200 questions.

So, when I started my PhD studies in October 2013, knowing that I maybe would have up to 8 to 10 years of doctoral research in front of me, I decided (together with my supervisor) to make a bold move: To validate a new extensive Swedish work environment survey questionnaire and to collect longitudinal multi wave data from several organisations. At that time, I did not fully understand the consequences of such a decision... It turned out to be quite a lot of work, but eventually it worked out and has then been very fruitful. The questionnaire is now validated and named Psychosocial Work Environment Questionnaire (PSYWEQ; Rosander & Blomberg, 2018) and the number of research articles published based on data from the PSYWEQ is growing fast, with co-operations so far with researchers in both Norway and Finland.

From 2017 and onward the research project has been supported by the AFA Insurance (grant number 160285) and the Swedish Research Council for Health, Working Life and Welfare (grant number 2019-01232). But initially, back in 2013 and during the first years, there were no grants. Me and my supervisor started and developed the project based on the fact that my employer let me devote half of my working hours to this doctoral research project.

The present thesis is based on a small slice of all the data that has been collected in the research project now called WHOLE—Work, Health, Organization, Leadership & Experience. Besides the present thesis, with the three included papers, I have also been a part of several other published papers (Nielsen et al., 2021; Rosander & Blomberg, 2019, 2022; Rosander, Salin, et al., 2022; Rosander et al., 2020) as well as several books and book chapters (Blomberg, 2015, 2016, 2019; Einarsen, Pedersen, et al., 2020), and a governmental-based guideline (Blomberg et al., 2022)—all published in the same period as my doctoral studies has been carried out. In 2017 Swedish Television also broadcasted a five-episode TV-series with me involved as an expert on workplace bullying. Since then, I have also been doing frequent lectures for, and consultations with, large employers and organisations in Sweden, raising awareness of workplace bullying and how to prevent and manage such problems at work. To be honest—it has been a quite busy period.

In all my years of working with workplace bullying in different ways—where this thesis is only a small part in the whole picture—I have realised that we need different kind of focus in different phases. We have

preventive, remedial, and follow-up measures—all carried out on the level of the individual, the work group, the organisation, and even the society. What I have learned is that we need to separate and act differently in how to prevent and counteract bullying at work on the one hand, and how to act and handle actual bullying problems on the other hand. Preventing the occurrence of workplace bullying is very much an organisational issue. That is, how the organisation is designed and how it works, how leadership is performed, how different systems at work function, how co-operation and social support is performed, et cetera—all of this profoundly matters in predicting and preventing bullying problems over time. And this present thesis is all about that—how to prevent bullying with organisational measures.

But there is also an individual level, and individual responsibility, which is especially important to be aware of when handling actual and ongoing bullying problems. This perspective is however outside the scope of this thesis but has been a very big part of my personal journey into and throughout the world of workplace bullying. My experience is that when negative behaviours at work escalate into systematic bullying, with victimised individuals as a result, it becomes very difficult to solve. The costs also become very high—both for the involved individuals, the actual working groups as well as for the organisation itself. The costs can be all from serious individual health consequences to workplaces where most people do not want to work anymore. Thus, there is all to win by preventing bullying at work to arise at all, that is, to build organisations in a way that minimises the risk factors. Hopefully, the present thesis will be a contribution to that end.

Acknowledgements

There are so many persons that have helped me in different ways to make this thesis possible. I am deeply thankful and humble, but it is impossible for me to mention them all. Still, here follow a few acknowledgements.

First, I would like to thank my supervisor in charge, associate professor Michael Rosander, and my assistant supervisor Bengt Stålbom, who also have been my boss during most of my doctoral project. Thank you for your patience and support!

I also want to thank professor Ståle Valvatne Einarsen and professor emeritus Helge Hoel for many pieces of advice as well as for encouragements and kindness during my journey into the field. Thank you! I have learned so much from your generosity and experience!

Then, I also want to thank my employer, the Department of Occupational and Environmental Medicine at Linköping University Hospital, that made this possible at all.

Finally, I am deeply thankful to my family that have supported me and believed in me during such a long period in which I have seen my children growing up—and even got two grandchildren!

Sadly, my whole journey has been carried out after the passing of my father and friend, Bengt Blomberg. Dad—I dedicate this work to you!

Linköping in October 2022

Stefan Blomberg

Funding

The work with the present thesis was supported by the AFA Insurance in Sweden under grant number 160285, and the Swedish Research Council for Health, Working Life and Welfare under grant number 2019-01232. The research was also supported by my employer, the Department of Occupational and Environmental Medicine at Region Östergötland, as a financial guarantor throughout the doctoral research project.

Disclosure Statement

As an author to the present thesis, I do not have any financial or other interest in the direct application of the presented research.

List of Included Papers

- I. Blomberg, S. & Rosander, M. (2020). Exposure to bullying behaviours and the support from co-workers and supervisors: A three-way interaction and the effect on health and well-being. *International Archives of Occupational and Environmental Health*, 93(4), 479-490. <https://doi.org/10.1007/s00420-019-01503-7>

- II. Blomberg, S. & Rosander, M. (2022). When do poor health increase the risk of subsequent workplace bullying: The dangers of low or absent leadership support. *European Journal of Work and Organizational Psychology*, 31(4), 485-495. <https://doi.org/10.1080/1359432x.2021.2003781>

- III. Blomberg, S., Rosander, M. & Einarsen, S. V. When and how role ambiguity acts as a risk factor for subsequent exposure to workplace bullying: The role of a hostile work climate and supportive leadership. Under review at *Scandinavian Journal of Management*.

Paper 1 was published under the CC-BY licence 4.0 and Paper 2 was published under the CC BY-NC-ND licence 4.0.

Table of Contents

- Abstract iii
- Preface and Acknowledgement..... v
 - Acknowledgements viii
 - Funding ix
 - Disclosure Statement..... ix
- List of Papers xi
- Table of Contents xiii
- Introduction 1
 - The History of the Bullying Concept..... 1
 - From Mobbing to Victimization 2
 - Latent vs Manifest Problems..... 4
 - Definition of Workplace Bullying 5
 - The Present Thesis 7
 - Aims and Structure..... 7
- The World of Workplace Bullying 9
 - Prevalence and Measurement..... 9
 - Organisational Perspectives 11
 - Work Stressors and the Work Environment Hypothesis..... 11
 - Work Design 12
 - Role Stress..... 13
 - Interpersonal and Group Process Perspectives 14
 - Interpersonal Conflicts 14
 - Work Climates 15
 - Predatory (or Selective) Bullying..... 17
 - Individualistic Perspectives..... 18
 - Individual Risk Factors 19
- The Concept of Supportive Leadership 21
 - Social Support as a Resource 21
 - Leadership in General 22
 - Supportive Leadership Behaviours 23
 - The Effects on Bullying 24
- Theoretical Framework 25
 - Social Identity and Social Categorisation 25
 - The Self-Categorisation Theory 26
 - Social Learning 27
 - Risk Factors of Bullying 28

Organisational or Group Level.....	28
Individual Level.....	30
Consequences of Bullying.....	31
Individual Level.....	31
Organisational or Group Level.....	32
Moderation Effects.....	33
Theoretical Model and Hypotheses.....	35
A Circular Model.....	35
Hypotheses.....	37
An Organisational Risk Factor.....	37
An Individual Risk Factor.....	37
Supportive Leadership as Moderator.....	39
The Thesis and the Theoretical Model.....	42
Methodology.....	43
Cohorts Used.....	43
Cohort 1.....	43
Cohort 2.....	44
Cohort 3.....	44
Data Samples.....	45
Sample 1.....	45
Sample 2.....	45
Sample 3.....	45
Measures.....	46
Negative Acts Questionnaire–Revised (NAQ–R).....	46
Salutogenic Health Indicator Scale (SHIS).....	46
Psychosocial Work Environment Questionnaire (PSYWEQ)..	47
Covariates.....	49
Statistical Analyses.....	49
Sensitivity Analyses.....	51
Results – Summary of Included Studies.....	53
Results from Paper 1.....	54
Results from Paper 2.....	55
Results from Paper 3.....	56
Discussion.....	59
A Summary of the Results.....	59
Supportive Leadership as Moderator.....	60
The Level of Trust.....	61
Is Low Support in Fact Bullying?.....	62
Passive or Destructive Leadership?.....	63

Supportive Acts by a Role Model	64
Direct Effects of Supportive Leadership	65
The Risks of Role Ambiguity	65
A Hostile Work Climate.....	66
Supportive Leadership as Moderator	67
The Risks of Poor General Health	70
The Protecting Effect of Supportive Leadership.....	71
COR—an Alternative Theoretical Framework.....	72
The Theoretical Model.....	75
The Effects of Low Levels of Supportive Leadership	76
The Effects of High Levels of Supportive Leadership.....	78
Limits for the Influence of Supportive Leadership	78
The Last Step in the Model	79
The Full and Final Model.....	81
Strength and Limitations	82
Sample and Design.....	82
Analyses	85
Future Research.....	86
Conclusions and Implications	89
References	93

Introduction

The History of the Bullying Concept

Workplace bullying is a multifaceted phenomenon that started to receive systematic academic attention for about 35 years ago. Bullying as a general phenomenon was, however, first described by a Swedish-German physician named Peter Paul Heinemann (1931-2003) in a debate article about bullying among children in a Swedish magazine in the late 1960s (Heinemann, 1969). A few years later Heinemann also published a book (1972) about bullying and at the same time systematic research about school bullying started (Olweus, 1973, 1978), carried out by the Swedish-Norwegian psychologist Dan Olweus (1931-2020) in Bergen, Norway.

In the mid 1970s the phenomenon was also observed and described among workers in the United States by the American psychiatrist Carroll M. Brodsky (1922-2014) in his seminal work *The Harassed Worker* (Brodsky, 1976). Then, in the 1980s, the Swedish-German psychologist Heinz Leymann (1932-1999) started to systematically study bullying at work (Leymann, 1986, 1988, 1989, 1990), quickly followed by the Norwegian psychologist Ståle Einarsen (1963-) who started to apply the research of school bullying on adults at work (Einarsen & Raknes, 1991; Einarsen, Raknes, Matthiesen, et al., 1994). The Swedish psychologist Ingela Thylefors (1942-) also published an influential book about scapegoats and bullying at the time (Thylefors, 1987, 1999).

Early in the 1990s the awareness and the concept of workplace bullying started to spread, first in the Nordic countries quickly followed by several European countries but also by Australia on the other side of the globe (for review, see Einarsen, Hoel, et al., 2020b). However, it seems that the interest many times started in parallel, rather than followed one another meaning that there was a general raising awareness of negative social exposure at work, such as bullying, around the world in the late 1990s and in the first years of the new millennium. Today, the published research of workplace bullying—from all over the world—has increased tremendously.

The bullying concept that was introduced in the 70s and the 80s in Sweden was very successful in the public and popular awareness with the acceptance it had first in Sweden and then in so many countries during almost the same time-period. Larsson (2010) discusses how the bullying concept, when it was introduced in Sweden, well suited the development in the Swedish society at the time. The ongoing changes in the view of parenting and leadership, the view of social relations in family, school and society, the view of individual's rights being more important than the obligation of individuals to adapt to their social environment, made the new concept quickly gaining ground and spread. The concept covered several already well-known phenomena such as ostracism, oppression, domination, bantering, et cetera, but did put the responsibility for it, not primarily on the individuals involved, but on the system, that is, the group, the organisation, or even the society (Heinemann, 1969; Larsson, 2010).

From Mobbing to Victimization

Initially, the term that was used was *mobbing*, with focus on the actions by a mob—a group—on an individual (Heinemann, 1969; Heinemann & Thorén, 1972). The term mobbing and the explanation of it was based on the description of animal aggression, applied to humans, by the German ethologist and Nobel Prize winner Konrad Lorenz (1903-1989). In the Swedish translation (Lorenz, 1967) of Lorenz's famous book *Das sogenannte Böse: Zur Naturgeschichte der Aggression* (published in English under the title *On Aggression*) the term mobbing was used in Swedish, probably for the first time. In the English translation published in 1966 the term mobbing was introduced to describe the behaviour of a group of social animals, such as birds, attacking a dangerous enemy. Later on in his book, Lorenz expands the use of mobbing to humans and states that a person who is a non-conformist or an outsider—for example in groups in the school (children) or in the military (adults)—may be “mobbed in the most cruel manner” (Lorenz, 2005, p. 76).

As the phenomenon of aggression was in such a focus in the first conceptualization of mobbing as a group based aggressive behaviour among animals (Lorenz, 2005), one could have expected that research of aggression would have been an important aspect in the following developments. But generally, it did not turn out in that way. Instead, there were two lines of developments that nowadays is called the European versus

the North American traditions (Einarsen, Hoel, et al., 2020a). In the American tradition, that mainly started in the 1990s, aggression became a core feature with a lot of focus on the perpetrators of aggressive behaviours at work (Keashly, Tye-Williams, et al., 2020). In the European tradition, on the other hand, the primary focus became the victims which meant that perpetrators and aggression were of less interest (Einarsen, Hoel, et al., 2020b). This latter way of using the new concept can be seen in the early development in Sweden, already in the 1970s.

When Heinemann used and introduced the term mobbing for a wider Swedish audience (Heinemann, 1969; Heinemann & Thorén, 1972) the description was of something destructive and unacceptable that one may be exposed to. The rights and the uniqueness of the individual was also described as more important than blending in and adapting to the groups the individual belonged to. And by not focusing primarily on the responsibility of the individuals, it opened for new explanations that involved social systems, groups, and organisations (Larsson, 2010). As long as the explanations were individual, the responsibilities and the measures were individual. Thus, the concept itself opened for social, structural, and organisational explanations and measures (Larsson, 2010).

Following this reasoning, it is telling that Heinz Leymann—when he started to study and write about the phenomenon in the second half of 1980s—strongly emphasised the responsibility of the group, the organisation, the leaders involved, and the employers where people were exposed. Leymann strongly rejected the idea that bullying may be explained by using individually based explanations (Leymann, 1986, 1988).

Just a few years later, in 1993, the bullying concept had made its way into the Swedish work environment legislation, under the term *victimization* when Sweden was the first country in the world to formulate statutory regulation about the phenomenon. In the provision from the Swedish Work Environment Authority (AFS 1993:17)¹ it was a very strong emphasis on employer responsibility and on organisational measures to counteract and remedy bullying problems at work. The same kind of responsibility is common around the world in countries with a developed work environment legislation (Yamada, 2020), but a more common legal term is harassment.

The use of the term victimisation in the Swedish work environment regulation may seem odd, with current knowledge of how bullying may

¹ Provision on victimization at work (AFS 1993:17)

develop and *eventually* turn into victimisation when problems deteriorate (Rosander & Blomberg, 2019). Trying to counteract and remedy bullying problems are difficult when people have been victimised but may be more successful in earlier stages (Zapf & Vartia, 2020). When the term victimisation was introduced in the Swedish legislation the definition focused on repeated and systematically exposure to negative, offensive treatment that differs from how others are treated at the workplace. However, in the updated provision (AFS 2015:4)² from the Swedish Work Environment Authority, introduced in March 2016, the definition was broadened significantly. The new definition states that if an action or a treatment is abusive and poses a risk of ill health or exclusion from the workplace community, it is considered victimisation. In practice, this means that victimisation—according to the Swedish legislation—now is considered a risk situation, rather than an escalated situation where someone perceive themselves as “momentarily or repeatedly [exposed] to aggressive acts emanating from... other persons.” (definition of victimization by Aquino & Bradfield, 2000, p. 526). This makes it a so called level 3-term (serious or severe bullying) of a level 1-situation (risk for or incipient bullying) according to the sectioning model of the bullying process presented by Rosander and Blomberg (2019). In the Swedish national guidelines published by the Swedish Agency for Work Environment Expertise (Blomberg et al., 2022) the legal development in Sweden is reviewed in more detail.

Latent vs Manifest Problems

Raising awareness of bullying is like lifting a latent problem to a manifest problem (Larsson, 2010). The latent problem is that people are recurrently exposed to negative acts in their working environment. According to Larsson (2010), the concept of bullying, or *mobbing* as it first was named, was a needed manifest name of an existent latent problem. The quick acceptance and spreading of the bullying concept show that the society, so to say, *needed* it. But the bullying concept opened for new dynamics and new borders of acceptability because bullying, as it is defined and formulated, is always unacceptable. So, lifting a latent problem of ongoing negative acts in the social work environment to a manifest problem of bullying is also to draw a line and say that it must stop. In Sweden

² Provisions on organizational and social work environment (AFS 2015:4)

there is even an explicit requirement in the work environment legislation that every employer must state to their employees that victimisation (the legal term for bullying acts) is unacceptable and that it will not be tolerated (13§ AFS 2015:4)³.

From research of prevalence levels of bullying we know that many seems to hesitate to call themselves bullied (Zapf et al., 2020). This may be associated with a so-called shame factor (Lewis, 2004) meaning that people in general do not like to see themselves as victims. So, for individual employees to dare to make ongoing latent exposure of negative treatments at work to a manifest problem, by calling it bullying or victimisation, and report the exposure to the employer, demands trust in that the employer is going to act and handle the situation in a proper way (Blomberg et al., 2022; Einarsen et al., 2017).

Definition of Workplace Bullying

So far, I have used different terms for the same phenomenon—mobbing, bullying, and victimisation. Another common term is harassment, especially in legal contexts, such as the recent Violence and Harassment Convention #190 from the International Labour Organization, ILO or in the European framework agreement on the prevention of violence and harassment (European Social Dialogue, 2007).

In research, the term workplace bullying is mostly used (Einarsen, Hoel, et al., 2020b) and is about repeated and/or systematic unwanted and unreasonable actions, behaviours, and practices directed at one or several employees. Such actions, behaviours, and practices are carried out over an extended time-period in situations where exposed people have difficulties defending themselves and are feeling humiliated, distressed and/or offended (Einarsen, Hoel, et al., 2020b). Bullying is not an either-or phenomenon, but an escalating process with different levels of seriousness (Rosander & Blomberg, 2019).

Most workers may however occasionally be exposed to behaviours that may be socially stressing, unpleasant or regarded as negative in some ways. Such occasional negative social behaviour may be framed as bullying behaviours but does not constitute workplace bullying if the exposure is not systematic, long-term, or high frequent (Einarsen, Hoel, et al., 2020b). Such occasional negative social acts may also resemble so called

³ Provisions on organizational and social work environment (AFS 2015:4)

incivility or mistreatment at work (Cortina et al., 2001) which also may include terms such as deviant or anti-social behaviours as well as violence at work (Andersson & Pearson, 1999). Incivility or mistreatment at work and *bullying behaviours* at work are basically the same phenomenon, which is shown by how they are measured as the same kind of acts and behaviours are involved (Cortina et al., 2001; Einarsen et al., 2009; Einarsen & Raknes, 1997). However, what makes bullying stand out is that it is about systematic, ongoing, and frequent exposure to such negative social treatments (Einarsen, Hoel, et al., 2020b).

Being exposed to bullying at work has also, mostly in Scandinavian and German speaking countries, been labelled “mobbing at work” (Leymann, 1996). However, in English speaking countries the label became *bullying at work* or *workplace bullying* (Liefoghe & Olafsson, 1999). In some cases, there are more than only a linguistic difference between the two labels. For example, Zapf (1999b) used the term mobbing to describe situations where a group—the mob—is gathering up against someone, and bullying refers to actions by one person—the bully. However, in the probably most widespread definition of the phenomenon the two terms are used interchangeably:

Bullying at work means harassing, offending, socially excluding someone or negatively affecting someone’s work. In order for the label bullying (or mobbing) to be applied to a particular activity, interaction or process it has to occur repeatedly or regularly (e.g. weekly) and over a period of time (e.g. about six months). Bullying is an escalating process in the course of which the person confronted may end up in an inferior position becoming the target of systematic negative social acts. A conflict cannot be called bullying if the incident is an isolated event or if two parties of approximately equal “strength” are in conflict. (Einarsen, Hoel, et al., 2020b, p. 26)

In the present thesis, the term bullying (at work) is used both as describing negative actions by a group or by an individual (or both) with particular focus on those who is exposed to bullying. The term bullying behaviours is also used in describing a risk situation with exposure that may develop into workplace bullying.

The Present Thesis

The present thesis is a part of the research project called WHOLE (Work, Health, Organization, Leadership, Experience). The overall aim of this research project is to longitudinally study how different organisational factors are related and interact in their effect on, for example, health, workplace bullying, the individual's work experience, et cetera. This thesis falls exactly within that scope. Such research has also been called for by Nielsen and Einarsen (2018) in their review article. To investigate longitudinal chains of event between risk factors and also investigating the mechanisms of *how* and *when* these risk factors may lead to workplace bullying have hardly been addressed in empirical research before (as notable exceptions, see Reknes et al., 2014; Zahlquist et al., 2019; Ågotnes et al., 2018). Thus, the present thesis tries to address a small part of this knowledge gap pointing to what employers really can do to influence the detrimental phenomenon of workplace bullying.

The focus on the *how* and *when*-mechanisms behind workplace bullying also mean that this thesis is about how to prevent bullying, that is, what we should be doing—or not be doing—on an organisational level, to counteract the risks of bullying. And, by knowing the mechanisms of *how* and *when* bullying behaviours tend to increase over time, the counteracting work of the phenomenon hopefully become more accurate and effective.

Talking and writing about bullying, working with, and researching bullying, will continue to raise the awareness of this important and unacceptable phenomenon. It will encourage people to act and claim their rights in unacceptable situations. Hopefully, it will also encourage organisations to counteract bullying problems—with better practices and a generally better social work environments as a result. In that process, this thesis may be a small piece in the large puzzle.

Aims and Structure

The aim of the present thesis is to investigate how supportive leadership affects workplace bullying—both in terms of risk factors that may lead to bullying but also in terms of the effects of workplace bullying.

To achieve this, the following structure is used. After this introductory chapter, a broad picture of the world of workplace bullying is drawn giving an understanding for both the phenomenon itself, the risk factors, and the detrimental effects. In that chapter several central concepts of the

thesis are introduced. Then, in the next chapter, the concept of supportive leadership is explored and presented in terms of how it may affect workplace bullying. This is followed by a chapter where I present a theoretical framework that will be used as a basis for a chapter with a theoretical model and a series of hypotheses. Then follows three more traditional chapters—Methodology (sample, measures, statistical methods, et cetera), Results (a short review of the included studies), and Discussion. Finally, the thesis ends with a chapter containing conclusions and implications.

The World of Workplace Bullying

Prevalence and Measurement

In general, about 10% of the working population in Europe is subjected to at least occasional workplace bullying behaviours and about 3% is subjected to serious and systematic workplace bullying (Zapf et al., 2020), also called victims of bullying (Notelaers & Einarsen, 2013). At least 10 to 20% of the employees may also occasionally be exposed to negative acts at work which do not meet the strict criteria of the bullying definition but are still being very stressful for the persons concerned (Zapf et al., 2020). For example, Rosander and Blomberg (2019) presented a three-level grading of exposure, from *Risk of or incipient bullying*, via *Ongoing bullying* to *Severe or extreme bullying*, on a representative sample of the Swedish work force. They showed that in total 19.6% of the Swedish workforce is at least occasionally exposed to negative acts with discernible negative health impact. The distribution of exposure in their study (Rosander & Blomberg, 2019, p. 783) was:

Table 1. Distribution of Bullying Exposure in a Swedish Representative Sample.

Categorisation	%	Cumulative %
Severe or extreme bullying	2.8	2.8
Ongoing bullying	4.0	6.8
Risk of or incipient bullying	12.8	19.6
Not bullied	80.4	100.0

The prevalence of bullying exposure and further social risk exposure in Swedish working life, reported by Rosander and Blomberg (2019), is in line with what Zapf et al. (2020) summarised on a general European level, combining and estimating a general prevalence level based on many different studies with different measurement methods.

A problem of the growing research area of workplace bullying has been that the measuring methods of the phenomenon has differed and

thus making comparisons difficult (Nielsen, Notelaers, et al., 2020). In general, two ways of measuring bullying exposure have been used: (a) the self-labelling method (with or without a definition) and (b) the behavioural experience method. The former uses a question concerning to what extent one has been exposed to bullying and to which the respondent usually answers a simple yes or no, or answers to some kind of frequency scale (for example, never, now and then, monthly, weekly, and daily). The latter method uses an inventory presenting a range of examples of different acts and behaviours one may have been exposed to, and to which the respondent answers on a frequency scale (never, now and then, monthly, weekly, and daily). Usually, for both methods, the duration of exposure is also included (often 6 or 12 months). Additionally, the frequency cut-off also differs between studies. For the behavioural experience method, it has been put forward that once a week is enough to be considered exposed to workplace bullying (also called the Leymann criterion; 1990, 1996) while others have argued for two (Mikkelsen & Einarsen, 2001) or even three (Agervold, 2007) acts per week. For the self-definition method some conclude that all respondents that do not explicitly answer *no* to the bullying question is considered exposed to workplace bullying, while others only include those who answer that they are exposed weekly or daily (for overview, see Nielsen, Notelaers, et al., 2020; Zapf et al., 2020).

With this short review of different ways of measuring workplace bullying, the reported results by Rosander and Blomberg (2019) is interesting as they combine the described measuring methods and present levels of increasing social exposure which fits well with the overview by Zapf et al. (2020). That the way one measure the bullying phenomenon really matters is also shown by Rosander et al. (2020) in their study of gender effects in bullying. They showed, for example, that women have a slightly higher tendency to self-label themselves as bullied while men are significantly more exposed according to the behavioural experience method. The measurement method also affected the results of the association between bullying and mental health risks.

The uncertainty of how to measure bullying in the best way, or that different methods may cover aspects of the phenomenon in slightly different ways, does not hide the fact that workplace bullying in general is a really challenging problem in all sectors of working life (Nielsen & Einarsen, 2018; Zapf, 1999a; Zapf et al., 2020), and that it may find targets among workers as well as managers (Bjorklund et al., 2019; Hoel et

al., 2001), among young and old people, no matter of gender, sexual identity or ethnical background (e.g., Hoel et al., 2017; Lewis & Gunn, 2007; Salin, 2018). Perpetrators may be found among both colleagues and supervisors (Einarsen & Skogstad, 1996; Torok et al., 2016). There may also very often be more than one perpetrator involved and the number of perpetrators, as well as the bullying intensity, may increase over time (Zapf, 1999a; Zapf & Gross, 2001).

All in all, this is a quite sad picture of the state of affairs but let us now turn to how we can understand the processes behind workplace bullying and also how one may prevent it, which is what the present thesis is about.

Organisational Perspectives

Work Stressors and the Work Environment Hypothesis

One explanation of why workplace bullying may emerge is based on the so-called work environment hypothesis, a concept that was introduced by the Norwegian researcher Ståle Einarsen (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994). The idea, which also was conveyed by Heinz Leymann (1990, 1996), states that bullying is a result of deficiencies in the organisation. Already in the early 1990s Leymann (1993) suggested that such organisational deficiencies could be related to work design and leadership behaviours in combination with socially exposed positions for victims and low department morale.

A lot of research has been performed during the years, inspired by the work environment hypothesis. There is now an overarching and universal support for the hypothesis as a description of organisational antecedents to workplace bullying (Nielsen & Einarsen, 2018; Salin & Hoel, 2020; Van den Brande et al., 2016).

The organisational antecedents of workplace bullying can also be described as work environment stressors (Einarsen, Raknes, & Matthiesen, 1994; Leymann, 1996) with the risk factors situated on either the individual job level, the level of the team, the organisation, or even on a societal level (e.g., Samnani & Singh, 2012; Van den Brande et al., 2016). However, as workplace bullying is a complex and multi-causal phenomenon it cannot be explained by only one factor (Salin, 2003b). There is an interplay between different factors on different levels, also including individual factors (Bowling & Beehr, 2006).

To understand the relationship between stressors in the work environment and workplace bullying, it has been argued (Baillien et al., 2009) that work stressors may raise the level of frustration and increase the energy consumption among employees making *inefficient coping with work stressors* a path towards bullying. For example, an inefficient coping of work-related frustrations may lead to more of aggressive behaviours in the organisation. Inefficient coping could also lead to norm breaking behaviours that additionally may elicit aggression (Baillien et al., 2009). All in all, stressors related to the work environment may increase the risk of *interpersonal conflicts* (e.g., Keashly, Minkowitz, et al., 2020; Stoetzer et al., 2009) which in turn is a well-known risk factor of workplace bullying (Arenas et al., 2015) through conflict escalation (Baillien et al., 2009) (see below).

Work Design

One important part of the organisation that may produce work-related stress is deficient *work design*, which was pointed out already by Leymann (1993). Work design (or job design) is a term used in organisational psychology that points to the content and organisation of employees tasks, activities, responsibilities and relationships at work (Parker, 2014). Examples of deficiencies in work design that has been reported to be related to workplace bullying is *high workload* (e.g., Agervold, 2009; Einarsen, Raknes, & Matthiesen, 1994; Hauge et al., 2007) and *high job demands* (e.g., Baillien et al., 2008; Bowling & Beehr, 2006; Notelaers et al., 2010) as well as *low autonomy or low decision authority* (e.g., Astrauskaite et al., 2015; Balducci et al., 2011; Lewis et al., 2017). High demand and low autonomy is also close to the well-known stress model of job demand-control-support by Karasek and Theorell (1990) which also points to the importance of *resources* in the form of social support. Resources and demands are conceptually opposite pairs in the so called framework of job demands–resources (JD-R; Bakker & Demerouti, 2007; Demerouti et al., 2001) which also is used to understand and describe the association between the work environment and workplace bullying. For example, Tuckey et al. (2012) reported that insufficient resources is a risk factor of workplace harassment.

Role Stress

Another organisational or work design deficiency that has received pronounced attention, in regard of its association with workplace bullying, is different kinds of *role stress*. Deficiencies in connection with work-related roles is reported to be among the strongest predictors of bullying at work (e.g., Bowling & Beehr, 2006; Hauge et al., 2007; Notelaers et al., 2010). Salin and Hoel (2020) stated that “bullying seems to thrive where employees perceive contradictory expectations, demands and values in their jobs and where expectations are perceived as unclear or unpredictable” (p. 307). Unclear, contradictory and/or lack of information about responsibilities and demands connected to one’s work role is the very definition of *role ambiguity* (e.g., Beehr, 1995; King & King, 1990) which is one of two classical role stressors described by Kahn et al. (1964). The other classical role stressor is *role conflict*, which occurs when one experience two or more role expectations, or role pressures, that are not compatible with each other (Beehr, 1995) requiring decisions that one does not perceive as optimal (Kahn et al., 1964). Role ambiguity and role conflict are independent, but related, sources of stress (Kahn et al., 1964). The presence of unclear and conflicting role expectations may create uncertainty and pressure leading to a situation where the *focal person* (in the terminology of Kahn et al., 1964) does not know what to do. This makes role ambiguity both an objective verifiable organisational condition as well as a subjective phenomenon based on perceptions of a focal person. Further, an ambiguous role is probably not only unclear for the focal person but also for the surrounding people including so called role senders. This may lead to conflicting pressures because of the inconsistencies in demands and expectations. The consequences, according to Kahn et al. (1964), are detrimental to interpersonal relationships as it makes people losing trust in each other as the confidence of cooperativeness and good intentions evaporate. In this respect, role stress—and especially role ambiguity—can also be seen as a social stressor (Bowling & Beehr, 2006). Role ambiguity may lead to negative affect in work groups as it makes it unclear what to expect from each other as well as how to behave and act in a proper way as seen by other organisation members.

In a meta-analysis by Van den Brande et al. (2016) they found 21 studies in which role stress was associated with workplace bullying. Even if most of the studies were cross-sectional, there is growing evidence of a causal link (Salin & Hoel, 2020) between role stress and workplace

bullying. An example of a longitudinal study that provides important support of a causal link was made by Reknes et al. (2014) and was a two-years and a two-waves study with 2835 employees. In the study they found an association between role stress and subsequent workplace bullying using a true prospective design looking only at new cases of bullying at follow up.

In the present thesis, role ambiguity is a key concept used both as an organisational predictor of exposure to bullying behaviours and as an important covariate when investigating other predictors.

Interpersonal and Group Process Perspectives

Workplace bullying is an interpersonal phenomenon that develops through interactions between at least two parties (Einarsen, Hoel, et al., 2020b). Those parties may also involve groups of individuals, what Leymann (1996), and originally Heinemann (1969), called a *mob*, that may engage in aggressive acts against one or several targets. There can be significant between-groups variations in the occurrence of workplace bullying (e.g., Escartín et al., 2013; Skogstad et al., 2011) which indicates that group process perspectives also are important in understanding the origin and development of workplace bullying.

There are several interpersonal or group-based phenomena that may be relevant in understanding the developments of bullying at work. There are interpersonal conflicts, work climates, scapegoating, ostracism of minorities or outsiders, et cetera. There is a considerable overlap between these phenomena, and they often influence each other in several ways (e.g., Lewis et al., 2020). For example, the level of work group identification, by a group member, influences how possible acts of conflict or supportive behaviours by other group members are interpreted and what kind of emotions arising of those acts or behaviours (e.g., Lazarus & Folkman, 1984).

Interpersonal Conflicts

Interpersonal conflicts have been reported to be a risk factor for workplace bullying (Baillien et al., 2009; Einarsen, 1999; Einarsen & Skogstad, 1996; Keashly, Minkowitz, et al., 2020) with conflicts and bullying being related but still distinctive phenomena (Baillien et al., 2017; Notelaers et al., 2018). Interpersonal disputes, struggles and conflicts “are

a natural part of all human interaction and must not be considered bullying [but] they may be a starting point ... leading up to instances of workplace bullying” (Einarsen, Hoel, et al., 2020b, p. 33). What makes bullying distinct, in comparison with conflicts, is the inability to defend oneself, the frequency, and the long lasting nature (Baillien et al., 2017). The risk of conflicts turning into bullying has been reported to be highly influenced by a wide range of factors on both individual, dyadic, group, and organisational level (Hoel & Cooper, 2001; Zapf, 1999b). For example, Ågotnes et al. (2018) showed that conflicts only escalated into bullying when laissez-faire leadership was present. Another factor that may influence the risk of conflict escalation is the social climate at work (van de Vliert, 2000).

Work Climates

The general social climate at work has been shown to be related to workplace bullying (Einarsen, Raknes, & Matthiesen, 1994; Keashly, Tye-Williams, et al., 2020; Muhonen et al., 2017; Vartia, 1996) either as overarching climates or as facet-specific climates associated with certain aspects of the working conditions, for example, conflict management climate (Einarsen et al., 2016) or competitive work climate (Vartia, 1996). In research, climates can be studied as an overarching phenomenon, but more often as facet-specific climates (e.g., Dollard & Bakker, 2010; Pirola-Merlo & Mann, 2004).

There is a vast literature on different kinds of social climates at work. Mostly, the literature refers to *affective* climates at work (or in the organisation) and for more than 50 year such affective social work climates, or in short—*work climates*—has been studied as important influences (Jones & Lawrence, 1979; Kuenzi & Schminke, 2009).

A work climate is considered to be an overarching condition with direct or indirect causal effects that clearly influence factors in the work environment and in the organisation, such as safety, performance, turnover, demands, resources, and health among employees (for a review, see Dollard & Bakker, 2010; Kuenzi & Schminke, 2009). It is claimed that work climates account for a substantial variance in work behaviours and attitudes (De Rivera, 1992; Tse et al., 2008).

The definition of work climates focus on *shared perceptions* regarding policies, practices, and procedures that is rewarded, supported, and expected in the organisation (Kuenzi & Schminke, 2009; Schneider & Reichers, 1983). It can also be about shared perceptions of behaviours,

values, and emotions expected in a typical work group setting (De Rivera, 1992; Schneider et al., 2013). The definition establish work climates as perceptual phenomenon (Schneider & Reichers, 1983) that may be clearly sensed but also being related to underlying structures (De Rivera, 1992). Such structures may for example include role characteristics in the organisation such as variety, challenge, job pressures, and role ambiguity (Jones & Lawrence, 1979) as well as enacted policies and procedures put forward by decisions by senior management (Dollard & Bakker, 2010; Flin et al., 2000).

A work climate that have received attention in the last years, is *psychosocial safety climate* (Dollard & Bakker, 2010). At low levels, the psychosocial safety climate is claimed—by the authors—to be “*the pre-eminent psychosocial risk factor at work capable of causing psychological and social harm through its influence on other psychosocial risk factors*” (Dollard & Bakker, 2010, p. 580). It is, however, not fully articulated on what basis that bold statement rests. Regardless, the psychosocial safety climate combines and unifies the traditional concept of a safety climate, which refers to physical health and safety, with work stress perspectives. It is defined as “policies, practices, and procedures for the protection of worker psychological health and safety” (Dollard & Bakker, 2010, p. 580) and considered to be a climate for psychosocial health and safety that precedes working conditions such as job demands and job resources (Bakker & Demerouti, 2007; Demerouti et al., 2001).

Another work climate that has received attention in the last years is a *hostile work climate* (Keashly, Tye-Williams, et al., 2020; Leung & Snape, 2012; Mawritz et al., 2014; Mawritz et al., 2012). This is a facet-specific climate where trust is low between group members and where the social context is characterised by deviant and aggressive behaviours which means that this is the opposite of a climate characterised by social support. The organisational structures behind a hostile work climate may be ambiguous decisions and procedures creating conditions where it is difficult or impossible to know how to perform or behave to fulfil one’s work duties. Such conditions may lay a ground for interpersonal tensions, conflicts, disappointments, and deviant behaviours (De Rivera, 1992) which altogether may be perceived as, what Brodsky (1976) called, a “permission to harass” (p. 84).

In the present thesis work climate is an important concept and a hostile work climate is used as a mediator for the effect of role ambiguity on exposure to bullying behaviours.

Predatory (or Selective) Bullying

Another group process perspective of workplace bullying is about that some categories of people are more exposed than others (e.g., Fevre et al., 2013; Hoel et al., 2022; Rosander & Blomberg, 2022) which also means that bullying sometimes overlap with discrimination (Di Marco et al., 2021; Lewis et al., 2020). To be bullied just because of who you are is usually described as predatory bullying (Einarsen, 1999). However, there is also a useful term used in research on incivility, so called *selective incivility* (Cortina, 2008; Cortina et al., 2013). The term selective incivility covers how individuals may be subjected to negative behaviours based on their group representation such as gender or belonging to a minority group. Such uncivil treatment could be based on (a) implicit stereotypes among otherwise tolerant people unknowingly applying uncivil and discriminatory behaviours, or (b) being based on overt and explicit stereotypic motivations. The term selective is, in my opinion, more neutral than predatory which may have connotations associated with being a predator with a purpose of harming, which does not fit very well with the established definition of workplace bullying (Einarsen, Hoel, et al., 2020b). Thus, I suggest the term selective being more suitable in describing when people are bullied based on who they are. The term *selective bullying* has also been used a few times in the literature (Lewis et al., 2020; Salin et al., 2013) and should, in my opinion, be used more as it captures and describes an important part of the phenomenon—that some people, implicitly or explicitly selected, are more exposed than others.

Over the last 20 years, researchers have established *risk groups* that may have a higher risk of being exposed to bullying. For example, being born in a foreign country or being of an ethnical minority may multiple the risk of bullying exposure (Lewis & Gunn, 2007; Rosander & Blomberg, 2022) as well as being lesbian, gay or bisexual (Fevre et al., 2012; Fevre et al., 2009; Hoel et al., 2017; Hoel et al., 2022) or having a disability (Fevre et al., 2013). For some people, the only thing they need to do to be bullied is to show up at work (Archer, 1999). If you belong to an outsider group and thus considered *deviant or non-conforming* compared to what is considered a typical employee, you may be at risk. This

may, for example, include being a female fire-fighter (Archer, 1999) or being a male assistant nurse (Eriksen & Einarsen, 2004) or in general being a male at a female-dominated workplace (Rosander, Hetland, et al., 2022). Escartín et al. (2013) presented another example, in a study of 494 employees nested within 17 teams, that showed that having a weak identification with their team were associated with higher levels of bullying. Lowest level of bullying was shown for those who had a strong identification with a group where the group-members in general had a strong group identification.

Being different compared to others, in some way or another, may also set one out as an easy target of so called *scapegoating* where stress and frustration at work may give rise to collective defence mechanism of displaced aggressions directed at the outsider/scapegoat (Thylefors, 1987, 1999).

Individualistic Perspectives

Research has established that the individual consequences of being exposed to workplace bullying may be detrimental (for a comprehensive overview, see Mikkelsen et al., 2020). In qualitative studies based on interviews with bullying victims it has been reported consequences such as psychological distress, feelings of guilt and shame, reduced self-confidence, sense of worthlessness, self-contempt, concentration difficulties, mood swings, fear, anxiety, depression symptoms, and sleep problems (e.g., Hallberg & Strandmark, 2006; Lewis, 2004). Quantitative studies and meta-analyses have reported psychological health consequences such as depression, burn out, anxiety, and post-traumatic stress disorder (e.g., Einarsen & Nielsen, 2015; Hansen, 2018; Kivimäki et al., 2003; Nielsen & Einarsen, 2012; Rugulies et al., 2012; Theorell et al., 2015) as well as physiological health consequences such as cardiovascular disease and type 2 diabetes (Xu et al., 2018; 2019). There have also been reported heighten risks for disability pensioning (Clausen et al., 2019), unemployment (Glambek et al., 2015), and suicidal ideation (Nielsen et al., 2015).

Theoretically, the individual consequences of bullying is predictable and understandable from several perspectives. For example, the transactional stress model formulated by Lazarus and Folkman (1984) has been used to predict negative health effects through a dynamic interplay of individual appraisal and coping, and exposure to the social stress of bullying. Another perspective is the social pain perspective (Macdonald &

Leary, 2005) which predict that ostracism and social exclusion—that are important elements of a bullying process—may have strong and negative impact on general health of exposed individuals (Knack et al., 2011).

Individual Risk Factors

Beside the individual *consequences* of being exposed to bullying, there may also be an individualistic perspective in *predicting* bullying. Such a perspective has been called the *individual disposition hypothesis* (Nielsen & Einarsen, 2018) and concerns both perpetrators and victims. There is some evidence that—from a victims perspective—personality factors (Nielsen et al., 2017), mental health problems (Nielsen & Einarsen, 2012) as well as vulnerabilities in social competence and self-esteem (Zapf & Gross, 2001) may predict bullying exposure (see also, Zapf & Einarsen, 2020). From a perpetrator perspective, personality factors (e.g., Fernández-del-Río et al., 2021; Matthiesen & Einarsen, 2007; Tokarev et al., 2017) and lack of social competence (e.g., Einarsen, Raknes, Matthiesen, et al., 1994; Kant et al., 2013) are also reported as well as so called organisational power play with micro political behaviours (Salin, 2003a). However, Salin and Hoel (2020) argued that individual risk factors mainly being important when organisational risk factors exists, stating that “individual factors... may affect the risk of being bullied when certain organisational preconditions or risk factors are present” (Salin & Hoel, 2020, s. 306). This has also been shown by Rosander (2021) in a study where the individual risk factor of mental health problems was dependent on the level of role stress. That means that individual risk factors may depend on how well the organisation is functioning in areas such as leadership, conflict management, role clarity, work climate and so on. Clearly, there is seldom a mono cause of bullying which means that

“one may have to take a broad range of potential causes of bullying into account, antecedents and risk factors which may reside within the organization, the perpetrator (the bully), the social psychology of the work group, or indeed the target/victim. ... One must also take the interplay of such causes into consideration.” (Zapf & Einarsen, 2020, s. 270)

That poor mental health, such as depression and anxiety, may be a risk factor and predict future exposure to workplace bullying, and not only being a consequence of bullying, is called a reversed effect. This has

been reported several times (Einarsen & Nielsen, 2015; Kivimäki et al., 2003; Nielsen & Einarsen, 2012). However, up till now, no one has studied to what extent *general* poor health—also including physical aspects of health—may be a risk factor and predict future exposure to bullying.

In the present thesis, poor *general* health, also including physical aspects of health, is investigated as an individual risk factor of exposure to bullying behaviours.

The Concept of Supportive Leadership

The concept of supportive leadership is based on the combination of social support in general with the position and influence of leadership. Therefore, let me start with a short introduction to social support.

Social Support as a Resource

Social support is one of the most important resources according to the framework of job demand-resources (JD-R; Bakker & Demerouti, 2007; Demerouti et al., 2001). The model concerns occupational stress and claims that strain is an answer to an imbalance between demands and resources. Social support is claimed to be a very important resource that together with other resources (e.g., autonomy and clarity), stimulate personal growth, learning, and development (Bakker & Demerouti, 2007). Social support is also included as a buffer in the model of job demand-control-support (JD-CS; Karasek & Theorell, 1990). According to this model low autonomy/control combined with high demands/high workload may lead to strain, but that high levels of social support may buffer such a strain.

In general, social support is a broad phenomenon where different kinds of interpersonal interactions may be relevant in contributing to one's health and the ability to cope with stressful and demanding situations both at work and in many other situations also in private life (Cohen, 2004; Taylor, 2011).

There is also a distinction between *received* and *perceived* support, with perceived support having the larger impact (Taylor, 2011). The provided behaviours that may lead to perceptions of support can be of different characters. It can be: (a) emotional support through, for example, empathic and trusting behaviours (Cohen, 2004; Thoits, 1982); (b) it can be instrumental support through, for example, hands-on and practical help (Cohen, 2004; Schat & Kelloway, 2003; Thoits, 1982); (c) it can be informal support through, for example, advice and guidance (Cohen,

2004, Thoits, 1982, Schat and Kelloway, 2003; and (d) it can be valuing and appreciating support through, for example, feedback and evaluative information (Thoits, 1982).

In working life, for employees, there may be several different sources of supportive behaviours which may lead to a perception of support, for example supervisors, work colleagues, the organisation itself, as well as friends and relatives (Foster, 2012).

In the thesis, two specific sources of perceived support are investigated: (a) perceived support from close co-workers, and (b) perceived supportive leadership.

Leadership in General

Leadership in general is an important organisational predictor or mitigator of bullying at work (Cao et al., 2022; Cooper-Thomas et al., 2013; Salin, 2015) and may be defined as

“the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives.” (Yukl, 2013, p. 23)

Being a leader is not the same as being a manager or supervisor, but the overlap between the two concepts is large. A manager can have a leadership position but not lead, and leadership can be performed without being a formal manager. So generally, manager or supervisor is an occupational position and leadership is what is performed (Yukl, 2013). In the following the term manager (line-manager, frontline manager) and supervisor will be used interchangeably meaning a position to perform so-called *day-to-day* leadership in an organisation, not high-level, senior, or strategic leadership.

The power and influence that usually is associated with the position of being a manager means that they can have “a profound impact on the work environment and on expectations of standards of behaviour” (Salin & Hoel, 2020, p. 313) and may sometimes also act as bullies themselves. Thus, the way leadership is performed may both have destructive and mitigating effects in terms of bullying.

There are many forms of leadership models, or leadership constructs, but in general three overall meta-categories of leadership have been widely studied: (a) change-oriented leadership, (b) task-oriented leadership, and (c) relation-oriented leadership (e.g., Derue et al., 2011; Yukl et al., 2002). In addition, there is also a meta-category of different types of active or passive destructive leadership (e.g., Lundmark et al., 2021; Skogstad et al., 2007). In the last 20 years, a category of so-called ethical- or moral-oriented leadership also has emerged (e.g., Brown et al., 2005; Michel et al., 2010). The presented meta-categories are, however, not distinctive but may have considerable overlaps (Cao et al., 2022).

Supportive Leadership Behaviours

Among the overall meta-categories of different forms of leadership, supportive leadership is mainly positioned in the category of relationship-oriented leadership (Yukl et al., 2002). Supportive leadership is, however, more considered a type of leadership *behaviours* (Yukl, 2013) rather than a leadership model and thus may be included in many types and models of leadership. For example, supportive leadership is included as the dimension (being one of four dimensions) of individualised consideration in the broader model of transformational leadership (Bass, 1985; Carless et al., 2000; Rafferty & Griffin, 2006). The more lately introduced leadership model of compassionate leadership (Gilbert & Basran, 2019), with focus on caring and empathy, also clearly overlaps the more traditional descriptions of supportive leadership as both empathy and showing care are included in supportive leadership (Yukl, 2013).

Practically, a supportive leadership means that a manager provides emotional, instrumental, informal, and valued and appreciative support, with most focus on creating trust and confidence through caring, listening, and showing respect and understanding (House, 1981). According to Yukl (2013) a supportive leader: (a) shows acceptance and positive regard; (b) listens, cares and provides help; (c) bolsters confidence and self-esteem; and (d) is willing to help with personal problems. In general, a supportive leadership means showing “consideration, acceptance, and concern for the needs and feelings of other people” and such leadership behaviours build and maintain “effective interpersonal relationships” (p. 77).

This focus on how a leader is taking care, showing respect and creating trust and confidence also positions a supportive leadership in the broader meta-category of leadership models called ethical and moral

oriented leadership (Hattke & Hattke, 2019). Such supportive leadership behaviours are also included in the leader-member exchange model (LMX; Graen & Uhl-Bien, 1995) which focus on the quality of exchange between leader and employees. Lastly, low levels of supportive leadership—that is, *not* caring, helping or showing concern or acceptance—overlap with leadership behaviours called laissez-faire leadership, that is, passive and avoidant leadership (see Bass & Avolio, 1994). However, in laissez-faire leadership the main focus is on the activity level of the leadership whereas in supportive leadership the focus is on the content of leadership—that is, to what extent there are leadership behaviours that result in a perception of consideration, trust, and support.

The Effects on Bullying

In general, research has shown that different kinds of leadership may have an important effect on workplace bullying. For example, destructive effects have been shown for laissez-faire leadership (Dussault & Frenette, 2015; Hoel et al., 2010; Skogstad et al., 2007), autocratic leadership (Agervold, 2009; Hoel et al., 2010) and tyrannical leadership (Hauge et al., 2007). Mitigating effects have been reported for transformational leadership (Astrauskaite et al., 2015; Dussault & Frenette, 2015; Nielsen, 2013), participative leadership (Hoel et al., 2010), authentic leadership (Nielsen, 2013; Warszewska-Makuch et al., 2015), and fair and supportive leadership (Hauge, Einarsen, et al., 2011). In a recent meta-analysis by Cao et al. (2022) there was a negative association between workplace aggression (which included workplace bullying) and the categories of goal-oriented, relation-oriented, and ethical-oriented leadership. There were also positive associations between workplace aggression and the categories of passive and destructive leadership.

For supportive leadership, studies have pointed to that it may have protective effects on health for employees exposed to bullying behaviours (Gardner et al., 2013; Nielsen, Christensen, et al., 2020) as well as protective effects against early retirement (Clausen et al., 2019). Supportive leadership has also been reported to strengthen employees' control and influence which in turn may reduce the risk of exposure to bullying (Goodboy et al., 2017).

In the thesis, supportive leadership is the key concept, besides workplace bullying, used as a moderator in all included papers.

Theoretical Framework

Trying to understand *why* organisational as well as individual risk factors may lead to bullying, and *why* bullying seems to have such negative effects—as well as what one might expect of the moderation by supportive leadership—directs the attention to theories that may give an understanding of the processes involved. Mainly, the theories that will be introduced in this chapter concerns the social psychology of working groups—mainly the *social identity theory* (Tajfel & Turner, 1986; Tajfel & Turner, 1979) together with its extension the *self-categorisation theory* (Turner et al., 1987), and *social learning theory* (Bandura, 1977) together with the overlapping *theory of social information processing* (Salancik & Pfeffer, 1978).

First, there will be a general introduction of these theories. Then, the theories will be used together with the concepts that were introduced in previous chapters, as well as with some additional theories that will shortly be referred, in describing why there may be such increased risks and moderation effects.

Social Identity and Social Categorisation

In social psychology, a key feature is how social groups, such as work groups, develop, and interact. A theory that deals exactly with this kind of processes is the *social identity theory* (Tajfel & Turner, 1986; Tajfel & Turner, 1979). An important process described in the social identity theory is how people categorise individuals into so called in-groups (we; us) and out-groups (them). Another important aspect is how people adopt their identity and conform to the social norms developing in such groups. Such processes of categorising oneself in association with groups that one do—or do not—belong to, is considered a fundamental cognitive information processing mechanism that reduces the complexity of social information (Hogg & Reid, 2006; Rosch, 1999).

The categorisation process also includes so-called self-categorisation which is important in how people derive their own identity and self-experience from the common group identity of the groups to which they belong, as well as the determination of the place oneself has within such group (self-categorisation theory, Turner et al., 1987). This categorisation process also affects so called inter- and intra-group biases. Further, socially identifying oneself with a so-called interactive group (unlike social categories)—for example, a work group with members that interact with each other on a regular basis—is negatively related to depression (Postmes et al., 2019) meaning that social categorisation also is related to health.

The Self-Categorisation Theory

The self-categorisation theory (Turner et al., 1987), which is an extension of social identity theory (Tajfel & Turner, 1986; Tajfel & Turner, 1979), also offers an interesting and usable concept—*prototypicality*—which has been used in bullying research to understand how workplace bullying can be predicted by *not* being a so-called prototypical group member (Glambek et al., 2020). Prototypicality, or being a prototypical group member, is about a shared idea in a group of the most ideal or most typical group member which serves as an important part of group identity (Hogg & Terry, 2000). Such shared idea of a prototypical group member informs the group of expected and valued behaviours and attitudes in the group, that is—*group norms*. The use of prototypicality to understand norms, also expands the understanding of social norms, based on social identity theory, where norms is considered to be an attribute of the group and that group members adhere to those norms as a signal of social identification (Tajfel & Turner, 1979). Prototypicality represents core features of a group making life in the group more predictable, stable, and safe which altogether enhances a salient group identity. By social comparison, such a group identity may also function as a self-enhancing mechanism in achieving a positive self-image through group affiliation (Abrams & Hogg, 1988; Festinger, 1954).

The backside of prototypicality is so called deviants or outsiders, that is, non-prototypical group members that deviate from what is considered to be a prototypical group member. Such deviant group members may be perceived as threats to the group identity with a following risk of negative treatment, such as scapegoating and ostracism, which has been reported

by several authors (Glambek et al., 2020; Hogg, 2005; Lewis et al., 2020; Thylefors, 1999; Zapf & Einarsen, 2020).

Being regarded as a non-prototypical group member may be based on actual or assumed (perceived) norm breaking behaviours (Baillien et al., 2009). This may be interpreted as a threat to the group, as norms often are connected to a salient group identity (Hogg & Terry, 2000). This may lead to an aggressive response which could be seen as a form of social control in the light of the perceived norm violation (Felson, 1992), in order to come to terms with the threat.

Being regarded as non-prototypical may also be based on conscious or unconscious stereotypes, for example associated with minority groups (Cortina et al., 2017; Devine, 1989). People tend to see what they expect to see, and by categorising a person as belonging to a minority group it may be likely that people pay attention to category-consistent behaviours—a so-called normative fit in terms of the self-categorisation theory (Turner & Reynolds, 2012).

Studies have also shown that disabilities, both physical and mental, and long-term illness may be associated with ill-treatment at work (Fevre et al., 2013; Horton & Tucker, 2014). It is argued that this may be associated with difficulties living up to norms of attendance, performance, and working long and hard hours, making people with disabilities and health issues more vulnerable of being regarded as outsiders, that is, non-prototypical.

Social Learning

Other theories that also may offer perspectives of interpersonal and group process dynamics that may influence the emergence or mitigation of workplace bullying is the *social learning theory* (Bandura, 1977) and the *theory of social information processing* (Salancik & Pfeffer, 1978).

There is a considerable overlap between the social learning theory and the theory of social information processing, even if they differ in their perspectives. The social learning theory is a comprehensive theory of behaviour that aims to explain how patterns of behaviour are acquired.

“From a social learning perspective, human nature is characterized as a vast potentiality that can be fashioned by direct and vicarious experience into a variety of forms within biological limits.” (Bandura, 1977, p. 13)

Whereas the social learning theory encompasses all life situations, the theory of social information processing was developed as a specific work life approach to produce new insights into people's attitudes at work as a derivative and combination of "the social context at work and the presence of consequences of previous actions" (Salancik & Pfeffer, 1978, p. 224). According to the theory of social information processing "one can learn most about individual behavior by studying the informational and social environment within which that behavior occurs and to which it adapts" (s. 226).

Following both the social learning theory and the theory of social information processing, human behaviour is shaped through modelling which is a process that produce learning through an informational function giving guidance of appropriate behaviours and actions (Bandura, 1977; Salancik & Pfeffer, 1978). People attend to and perceive how others, of which they are regularly associated with, consistently act (Salancik & Pfeffer, 1978). Individual behaviour is shaped through an attentional process where salient events (so called attentional cues) in the social environment are interpreted as expectations of appropriate individual actions (Salancik & Pfeffer, 1978). By repeating and performing modelled responses, which is pointed out by the social learning theory (Bandura, 1977), the actions and behaviours are remembered as guides of actions. The modelled response learning may however weaken considerably if the consequence of those actions and behaviours are unrewarding or punishing (Bandura, 1977).

Social identity theory, self-categorisation theory, social learning theory, and the theory of social information processing are used in the present thesis as a theoretical framework to understand why role ambiguity—as an organisational risk factor—and poor health—as an individual risk factor—may subsequently lead to exposure to bullying behaviours and why supportive leadership may function as a moderator.

Risk Factors of Bullying

Organisational or Group Level

Two important concepts that were introduced in previous chapters, are *role ambiguity* and a *hostile work climate*. Both are risk factors based on

the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994). Role ambiguity is considered an organisational or structural condition and a hostile work climate is considered a group based perceptual phenomenon. Drawing on social learning theory (Bandura, 1977), the theory of social information processing (Salancik & Pfeffer, 1978) as well as social identity theory (Tajfel & Turner, 1979) and its extension the self-categorisation theory (Turner et al., 1987) one may theoretically understand how these risk factors may lead to bullying.

Role ambiguity, that is, unclear, contradictory and/or lack of information about responsibilities and demands connected with ones work role (e.g., Beehr, 1995; King & King, 1990) may, according to Kahn et al. (1964), be detrimental to interpersonal relationships at work as it makes it unclear what to expect from each other as well as how to behave and act in a proper way as seen by others at work. Drawing on both social learning theory (Bandura, 1977) and the theory of social information processing (Salancik & Pfeffer, 1978), it is reasonable that such organisational or structural problem with unclear expectations, responsibilities, and demands may continuously produce frustrations to such an extent that it will constitute a risk factor for workplace bullying through escalated aggression (Baillien et al., 2009). Such social working conditions may be full of so called *salient events* and *attentional cues* (e.g., aggressive outlets, misunderstanding, frustrations, suspicion) which are interpreted as appropriate behaviours (Salancik & Pfeffer, 1978) and through repetition being remembered as guide of accepted actions (Bandura, 1977). With such ongoing socially stressful situations at work (Bowling & Beehr, 2006), with normalised interpersonal tensions and conflicts (De Rivera, 1992), the development of social norms—drawing on social identity theory (Tajfel & Turner, 1986)—may lay a ground for a hostile work climate where low trust together with deviant, aggressive and conflict escalating behaviours (De Rivera, 1992) becomes a part of the social work group identity (Tajfel & Turner, 1986). The expected behaviours of a so called prototypical group member, drawing on self-categorisation theory (Turner et al., 1987), in such a working group may in fact even include acts of harassment—what Brodsky (1976) called a “permission to harass” (p. 84)—making acts of workplace bullying normalised, that is, a bullying culture.

Individual Level

In previous chapters, the individual risk factor of *poor health* leading to future bullying exposure was also introduced—inspired by the individual disposition hypothesis (Nielsen & Einarsen, 2018).

To theoretically understand why this risk factor may lead to workplace bullying, I turn to the theory of self-categorisation, with the concept of prototypicality (e.g., Abrams & Hogg, 1988; Hogg & Terry, 2000; Turner et al., 1987). The reasoning is that poor health in general, that is, any kind of poor health—be it physical, mental, social, et cetera—may give rise to difficulties meeting group-based norms of performance, attendance, and availability. Having difficulties meeting group-based norms is thereby making one vulnerable to frustrations and irritations from other work group members which may heighten the risk of interpersonal conflicts and, in the long run, also heighten the risk of exclusions and ostracism (e.g., Arenas et al., 2015; Baillien et al., 2009; Stoetzer et al., 2009). Violating the norms of the group may lead to that one is considered being a deviate group member, compared to an ideal prototypical group member, and thus being or becoming a *non-prototypical* group member. Such a non-prototypical group member may be perceived as a threat to group stability and thus being expelled from the group. This theoretical understanding is also very close to the original description of *mobbing* by Lorenz (1967) where he argued that a persons who is a non-conformist or an outsider may be “mobbed” in cruel ways (Lorenz, 2005, p. 76).

The risk of poor *mental* health, such as depression and/or anxiety, leading to bullying has been reported before (Einarsen & Nielsen, 2015; Kivimäki et al., 2003; Nielsen & Einarsen, 2012). It has been suggested that the *theory of victim precipitation* (Elias, 1986) and/or a so-called *gloomy perception mechanism* (de Lange et al., 2005; Einarsen & Nielsen, 2015) could contribute to an explanation of why poor mental health seems to heighten the risks of being exposed to workplace bullying. According to the victim precipitation theory (Elias, 1986), the personality of a target may be a precursor of workplace bullying through, for example, negative emotions. Two types of victims are described, (a) the vulnerably target who is weak and easy to attack and (b) the provocative target who may provoke aggressive behaviours from others and also escalating existing conflicts. According to the gloomy perception mechanism (de Lange et al., 2005; Einarsen & Nielsen, 2015), a person with mental health problems may have a lower tolerance for negative

situations at work and therefore perceive and interpret the actions and behaviours of others in a more negative way, thus making exaggerated negative causal attributions of other's actions and behaviours (van Reemst et al., 2016). Both the theory of victims precipitation and the gloomy perception mechanism are however questioned and criticised as they may be claimed to blame the victim (Cortina et al., 2017) if used as a single explanation. Additionally, none of them seem to fit very well as an explanation in association with general or *physical* health problems as that would implicate that physical health problems would alter one's perceptions.

Consequences of Bullying

Individual Level

As previously described, workplace bullying involves a high risk of future ill health for those exposed. This health risk has been established by many researchers over the years and is nowadays reported as an established fact in reviews and meta-analyses (e.g., Nielsen & Einarsen, 2018). Theoretically, the health risks of exposure to workplace bullying is predictable and understandable from several theoretical perspectives (Mikkelsen et al., 2020). For example, the transactional stress model formulated by Lazarus and Folkman (1984) has been used to predict negative health effects through a dynamic interplay of individual appraisal and coping, and exposure to the social stress of workplace bullying. Also the cognitive activation theory of stress (Ursin & Eriksen, 2010) has been used in describing the potential pathological effects of a sustained physiological activation that may occur in the absence of coping possibilities when one is exposed to ongoing and systematic bullying. Another perspective is the social pain perspective based on evolutionary psychology (Macdonald & Leary, 2005) which predict that ostracism and social exclusion—that are important elements of a bullying process—may have strong and negative impact on general health of exposed individuals (Knack et al., 2011). The argument is that humans are social beings that are dependent on being part of a group. Thus, being excluded, or threatened with exclusion, will produce biological warnings and ill-health that resembles being exposed to death threats (Macdonald & Leary, 2005).

Organisational or Group Level

That workplace bullying may have detrimental effects not only on individuals but also on the organisation itself has been suggested by researchers. In general, the effects that have been reported—such as sickness absenteeism (Niedhammer et al., 2012) and turnover (Nielsen & Einarsen, 2012)—are closely associated to the bullying effects on individuals. There are however some suggestions of consequences also on an organisational level. For example, Giorgi (2012) argued that bullying at work may strongly influence the workplace climate and Hauge, Skogstad, et al. (2011) discussed that workplace bullying over time also may increase role stress, such as role ambiguity. To understand the latter effects (on the organisation), one may draw on the social learning theory (Bandura, 1977) and the theory of social information processing (Salancik & Pfeffer, 1978). Workplace bullying may contribute to escalated conflicts, frustrations, interpersonal tensions, and social stress to such extent that it becomes normalised to be suspicious and aggressive. The social work conditions may accordingly be full of so called salient events and attentional cues in terms of misunderstandings, frustrations, and aggressive outlets that through constant repetition becomes guides of appropriate and accepted behaviours (Bandura, 1977; Salancik & Pfeffer, 1978), especially when such behaviours are not met with unrewarding or punishing effects (Bandura, 1977, 1986, 1991). Hence, the consequences of bullying may also lead to a further hostile work climate as well as increased ambiguity and uncertainty associated with behavioural norms and work related roles. The latter may also involve mechanisms explained by the self-categorisation theory (Turner et al., 1987) and social identity theory (Tajfel & Turner, 1979). Drawing on the self-categorisation theory and its concept of prototypicality, one may expect that bullying, in the form of a heightened level of conflicts and aggression in the workgroup, would make it harder to reach a clear understanding of what a prototypical group member would be like and thus what is expected of each member in the group. Also drawing on the social identity theory (Tajfel & Turner, 1979), the behavioural norms of a group, which are closely knitted to expected behaviours in terms of attendance, performance, availability et cetera, are closely associated to the social identity of the group which may deteriorate when the level of conflict, tension, suspicion, and aggression is high. According to the social identity theory (Tajfel & Turner, 1986; Tajfel & Turner, 1979) adherence to norms also signals social identification with the group and if the internal level of social stress in terms of bullying,

conflicts and frustrations is very high in the group, the shared social identity may itself start to weaken and decline (Haslam & Reicher, 2006), increasing the uncertainty and ambiguity of what is expected of the group members—that is, increased role stress.

Moderation Effects

Finally, let us turn to what one theoretically might expect of the moderation by supportive leadership on the risks of workplace bullying.

In general (as described in the chapter “The Concept of Supportive Leadership”) social support is an important and well-known moderator of work-related stress, with co-workers also being an important source beside supervisors (Foster, 2012). As both leadership support and co-worker support have been reported to be associated with a general climate of support at work (Muhonen et al., 2017), those two sources of support is expected to be clearly related. However, drawing on the *social exchange theory* (Cropanzano & Mitchell, 2005; Thibault & Kelley, 1959), one can suggest that social support provided by supervisors and co-workers also should have different effects as they are different in terms of the social distance between the parties as well as in terms of the relationship quality involved. There should also in general be differences in terms of the regularity and frequency of interactions (e.g., Korte, 2010; Parzefall & Salin, 2010; Svensson, 2010). Thus, it is theoretically expected that leadership support and co-worker support should be separate and distinctive phenomena with probable different effects even if they also are expected to be clearly related.

Using supportive leadership as the moderator of the investigated effects of role ambiguity (as an organisational risk factor) and poor health (as an individual risk factor) on workplace bullying, the social learning theory (Bandura, 1977) and the theory of social information processing (Salancik & Pfeffer, 1978) can be used to predict and understand the effects.

A central concept of the social learning theory is modelling, with the following concept of *role models* (Bandura, 1977, 1986, 1991) which points to the importance of whom one observes and learns from. A role model may attract attention based on certain model characteristics, such as competence (Kanareff & Lanzetta, 1958), status (Lippitt et al., 1952), power (Bandura et al., 1963), and nurturance (Yussen & Levy Jr., 1975). The effect role models have on learning is not dependent on that the

observer is aware of the learning. Thus, a role model may influence an observer in both positive and negative ways, or as Bandura (1977) argues “one cannot keep people from learning what they have seen (p. 38).”

The concept of role models is of special importance when trying to understand the effect of leadership at work (Brown & Treviño, 2013). Managers at different levels of an organisation have usually such a status, power, and influence that it draws attention to them as role models. The actions and behaviours of managers—regardless of whether they are positive or negative—therefore model and inform employees of appropriate actions that people in an organisation may attend to and learn from (Bandura, 1977; Salancik & Pfeffer, 1978). The higher the position, the greater the power and status, which means that leadership on a strategic level may have a powerful influence on organisational culture (Schaubroeck et al., 2012) and climate (Dollard & Bakker, 2010) as well as influencing their subordinates and having an indirect trickle-down effect in the organisation (Hansen et al., 2012; Mawritz et al., 2012; Mayer et al., 2012). However, on a day to day basis, face-to-face leadership by a frontline manager or supervisor may also have a strong modelling effect due to the high frequency of interaction (Weaver et al., 2005). A supervisor that exhibits supportive leadership behaviours, creating trust and confidence through caring, listening, respect, and showing understanding (House, 1981) may also receive attention as a role model through these acts of care and nurturance (Yussen & Levy Jr., 1975). However, also acts and behaviours by a non-supportive or even an abusive supervisor will have modelling effects. The behaviours of a role model—and managers are role models due to their position, power, and influence—will always have some kind of influence on the observers (Bandura, 1977). Thus, the actions or nonactions by a manager, may stand as positive (or negative) examples in the workplace to be followed and learned from, as well as the actions or inactions having a direct influence on social work conditions. In terms of supportive leadership, the actions and behaviours involved may for example be providing understanding and help of personal needs (Avolio & Bass, 1999), showing trust and acceptance (Baumeister & Leary, 1995), bolstering confidence and self-esteem (Yukl, 2013) and providing conflict management in a way that lower the risk of escalated interpersonal conflicts (Einarsen et al., 2016; Tse et al., 2008).

Theoretical Model and Hypotheses

A theoretical model that connects the concepts and the theories of the thesis with the three included studies was created. A basis for the theoretical model is the association between bullying and health as described in more detail in the previous chapter. The detrimental health effect of bullying is nowadays considered an established fact in reviews and meta-analyses (e.g., Nielsen & Einarsen, 2018).

The following three key factors—introduced in the previous chapters—are used to analyse the risks of exposure to bullying behaviours in the present thesis: (a) supportive leadership, (b) role ambiguity, and (c) health (poor health).

A Circular Model

Based on the well-known association between bullying and poor health and the theories presented in the *Theoretical Framework*, the three key factors were used to create a circular, multilevel, and interactional theoretical model (see Figure 1). The model was created early in the research process and guided the formulation of hypotheses and data analyses. The model is circular and self-reinforcing which means that the same variables are used as both predictors and dependent variables. The circular aspect of a bullying process has been addressed by several authors. For example, Podsiadly and Gamian-Wilk (2017) has suggested that some personality factors may over time pose a risk of bullying exposure, but that bullying also may lead to personality changes. Einarsen and Nielsen (2015) raised thoughts about to what extent poor mental health and bullying may have such a circular pattern and Hauge, Skogstad, et al. (2011) discussed if role stress may be (both) a cause and/or a consequence of workplace bullying. The model is also theoretically a multilevel model as it includes the risk factor of ambiguous roles on an organisational level, based on the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994), and the risk factor of poor health

on an individual level, in line with the individual disposition hypothesis (Nielsen & Einarsen, 2018).

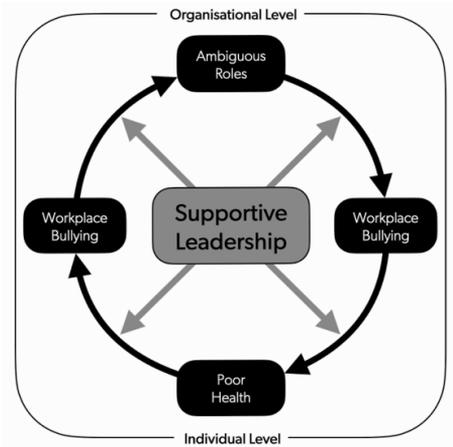


Figure 1. A Circular, Multilevel, and Interactional Theoretical Model.

The model is grounded in the presented research and have four connections: ambiguous roles — (a) — workplace bullying — (b) — poor health — (c) — workplace bullying — (d) — ambiguous roles. (a) There is a strong support for organisational factors involving role stress such as role ambiguity as a risk factor for workplace bullying (e.g., see Salin & Hoel, 2020, for a comprehensive review). (b) The detrimental health effects on targets of workplace bullying has been shown in several meta-analyses (e.g., Kivimäki et al., 2003; Nielsen & Einarsen, 2012). (c) There are also indications of a reversed effect from poor health to bullying although mental health problems have been the main focus (Einarsen & Nielsen, 2015; Nielsen et al., 2014). (d) Finally, the last connection is also the one with least support, that workplace bullying will lead to reduced role clarity, however the connection has been reported (Hauge, Skogstad, et al., 2011).

As presented, the model uses two risk factors—ambiguous roles (at an organisational level) and poor health (at an individual level). The model also includes supportive leadership as a factor that interact with the risk factors' effect on bullying; that is, the level of leadership support may increase or decrease the effect of the risk factors on bullying. The effect of supportive leadership on the consequences of bullying is also included in the model.

That supportive leadership may have interacting effects in association with workplace bullying have been reported in research before (e.g., Clausen et al., 2019; Gardner et al., 2013; Nielsen, Christensen, et al., 2020) and is presented in more detail in the chapter *The Concept of Supportive Leadership*.

Hypotheses

An Organisational Risk Factor

The first two hypotheses of the thesis is associated with the organisational risk factor of workplace bullying in the theoretical model: role ambiguity (see Figure 2). As described above, role stress is one of the main organisational predictors of workplace bullying and ambiguous roles is one of the key role stressors (Salin & Hoel, 2020).

The prediction that role ambiguity over time may lead to workplace bullying is, however, not new. The prediction is in line with the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994) and many researchers have reported an association between role stress and bullying before (see, e.g., Bowling & Beehr, 2006; Hauge et al., 2007; Notelaers et al., 2010; Reknes et al., 2014). However, what is still unclear is the long-term effects of role ambiguity and the mechanism of *how* role ambiguity actually leads to bullying. Concerning the long-term effect, no study has used a time lag longer than two years. The first hypothesis of the present thesis is as follows:

Hypothesis 1 (H1): Role ambiguity is a long-term risk factor of being exposed to bullying behaviours at work (see Figure 2).

Concerning the how-question, that is, *how* role ambiguity may lead to workplace bullying, no one has investigated the mechanism behind this association between role ambiguity and bullying before. To theoretically understand and predict why role ambiguity may lead to workplace bullying, one may use theoretical perspectives from social psychology. Drawing on the presented social learning theory (Bandura, 1977), the theory of social information processing (Salancik & Pfeffer, 1978) as well as social identity theory (Tajfel & Turner, 1979) and its extension the self-categorisation theory (Turner et al., 1987) to understand this association, suggest that role ambiguity may lead to conflicts, frustrations and social

stress to such an extent in the work group that it creates a hostile work climate which in turn may be a risk factor for workplace bullying through escalated aggression (Baillien et al., 2009). This leads to the formulation of the second hypothesis:

Hypothesis 2 (H2): A hostile work climate is a mediator for the long-term association between ambiguous roles and exposure to bullying behaviours at work (see Figure 2).

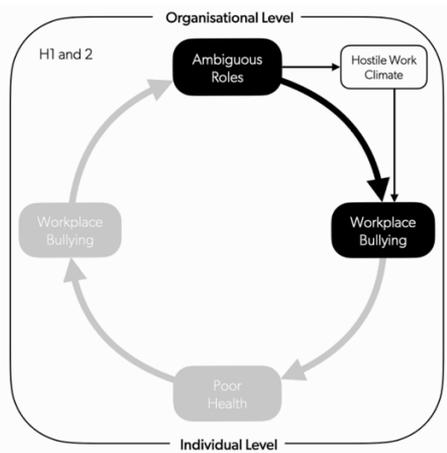


Figure 2. Hypotheses 1 and 2.

An Individual Risk Factor

The individual level risk factor in the model is about poor health which means that the next hypothesis concerns the risk that *general* poor individual health over time may lead to exposure to bullying behaviours (see Figure 3). Behind this hypothesis is the theory of self-categorisation, with the concept of prototypicality (e.g., Abrams & Hogg, 1988; Hogg & Terry, 2000; Turner et al., 1987), which has been used before to understand how workplace bullying may arise (Glambek et al., 2020). Poor health in general, that is, any kind of poor health, may cause difficulties for individuals to meet group-based norms of, for example, performance. Such difficulties of meeting group-based norms may lead to individual vulnerabilities to frustrations and irritations from others in their work group and lead to increased risks of interpersonal conflicts, exclusions, and ostracism (e.g., Arenas et al., 2015; Baillien et al., 2009). Having

difficulties in meeting the norms of the group may also increase the risk that one is considered being a deviate group member, compared to an ideal prototypical group member (e.g., Abrams & Hogg, 1988; Hogg & Terry, 2000; Turner et al., 1987) which means that one may be perceived as a threat to group stability and thus being expelled from the group. The third hypothesis of the present thesis is as follows:

Hypothesis 3 (H3): Poor general health, including both physical and mental health problems, is over time a risk factor of being exposed to bullying behaviours at work (see Figure 3).

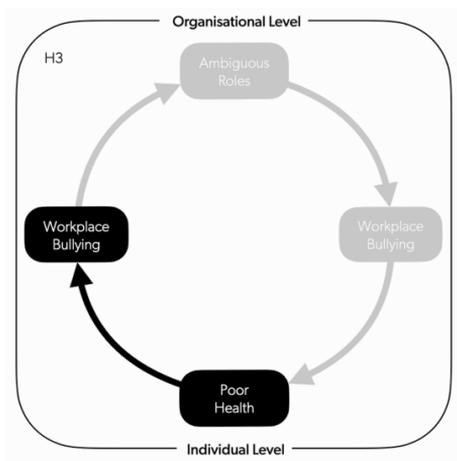


Figure 3. Hypothesis 3.

Supportive Leadership as Moderator

Now, turning to the moderator in the theoretical model, focus will be on the moderating effect of social support and specifically on supportive leadership.

Social support is a well-known moderator of work-related stress, with both co-workers and supervisors as important and related sources (e.g., Foster, 2012; Muhonen et al., 2017). Following the reasoning in the previous chapter—drawing on the social exchange theory (Cropanzano & Mitchell, 2005; Thibault & Kelley, 1959)—there should however be distinctive and different effects of support from co-workers and supervisors as the social distance, the relationship quality, the frequency of

interactions, etcetera generally differ in between them (e.g., Korte, 2010; Parzefall & Salin, 2010; Svensson, 2010).

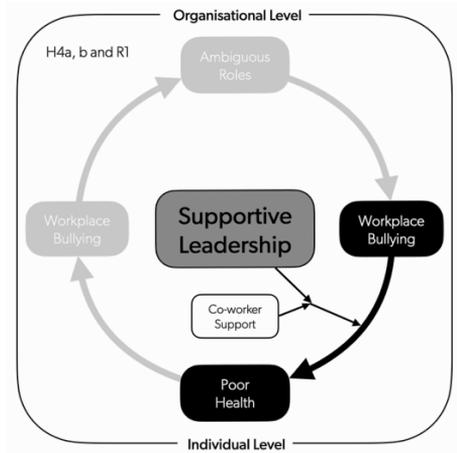


Figure 4. Hypotheses 4a, 4b, and the Research Question.

Based on this, two hypotheses were formulated, followed by an open research question and all three were then investigated in studying the effect of workplace bullying on health, that is, the already well-known causal relationship between workplace bullying and poor health:

Hypothesis 4 a (H4a): Perceived support from close co-workers moderates the negative association between exposure to bullying behaviours and health (see Figure 4).

Hypothesis 4 b (H4b): Perceived supportive leadership moderates the negative association between exposure to bullying behaviours and health (see Figure 4).

Research question 1 (R1): How do the two forms of perceived support—from supervisors and co-workers—interact in understanding the association between exposure to bullying behaviours and health (see Figure 4)?

Based on the social learning theory (Bandura, 1977) and the theory of social information processing (Salancik & Pfeffer, 1978)—with the theoretical concept of role models—supportive leadership was predicted

to have a moderating effect, distinct from co-worker support or from a general work climate, on the association between each of the two risk factors of exposure to bullying behaviours: (a) role ambiguity—an organisational level predictor derived from the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994); and (b) poor health—an individual level predictor derived from the individual disposition hypothesis (Nielsen & Einarsen, 2018).

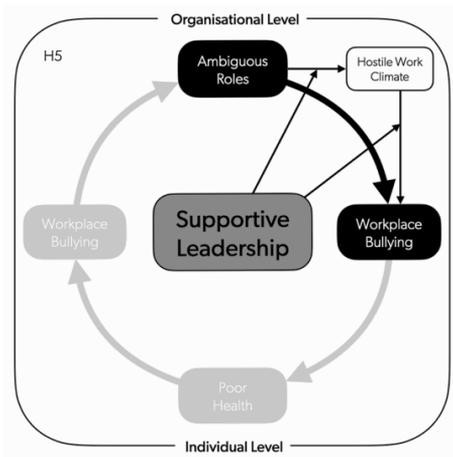


Figure 5. Hypothesis 5.

This leads to the formulation of the last and final two hypotheses:

Hypothesis 5 (H5): Supportive leadership moderates the expected association between role ambiguity and exposure to bullying behaviours, mediated by a hostile work climate—a moderated mediation (see Figure 5).

Hypothesis 6 (H6): Supportive leadership moderates the expected association between poor health and exposure to bullying behaviours (see Figure 6).

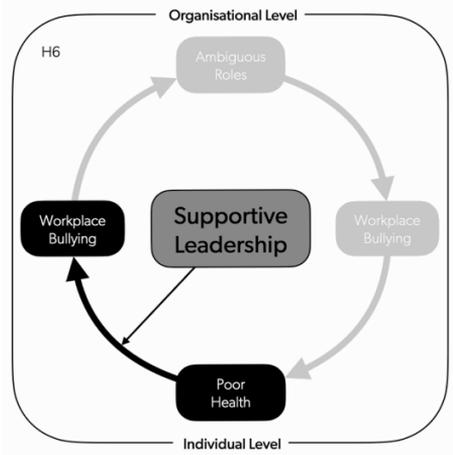


Figure 6. Hypothesis 6.

The Thesis and the Theoretical Model

In Figure 7 the present thesis is shown in relation to the initial theoretical model. The dashed arrows are not assessed which means that the last step of bullying → ambiguous roles, as well as the potential moderating effect of supportive leadership on that association, is not investigated in the thesis. This step is also the one with least support from previous research, even if Hauge, Skogstad, et al. (2011) suggested that workplace bullying may lead to increased role stress. This will be addressed in the discussion.

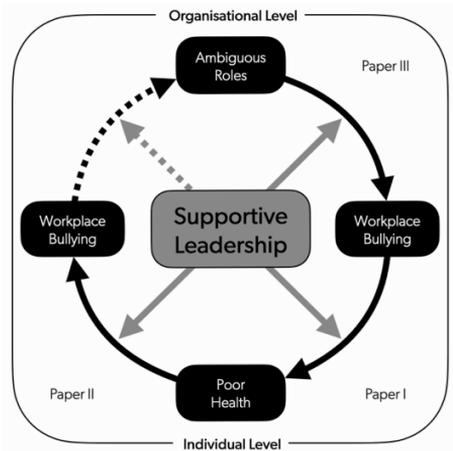


Figure 7. The Thesis in Relation to the Presented Theoretical Model.

Methodology

Employing data from three cohorts—a governmental institution, a municipality, and a private company, all based in Sweden—the present thesis investigates risk factors on both an organisational and an individual level, and the moderating effects of supportive leadership.

The thesis consists of three empirical papers investigating the presented hypotheses. The three papers are based on three different data samples collected from three different cohorts.

All data were collected within the framework of the research project called WHOLE (Work, Health, Organization, Leadership, Experience) – research on organizational and social work environment, at the division of Psychology, at the Department of Behavioural Sciences and Learning (IBL) at Linköping University.

Cohorts Used

Cohort 1

The data collection process started in 2015 with 1846 employees, at a Swedish governmental institution, being invited to participate in a web-based work environment survey using the Psychosocial Work Environment Questionnaire (PSYWEQ; Rosander & Blomberg, 2018). Data were collected between the 2nd and 22nd of March, as part of an arrangement by which the survey data was analysed and reported back in a form that enabled the governmental institution to act on conditions which were having negative effects on the organisation and the employees. All employees had to grant permission for their responses to be used for research purposes. A total of 1383 employees (75%) completed the work environment survey and granted permission for their data to be used for research which then constituted the cross-sectional data sample to be used in the first paper.

In November 2016 the next data collection was performed. The employees of the same governmental institution were invited again to perform the work environment survey using the same instrument (the PSYWEQ). A total of 1945 employees were invited during the period of 7th to 25th November and 1387 (71%) answered the survey and granted permission for their data to be used for research. Combining the two waves of data collection yielded 958 participants that had responded at both waves and granted research permission. These 958 participants constituted the two-wave longitudinal data sample to be used in the second paper.

The last data collection, from the governmental institution, was performed during the period of 17th September to 5th October 2018, using the same work environment survey (the PSYWEQ). The invitation to participate was sent to 1914 employees and 1482 (77%) participated and granted permission for their answers to be used for research. Combining all three waves of data collection yielded 754 participants that had answered and granted research permission at all three waves.

Cohort 2

In parallel with the data collection from the Swedish governmental institution, data was also collected, in the same manner, from a small Swedish municipality. The first data collection was carried out in between 14th of June to 14th of September 2016 with 849 invited participants of which 434 answered (51%) the survey. The second wave was performed between 1st of March to 14th of April 2018 with 875 invited participants and 588 answers (67%). The data collection ended with the third wave between 2nd March to 3rd April 2020 with 842 invited participants and 504 answers (60%). This three-wave data collection process at the municipality yielded in total 205 participants that answered all three waves and granted permission for research.

Cohort 3

Finally, there was also a data collection from a Swedish private construction company. The same data collection process, as in the governmental institution and the municipality, was used. The first wave was performed between 3rd of April to 2nd of May 2017 with a total of 216 invited participants of which 161 answered (75%) the survey. The second wave was performed between the 1st to 31st of October 2018 with 259 invited

participants and 219 answers (85%). The data collection ended with the third wave between 2nd to 28th of November 2020 with 526 invited participants and 387 (74%) answers. In total the data collecting process at the private company yielded a total of 75 participants that participated in all three waves and granted permission for research.

Data Samples

Sample 1

Data sample 1 was used for the first paper. The data sample was based on the first wave from cohort 1 which was a cross-sectional sample of 1387 participants (75% response rate). The age span was from 21 to 71 years, with a median age of 45 years for both men and women. The mean age of the sample was 45.0 years ($SD = 11.1$). Women made up 57% and men 43% of the sample.

Sample 2

Data sample 2 was used for the second paper and was based on wave 1 and 2 from cohort 1. Of the 1387 that had answered the first wave, 958 also answered the second wave (69%). The age span was from 22 to 71 years, with a median age of 45 years for both men and women. The mean age of the sample was 45.2 years ($SD = 10.3$). Women made up 58% and men 42% of the sample.

Sample 3

Data sample 3 was used for paper 3 and was based on all three waves from all three cohorts. Combining the three cohorts, the first wave had in total 1978 participants (68% response rate), the second wave had 2194 participants (71% response rate), and the third wave had 2373 participants (72% response rate). In total, 1034 participants answered all three waves and granted research permission. This means that of the original 1978 participants responding in the first wave, 52% also participated in the following two waves. There were 59% women and 41% men in the sample. The age span was 21 to 64 with a medium age at 47 years, and a mean age of 45.7 years ($SD = 9.6$).

Measures

In Table 2 all measures are presented in connection to actual data sample, wave, and the value of Cronbach's alpha.

Negative Acts Questionnaire–Revised (NAQ–R)

Negative Acts Questionnaire–Revised (NAQ–R; Einarsen et al., 2009) provides a continuous variable of exposure to bullying behaviours. The NAQ–R consist of 22 items describing various active or passive behaviours that may be part of a bullying process if occurring repeatedly. A Swedish translation of the NAQ–R was used (Rosander & Blomberg, 2018). Responses are given by indicating the frequency of exposure during the last 6 months on a scale from 1 (Never) to 5 (Daily). High scores indicate possible exposure to workplace bullying.

In paper 1 and 2, the mean value of NAQ–R was used; in paper 3 sum scores was used (range 22–110). In paper 1 the NAQ–R was used as predictor. In paper 2 and 3, the NAQ–R was used as a dependent variable in a longitudinal research design, with baseline NAQ–R adjusted for.

Salutogenic Health Indicator Scale (SHIS)

Salutogenic Health Indicator Scale (SHIS; Bringsen et al., 2009; Rosander & Blomberg, 2018) is a measure of overall health and well-being. The SHIS includes 12 different aspects of individuals' experiences of physical, mental, and social well-being. It is a six-point semantic differential scale and responses can vary between 1 (complete agreement with a negative statement) and 6 (complete agreement with a positive statement). The labels of the 12 pair of opposite statements are as follows: resolution, creativity, expression of feelings, social capacity, concentration, state of morale, tension, illness, energy experience, physical function, sleep, and energy level. In paper 1, high total scores on the SHIS indicated health and well-being and was used as a dependent variable. In paper 2, the SHIS scale was used as a predictor of bullying and was therefore reversed meaning that high scores indicate poor health and high risk.

In paper 2, two dimensions of the SHIS were also used as predictors: (a) Self-Confident and Capable (**SHIS-SC**) and (b) Vigorous and Energetic (**SHIS-VE**). The first dimension covers mental and social aspects of health, and the second covers physical aspects. Originally, Bringsen et al. (2009) suggested two other subscales named Interpersonal Characteristics and Interactive Functioning, but Rosander and Blomberg (2018)

tested the psychometric properties in a large sample and presented the SC and the VE dimensions instead as they had a better fit with data. In the SHIS-SC the labels of opposite statements pairs are resolution, creativity, expression of feelings, social capacity, concentration, state of morale, and tension. For the SHIS-VE the labels of the opposite statement pairs are illness, energy experience, physical function, sleep, and energy level.

Psychosocial Work Environment Questionnaire (PSYWEQ)

Five measures were used from the Psychosocial Work Environment Questionnaire (PSYWEQ; Nielsen et al., 2021; Rosander, 2021; Rosander & Blomberg, 2018, 2019; Rosander et al., 2020) which is a broad questionnaire validated in a Swedish context. The five measures that were used have a 7-point Likert scale, ranging from 1 (Do not agree at all) to 7 (Agree Completely). The five measures were

1. Perceived Supportive Leadership (**PSL**),
2. Perceived Support from Close Co-workers (**PSC**),
3. Roles in the Organisation (**RIM**),
4. Hostile Work Climate (**HWC**), and
5. Active Leadership (**AL**).

The first three measures (1 through 3) are published in Rosander and Blomberg (2018). The last two measures (4 and 5) were created later and are therefore described in little more detail below.

The **PSL** measures a supportive leadership in one's immediate supervisor. The PSL consists of 10 items focussing on trust and confidence in the immediate supervisor. It also covers the possibility of getting help and support when needed, and a feeling of safety. High scores indicate high levels of perceived supportive leadership. The PSL was used as a moderator in all three papers.

The **PSC** measures different aspects of support in the immediate social environment and consists of five statements about one's experience with the closest colleagues. It mainly focuses on aspects such as trustful relationships, the possibility of getting help and support when needed, and a feeling of safety. High scores indicate high levels of co-worker support. The PSC was used as a moderator in paper 1 and as a covariate in paper 2.

Table 2. The Included Measures, Their Cronbach’s Alpha Values, and in Which Waves They Were Used.

Measures	Data Sample	Wave	Type	Cronbach’s alpha
NAQ–R	1	1	Predictor	0.85
	2	1	Covariate	0.84
	2	2	Dependent	0.85
	3	1	Covariate	0.83
	3	3	Dependent	0.88
SHIS (full scale)	1	1	Dependent	0.95
	2	1	Predictor	0.95
SHIS (SC)	2	1	Predictor	0.93
SHIS (VE)	2	1	Predictor	0.89
PSL	1	1	Moderator	0.97
	2	2	Moderator	0.97
	3	1	Moderator	0.96
	3	2	Moderator	0.97
	3	3	Moderator	0.97
PSC	1	1	Moderator	0.89
	2	2	Covariate	0.91
RIM	1	1	Covariate	0.91
	2	1	Covariate	0.92
	3	1	Predictor	0.91
HWC	3	2	Mediator	0.82
AL*	2	2	Covariate	0.93
	3	2	Covariate	0.93
Age	1, 2, 3	1	Covariate	–
Sex	1, 3	1	Covariate	–

Note: NAQ–R = Negative Acts Questionnaire–Revised; SHIS = Salutogenic Health Indicator Scale; SC = Self-confident and Capable; VE = Vigorous and Energetic; PSL = Perceived Supportive Leadership; PSC = Perceived Support from Close Co-workers; RIM = Roles in the Organisation; HWC = Hostile Work Climate; AL = Active Leadership.

* Only used in sensitivity analyses

The **RIM** measures role ambiguity in the organisation and contains six items covering the level of clarity regarding division of tasks, roles, routines, responsibilities, and role expectations as well as an overall

assessment of the orderliness in the organisation. In paper 1 and 2 the RIM is used as a covariate. In paper 3 the RIM is used as predictor of exposure to bullying behaviours and high scores indicate high levels of role ambiguity.

The **HWC** measures a perceived hostile climate in the workplace. It contains five items: (a) “There are ongoing conflicts that negatively affect our business”, (b) “There are co-workers who are treated badly at our workplace”, (c) “My workplace is characterized by suspicion, conflicts, misunderstandings, and rudeness”, (d) “At our workplace, the atmosphere is good”, and (e) “I feel safe at my workplace”. Item d and e were reversed, so high scores on the HWC indicate a hostile work climate. A factor analysis showed that all five items clearly load on just one factor—also if adding the 22 items from the NAQ-R in the analysis. In paper 3, HWC was used as a mediator.

The **AL** measures the passive-active dimension in leadership, based on four items covering leadership activity. The questions concern to what extent a supervisor is good at making decisions, responds quickly, grasps what is important, and if the supervisor is available (the first four items in the scale Active and Constructive Leadership; ACL; Rosander & Blomberg, 2018). The AL was used as a covariate in sensitivity analyses in paper 2 and 3.

Covariates

All analyses were made both with and without covariates. Different covariates were used in the different studies (see Table 2). Only covariates that did affect the results were used. In general, age and sex were used as covariates as both have been reported to influence the prevalence of workplace bullying (Zapf et al., 2020). In paper 2, however, sex did not have any effect on the results, so it was excluded.

Statistical Analyses

All included data in the present thesis has been analysed on an individual level, not on a group or an organisational level. Although there was some information about work groups in the collected data samples, that information turned out to be inconclusive as in some cases the used group codes were an administrative coding and not a coding of actual work groups (e.g., some codes included members from different geographical

locations). This would have made it very difficult to interpret a multilevel analysis.

Only complete data sets were used which means that no data replacement method was used.

The statistical analyses were performed by using the IBM SPSS Statistics for Mac, version 24 through 27, together with Hayes' PROCESS macro, version 3 through 3.5, for mediation and moderation analyses (Hayes, 2018).

In Figure 8, all the presented hypothesis and the investigated associations are presented together in one statistical model that shows the starting points for the entire thesis.

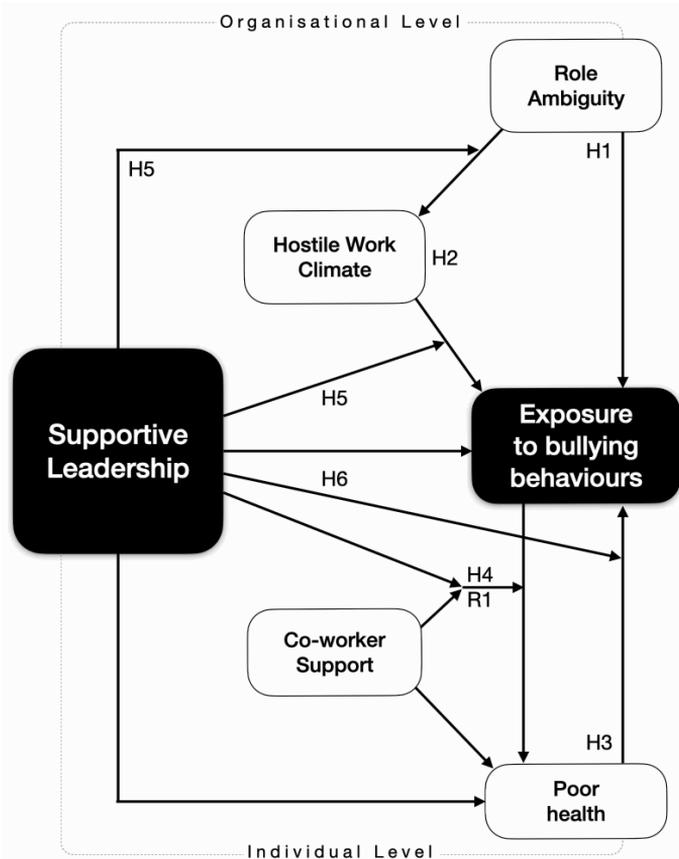


Figure 8. Statistical and Theoretical Model.

In the figure, the arrow at H1 is the first hypothesis, that is, the prediction of role ambiguity being a long-term risk factor of exposure to bullying behaviours and H2 the hypothesis of the mediated relationship between role ambiguity and exposure to bullying behaviours, through a hostile work climate. The H1 was analysed using linear regression and the H2 by mediation analysis using model 4 of Hayes' PROCESS macro. The arrow at H3 is the third hypothesis of poor health leading to exposure to bullying behaviours. This association was analysed by using logistic regression. The arrows at H4 and R1 is about the fourth hypothesis together with the research question, concerning the interdependence, distinctness, and interaction of supportive leadership and co-worker support. The H4 and R1 were analysed by moderation and moderated moderation analyses using model 1, 2 and 3 of Hayes' PROCESS macro. The H5 is about the hypothesis of the moderated mediation of the association between role ambiguity and exposure to bullying behaviours. This was analysed through moderated mediation analysis using model 14 and 21 of Hayes' PROCESS macro. Finally, the H6 concerns the sixth hypothesis which is about the moderation by leadership support of the association between poor health and exposure to bullying behaviours. The H6 was analysed through moderation analyses using model 1 of Hayes' PROCESS macro.

In the model the possible direct effect of supportive leadership on bullying and on health, as well as the possible direct effect of co-worker support on health, is also shown. Those direct effects were not predicted but still analysed as a part of the assessment of the moderating effects.

Sensitivity Analyses

In paper 2 and 3—the two longitudinal papers—sensitivity analyses were performed to further test the robustness of the results. The aim of the first sensitivity analysis was to test if the effect of a supportive leadership (hypothesis 5 and 6) was inflated by cases where employees indicated that they were bullied by their supervisor. Thus, 22 such participants were excluded from data sample 2 and 17 participants from data sample 3.

A second sensitivity analysis was performed (for hypothesis 5 and 6) where the supportive leadership measure was adjusted by an inverted measure of laissez-faire leadership called Active Leadership (AL). The reason for this sensitivity analysis was that laissez-faire leadership—that is, passive, avoidant, and absent leadership (Bass & Avolio, 1994)—has been described as a strong risk factor for bullying (Skogstad et al., 2007) and has also been shown to act as a moderator in prospective studies of

the relationship between conflicts and workplace bullying (Ågotnes et al., 2018). However, being active and present is not conceptually the same as being supportive as there are forms of active destructive leadership (e.g., Aasland et al., 2009; Lundmark et al., 2021). To pinpoint the actual support dimension in the measured leadership, the passive–active leadership dimension was adjusted for using the AL scale.

Results – Summary of Included Studies

The six hypotheses and the research question were investigated in three included papers.

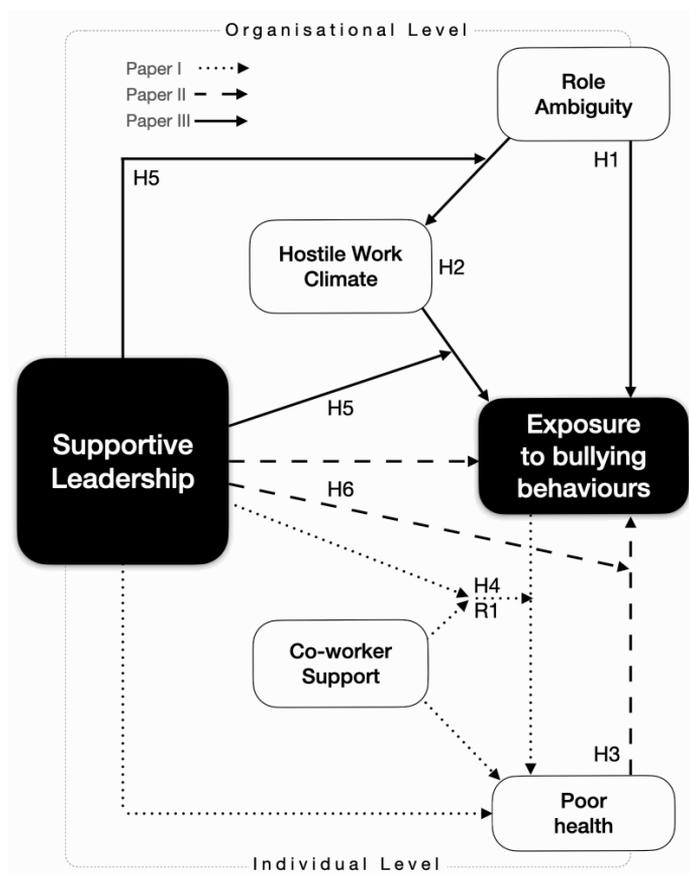


Figure 9. Statistical and Theoretical Model With the Used Hypotheses, the Research Question, and Information of the Three Included Papers.

In the first paper hypothesis 4a, 4b and the research question were investigated. In the second paper hypotheses 3 and 6 were investigated, and in the third paper hypotheses 1, 2 and 5 were investigated.

Figure 9 shows the combination of the hypothesis used in the thesis together with information of the three different papers.

Results from Paper 1

Blomberg, S. & Rosander, M. (2020). Exposure to bullying behaviours and the support from co-workers and supervisors: A three-way interaction and the effect on health and well-being, *International Archives of Occupational and Environmental Health*, 93(4), 479-490.

In Paper 1, four measures were used: (a) exposure to bullying behaviours (predictor), using the Negative Acts Questionnaire–Revised (NAQ–R; Einarsen et al., 2009; Rosander & Blomberg, 2018), (b) health (dependent variable) using the Salutogenic Health Indicator Scale (SHIS; Bringsen et al., 2009; Rosander & Blomberg, 2018), (c) co-worker support (moderator) using the scale Perceived Support from Close Co-workers (PSC; Rosander & Blomberg, 2018), and (d) supportive leadership (moderator) using the scale Perceived Supportive Leadership (PSL; Rosander & Blomberg, 2018).

It was hypothesised that the well-established negative association between exposure to bullying behaviours and health would be moderated by (H4a) co-worker support and (H4b) supportive leadership. The paper also explored (R1) a three-way interaction (a moderated moderation) between exposure to bullying behaviours, co-worker support, and leadership support.

Using a cross-sectional design with 1383 participants from a Swedish governmental institution, the results showed that co-worker support and supportive leadership had significant direct effects on health and that they separately moderated the negative association between exposure to bullying behaviours and health. That is, the negative effect of exposure to bullying behaviours on health was dependent on the actual level of support from either co-workers or supervisors. But when combining both co-worker and leadership support, and letting the two interact with each other, it resulted in interesting findings. The result suggested that co-worker support buffer the negative effect of workplace bullying on health, but that that buffering effect is dependent on the level of supervisor support. When the level of supportive leadership was low, it blocked

the protecting effect of co-worker support. That is, when the leadership support was low, the level of co-worker support did not matter meaning that no buffering effect of co-worker support could be found.

To understand and discuss the findings social exchange theory was used.

Results from Paper 2

Blomberg, S. & Rosander, M. (2022). When do poor health increase the risk of subsequent workplace bullying: The dangers of low or absent leadership support. *European Journal of Work and Organizational Psychology*, 31(4), 485-495.

In Paper 2 three measures were used. First an overall measure of salutogenic health and well-being, the Salutogenic Health Indicator Scale (SHIS; Bringsen et al., 2009; Rosander & Blomberg, 2018), was used as a predictor. The SHIS was also divided in two subscales called Self-confident and Capable and Vigorous and Energetic (Rosander & Blomberg, 2018). The former measures mental and social aspects of health and the latter measures physical aspects. As a dependent variable, the Negative Acts Questionnaire–Revised (NAQ–R; Einarsen et al., 2009; Rosander & Blomberg, 2018) was used as a measure of exposure to bullying behaviours. A measure of perceived supportive leadership (PSL; Rosander & Blomberg, 2018) was used as moderator.

It was hypothesised a so-called reversed effect—that poor health, which could pose as an individual risk factor of workplace bullying, may increase the risk of becoming a victim of workplace bullying (H3). It was also hypothesised that supportive leadership would act as a buffer for that reversed effect (H6).

Using a two-wave design with a time-lag of 20 months and 958 participants from a Swedish governmental institution, the results showed that poor health about doubled the risk of being a victim of workplace bullying over a 20-months period. Baseline exposure to bullying was adjusted for. The two-fold risk was almost the same for both physical as well as mental/social aspects of poor health. The result also showed that supportive leadership had a mitigating effect on exposure to bullying behaviours, both directly and as a buffer. The buffering effect of supportive leadership implicated that the reversed effect of poor health leading to subsequent exposure to bullying only to be present when the level of leadership support was low or absent.

Several sensitivity analyses were performed, for example excluding all cases of bullying with a supervisor as designated perpetrator. The sensitivity analyses indicated a robustness of the findings.

The theoretical implications of the results were discussed using social identity theory and self-categorisation theory.

Results from Paper 3

Blomberg, S., Rosander, M. & Einarsen, S. V. When and how role ambiguity acts as a risk factor for subsequent exposure to workplace bullying: The role of a hostile work climate and supportive leadership. Under review in *Scandinavian Journal of Management*.

In Paper 3 four measures were used. Role ambiguity was used as a predictor and was measured by the scale Roles in the Organisation (RIM; Rosander & Blomberg, 2018). As a dependent variable, the Negative Acts Questionnaire–Revised (NAQ–R; Einarsen et al., 2009; Rosander & Blomberg, 2018) was used as a measure of exposure to bullying behaviours. A hostile work climate was used as a mediator and was measured by the scale Hostile Work Climate (HWC) constructed for the study. Finally, supportive leadership was used as a moderator and measured by the scale Perceived Supportive Leadership (PSL; Rosander & Blomberg, 2018).

Based on the work environment hypothesis, it was hypothesised that (H1) ambiguous roles, which is an organisational risk factor, would pose a long-term risk for subsequent exposure to bullying behaviours. It was also hypothesised (H2) that a perceived hostile work climate would be a mediator, that is, be the mechanism, of *how* ambiguous roles leads to exposure to bullying behaviours. Finally, it was hypothesised (H5) that perceived supportive leadership would be a moderator that buffers the negative effect of role ambiguity, through a hostile work climate, on exposure to bullying behaviours.

Using a three-wave design with a time lag of 40 to 46 months and 1034 participants from three different cohorts, the result showed that role ambiguity was a long-term risk factor of exposure to bullying behaviours, mediated by a hostile work climate. Baseline exposure to bullying was adjusted for. This mediated association was however moderated by a supportive leadership, that is, a moderated mediation. The risk was only present when the level of supportive leadership was low.

Several sensitivity analyses were performed, for example excluding all cases of bullying with a supervisor as designated perpetrator. The sensitivity analyses indicated a robustness of the findings.

The theoretical implications of the results were discussed using social learning theory and the theory of social information processing.

Stefan Blomberg

Discussion

A Summary of the Results

The combined results in the thesis could be divided in two major parts—first concerning the two studied risk factors, and second concerning the moderator, that is, supportive leadership.

First, concerning the two risk factors, the result showed that role ambiguity—an organisational risk factor in line with the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994)—is a predictor of being exposed to bullying behaviours at work, and that a hostile work climate is a mediator for that association. The result also showed that poor general health—an individual risk factor in line with the general approach of the individual disposition hypothesis (Nielsen & Einarsen, 2018)—is a predictor of being exposed to workplace bullying. This means that the first three hypotheses received support.

Second, concerning supportive leadership as a moderator, the result showed that a supportive leadership fully moderated the effects on exposure to bullying behaviours by (a) ambiguous roles, mediated through a hostile work climate, and (b) poor general health. This means support for hypotheses 5 and 6. The result also showed that a supportive leadership have an effect on the association between exposure to bullying behaviours and health. The effect was in terms of a moderated moderation also including co-worker support. The result showed that supportive leadership do not buffer the negative effect of exposure to bullying behaviours on health in itself—when co-worker support also is included in the analysis—but that a supportive leadership may act as a moderator for the buffering effect of co-worker support. That is, the level of leadership support may have a potential of opening for—or blocking—the buffering effect of co-worker support on the association between exposure to bullying behaviours and poor health. This was an answer to the open research question and also giving support to hypotheses 4a and indirectly to 4b.

The results also point to the direct positive effects of both supportive leadership and co-worker support on individual health as well as to the direct mitigating effect of a supportive leadership on workplace bullying. The combined results are presented in Figure 10.

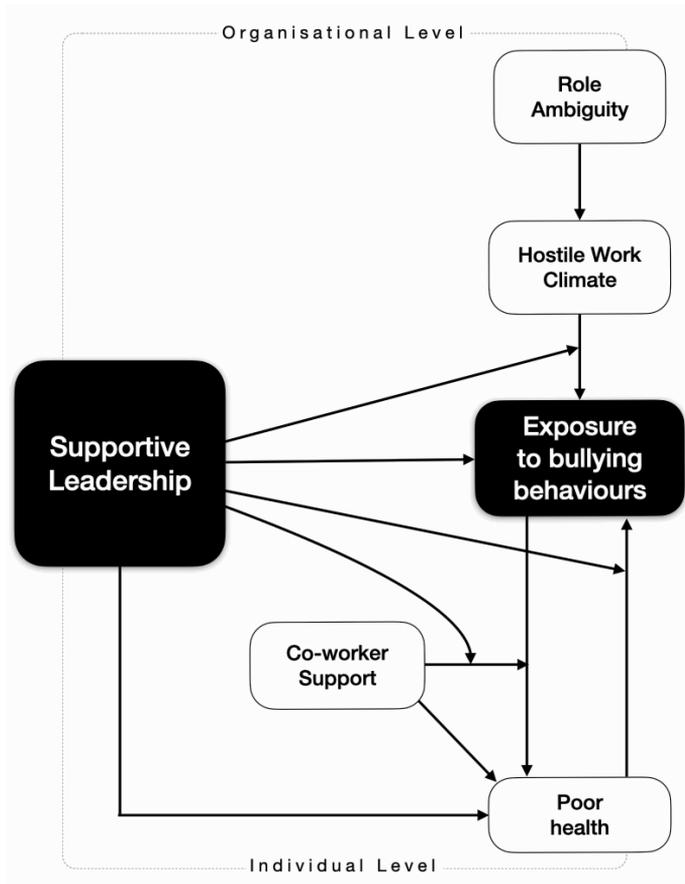


Figure 10. The Combined Results of the Included Studies in the Thesis.

Supportive Leadership as Moderator

The main theme in the thesis is about the effects of supportive leadership on problems with bullying at work. The main finding is how dangerous it is with low or absent leadership support. Supportive leadership seems to be a gatekeeper for both organisational and individual risk factors that over time may lead to exposure to bullying behaviours at work. When

supportive leadership is absent it also seems to block the protective effects of co-worker support for exposed. Altogether this means that low or absent leadership support may be considered one of the most important risk conditions in an organisation that may heighten the risks for workplace bullying, and in addition, also making bullying more health-toxic for exposed individuals in potentially blocking the protective resource of co-worker support.

According to the results, one does not have to be a super supportive manager to avoid the risks. It seems that one just need to be average. From about mean and upwards on the scale measuring supportive leadership (the PSL; Rosander & Blomberg, 2018), the buffering effect is blocking out the investigated risk factors and also opens for protective effects of co-worker support. However, to completely block the positive effect of supportive co-workers on health, the level of supportive leadership have to be very low.

To understand why supportive leadership may be such an important factor, let us turn to the theories behind the concept of supportive leadership, to previous research about its' effects, and to possible theoretical understandings of those effects as well as of the effects found in the present thesis.

The Level of Trust

In the concept of supportive leadership the primary focus is on a manager providing emotional support in terms of creating trust and confidence through caring, listening, respect, and showing acceptance and understanding (House, 1981; Yukl, 2013). But the concept also includes situations where a supervisor provides instrumental, informal as well as appreciative support. But no matter the exact form of support provided by the supervisor; in the thesis the focus is on *perceived* support by the employees. This means that, when the level of supportive leadership is high, it is the *perceived* support by the employees that is measured. This means that high levels of supportive leadership translate into situations where employees trust their supervisor and perceive that they are listening and showing care. To have a non-supportive leadership therefore means that the employees lack trust and confidence in their supervisor and perceive that they do not listen or show care. In this sense, the level of a supportive leadership is about the level of trust between the employees and their supervisor.

One may ask to what extent a highly supportive leadership, with trustful relationships—described by Yukl (2013) as building and maintaining “effective interpersonal relationships” (p. 77)—also, to a great extent, overlaps with what is called a moral-, and ethical-oriented leadership (Brown et al., 2005; Hansen et al., 2012; Mayer et al., 2012; Michel et al., 2010). A supervisor that does not oppose ongoing socially deviant behaviours that may have a potentially negative impact on the well-being of employees may not be considered trustworthy and thus being interpreted as a person that does not care or listen. That means that to earn the trust of the employees and be considered highly supportive, a supervisor may need to act in ethical ways, that is, actively promoting moral behaviours such as honesty, respect, care, et cetera (Hattke & Hattke, 2019). In the meta-analysis by Cao et al. (2022) they concluded that ethical-oriented leadership was most strongly negatively associated with workplace aggression, followed by relational-oriented leadership. Supportive leadership behaviours are usually considered a type of relational-oriented leadership (Cao et al., 2022; Yukl et al., 2002) but may also have a significant overlap with ethical-oriented leadership following the reasoning above.

Supportive leadership has been shown to have protective effects on health for employees that are exposed to bullying (Gardner et al., 2013; Nielsen, Christensen, et al., 2020) as well as protective effects against early retirement (Clausen et al., 2019) and have also been showed to strengthen employees’ control and influence which in turn may reduce the risk of being exposed to bullying (Goodboy et al., 2017).

This kind of reported positive influence is not surprising when considering the profound effect a manager can have on the work environment and on behavioural standards at work, due to the power and influence associated with a formal position as manager (Salin & Hoel, 2020).

Is Low Support in Fact Bullying?

The proposed effect of supportive leadership and that high level of support translates into high level of trust, also based on ethical actions, opens for the question if perceiving to have such a supportive leadership in fact is the opposite of perceiving to be bullied by the boss? In that case the findings of such a strong interaction effect of supportive leadership may only reflect to what extent a supervisor is a bully or not, which is, for example, discussed by Clausen et al. (2019). But supervisors are not responsible for all bullying, as perpetrators may be found among both

colleagues and supervisors (Einarsen & Skogstad, 1996; Torok et al., 2016). There may also very often be more than one perpetrator involved and the number of perpetrators may increase over time (Zapf, 1999a; Zapf & Gross, 2001). This topic is also discussed in Paper 1. However, to analyse if the effect of a supportive leadership was inflated by cases where employees indicated that they were bullied by their supervisor, participants who indicated such a situation were excluded in performed sensitivity analyses in Papers 2 and 3. The results were still significant, even after excluding all participants that claimed that they had a supervisor that were involved in bullying behaviours. This points to a distinct interaction of supportive leadership, independent from to what extent supervisors were involved in bullying.

Passive or Destructive Leadership?

Another question is to what extent low or high support in the leadership style rather reflects to what extent the leadership is laissez-faire or not, that is, a passive, avoidant and absent leadership (see Bass & Avolio, 1994). Laissez-faire leadership has been shown to increase the risks of workplace bullying, both directly (Dussault & Frenette, 2015; Hoel et al., 2010; Skogstad et al., 2007) and as a moderator (Ågotnes, 2022). Being active and present is, however, not the same as being supportive while there are forms of active leadership that are of a destructive character (e.g., Aasland et al., 2009; Lundmark et al., 2021), for example, autocratic leadership (Agervold, 2009; Hoel et al., 2010) or tyrannical leadership (Hauge et al., 2007). To pinpoint the support dimension in terms of caring, listening, showing respect, and creating confidence and trust, a sensitivity analysis was carried out where the active-passive dimension of the perceived leadership was adjusted for. This analysis was used in Papers 2 and 3 and did not alter the significant interaction results of supportive leadership. This means that supportive leadership was not just the opposite of laissez-faire, but a distinct leadership dimension. This also points to interesting questions of how different levels of supportive leadership are related to laissez-faire leadership. The relationship between these two concepts of leadership should be elaborated more in future research.

One may, however, also ask to what extent non-supportive leadership behaviours reflect a destructive leadership style. Managers with a leadership style characterised by no or low care and respect for the employees and where the employees lack a sense of trust and safety in

relation to their supervisor should probably be described as destructive (Aasland et al., 2009; Lundmark et al., 2021).

Supportive Acts by a Role Model

So, the question is still relevant—why is there such a strong interacting effect of supportive leadership and how can it be understood? Theoretically, the effect may be understood by using the social learning theory (Bandura, 1977) and the theory of social information processing (Salancik & Pfeffer, 1978). The theories have also been used by others to explain why ethical leadership actions may counteract different types of workplace aggression (Cao et al., 2022).

A central concept here is the concept of role models (Bandura, 1977, 1986, 1991) and that how leadership is performed in the workplace may be interpreted as expectations and inspirations for ethical—or unethical—behaviours (Brown & Treviño, 2013; Hattke & Hattke, 2019). As leaders in general attract attention as role models due to, for example, status (Lippitt et al., 1952) and power (Bandura et al., 1963), the actions or nonactions by a supervisor, may stand as examples in the workplace to be followed and learned from. This means that what a leader actually does, how they behave and what action they take, serve as salient cues to which employees attend and learn from (Salancik & Pfeffer, 1978). In addition, the actions or inactions taken will also affect the work situation in different ways. This means that non-supportive leadership behaviours, such as no listening, emotional distance, aggressiveness, and mistrust may directly affect the social work conditions but specifically also model and inform the employees that aggressive and unethical behaviours are legitimate (Bandura, 1977; Salancik & Pfeffer, 1978) and that harassment is permitted (Brodsky, 1976). On the positive end, supportive leadership behaviours may also have a double effect—both the direct effect on social work conditions but also as ethical examples to be followed.

For example, a supervisor could use interventions that provide understanding of personal needs (Avolio & Bass, 1999) or provide trust and acceptance (Baumeister & Leary, 1995). The actions could also involve interventions that provide conflict management in a way that lower the risk of escalated interpersonal conflicts and instead foster a safe conflict management climate (Einarsen et al., 2016; Tse et al., 2008). A supervisor could also act in ways that strengthen or protect employees that due to weakness, sickness or other personal issues may have difficulties meeting group norms of, for example, performance and attendance. All these kind

of leadership actions may be examples of showing care and respect for the employees and these actions may have direct effects on the work situation, but at the same time stand as ethical examples to be learned from (Hattke & Hattke, 2019). This means a modelling effect in the daily face-to-face interaction with the employees by a line-manager at work (Brown & Treviño, 2013; Weaver et al., 2005). Such caring and nurturing leadership actions may also increase the attractiveness and attention for the manager as a role model (Yussen & Levy Jr., 1975).

Direct Effects of Supportive Leadership

The results in both Paper 1 and Paper 2, shows that the level of supportive leadership also is directly associated with (a) the levels of bullying and (b) the levels of health among employees. Both results are cross-sectional findings as supportive leadership was measured in the same wave as employee health (Paper 1) and workplace bullying (both Paper 1 and Paper 2).

The results of direct associations between supportive leadership and (a) the level of bullying and (b) the level of employee health, support the reasoning above about the importance of what a supervisor actually does in the situation, that is, the supportive actions taken by a supervisor. Even if the causal direction of influence cannot be verified in cross-sectional findings, a reasonable theoretical explanation of the findings is that supportive leadership will influence the level of health of employees or the level of workplace bullying behaviours, through actions or non-actions in, for example, providing understanding of personal needs (Avolio & Bass, 1999), providing trust and acceptance (Baumeister & Leary, 1995; Yukl, 2013), or providing conflict management interventions (Einarsen et al., 2016).

In regard of accumulated synchronised as well as lagged effects, the results, however, points to that supportive leadership may be a gate keeper—a boundary condition—that opens or closes for other risk factors, rather than having a direct effect. And that leads to the discussion of the results related to the two risk factors in the thesis—role ambiguity and poor individual health.

The Risks of Role Ambiguity

Turning to the risk factors and starting with ambiguous roles, the results show that role ambiguity may be a long-term risk factor for exposure to

bullying behaviours at work. That role stress in the form of role ambiguity and/or role conflict is a risk factor for workplace bullying has been suggested for more than 25 years (Einarsen, Raknes, & Matthiesen, 1994; Salin & Hoel, 2020).

Two aspects are, however, new in the present results. Firstly, such a long-term association has not been reported before and, secondly, the involved mechanism—that is, a hostile work climate—has not been reported before either.

Concerning the long-term effect, few previous studies of the association between role ambiguity and workplace bullying has been longitudinal and the longest time lag used has been 2 years (e.g., Reines et al., 2014; Van den Brande et al., 2016). The present study (Paper 3) uses a time lag of 40 to 46 months. That means that the negative effect of role ambiguity may be discernible after almost 4 years. So, even if the effect in the actual study is not very strong, the fact that it is still significant after such a long time points to an important effect. This result further supports the work environment hypothesis of the risks associated with organisational deficiencies (Einarsen et al., 2003; 2020b; Einarsen, Raknes, & Matthiesen, 1994; Leymann, 1996). It also underscores the importance of clear expectations and information in regard of work-related roles in the organisation (Beehr, 1995; Boalt Boëthius, 2019; Kahn et al., 1964).

The reason why the negative effect of role ambiguity seems to linger after such a long time, could, however, be that role ambiguity is an organisational condition that tends to be stable if not actively resolved (Lewin, 1947). If that is the case, ambiguous roles could be a permanent and stable risk factor in the organisation that influences the social life in a negative way. Such a stable organisational risk condition may also be considered to be an underlying structural condition (Jones & Lawrence, 1979) which may continuously influence the social climate at work (De Rivera, 1992). That lead us to the suggested mechanism involved—a hostile work climate.

A Hostile Work Climate

In the result, a hostile work climate was the mediator—the mechanism—for the effect of ambiguous roles on exposure to bullying behaviours at work. That is, a hostile work climate is the answer to the question of *how* role ambiguity over time may lead to workplace bullying.

To understand the actual association and the mechanism behind it, the theories of social learning (Bandura, 1977), the theory of social

information processing (Salancik & Pfeffer, 1978) as well as social identity theory (Tajfel & Turner, 1986; Tajfel & Turner, 1979) and its extension the self-categorisation theory (Turner et al., 1987; Turner & Reynolds, 2012) can be used. When employees do not know what is expected of them—or what to expect from others—because of lacking or contradictory information about obligations, mandates, and responsibilities, it may be an organisational or structural condition that gives rise to negative social work conditions. Such social work conditions may include events and so-called behavioural cues (Bandura, 1977; Salancik & Pfeffer, 1978) characterised by tensions, irritations, frustrations, and aggressive outlets (Baillien et al., 2009; Bandura, 1977, 1991; De Rivera, 1992; Jones & Lawrence, 1979). This may shape individual behaviours through an attentional process (Salancik & Pfeffer, 1978) where the negative behavioural cues are interpreted as accepted or even expected behaviours (Bandura, 1977). With such ongoing social stress at work (Bowling & Beehr, 2006), with continuing interpersonal tensions and conflicts (De Rivera, 1992), the social identity and the adhering group norms (Tajfel & Turner, 1986) may encompass low interpersonal trust together with deviant, aggressive and conflict escalating behaviours (De Rivera, 1992). The expectations of behaviours of a so called prototypical group member (Turner et al., 1987), in such a working group may even include expectations of harassment acts (Brodsky, 1976).

The consequence may be a hostile work climate characterised by consistent acrimonious, antagonistic, and suspicious feelings and behaviours (Mawritz et al., 2014; Mawritz et al., 2012). An organisation characterised by a hostile work climate could also exhibit lack of inhibiting norms (Salancik & Pfeffer, 1978; Tajfel & Turner, 1986) where deviant and aggressive behaviours are repeated without punishing or unrewarding effects (Bandura, 1977). In such an environment there may even be anti-social behaviours (Robinson & O’Leary-Kelly, 1998) making frustration and aggression as well as bullying behaviours more likely (Baillien et al., 2009). Altogether, such a hostile work climate may be a fertile ground for bullying. In such a climate there may also be a lack of awareness of when actions cross the line of the acceptable making bullying behaviours normalised and risking a bullying culture (Archer, 1999; Brodsky, 1976).

Supportive Leadership as Moderator

The results of the long-term effect of ambiguous roles leading to bullying exposure, through a hostile work climate, was—however—moderated by

a supportive leadership. The negative long-term effect was only present when the level of supportive leadership was low. When the level of supportive leadership was high, the risk disappeared completely. This answers the question of *when* the risk of ambiguous roles leading to workplace bullying is present. The risk is only present when the level of supportive leadership is low or absent.

Why supportive leadership may have such a profound moderating effect has already been discussed, by using the theories of social learning (Bandura, 1977) and of social information processing (Salancik & Pfeffer, 1978). But what is interesting is that supportive leadership interacted with a hostile work climate predicting bullying but not with ambiguous roles predicting a hostile work climate. So, supportive leadership did not affect to what extent ambiguous roles—as an organisational or structural risk condition—would lead to a hostile work climate. This implies that supportive leadership does not compensate for flaws in the organisational structure, such as ambiguous roles, but rather has a social effect hindering that a hostile work climate leads to bullying. This may be an effect of supportive leadership behaviours providing acceptance (Yukl, 2013), trust (Baumeister & Leary, 1995) and understanding (Avolio & Bass, 1999) making it possible for employees to voice their concerns and frustrations (Tse et al., 2008) in an otherwise hostile social work situation. Supportive leadership actions may also increase coping resources among employees when they are facing such frustrating social work conditions (Lazarus & Folkman, 1984). Such a supportive leadership behaviour may altogether create a sense of safety and security in which the behaviours of others may be perceived as less hostile and threatening.

On the other hand, in a study by Tafvelin et al. (2012), who investigated the effect of transformational leadership on role clarity and commitment as subjective phenomena, showed an effect of transformational leadership on role clarity. Their result may speak against the presented reasoning of supportive leadership not compensating for organisational or structural flaws or role ambiguity being a structural factor. However, there may be at least two different reasons for this contradiction. First, role ambiguity may possibly express itself in different ways in different types of organisations. Second, transformational leadership is a complete model of leadership that also, among several aspects, includes a visionary goal-setting aspect of leadership that is missing in the much narrower aspect of supportive leadership behaviours.

Concerning the first, the study by Tafvelin et al. (2012) was carried out in a specific type of context and concerned leadership in such a context—a social service organisation with social work leadership. Social service work, and its leadership practices, has been argued to be a quite unique organisational context in terms of a pronounced systemic perspective working with solutions to complex human problems (Rank & Hutchison, 2014). The cohort used in the study included in the thesis (Paper 3) was a more heterogeneous sample, but may possibly lean towards, what may be called, a more bureaucratic type of organisation with a large share of employees from a governmental institution. As role ambiguity has both an objective (organisational) and subjective (individual) side (Kahn et al., 1964), the type of organisation could maybe have an impact on individuals possibilities to influence the experienced role ambiguity. There are two overall divisions of organisational structures—the mechanic/hierarchic structure and the organic/dynamic structure (Granström, 2006; Weisbord, 1991). The former is a bureaucratic and closed system with divided areas of responsibilities and centralised decision-making. The latter is a more informal system that is open for influences, having focus on shared responsibilities and cooperation. The two different ways of overall organisational structure may also be called bureaucracy versus adhocracy (e.g., Mintzberg & McHugh, 1985). It may be that role ambiguity, in a mechanic/hierarchic organisation (bureaucracy) is more a part of the organisational structure and hardly individually influenced compared to an organic/dynamic organisation (adhocracy). The latter may offer more de-centralised decision-making, be more open to local influences and thereby making role expectations more impressionable by both employees and frontline managers. Thus, how role ambiguity may affect different type of organisations, and the individuals in it, would be an interesting area of further and future research.

Concerning the second, even if the dimension of supportive leadership behaviours usually is part of the larger concept of transformational leadership (Bass, 1985; Carless et al., 2000; Rafferty & Griffin, 2006), it is not the same. Transformational leadership includes a supportive and considerate dimension of leadership, like supportive leadership behaviours, but is also broader. For example, transformational leadership also includes a charismatic and visionary dimension (Bass & Riggio, 2006). The latter is about visionary goal setting and making employees understand their role in the organisation, which in turn may influence individual perceptions of role ambiguity (Viator, 2001). So, influencing

subjective perception of role clarity among subordinates is actually a part of the visionary and charismatic facets of transformational leadership. This makes it difficult to compare the effects on role ambiguity by supportive leadership to the effects by the much broader model of transformational leadership.

The Risks of Poor General Health

Previous research has indicated that mental health problems may be a risk factor for subsequent bullying (e.g., Einarsen & Nielsen, 2015). But poor health in a more general sense has, as far as I know, not been studied as a risk factor for bullying exposure before. In the present thesis (Paper 2), it was shown that poor health in general, including both mental, social, and physical aspects, may—over a 20-months period—about double the risk of becoming a victim of workplace bullying. The results showed a slightly stronger risk for poor mental and social aspects of health compared to physical aspects. But when testing the effects of the two sub-dimensions of health separately and comparing the results, the differences were small. Both were significant predictors of bullying with an about twofold risk. This implies a risk of *general* poor health leading to subsequent bullying exposure.

So, how can one explain and understand such a sad result, that being vulnerable due to poor health may about double the risk of being a victim of workplace bullying over a 20-months period? To answer that question, the self-categorisation theory (Turner et al., 1987; Turner & Reynolds, 2012) with the concept of prototypicality (Hogg & Terry, 2000) can be used.

If one experience poor health, or if one's health deteriorates, there may be difficulties to perform as usual or as expected at work due to mental, social and/or physical health problems. Such a situation may lead to difficulties living up to group-based norms of attendance, availability, expertise, and performance at work (e.g., Horton & Tucker, 2014). This may in turn lead to exposure to co-workers' and managers' frustration and irritation which heighten the risks for criticism and social exclusion (e.g., Hogg, 2005; Lewis et al., 2020). Using the self-categorisation theory and its concept of prototypicality (Hogg & Terry, 2000; Turner et al., 1987) on such a process makes it theoretically understandable. To deviate from group-based norms of, for example, productivity, expertise, and availability, makes one a less prototypical group-member. Thus, poor health

may be a risk of being—or becoming—a non-prototypical group-member. And being a non-prototypical group-member elevates the risk for workplace bullying (Glambek et al., 2020), for example, through scapegoating (Thylefors, 1999).

Based on this reasoning, the risk of bullying for a person that experience poor health may also increase if the group is under some sort of pressure that elevates the risk of scapegoating (Coyne et al., 2004). For example, such a work group pressure could be a high workload (which is not studied in the present thesis), which in itself poses a risk for bullying at work (e.g., Agervold, 2009; Baillien et al., 2011). It seems reasonable to expect that the risk of bullying exposure for non-prototypical group members—which may be employees with poor health—may be amplified if the work group is under a high workload. But as well as there may be pressures that could elevate the risks (and which may be studied in further research), there may also be buffers that instead lowers the risks. And that leads to such a possible buffer—supportive leadership.

The Protecting Effect of Supportive Leadership

The association between general poor health and subsequent workplace bullying is, in the result, highly dependent on supportive leadership. In terms of moderation, there were small differences when comparing the two subscales of health (mental/social aspects versus physical aspects). The moderating effect of supportive leadership was slightly stronger for mental/social aspects, but the similarities were more striking than the small differences. The threshold where supportive leadership blocks out the negative effect and the pattern of the effect was almost the same. However, the tendency of a slightly stronger buffering effect of supportive leadership on poor mental/social health, compared to poor physical health, calls for more research into how these differences could be understood.

To understand why supportive leadership may have this moderating effect, one may, as presented above, draw on the theories of social learning (Bandura, 1977) and of social information processing (Salancik & Pfeffer, 1978) in the understanding of a double effect of supportive leadership actions. That is, (a) the direct effect such supportive leadership behaviours may have on social work conditions and (b) the role model effect that shapes behaviours and norm expectations in the workplace.

Due to methodological reasons, supportive leadership and health were not measured at the same time in Paper 2. So, when investigating

the protective effect of supportive leadership, one cannot know to what extent a supportive leadership was present at the time when health was measured, or to what extent poor health still was present when supportive leadership was measured (20 months later). But what the result clearly indicates is that, having a supportive supervisor today, will strongly reduce the risk of being exposed to bullying behaviours today. Supportive leadership seems to directly lower the incidence of bullying and specifically mitigates the risk for those who have had poor health in the past. On the other hand, a non-supportive leader may heighten the risks of bullying exposure for all, but especially for those who have a history of poor health.

COR—an Alternative Theoretical Framework

Late in the work with the thesis, I came across an additional theory that traditionally has been used as a stress-strain approach, but that has developed into a more extensive theory with clear applications in the field of organisational behaviour and organisational psychology—the *conservation of resources theory* (COR; Hobfoll, 1989, 2001; Hobfoll et al., 2018). In the following I will briefly present how the COR theory may add to the understanding of the results in the thesis.

The development of the theory is originally based on social learning theory (Bandura, 1977) as well as on evolutionary perspectives. Hobfoll (2001) states that the conservation of resources theory

“begins with the tenet that individuals strive to obtain, retain, foster, and protect those things they centrally value. COR theory follows an understanding that cognitions have an evolutionary-based built-in and powerful bias to overweight resource loss and underweight resource gain. Following this basis, COR theory posits that stress occurs (a) when central or key resources are threatened with loss, (b) when central or key resources are lost, or (c) when there is a failure to gain central or key resources following significant effort. At its core, COR theory is a motivational theory that explains much of human behavior based on the evolutionary need to acquire and conserve resources for survival, which is central to human behavioral genetics. Like other social animals, humans must acquire

and conserve both personal strengths and social bonds.” (p. 104)

The theory has successively developed into a comprehensive and very complex framework that encompasses all from individual trauma psychology to complex social behaviours in organisational settings, also including leader-follower behaviours (Hobfoll et al., 2018).

Drawing on the extensive COR framework, additional understanding of the results of the included studies in the thesis may be achieved. This applies both to the studied risk factors as well as to the moderator, that is, supportive leadership. The COR theory does also say a lot about the basis for the theoretical model used in the thesis—the association between workplace bullying and health.

Let me start with that basis, that is, the health risk followed by bullying exposure. Such detrimental health effects followed by bullying exposure may fully be predicted by the COR theory in that several personal resources are directly threatened when one is exposed to bullying. It may be resources such as status at work, sense of pride in self, feeling valuable, affection by others, acknowledgements of accomplishments, feeling of control, et cetera (see an extensive list of COR resources in Hobfoll, 2001). The theory also predicts that several resources may be associated and be affected simultaneously, so called resource caravans (Hobfoll, 2001; Hobfoll et al., 2018) which further underscores the quick and detrimental negative health effects bullying exposure may have.

Concerning the result about the risk factors on an organisational level, that is, the effect of role ambiguity on bullying, mediated by a hostile work climate, it may in terms of COR be framed as so called *passageways* and *crossover effects*. The model of crossover effects, which is incorporated in the COR framework, refers to the work by Bolger et al. (1989) who defined crossover as the interpersonal process where stress and strain may spread in the surrounding environment. Such spreading effects may be either positive or negative, and are described to work through three different mechanisms: (a) direct crossover through empathy, (b) indirect crossover through behaviours, and (c) spurious crossover where several persons react in the same way in response to the same stressor (Hobfoll et al., 2018). The model of crossover effects expands the focus of COR from individuals to groups and organisational contexts and may explain how work climates develops when experiences, emotions, and resources are transferred within a social and organisational

context (Westman, 2001). Adding to the model of crossover effects, so called passageways are in the COR theory referred to as “ecological conditions that either foster and nurture or limit and block resource creation and sustenance. ... Social and environmental conditions create resilience or fragility, social skilfulness or social awkwardness, tolerance or intolerance, among the individuals who are exposed to such environments.” (Hobfoll et al., 2018, p. 107)

Such crossover effects and passageways may both add to the understanding of why organisational conditions of role ambiguity (Kahn et al., 1964) may influence and lead to a hostile work climate (Leung & Snape, 2012; Mawritz et al., 2014; Mawritz et al., 2012) and eventually risk turn into escalated conflicts and bullying (Baillien et al., 2009) where people act both aggressively and irrational, and that such behaviours may be transferred in the working group (Hobfoll et al., 2018).

Turning to the individual risk factor—that poor health may increase the risk of being exposed to workplace bullying—this may also be understood by the COR theory. First, when someone is experiencing resource loss in terms of poor health, that may spread to others through empathy (direct crossover) and also being a situation where others in the same social context may perceive a need, or being expected, to invest of their own resources in giving support, help and understanding. Giving such support may, however, result in a resource loss for the person giving help. Hobfoll et al. (2018) thus argues that “resource losses in some individuals can end up triggering resource losses in those around them” (p. 113). This means that people may protect themselves from resource loss by ignoring the one who is in need. Such tendency may be increased if there is a general depletion of resources at work in terms of, for example, lack of time, lack of energy, lack of motivation, et cetera. A reasonable consequence could then be that the individual with poor health is ignored or even ostracised as a way of others protecting their own resources (e.g., Halbesleben & Bowler, 2007; Halbesleben & Wheeler, 2012). Further—combining COR and the concept of prototypicality (Hogg & Terry, 2000; Turner et al., 1987) and social identity (Tajfel & Turner, 1986)—if having poor health also affects the work performance or adherence to group based social norms, such as availability and attendance, such person may be perceived as a threat to group stability and group identity (valued resources in the language of COR) and thus risking to be excluded and ostracised.

Finally, the COR theory may also add understanding to the moderation effects by a supportive leadership. Social support in general is an

important resource to the extent that it provide or facilitate the preservation of valued resources (Hobfoll, 1989). The relationship between supervisors and subordinates is an important potential resource depending on the quality of that relationship (Hobfoll et al., 2018). In addition, personal resources (for example self-esteem and self-efficacy) emerge “in nurturing or supportive social conditions” (p. 107) which further underscores the importance of supportive leadership. The resource of a supportive leadership may be seen as having a potential direct crossover effect on subordinates as well as being a resource that buffer the negative effects of the referred risk factors (Hobfoll et al., 2018).

In summary, the conservation of resources theory (Hobfoll, 1989, 2001; Hobfoll et al., 2018) adds to the understanding of the results in the thesis and may constitute an interesting theoretical framework for further studies and theoretical predictions.

The Theoretical Model

It is time to go back to the theoretical model, presented in the section *Theoretical Model and Hypotheses*, which was used in formulating the hypotheses and the research question. The initial theoretical model in relation to the present thesis is presented again in Figure 11 (the same model as in Figure 7).

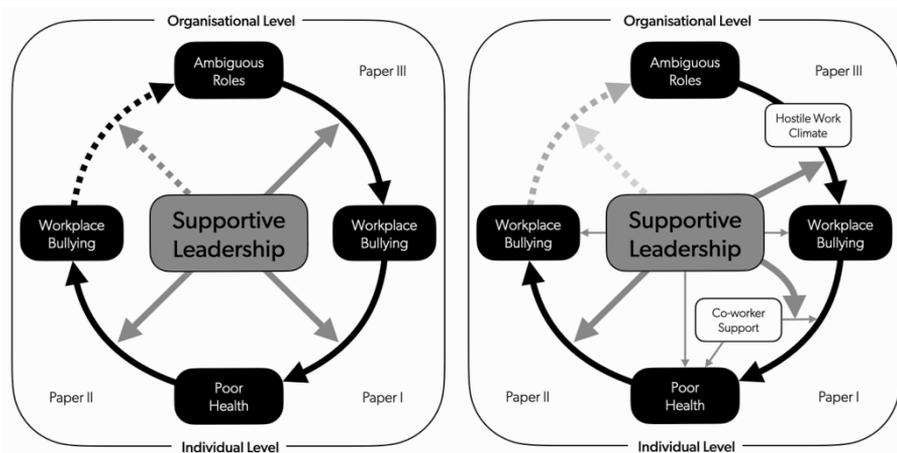


Figure 11. (a) The Present Thesis in Relation to the Initial Theoretical Model (left), (b) The Plotted Results Into the Theoretical Model (right).

Plotting all the results, from the studies included in the present thesis, in the original model, leads to the model also presented in Figure 11.

The model visualises how the level of supportive leadership may affect the risks and consequences of workplace bullying in many ways, both directly and as a moderator. The latter is a major find in the present thesis. But the probably most salient finding is the devastating *combined* effect a non-supportive leadership style may have in terms of risks and consequences of bullying at work.

The Effects of Low Levels of Supportive Leadership

So, based on the model, what may happen when the leadership performed by supervisors and line-managers, is characterised by low or absent support?

First, the results point to a direct association between low levels of leadership support and increased levels of exposure to bullying behaviours. This is based on the cross-sectional findings in Papers 1 and 2. Theoretically, it is reasonable to expect a low-support leadership to increase the risk for workplace bullying. Such an effect has also been reported before (e.g., Hauge, Einarsen, et al., 2011) making non-supportive leadership a risk factor in itself for future bullying exposure.

Second, the cross-sectional results in Paper 2 point to a direct association between a non-supportive leadership and poor health among the employees. Even here, it is theoretically reasonable to expect that the effect goes from low leadership support to poor health as such effects has been reported before (e.g., Finne et al., 2014).

Third, the results also point to that when employees experience poor *general* health, a non-supportive leadership will increase the risks that such a poor health over time also will lead to exposure to bullying. This is based on the longitudinal results in Paper 2 and are new findings which, as far as I know, has not been reported before.

Fourth, the results suggest a blocking effect of very low levels of supportive leadership on the positive effect of co-worker support in mitigating the effect of exposure to bullying behaviours on health. This means that non-supportive leadership may additionally increase the health risk of bullying exposure by the way of reducing access to the mitigating resource of co-worker support. This is based on the analyses of moderated moderation in Paper 1 and are new findings that, as far as I know, have not been reported before.

Fifth, and finally, the results point to that non-supportive leadership opens up for a hostile work climate—growing out of the organisational risk factor role ambiguity—leading to increased bullying exposure. This is based on longitudinal findings in Paper 3 and are, as far as I know, new findings not reported before.

Altogether, the model, and the findings that the model rests on, point to fundamentally destructive effects in association to non-supportive leadership.

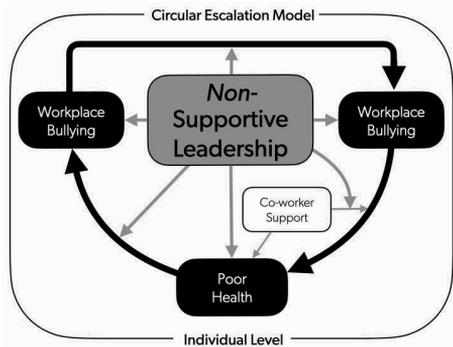


Figure 12. A Circular Escalation Model With a Negative Effect of Non-Supportive Leadership on the Association Between Poor Health and Workplace Bullying.

On an individual level, there are arguments for a circular self-sustaining and escalating process, based on the finding in the present thesis together with reported findings from previous research. In Figure 12 a suggested model is presented with circular escalation. The solid arrows in the figure are based on the results in the present thesis and the dashed arrows are based on previous reported findings and theory. A non-supportive leadership may directly heighten the risk for workplace bullying as well as for individual poor health (Finne et al., 2014; Hauge, Einarsen, et al., 2011; Papers 1 and 2 in the present thesis). The interaction by non-supportive leadership also increases the risk of bullying leading to poor health by blocking the mitigating effect of co-worker support (Paper 1) and increases the risks that poor health leads to bullying (Paper 2). That workplace bullying is an escalating process, meaning that bullying over time increases the risk for bullying, is well reported (e.g., Rosander & Blomberg, 2019; Zapf & Gross, 2001; Ågotnes et al., 2018). That non-supportive leadership may have an increasing and interacting effect on

the bullying-to-bullying association has not been reported but is predicted in the model. This prediction is based on the social learning theory and the concept of role models (Bandura, 1977) as presented before.

The Effects of High Levels of Supportive Leadership

One could also frame the results in a positive way. So, based on the model in Figure 11, what may happen if the leadership style used by supervisors and line-managers is perceived as supportive?

First, the results point to a direct association between higher levels of supportive leadership and lower levels of workplace bullying. Second, the results indicate that supportive leadership is directly associated with health among employees. Third, with about average levels of perceived supportive leadership—or higher—there seems to be no risk of poor health among employees leading to subsequent exposure to bullying behaviours. Fourth, such a supportive leadership seems to strengthen the mitigating effects of co-worker support on the negative association between bullying and health. And finally—fifth—such leadership style seems to block the long-term negative effect of the organisational risk factor role ambiguity, working through a hostile work climate, leading to bullying exposure. However, the moderating effect of a supportive leadership seems not to stop ambiguous roles leading to a hostile work climate, so role ambiguity is still a work environmental risk factor, but not for workplace bullying.

Limits for the Influence of Supportive Leadership

The last finding, that supportive leadership does not moderate the effect of role ambiguity on hostile work climate, may be an important limit of the otherwise positive effect of supportive leadership. Being a supportive supervisor seems to have strong positive effects in different ways in protecting employees from workplace bullying. But to prevent the growth of a hostile work climate it seems to take more than a supportive supervisor. And this is—actually—also predicted by theories of how work climates develop which points to that work climates are related to underlying organisational structures (De Rivera, 1992) which may include role characteristics such as variety, challenge, job pressures, and role ambiguity (Jones & Lawrence, 1979). The development of work climates may also be related to enacted policies and procedures that are put forward by decisions by *senior* management (Dollard & Bakker, 2010; Flin et al.,

2000), which usually is a level of strategic leadership where line-managers and supervisors do not operate (Mawritz et al., 2012).

Other likely limits for the positive effects of a supportive leadership style may be the very organisational conditions the actual supervisor or frontline manager depends on and relates to, such as the levels of administrative or fiscal duties, the number of subordinates, administrative support, et cetera (e.g., Shanks, 2016). Even if line-managers may have a strong impact in creating psychologically healthy workplaces (Nielsen, 2014), the levels of organisational constraints and support matter (Day et al., 2019) and could make it practically impossible to be perceived as a supportive leader. Being expected, as a supervisor, to be a role model and create safe and trustful social work conditions when the very organisational structures and conditions are poor, and when senior management maybe does not care about the situation “on the floor” (so to say), could possibly instead pose a risk for ill health—for the line-managers themselves (Bagi, 2013). This is also addressed in the conservation of resources theory with arguments that so called resource depleted leaders may withdraw from giving support to their subordinates in order to protect themselves (Hobfoll et al., 2018).

The Last Step in the Model

In the model with the results from the present thesis (Figure 11) there are no results for the upper left corner, that is, the last step in the initial circular model (Figure 1). To make a full circle, the model suggest that workplace bullying would influence role ambiguity in a negative way. In the original theoretical and overarching model (Figure 1) in the section *Theoretical Model and Hypotheses*, supportive leadership is also expected to have an interacting effect.

Initially, there was an intention to investigate even this step in the thesis. It was, however, excluded due to space and scope in the thesis. There is however some basis for suggestions of what one may expect in terms of results. The presentation of the possible and expected results in this last step of the model is therefore suggestions of future research.

First, concerning the predicted association between workplace bullying and subsequent role ambiguity, there are previous reported finds that point to such an association. For example, Hauge, Skogstad, et al. (2011) used a two waves longitudinal design and produced findings that indicated that role stressors, like role ambiguity, may be a consequence of workplace bullying. Second, a mechanism behind such reversed

association could possibly be the same as for the association between role ambiguity and bullying—a hostile work climate. For example, Giorgi (2012) argued that workplace bullying actually may be a cause of work climates as well as a consequence. This could be understood by using the same theoretical framework as in this thesis, that is, social learning theory (Bandura, 1977), the theory of social information processing (Salancik & Pfeffer, 1978) as well as the social identity theory (Tajfel & Turner, 1986; Tajfel & Turner, 1979) with its extension the self-categorisation theory (Turner et al., 1987; Turner & Reynolds, 2012). Drawing on these theories, one may expect that performed bullying behaviours contribute to escalated conflicts, frustrations, and social stress to such an extent in the work group that it contributes to a hostile work climate establishing a culture with a social identity and group based norms that permit or even reward bullying (Archer, 1999; Brodsky, 1976), especially if such bullying behaviours repeatedly are not met with unrewarding or punishing consequences by people in charge, that is, role models (Bandura, 1977, 1986, 1991). Additionally, using the framework of the conservation of resources theory (Hobfoll et al., 2018)—especially the concepts of cross-over effects and passageways—may predict the negative effect of workplace bullying on organisational conditions, such as work climate and role stress.

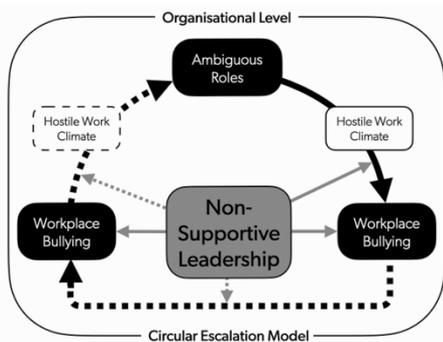


Figure 13. A Suggested Circular Escalation Model for the Association Between Role Ambiguity and Workplace Bullying With the Negative Effect by Non-Supportive Leadership.

Arguing—again—for a bullying-to-bullying association, that is, a process of bullying escalation (e.g., Rosander & Blomberg, 2019; Zapf & Gross, 2001; Ågotnes et al., 2018) may further establish another

vicious and escalating circle of role ambiguity leading to a hostile work climate that leads to bullying—and then back again (see Figure 13). Non-supportive leadership may have a direct increasing effect on the levels of bullying and may also work as a moderator for at least one of the steps in the model. That supportive leadership should moderate the effect of a hostile climate on organisational, or structural, conditions—that is, role ambiguity—may, however, be unlikely in regard of the results and the reasoning presented before of why supportive leadership does not moderate the association between role ambiguity and a hostile work climate. The model presented here (Figure 13) is a suggestion that may inspire further research. The solid arrows are based on the results in the present thesis and the dashed arrows are based on previous reported findings and theory-based predictions.

The Full and Final Model

Finally, in Figure 14 a complete model is presented that combines the initial model with all the results in the thesis and with theoretical suggestions based on previous reported results. It is a risk model that underscores the risk of non-supportive leadership. The solid arrows in the figure are based on the results in the present thesis and the dashed arrows are suggestions based on former reported findings in other studies and theoretical predictions. The presented final model is also a suggestion for further research.

Going back to the initial framing there were four connections suggested in the model: ambiguous roles — (a) —workplace bullying — (b) — poor health — (c) — workplace bullying — (d) — ambiguous roles.

The final model suggests that (a) role ambiguity is a long-term organisational risk factor for bullying, working through a hostile work climate. (b) Workplace bullying has detrimental health effects on the health of those exposed. (c) Poor general health is a long-term individual risk factor of being exposed to bullying, and (d) bullying at work may also be a risk factor for additional organisational problems, such as role ambiguity, probably working through a hostile working climate. As workplace bullying over time is an escalating phenomenon, the risk of a vicious circle is high if exposure to bullying behaviour is allowed to start. Putting a non-supportive leadership into this potential vicious circle, will heighten the bullying problems, lower individual general health, and fundamentally increase the risk of both role ambiguity and poor general health leading to bullying. It will probably also make the exposure to bullying more

health toxic by blocking access to mitigating co-worker support. It is a model of disaster.

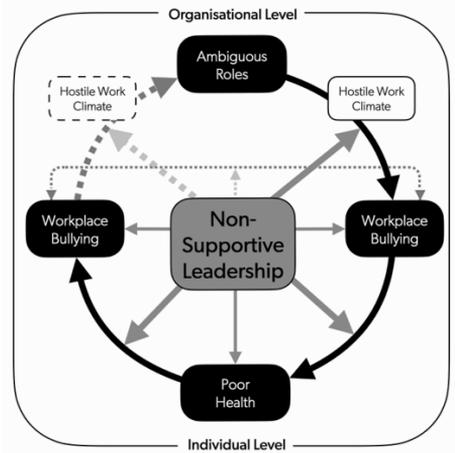


Figure 14. A Model of Disaster.

Strength and Limitations

Sample and Design

The large sample size in the included three papers in the thesis is a strength with around one thousand participants in each of the studies. With large samples the statistical power increases and the possibility to do more precise analyses of effects increase (Field, 2018). Large sample size also increases the representativeness which may increase the possibilities of generalisation of results. However, in the included studies the first two were from a single cohort which limits the representativeness but in the last study (Paper 3) the sample was heterogenous, with data from three different work sectors, which is a strength. But even with the strength of a heterogeneous sample, the sample was not a representative sample as the participants were not selected randomly. Also, the sample was only based on Swedish participants in Swedish organisations. This means that the results need to be replicated in other settings and contexts.

In the included studies, different study designs have been used. In Paper 1 a cross-sectional design was used and in Papers 2 and 3 a longitudinal design was used. To interpret and understand the results from the

different studies the combination of research design, statistical analyses and theoretical reasoning are important. According to Hayes (2018),

“statistical methods are just mathematical tools that allow us to discern order in apparent chaos, or signals of processes that may be at work amid random background noise or other processes we haven’t incorporated into our models. The inferences that we make about cause are not products of the mathematics underneath the modelling process. Rather, the inferences we make are products of our minds—how we interpret the associations we have observed, the signal we believe we have extracted from the noise.” (pp. 17-18)

A longitudinal research design is usually considered a strength as having time lags between the predictor and the dependent variable is a design used for more rigorous tests of causality compared to a cross-sectional design (Ford et al., 2014). However, cross-sectional and longitudinal designs, are actually designs that suit investigations of theoretically different kind of effects, that is, *synchronised* and *lagged* effects (Ford et al., 2014). When the expected effect of a predictor on a dependent variable is expected to be quick and immediate, it is described as a synchronised effect. However, synchronised effects may also have long-term patterns based on accumulation of effects (Ford et al., 2014). When there is an expected time lag between the effect of the predictor and the outcome of the dependent variable, it is described as a lagged effect. There is also so-called reversed lagged effects, where the traditionally expected effect goes in the opposite direction.

The present thesis uses both cross-sectional design assessing synchronised effects of, for example, the association between supportive leadership and employee health and the association between supportive leadership and exposure to bullying behaviours. These effects are considered to be direct and also close in time, that is, synchronised. The direction of causality is suggested by theory.

The association between bullying exposure and poor health (in Paper 1) is also based on cross-sectional design and therefore a synchronised effect. However, there is no hypothesis in the thesis of the effect of bullying on health as that topic already has been studied extensively by many others. The detrimental effect of bullying exposure on health is rather a basis for the thesis and the included studies. However, the investigated

risk factors (hypotheses 1 to 3), are based on longitudinally design assessing the accumulation of synchronised, lagged as well as reversed lagged effects.

For hypothesis 1 (that role ambiguity is a long term risk factor for bullying exposure) the time lag is 40 to 46 months, which is longer than the suggested minimum time lag of 1 year (De Lange et al., 2004) or 2 years (Dormann & Zapf, 2002) when studying lagged effects of organisational risk factors, such as different kinds of stress. The extensive time lag of 40 to 46 months makes it also possible to include a mediator with lagged effects, in a three-wave design with the mediator on the second wave. According to Ford et al. (2014), lagged effects of organisational stressors in general tend to increase up to around 3 years and then start declining. This means that the effect of role ambiguity on bullying may be in a state of decline when it is assessed after almost 4 years. The analysis still did detect a significant total effect, in spite of the long time lag. However, the effect seems to go through a hostile work climate (hypothesis 2), which was measured at wave 2. The time lag between the first and second wave was 18-22 months and the time lag between the second and the third wave was 22-24 months. The significant effect is, however, weak, but that is not surprising, following the reasoning and results in the study by Ford et al. (2014). In their meta-analysis they show that time lagged effects of organisational risk factors usually are small and that such studies needs large samples (>500 participants) to detect effects.

For hypothesis 3 (that poor health is expected to be a long term risk factor for bullying exposure), a time lag of 20 months is used with an expected reversed lagged affect. This is longer than the minimum time lag recommended by De Lange et al. (2004) but shorter than the recommended minimum of 2 years by Dormann and Zapf (2002). However, that recommendation is not about reversed lagged effect but about lagged effects in general (studying organisational stress). Concerning reversed lagged effects, Ford et al. (2014) argue that the effect usually is linear and increases with time, but they do not present a recommended minimum time lag. However, following the discussion by Einarsen and Nielsen (2015) the used time lag (when investigating hypothesis 3) could maybe have been slightly longer. They argued, namely, that there may be vicious circles with effects of bullying and poor health going back-and-forth and that studies with time lags shorter than 24 months risk tapping into such vicious circle and thus making the causal direction unclear. In the present study, it was, however, not possible with a longer time lag than 20 months

due to the participating organisation's planning for recurrent work environment surveys. The used time lag may not be fully optimal, but still being acceptable as it is way over 1 year (De Lange et al., 2004).

Concerning the moderating effects by primarily a supportive leadership (hypotheses 4 to 6, including the research question), the effects are investigated in different designs—cross-sectional (hypothesis 4 + research question), two-waves longitudinal (hypothesis 6), and three-waves longitudinal (hypothesis 5). The effects are detected statistically, but to interpret them and make sense of them, extensive use of theory is needed. Or, in the terms of Hayes (2018)—the interference and interpretation *is a product of my mind*. But—as it has been presented—I believe that the interpretation rests on solid grounds.

Analyses

There is a strength in the performed sensitivity analyses in Papers 2 and 3. One type of sensitivity analysis investigated if the results pointing to the importance of a supportive leadership in reality only showed that the dangers of a low perceived supportive leadership was that the bullying behaviours came from the supervisor. Participants that indicated that they were bullied by their supervisor were excluded with still significant findings. The other type of sensitivity analysis investigated if a supportive leadership was just a by-product of variations in the activity level of the supervisor, as a laissez-faire leader style has been shown to be detrimental for exposure to bullying at work. When controlling for the activity level in analyses using perceived supportive leadership, the findings were still significant pointing to that the results were due to the supportive dimension. Altogether, the sensitivity analyses indicate robust finds.

The included measure of a hostile work climate could maybe have been assessed on an aggregated group level instead of, as now, on an individual perceptual level. A hostile work climate may be theoretically described as a group based phenomenon with shared perceptions about the construct among group members and with discernible intergroup differences (e.g., see reasoning by Kuenzi & Schminke, 2009). In the thesis, it was not possible to use a multi-level approach as the individual answers could not be aggregated due to inconsistent way of coding work group membership. The reported results are therefore based on individual perceptions of a hostile work climate. It is, however, not unusual to investigate a hostile work climate using individual perceptions (see De Rivera,

1992; Kuenzi & Schminke, 2009; Schneider et al., 2013; Schneider & Reichers, 1983).

There may be a risk of common method bias in the thesis (Donaldson & Grant-Vallone, 2002) based on the use of self-report questionnaires in the included studies. However, such problems are less frequent than has been assumed (Spector, 2006). Furthermore, in Papers 2 and 3 the use of a longitudinal design would probably alleviate such risks (Podsakoff et al., 2003).

In Paper 1 the correlations between the predictor and the moderators were .38 to .45 and between the moderators .41, and in Paper 3 the correlation between the predictor and the moderator was .50. It has been argued that such high correlations should be avoided in moderation analyses due to risks for multicollinearity and high variance inflation (e.g., Iacobucci et al., 2016). Such a view has, however, been strongly refuted by McClelland et al. (2017) arguing that multicollinearity is completely irrelevant for test of moderator variables.

Finally, in paper 1, there is only 0.5% additional explained variance (R^2) by the moderated moderation by supportive leadership on the buffering effect of co-worker support on the negative bullying-health association. This may raise the question if the moderation effect of supportive leadership in practice is relevant or not. It is however still highly significant ($p = .002$), so it is probably not just a finding of coincidence. To explain this, it may also be important to take into the picture the cut off level, that is, the level of supportive leadership where the moderation has full effect. The level of supportive leadership must be very low—percentile 12.6—to completely block out the buffering effect of co-worker support. That means that the general and overall moderated moderation effect by supportive leadership is small which may explain why the increased R^2 is only 0.5%. But when such cases are at hand, that is, when there are leaders that are really non-supportive, the effect is probably both highly relevant and dangerous as it makes bullying exposure more health toxic in blocking out an important buffer—support from close co-workers.

Future Research

The whole section of *The Full and Final Model* above, is suggestions to future research. The presented model definitely needs to be tested in more detail and in different contexts.

Besides the presented model, there are several areas where future research would be welcome. Traditionally and historically, supportive leadership is considered to fall under the meta-category of relation oriented leadership (e.g., Derue et al., 2011; Yukl et al., 2002). But as it is also considered a facet of transformational leadership (Bass, 1985; Carless et al., 2000; Rafferty & Griffin, 2006) and to overlap with the leader-member exchange model (LMX; Graen & Uhl-Bien, 1995), and compassionate leadership (Gilbert & Basran, 2019), as well as with the meta-category of ethical leadership (Hattke & Hattke, 2019), more research and clarification into what supportive leadership really is would be welcome. In the present thesis, the focus is on the level of trust between employees and their supervisor. I argue that to earn the trust of the employees and be considered highly supportive, a supervisor—besides treating employees with empathy, care, and respect—also needs to be trustworthy and act in ethical ways, that is, actively promoting moral behaviours such as honesty, respect, and care. This underscores the relation orientation of the concept of supportive leadership, but also stresses the importance of being trustworthy. This also opens for the question of what the opposite of a supportive leadership should be called. In the present thesis the level of perceived support is measured which results in the dimension of high versus low perceived support. But low supportive leadership—or even non-supportive leadership—should probably, to a large extent, also overlap with concepts such as abusive and/or antisocial forms of leadership (e.g., Lundmark et al., 2021). That low levels of supportive leadership is not the same as laissez-faire leadership is indicated in the sensitivity analysis in the present thesis. But clarifications of the relationship between these leadership concepts would be welcome.

The results also indicated that there were some differences in the moderating effect of supportive leadership on the associations between social and cognitive aspects of health compared to physical aspects of health. It would be interesting with more research into this difference, but also to explore if there may be boundaries or bifurcation points in health aspects with potential long term effects on the risk for subsequent bullying.

There would also be interesting to see more research in association with other interacting factors that may influence the risk that poor health over time may lead to bullying exposure or that role ambiguity—through a hostile work climate—leads to bullying. Supportive leadership seems to act as a buffer, but there could also be amplifiers that instead increase

the risks. Such a suggested amplifier (which is mentioned above) is workload. But there may be others. Here it would be of great value to explore to what extent such organisational factors could amplify organisational and individual risk factors.

Even the theoretically suggested mechanism of *prototypicality* for the association between poor individual health and subsequent exposure to bullying behaviours needs to be investigated more. By measuring prototypicality directly, instead of theoretically proposing it, the suggested mechanism could be explored in much more detail.

Finally, there would also be interesting to investigate to what extent role ambiguity affects different types of organisations in different ways, that is, organisations classified as bureaucracies versus adhocracies (Mintzberg & McHugh, 1985). In classic organisational theory, which describe organisations in mostly mechanic/hierarchic ways, role ambiguity is considered to be a structural factor (e.g., Kahn et al., 1964). But how does the risk factor of role ambiguity affect a more distributed and dynamic/organic type of organisation (Mintzberg & McHugh, 1985)? It would be interesting to see if there are any particular differences.

Conclusions and Implications

The profound importance of a supportive leadership style in association with the occurrence of bullying at work is underscored in the present thesis. Supportive leadership probably functions as a gatekeeper for other risk factors, such as the organisational risk factor of role ambiguity and the individual risk factor of poor health. Supportive leadership is also directly associated with the levels of bullying and health among employees and is associated with the health consequences of bullying exposure.

Theoretically, the circular and multilevel theoretical interaction model that has been used in the thesis may be useful in more general terms. In the present work, the risk factors have been ambiguous roles (on an organisational level) and poor health (on an individual level) with supportive leadership as moderator and workplace bullying as the toxic exposure. The model could, however, be used and understood in a more general way, when investigating and understanding workplace bullying. Thus, I suggest the following model: The *leader-risks-exposure-model*, that is, *the LRX-model* (Figure 15). The LRX-model can be used as a conceptual framework in testing the moderation effects of different types of leadership on the effects of different organisational and individual risk factors in terms of workplace bullying. In the general model the arrow between organisational risk factors and workplace bullying is guided by the work environment hypothesis (Einarsen et al., 2003; 2020; Einarsen, Raknes, & Matthiesen, 1994). The arrow between workplace bullying and health is guided by different stress-strain perspectives, for example the transactional stress perspectives (Lazarus & Folkman, 1984) or the conservation of resources theory (Hobfoll, 1989) and the arrow between health and back to workplace bullying is supported by the individual disposition hypothesis (Nielsen & Einarsen, 2018). The last step does, however, not have a named hypothesis (as far as I know), but I suggest that it may be called *the toxic bottom up hypothesis*, as opposed to the top-down or so called down-stream effects (e.g. Dollard & Bakker, 2010) that is common in organisational psychology. As already described above, such

an effect may refer to how individual exposure to bullying behaviours may have longitudinal negative effects in the organisation.

Theoretically, possible effects in the model, for example interaction effects, different lagged or synchronised effects, as well as direct or indirect effects, may be predicted and understood based on several theories. Classical theories of social learning, such as social learning theory (Bandura, 1977), and social psychology, such as social identity theory (Tajfel & Turner, 1979), have been used in the present thesis and may really be used in further ways. The extensive framework of conservation of resources theory (Hobfoll et al., 2018) could definitely also be used to predict possible affects. Hopefully, the suggested LRX-model may inspire to further developments in the research field.

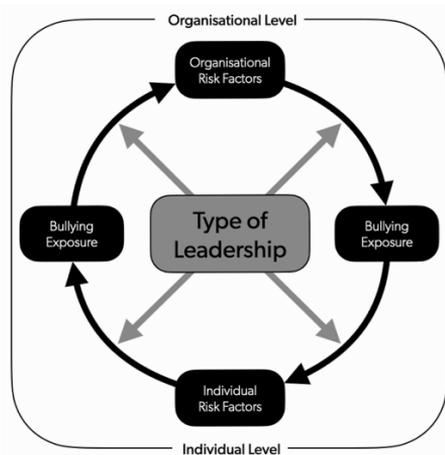


Figure 15. The Leadership-Risks-Exposure-Model (LRX)—a Circular, Multilevel, and Theoretical Interaction Model.

Practically, the findings provide direction for organisations to develop their leadership norms, models, and programs. There are probably high benefits for organisations to systematically train their leaders in practices that emphasis building supportive, trustful, and caring relationships at work. This also includes leadership practices with focus on acting in fair and trustworthy ways on occasions when unethical behaviours occurs at work. This is also important knowledge when recruiting new leaders as being a leader is very much about building and developing trustful relations (Burke et al., 2007; Dirks & Ferrin, 2002). It may also be

important knowledge of the high costs of anti-social leadership practices—both for individual employees and for the organisation as a whole.

The results also point to that leadership is dependent on organisational conditions. To expect day-to-day supportive leadership to compensate for a bad organisation is to put too much of a responsibility on front-line managers. To really benefit from the positive effect of supportive leadership, the organisational structures—such as role clarity—need to be well-functioning, as well as for organisational policies and procedures, which need to be prioritised and put forward by senior management (see Dollard & Bakker, 2010). Providing good organisational conditions—together with an implementation of a supportive leadership style—may be a receipt for successfully preventing the extremely destructive and costly phenomenon of workplace bullying.

For individual employees who experience exposure to bullying behaviours, it is probably a huge difference if one works in a well-functioning organisation, having a supportive manager, compared to the opposite, that is, working in a chaotic organisation with non-supportive day-to-day leadership practices. In the first case, it may be a good idea to raise concern about the ongoing situation and involve the immediate manager. The prospect of receiving support and that the exposure to bullying behaviours comes to an end is probably good. But in the latter case, the prospect is probably not good at all. Instead, the involved health risks may be very high. Even the risks of being long term eliminated from working life are at hand. Raising concerns under such organisational conditions may even make the situation worse (e.g., Nielsen, Mikkelsen, et al., 2020). The results in the thesis also point to that having a non-supportive supervisor, when exposed to bullying, is associated with a blocking effect of the otherwise health protective effect of co-worker support. It may be, sadly enough, that the most reasonable recommendation for an individual employee, in such a situation, is to change job—as soon as possible. Even if considered a last resort, changing job seems to lead to a substantial drop in bullying for exposed individuals (Rosander, Salin, et al., 2022). So even if it is a sad recommendation, leaving a dysfunctional organisation with non-supportive leadership practices may be the most health protective action one could make—both short and long-term.

Beware of non-supportive leaders.

Stefan Blomberg

References

- Aasland, M. S., Skogstad, A., Notelaers, G., Nielsen, M. B., & Einarsen, S. (2009). The Prevalence of Destructive Leadership Behaviour. *British Journal of Management*, *21*(2), 438-452. <https://doi.org/10.1111/j.1467-8551.2009.00672.x>
- Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology*, *18*, 317-334. <https://doi.org/https://doi.org/10.1002/ejsp.2420180403>
- Agervold, M. (2007). Bullying at work: a discussion of definitions and prevalence, based on an empirical study. *Scand J Psychol*, *48*(2), 161-172. <https://doi.org/10.1111/j.1467-9450.2007.00585.x>
- Agervold, M. (2009). The significance of organizational factors for the incidence of bullying. *Scandinavian Journal of Psychology*, *50*(3), 267-276. <https://doi.org/10.1111/j.1467-9450.2009.00710.x>
- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, *24*(3), 452-471. <https://doi.org/https://www-jstor-org.e.bibl.liu.se/stable/259136>
- Aquino, K., & Bradfield, M. (2000). Perceived victimization in the workplace: The role of situational factors and victim characteristics. *Organization Science*, *11*(5), 525-537. <https://doi.org/10.1287/orsc.11.5.525.15205>
- Archer, D. (1999). Exploring "bullying" culture in the para-military organisation. *International Journal of Manpower*, *20*(1-2), 94-105. <https://doi.org/https://doi.org/10.1108/01437729910268687>
- Arenas, A., León-Pérez, J.-M., Munduate, L., & Medina, F. J. (2015). Workplace bullying and interpersonal conflicts: the moderation effect of supervisor's power / Acoso laboral y conflictos interpersonales: el papel moderador de las bases de poder del

- supervisor. *Revista de Psicología Social*, 30(2), 295-322.
<https://doi.org/10.1080/21711976.2015.1016753>
- Astrauskaite, M., Notelaers, G., Medisauskaite, A., & Kern, R. M. (2015). Workplace harassment: Deterring role of transformational leadership and core job characteristics. *Scandinavian Journal of Management*, 31(1), 121-135.
<https://doi.org/10.1016/j.scaman.2014.06.001>
- Avolio, B. J., & Bass, B. M. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441-462.
<https://doi.org/10.1348/096317999166789>
- Bagi, S. (2013). When leaders burn out: The causes, costs and prevention of burnout among leaders. In A. H. Normore & N. Erbe (Eds.), *Collective Efficacy: Interdisciplinary Perspectives on International Leadership* (pp. 261-289). Emerald.
[https://doi.org/10.1108/s1479-3660\(2013\)0000020015](https://doi.org/10.1108/s1479-3660(2013)0000020015)
- Baillien, E., Escartín, J., Gross, C., & Zapf, D. (2017). Towards a conceptual and empirical differentiation between workplace bullying and interpersonal conflict. *European Journal of Work and Organizational Psychology*, 26(6), 870-881.
<https://doi.org/10.1080/1359432x.2017.1385601>
- Baillien, E., Neyens, I., De Witte, H., & De Cuyper, N. (2009). A qualitative study on the development of workplace bullying: Towards a three way model. *Journal of Community & Applied Social Psychology*, 19(1), 1-16. <https://doi.org/10.1002/casp.977>
- Baillien, E., Nyens, I., & De Witte, H. (2008). Organizational, team related and job related risk factors for bullying, violence and sexual harassment in the workplace: A qualitative study. *International Journal of Organisational Behaviour*, 13(2), 132-146.
- Baillien, E., Rodriguez-Muñoz, A., Van den Broeck, A., & De Witte, H. (2011). Do demands and resources affect target's and perpetrators' reports of workplace bullying? A two-wave cross-lagged study. *Work & Stress*, 25(2), 128-146.
<https://doi.org/10.1080/02678373.2011.591600>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309-328. <https://doi.org/10.1108/02683940710733115>

- Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2011). Workplace bullying and its relation with work characteristics, personality, and post-traumatic stress symptoms: an integrated model. *Anxiety Stress Coping, 24*(5), 499-513.
<https://doi.org/10.1080/10615806.2011.555533>
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development* (Vol. 1, pp. 45-59). Lawrence Erlbaum.
- Bandura, A., Ross, D., & Ross, S. A. (1963). A comparative test of the status envy, social power, and secondary reinforcement theories of identificatory learning. *Journal of Abnormal and Social Psychology, 67*, 527-534.
<https://doi.org/https://doi.org/10.1037/h0046546>
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
- Bass, B. M., & Avolio, B. J. (1994). *Transformational leadership development: Manual for the Multifactor Leadership Questionnaire*. Consulting Psychologists Press.
- Bass, B. M., & Riggio, R., E. (2006). *Transformational leadership* (2 ed.). Psychology Press.
- Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin, 117*(3), 497-529.
<https://doi.org/10.1037/0033-2909.117.3.497>
- Beehr, T. A. (1995). *Psychological stress in the workplace*. Routledge.
- Bjorklund, C., Hellman, T., Jensen, I., Akerblom, C., & Bramberg, E. B. (2019). Workplace Bullying as Experienced by Managers and How They Cope: A Qualitative Study of Swedish Managers. *Int J Environ Res Public Health, 16*(23).
<https://doi.org/10.3390/ijerph16234693>
- Blomberg, S. (2015). Individuen i organisationen [The individual in the organisation]. In J. Näslund & S. Jern (Eds.), *Organisationspsykologi [Organisational psychology]* (1 ed., pp. 223-244). Studentlitteratur.

- Blomberg, S. (2016). *Mobbning på jobbet – uttryck och åtgärder [Bullying at work - expressions and measures]*. Studentlitteratur.
- Blomberg, S. (2019). Individens [The Individual]. In J. Näslund & S. Jern (Eds.), *Organisationspsykologi: teori - kritik - praktik [Organizational psychology: theory - critics - praxis]* (2 ed., pp. 321-354). Studentlitteratur.
- Blomberg, S., Björklund, C., Cowen Forsell, R., Marklund, I., Gustafsson, I. H., Larsson, P., Hennings, P., Sandberg, B., Kaltenbrunner, M., & Nilsson, L. (2022). *Guidelines for managing social health risks at work – victimization and bullying*. Swedish Agency for Work Environment Expertise. <https://sawee.se/publications/guidelines-for-managing-social-health-risks-at-work-victimization-and-bullying/>
- Boalt Boëthius, S. (2019). Dynamik och struktur [Dynamic and structure]. In S. Jern & J. Näslund (Eds.), *Organisationspsykologi: teori - kritik - praktik [Organizational psychology: theory - criticism - practice]* (2 ed., pp. 171-213). Studentlitteratur.
- Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The contagion of stress across multiple roles. *Journal of Marriage and Family*, 5(1), 175-183. <https://doi.org/10.2307/352378>
- Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: a theoretical model and meta-analysis. *J Appl Psychol*, 91(5), 998-1012. <https://doi.org/10.1037/0021-9010.91.5.998>
- Bringsen, A., Andersson, H. I., & Ejlertsson, G. (2009). Development and quality analysis of the Salutogenic Health Indicator Scale (SHIS). *Scandinavian Journal of Public Health*, 37(1), 13-19. <https://doi.org/10.1177/1403494808098919>
- Brodsky, C. M. (1976). *The harassed worker*. Lexington Books.
- Brown, M. E., & Treviño, L. K. (2013). Do Role Models Matter? An Investigation of Role Modeling as an Antecedent of Perceived Ethical Leadership. *Journal of Business Ethics*, 122(4), 587-598. <https://doi.org/10.1007/s10551-013-1769-0>
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117-134. <https://doi.org/10.1016/j.obhdp.2005.03.002>

- Burke, C. S., Sims, D. E., Lazzara, E. H., & Salas, E. (2007). Trust in leadership: A multi-level review and integration. *The Leadership Quarterly*, 18(6), 606-632.
<https://doi.org/10.1016/j.leaqua.2007.09.006>
- Cao, W., Li, P., C. van der Wal, R., & W. Taris, T. (2022). Leadership and workplace aggression: a meta-analysis. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-022-05184-0>
- Carless, S. A., Wearing, A. J., & Mann, L. (2000). A short measure of transformational leadership. *Journal of Business and Psychology*, 14(3), 389-405.
<https://doi.org/10.1023/A:1022991115523>
- Clausen, T., Conway, P. M., Burr, H., Kristensen, T. S., Hansen, A. M., Garde, A. H., & Høgh, A. (2019). Does leadership support buffer the effect of workplace bullying on the risk of disability pensioning? An analysis of register-based outcomes using pooled survey data from 24,538 employees. *International Archives of Occupational and Environmental Health*, 92(7), 941-948. <https://doi.org/10.1007/s00420-019-01428-1>
- Cohen, S. (2004). Social Relationships and Health. *American Psychologist*, 59, 676-684.
<https://doi.org/https://doi.org/10.1037/0003-066X.59.8.676>
- Cooper-Thomas, H., Lee, R. T., Gardner, D., O'Driscoll, M., Catley, B., Bentley, T., & Trenberth, L. (2013). Neutralizing workplace bullying: the buffering effects of contextual factors. *Journal of Managerial Psychology*, 28(4), 384-407.
<https://doi.org/10.1108/jmp-12-2012-0399>
- Cortina, L. M. (2008). Unseen injustice: Incivility as modern discrimination in organizations. *Academy of Management Review*, 33(1), 55-75.
<https://doi.org/10.5465/AMR.2008.27745097>
- Cortina, L. M., Kabat-Farr, D., Leskinen, E. A., Huerta, M., & Magley, V. J. (2013). Selective Incivility as Modern Discrimination in Organizations. *Journal of Management*, 39(6), 1579-1605.
<https://doi.org/10.1177/0149206311418835>
- Cortina, L. M., Magley, V. J., Williams, J. H., & Langhout, R. D. (2001). Incivility in the workplace: Incidence and impact. *Journal of Occupational Health Psychology*, 6(1), 64-80.
<https://doi.org/10.1037//1076-8998.6.1.64>

- Cortina, L. M., Rabelo, V. C., & Holland, K. J. (2017). Beyond blaming the victim: Toward a more progressive understanding of workplace mistreatment. *Industrial and Organizational Psychology, 11*(1), 81-100. <https://doi.org/10.1017/iop.2017.54>
- Coyne, I., Craig, J., & Smith-Lee Chong, P. (2004). Workplace bullying in a group context. *British Journal of Guidance & Counselling, 32*(3), 301-317. <https://doi.org/10.1080/03069880410001723530>
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management, 31*(6), 874-900. <https://doi.org/10.1177/0149206305279602>
- Day, A., Penney, S. A., & Hartling, N. (2019). The psychology, potential perils, and practice of leading healthy workplaces. *Organizational Dynamics, 48*(3), 75-84. <https://doi.org/10.1016/j.orgdyn.2018.10.002>
- de Lange, A. H., Taris, T. W., Kompier, M. A., Houtman, I. L., & Bongers, P. M. (2005). Different mechanisms to explain the reversed effects of mental health on work characteristics. *Scandinavian Journal of Work, Environment & Health, 31*(1), 3-14. <https://doi.org/10.5271/sjweh.843>
- De Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2004). The relationships between work characteristics and mental health: examining normal, reversed and reciprocal relationships in a 4-wave study. *Work & Stress, 18*(2), 149-166. <https://doi.org/10.1080/02678370412331270860>
- De Rivera, J. (1992). Emotional climate: social structure and emotional dynamics. In K. T. Strongman (Ed.), *International review of studies on emotion* (2 ed., pp. 197-218). Wiley.
- Demerouti, E., Nachreiner, F., Bakker, A. B., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512. <https://doi.org/https://doi.org/10.1037/0021-9010.86.3.499>
- Derue, D. S., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: an integration and meta-analytic test of their relative validity. *Personnel Psychology, 64*(1), 7-52. <https://doi.org/10.1111/j.1744-6570.2010.01201.x>
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social*

Psychology, 56(1), 5-18. <https://doi.org/10.1037//0022-3514.56.1.5>

- Di Marco, D., Hoel, H., & Lewis, D. (2021). Discrimination and Exclusion on Grounds of Sexual and Gender Identity: Are LGBT People's Voices Heard at the Workplace? *Span J Psychol*, 24, 1-6. <https://doi.org/10.1017/SJP.2021.16>
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, 87(4), 611-628. <https://doi.org/10.1037//0021-9010.87.4.611>
- Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology*, 83(3), 579-599. <https://doi.org/10.1348/096317909x470690>
- Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, 17(2), 245-260. <https://doi.org/10.1023/A:1019637632584>
- Dormann, C., & Zapf, D. (2002). Social stressors at work, irritation, and depressive symptoms: Accounting for unmeasured third variable in a multi-wave study. *Journal of Occupational and Organizational Psychology*, 75(1), 33-58. <https://doi.org/10.1348/096317902167630>
- Dussault, M., & Frenette, E. (2015). Supervisors' Transformational Leadership and Bullying in the Workplace. *Psychological Reports*, 117(3), 724-733. <https://doi.org/10.2466/01.PR0.117c30z2>
- Einarsen, K., Mykletun, R. J., Einarsen, S. V., Skogstad, A., & Salin, D. (2017). Ethical Infrastructure and Successful Handling of Workplace Bullying. *Nordic Journal of Working Life Studies*, 7(1). <https://doi.org/10.18291/njwls.v7i1.81398>
- Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, 20(1/2), 16-27. <https://doi.org/https://doi.org/10.1108/01437729910268588>
- Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-

- Revised. *Work & Stress*, 23(1), 24-44.
<https://doi.org/10.1080/02678370902815673>
- Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2003). The concept of bullying at work: the European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 3-30). Taylor & Francis.
- Einarsen, S. V., Hoel, H., Zapf, D., & Cooper, C. L. (2020a). *Bullying and harassment in the workplace: Theory, research and practice* (3 ed.). CRC Press.
- Einarsen, S. V., Hoel, H., Zapf, D., & Cooper, C. L. (2020b). The concept of bullying and harassment at work: The European tradition. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 3-53). CRC Press.
- Einarsen, S., & Nielsen, M. B. (2015). Workplace bullying as an antecedent of mental health problems: a five-year prospective and representative study. *International Archives of Occupational and Environmental Health*, 88(2), 131-142.
<https://doi.org/10.1007/s00420-014-0944-7>
- Einarsen, S. V., Pedersen, H., Hoel, H., & Blomberg, S. (2020). *Faktaundersökning – Utredningsmetodik för kränkande särbehandling och svåra arbetsmiljöproblem*. Studentlitteratur.
- Einarsen, S., & Raknes, B. I. (1991). *Mobbing i arbeidslivet [Bullying at work]* University of Bergen]. Bergen.
- Einarsen, S., & Raknes, B. I. (1997). Harassment in the Workplace and the Victimization of Men. *Violence and Victims*, 12(3), 247-263.
<https://doi.org/10.1891/0886-6708.12.3.247>
- Einarsen, S., Raknes, B. I., & Matthiesen, S. B. (1994). Bullying and harassment at work and their relationships to work environment quality: An exploratory study. *European Work and Organizational Psychologist*, 4(4), 381-401.
<https://doi.org/10.1080/13594329408410497>
- Einarsen, S., Raknes, B. I., Matthiesen, S. B., & Hellesey, O. H. (1994). *Mobbing og harde personkonflikter. Helsefarlig samspill pa arbeidsplassen [Bullying and severe interpersonal conflicts. Unhealthy interaction at work]*. Sigma Forlag.
- Einarsen, S., & Skogstad, A. (1996). Bullying at work: Epidemiological findings in public and private organizations. *European Journal*

- of Work and Organizational Psychology* 5(2), 185-201.
<https://doi.org/https://doi.org/10.1080/13594329608414854>
- Einarsen, S., Skogstad, A., Rørvik, E., Lande, A. B., & Nielsen, M. B. (2016). Climate for conflict management, exposure to workplace bullying and work engagement: a moderated mediation analysis. *The International Journal of Human Resource Management*, 29(3), 549-570. <https://doi.org/10.1080/09585192.2016.1164216>
- Elias, R. (1986). *The politics of victimization: Victims, victimology, and human rights*. Oxford University Press.
- Eriksen, W., & Einarsen, S. (2004). Gender minority as a risk factor of exposure to bullying at work: The case of male assistant nurses. *European Journal of Work and Organizational Psychology*, 13(4), 473-492. <https://doi.org/10.1080/13594320444000173>
- Escartín, J., Ullrich, J., Zapf, D., Schlüter, E., & van Dick, R. (2013). Individual- and group-level effects of social identification on workplace bullying. *European Journal of Work and Organizational Psychology*, 22(2), 182-193.
<https://doi.org/10.1080/1359432x.2011.647407>
- European Social Dialogue. (2007). *Framework agreement on harassment and violence at work*. Retrieved from <https://www.etuc.org/en/framework-agreement-harassment-and-violence-work>.
- Felson, R. B. (1992). "Kick 'em when they're down": Explanations of the relationship between stress and interpersonal aggression and violence. *Sociological Quarterly*, 33(1), 1-16.
<https://doi.org/10.1111/j.1533-8525.1992.tb00360.x>
- Fernández-del-Río, E., Ramos-Villagrasa, P. J., & Escartín, J. (2021). The incremental effect of Dark personality over the Big Five in workplace bullying: Evidence from perpetrators and targets. *Personality and Individual Differences*, 168.
<https://doi.org/10.1016/j.paid.2020.110291>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
<https://doi.org/10.1177/001872675400700202>
- Fevre, R., Lewis, D., Robinson, A., & Jones, T. (2012). Insight into ill-treatment: patterns, causes and solutions. *Contemporary Readings in Law and Social Justice*(4), 245-277.
- Fevre, R., Nichols, T., Prior, G., & Rutherford, I. (2009). *Fair Treatment at Work Report: Findings from the 2008 survey*

- [*Employment Relations Research Series No. 103*]. E. M. A. a. Research. <http://www.berr.gov.uk/employment/research-evaluation/errs/index.html>
- Fevre, R., Robinson, A., Lewis, D., & Jones, T. (2013). The ill-treatment of employees with disabilities in British workplaces. *Work, Employment and Society*, 27(2), 288-307. <https://doi.org/10.1177/0950017012460311>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5 ed.). SAGE Publications Inc.
- Finne, L. B., Christensen, J. O., & Knardahl, S. (2014). Psychological and social work factors as predictors of mental distress: a prospective study. *PLoS One*, 9(7), e102514. <https://doi.org/10.1371/journal.pone.0102514>
- Flin, R., Mearns, K., O'Connor, P., & Bryden, R. (2000). Measuring safety climate: identifying the common features. *Safety Science*, 34(1-3), 177-192. [https://doi.org/https://doi.org/10.1016/S0925-7535\(00\)00012-6](https://doi.org/https://doi.org/10.1016/S0925-7535(00)00012-6)
- Ford, M. T., Matthews, R. A., Wooldridge, J. D., Mishra, V., Kakar, U. M., & Strahan, S. R. (2014). How do occupational stressor-strain effects vary with time? A review and meta-analysis of the relevance of time lags in longitudinal studies. *Work & Stress*, 28(1), 9-30. <https://doi.org/10.1080/02678373.2013.877096>
- Foster, P. J. (2012). *Leader-member-exchange and the workplace bully* [Doctoral thesis, Kansas State University]. Manhattan, Kansas. <http://hdl.handle.net/2097/15072>
- Gardner, D., Bentley, T., Catley, B., Cooper-Thomas, H., O'Driscoll, M., & Trenberth, L. (2013). Ethnicity, workplace bullying, social support and psychological strain in Aotearoa/New Zealand. *New Zealand Journal of Psychology* 42(2), 84-91.
- Gilbert, P., & Basran, J. (2019). The evolution of prosocial and antisocial competitive behavior and the emergence of prosocial and antisocial leadership styles. *Frontiers in Psychology*, 10, 610. <https://doi.org/10.3389/fpsyg.2019.00610>
- Giorgi, G. (2012). Workplace Bullying in Academia Creates a Negative Work Environment. An Italian Study. *Employee Responsibilities and Rights Journal*, 24(4), 261-275. <https://doi.org/10.1007/s10672-012-9193-7>
- Glabek, M., Einarsen, S. V., & Notelaers, G. (2020). Workplace bullying as predicted by non-prototypicality, group identification

- and norms: a self-categorisation perspective. *Work & Stress*, 34(3), 279-299. <https://doi.org/10.1080/02678373.2020.1719554>
- Glabek, M., Skogstad, A., & Einarsen, S. (2015). Take it or leave: a five-year prospective study of workplace bullying and indicators of expulsion in working life. *Industrial Health*, 53, 160-170. <https://doi.org/10.2486/indhealth.2014-0195>
- Goodboy, A. K., Martin, M. M., Knight, J. M., & Long, Z. (2017). Creating the boiler room environment. *Communication Research*, 44(2), 244-262. <https://doi.org/10.1177/0093650215614365>
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6(2), 219-247.
- Granström, K. (2006). *Dynamik i arbetsgrupper. Om gruppprocesser på arbetet [Dynamics in work groups. About group processes at work]*. Studentlitteratur.
- Halbesleben, J. R., & Bowler, W. M. (2007). Emotional exhaustion and job performance: the mediating role of motivation. *J Appl Psychol*, 92(1), 93-106. <https://doi.org/10.1037/0021-9010.92.1.93>
- Halbesleben, J. R. B., & Wheeler, A. R. (2012). To invest or not? The role of coworker support and trust in daily reciprocal gain spirals of helping behavior. *Journal of Management*, 41(6), 1628-1650. <https://doi.org/10.1177/0149206312455246>
- Hallberg, L. R.-M., & Strandmark, K. M. (2006). Health consequences of workplace bullying: experiences from the perspective of employees in the public service sector. *International Journal of Qualitative Studies on Health and Well-being*, 1(2), 109-119. <https://doi.org/10.1080/17482620600555664>
- Hansen, S. D., Alge, B. J., Brown, M. E., Jackson, C. L., & Dunford, B. B. (2012). Ethical leadership: Assessing the value of a multifoci social exchange perspective. *Journal of Business Ethics*, 115(3), 435-449. <https://doi.org/10.1007/s10551-012-1408-1>
- Hansen, Å. M. (2018). *Workplace Bullying, Stress Response and Long-term Sickness Absence-Exploring Mechanisms: Results from Six Cohort Studies* [University of Copenhagen]. Copenhagen.
- Haslam, S. A., & Reicher, S. (2006). Stressing the group: social identity and the unfolding dynamics of responses to stress. *J Appl*

- Psychol*, 91(5), 1037-1052. <https://doi.org/10.1037/0021-9010.91.5.1037>
- Hattke, F., & Hattke, J. (2019). Lead by example? The dissemination of ethical values through authentic leader inspiration. *International Journal of Public Leadership*, 15(4), 224-237. <https://doi.org/10.1108/ijpl-06-2019-0034>
- Hauge, L. J., Einarsen, S., Knardahl, S., Lau, B., Notelaers, G., & Skogstad, A. (2011). Leadership and role stressors as departmental level predictors of workplace bullying. *International Journal of Stress Management*, 18(4), 305-323. <https://doi.org/10.1037/a0025396>
- Hauge, L. J., Skogstad, A., & Einarsen, S. (2007). Relationships between stressful work environments and bullying: Results of a large representative study. *Work & Stress*, 21(3), 220-242. <https://doi.org/10.1080/02678370701705810>
- Hauge, L. J., Skogstad, A., & Einarsen, S. (2011). Role stressors and exposure to workplace bullying: Causes or consequences of what and why? *European Journal of Work and Organizational Psychology*, 20(5), 610-630. <https://doi.org/10.1080/1359432x.2010.482264>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2 ed.). Guilford Press.
- Heinemann, P. P. (1969). Apartheid. *Liberal Debatt*(2), 3-14.
- Heinemann, P. P., & Thorén, K. (1972). *Mobbning: gruppvåld bland barn och vuxna*. Natur och kultur.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S. E. (2001). The influence of culture, community, and the Nested-Self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, 50(3), 337-369. <https://doi.org/10.1111/1464-0597.00062>
- Hobfoll, S. E., Halbesleben, J., BNeveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103-128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>

- Hoel, H., & Cooper, C. L. (2001). Origins of bullying: Theoretical frameworks for explaining bullying In N. Tehrani (Ed.), *Building a culture of respect: Managing bullying at work* (pp. 3-19). Taylor & Francis.
- Hoel, H., Cooper, C. L., & Faragher, B. (2001). The experience of bullying in Great Britain: The impact of organisational status. *European Journal of Work and Organizational Psychology, 10*, 443-465. <https://doi.org/10.1080/13594320143000780>
- Hoel, H., Glasø, L., Hetland, J., Cooper, C. L., & Einarsen, S. (2010). Leadership Styles as Predictors of Self-reported and Observed Workplace Bullying. *British Journal of Management, 21*, 453-468. <https://doi.org/10.1111/j.1467-8551.2009.00664.x>
- Hoel, H., Lewis, D., & Einarsdottir, A. (2017). Debate: Bullying and harassment of lesbians, gay men and bisexual employees: findings from a representative British national study. *Public Money & Management, 37*(5), 312-314. <https://doi.org/10.1080/09540962.2017.1328169>
- Hoel, H., Lewis, D., Einarsdottir, A., & Notelaers, G. (2022). Openness about sexual orientation and exposure to workplace bullying. *Scandinavian Journal of Work and Organizational Psychology, 7*(1). <https://doi.org/10.16993/sjwop.164>
- Hogg, M. A. (2005). All animals are equal but some animals are more equal than others. Social identity and marginal membership. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *The social outcast. Ostracism, social exclusion, rejection, and bullying* (pp. 243-261). Psychology Press.
- Hogg, M. A., & Reid, S. A. (2006). Social Identity, Self-Categorization, and the Communication of Group Norms. *Communication Theory, 16*(1), 7-30. <https://doi.org/10.1111/j.1468-2885.2006.00003.x>
- Hogg, M. A., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *The Academy of Management Review, 25*(1). <https://doi.org/10.2307/259266>
- Horton, J., & Tucker, F. (2014). Disabilities in academic workplaces: experiences of human and physical geographers. *Transactions of the Institute of British Geographers, 39*(1), 76-89. <https://doi.org/10.1111/tran.12009>

- House, J. S. (1981). *Work stress and social support*. Addison-Wesley Publishing.
- Iacobucci, D., Schneider, M. J., Popovich, D. L., & Bakamitsos, G. A. (2016). Mean centering helps alleviate "micro" but not "macro" multicollinearity. *Behav Res Methods*, 48(4), 1308-1317. <https://doi.org/10.3758/s13428-015-0624-x>
- Jones, A. P., & Lawrence, R. J. (1979). Psychological climate: dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behavior and Human Performance*(23), 201-250. [https://doi.org/https://doi.org/10.1016/0030-5073\(79\)90056-4](https://doi.org/https://doi.org/10.1016/0030-5073(79)90056-4)
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., & Snoek, J. D. (1964). *Organizational stress: studies in role conflict and ambiguity*. Wiley.
- Kanareff, V. T., & Lanzetta, J. T. (1958). The acquisition of imitative and opposition responses under two conditions of instruction-induced set *Journal of Experimental Psychology*, 56(6), 516-528. <https://doi.org/https://doi.org/10.1037/h0047009>
- Kant, L., Skogstad, A., Torsheim, T., & Einarsen, S. (2013). Beware the angry leader: Trait anger and trait anxiety as predictors of petty tyranny. *The Leadership Quarterly*, 24(1), 106-124. <https://doi.org/10.1016/j.leaqua.2012.08.005>
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.
- Keashly, L., Minkowitz, H., & Nowell, B. L. (2020). Conflict, conflict resolution and workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 331-361). CRC Press.
- Keashly, L., Tye-Williams, S., & Jagatic, K. (2020). By any other name: North American perspectives on workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 55-102). CRC Press.
- King, L., A., & King, D., W. (1990). Role conflict and role ambiguity: A critical assessment of construct validity. *Psychological Bulletin*, 107(1), 48-64. <https://doi.org/10.1037/0033-2909.107.1.48>

- Kivimäki, M., Virtanen, M., Vartia, M., Elovainio, M., Vahtera, J., & Keltikangas-Järvinen, L. (2003). Workplace bullying and the risk of cardiovascular disease and depression. *Occupational Environmental Medicine*, 60, 779-783.
<https://doi.org/10.1136/oem.60.10.779>
- Knack, J. M., Gomez, H. L., & Jensen-Cambell, L. A. (2011). Bullying and its long-term health implications. In G. Macdonald & L. A. Jensen-Cambell (Eds.), *Social pain. Neuropsychological and health implications of loss and exclusion* (pp. 215-236). American Psychological Association.
- Korte, R. (2010). 'First, get to know them': a relational view of organizational socialization. *Human Resource Development International*, 13(1), 27-43.
<https://doi.org/10.1080/13678861003588984>
- Kuenzi, M., & Schminke, M. (2009). Assembling fragments into a lens: a review, critique, and proposed research agenda for the organizational work climate literature. *Journal of Management*, 35(3), 634-717. <https://doi.org/10.1177/0149206308330559>
- Larsson, A. (2010). Mobbing: ett tidsbundet socialt problem? [Bullying: a time-bound social problem]. *Socialvetenskaplig tidskrift*, 17(2), 134-148. <https://artikelsok-ip-btj-se.e.bibl.liu.se/article/2120068>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- Leung, A. S. M., & Snape, E. (2012). Hostile work environment: "Is it just me or Is it chilly in here?". In N. P. Reilly, M. J. Sirgy, & C. A. Gorman (Eds.), *Work and quality of life: Ethical practices in organizations* (pp. 375-394). Springer Science.
https://doi.org/10.1007/978-94-007-4059-4_20
- Lewin, K. (1947). Frontiers in group dynamics: concept, method and reality in social science; social equilibria and social change. *Human Relations*, 1(1), 5-41.
<https://doi.org/10.1177/001872674700100103>
- Lewis, D. (2004). Bullying at work: the impact of shame among university and college lecturers. *British Journal of Guidance & Counselling*, 32(3), 281-299.
<https://doi.org/10.1080/03069880410001723521>
- Lewis, D., Glambek, M., & Hoel, H. (2020). The role of discrimination in workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C.

- L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 363-383). CRC Press.
- Lewis, D., & Gunn, R. (2007). Workplace bullying in the public sector: understanding the racial dimension. *Public Administration*, 85(3), 641-665. <https://doi.org/https://doi.org/10.1111/j.1467-9299.2007.00665.x>
- Lewis, D., Megicks, P., & Jones, P. (2017). Bullying and harassment and work-related stressors: Evidence from British small and medium enterprises. *Small Business Journal*, 35(1), 116-137. <https://doi.org/doi.org/10.1177/0266242615624039>
- Leymann, H. (1986). *Vuxenmobbing: Om psykiskt våld i arbetslivet [Bullying: About psychological violence in working life]*. Studentlitteratur.
- Leymann, H. (1988). *Ingen annan utväg: om utslagning och självmord som följd av mobbing i arbetslivet [No other way out: about exclusion and suicide as a result of bullying in working life]*. Wahlström & Widstrand.
- Leymann, H. (1989). *När livet slår till: Offersituationer, följdhändelser och psykiska problem [When life strikes: Victim situations, sequelae and mental problems]*. Natur och kultur.
- Leymann, H. (1990). Mobbing and Psychological Terror at Workplaces. *Violence and Victims*, 5(2), 119-126. <https://doi.org/10.1891/0886-6708.5.2.119>
- Leymann, H. (1993). *Mobbing—Psychoterror am Arbeitsplatz und wie man sich dagegen wehren kann [Mobbing—psychoterror in the workplace and how one can defend oneself]*. Rowohlt.
- Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, 5(2), 165-184. <https://doi.org/10.1080/13594329608414853>
- Liefooghe, A. P. D., & Olafsson, R. (1999). "Scientists" and "amateurs": mapping the bullying domain. *International Journal of Manpower*, 20(1/2), 39-49. <https://doi.org/10.1108/01437729910268623>
- Lippitt, R., Polansky, N., & Rosen, S. (1952). The dynamics of power. *Human Relations*, 5, 37-64. <https://doi.org/https://doi.org/10.1177/001872675200500102>
- Lorenz, K. (1967). *Aggression - dess bakgrund och natur* Nordstedt.
- Lorenz, K. (2005). *On Aggression*. Routledge.

- Lundmark, R., Stenling, A., von Thiele Schwarz, U., & Tafvelin, S. (2021). Appetite for Destruction: A Psychometric Examination and Prevalence Estimation of Destructive Leadership in Sweden. *Front Psychol*, *12*, 668838. <https://doi.org/10.3389/fpsyg.2021.668838>
- Macdonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychol Bull*, *131*(2), 202-223. <https://doi.org/10.1037/0033-2909.131.2.202>
- Matthiesen, S. B., & Einarsen, S. (2007). Perpetrators and targets of bullying at work: role stress and individual differences. *Violence Vict*, *22*(6), 735-753. <https://doi.org/10.1891/088667007782793174>
- Mawritz, M. B., Dust, S. B., & Resick, C. J. (2014). Hostile climate, abusive supervision, and employee coping: does conscientiousness matter? *J Appl Psychol*, *99*(4), 737-747. <https://doi.org/10.1037/a0035863>
- Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V. (2012). A trickle-down model of abusive supervision. *Personnel Psychology*, *65*, 325-357. <https://doi.org/https://doi.org/f5whx5>
- Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*, *55*(1), 151-171. <https://doi.org/10.5465/amj.2008.0276>
- McClelland, G. H., Irwin, J. R., Disatnik, D., & Sivan, L. (2017). Multicollinearity is a red herring in the search for moderator variables: A guide to interpreting moderated multiple regression models and a critique of Iacobucci, Schneider, Popovich, and Bakamitsos (2016). *Behav Res Methods*, *49*(1), 394-402. <https://doi.org/10.3758/s13428-016-0785-2>
- Michel, J. W., Lyons, B. D., & Cho, J. (2010). Is the full-range model of leadership really a full-range model of effective leader behavior? *Journal of Leadership & Organizational Studies*, *18*(4), 493-507. <https://doi.org/10.1177/1548051810377764>
- Mikkelsen, E. G., & Einarsen, S. (2001). Bullying in Danish work-life: Prevalence and health correlates. *European Journal of Work and Organizational Psychology*, *10*(4), 393-413. <https://doi.org/10.1080/13594320143000816>

- Mikkelsen, E. G., Hansen, Å. M., Persson, R., Byrgesen, M. F., & Høgh, A. (2020). Individual consequences of being exposed to workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 163-208). CRC Press.
- Mintzberg, H., & McHugh, A. (1985). Strategy formation in an adhocracy. *Administrative Science Quarterly*, 30(2), 160-197. <https://doi.org/10.2307/2393104>
- Muhonen, T., Jonsson, S., & Backstrom, M. (2017). Consequences of cyberbullying behaviour in working life: The mediating roles of social support and social organisational climate. *Int J Workplace Health Manag*, 10(5), 376-390. <https://doi.org/10.1108/IJWHM-10-2016-0075>
- Niedhammer, I., Chastang, J. F., Sultan-Taieb, H., Vermeulen, G., & Parent-Thirion, A. (2012). Psychosocial work factors and sickness absence in 31 countries in Europe. *European Journal of Public Health*, 23(4), 622-629. <https://doi.org/10.1093/eurpub/cks124>
- Nielsen, K. (2014). Leadership and climate in a psychologically healthy workplace. In A. Day, K. Kelloway, & J. Hurrell Jr., J. (Eds.), *Workplace well-being: How to build psychologically healthy workplaces* (1 ed., pp. 2018-2236). John Wiley & Sons, Ltd.
- Nielsen, M. B. (2013). Bullying in work groups: the impact of leadership. *Scandinavian Journal of Psychology*, 54(2), 127-136. <https://doi.org/10.1111/sjop.12011>
- Nielsen, M. B., Christensen, J. O., Finne, L. B., & Knardahl, S. (2020). Workplace bullying, mental distress, and sickness absence: the protective role of social support. *International Archives of Occupational and Environmental Health*, 93(1), 43-53. <https://doi.org/10.1007/s00420-019-01463-y>
- Nielsen, M. B., & Einarsen, S. (2012). Outcomes of exposure to workplace bullying: A meta-analytic review. *Work & Stress*, 26(4), 309-332. <https://doi.org/10.1080/02678373.2012.734709>
- Nielsen, M. B., & Einarsen, S. V. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior*, 42, 71-83. <https://doi.org/10.1016/j.avb.2018.06.007>

- Nielsen, M. B., Glasø, L., & Einarsen, S. (2017). Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis. *Personality and Individual Differences, 104*, 195-206. <https://doi.org/10.1016/j.paid.2016.08.015>
- Nielsen, M. B., Magerøy, N., Gjerstad, J., & Einarsen, S. (2014). Mobbing i arbeidslivet og senere helseplager [Workplace bullying and subsequent health problems]. *Tidsskrift for Den Norske Laegeforening, 134*(12-13), 1233-1238. <https://doi.org/10.4045/tidsskr.13.0880>
- Nielsen, M. B., Mikkelsen, E. G., Persson, R., & Einarsen, S. V. (2020). Coping with Bullying at Work. How Do Targets, Bullies and Bystanders Deal with Bullying? In S. V. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research and practice* (3 ed.). CRC Press.
- Nielsen, M. B., Nielsen, G. H., Notelaers, G., & Einarsen, S. (2015). Workplace bullying and suicidal ideation: A 3-wave longitudinal Norwegian study. *American Journal of Public Health, 105*(11), e23-28. <https://doi.org/10.2105/AJPH.2015.302855>
- Nielsen, M. B., Notelaers, G., & Einarsen, S. V. (2020). Methodological issues in the measurement of workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research and practice* (3 ed., pp. 235-265). CRC Press.
- Nielsen, M. B., Rosander, M., Blomberg, S., & Einarsen, S. V. (2021). Killing two birds with one stone: how intervening when witnessing bullying at the workplace may help both target and the acting observer. *International Archives of Occupational and Environmental Health*(94), 261-273. <https://doi.org/10.1007/s00420-020-01575-w>
- Notelaers, G., De Witte, H., & Einarsen, S. (2010). A job characteristics approach to explain workplace bullying. *European Journal of Work and Organizational Psychology, 19*(4), 487-504. <https://doi.org/10.1080/13594320903007620>
- Notelaers, G., & Einarsen, S. (2013). The world turns at 33 and 45: Defining simple cutoff scores for the Negative Acts Questionnaire–Revised in a representative sample. *European Journal of Work and Organizational Psychology, 22*(6), 670-682. <https://doi.org/10.1080/1359432x.2012.690558>

- Notelaers, G., Van der Heijden, B., Guenter, H., Nielsen, M. B., & Einarsen, S. V. (2018). Do Interpersonal Conflict, Aggression and Bullying at the Workplace Overlap? A Latent Class Modeling Approach. *Front Psychol*, 9, 1743. <https://doi.org/10.3389/fpsyg.2018.01743>
- Olweus, D. (1973). *Hackkycklingar och översittare: forskning om skolmobbing*. Almqvist och Wiksell.
- Olweus, D. (1978). *Aggression in schools: bullies and whipping boys*. Hemisphere Publishing Corporation.
- Parker, S. K. (2014). Beyond motivation: job and work design for development, health, ambidexterity, and more. *Annu Rev Psychol*, 65, 661-691. <https://doi.org/10.1146/annurev-psych-010213-115208>
- Parzefall, M.-R., & Salin, D. M. (2010). Perceptions of and reactions to workplace bullying: A social exchange perspective. *Human Relations*, 63(6), 761-780. <https://doi.org/10.1177/0018726709345043>
- Pirola-Merlo, A., & Mann, L. (2004). The relationship between individual creativity and team creativity: aggregating across people and time. *Journal of Organizational Behavior*, 25(2), 235-257. <https://doi.org/10.1002/job.240>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Podsiadly, A., & Gamian-Wilk, M. (2017). Personality traits as predictors or outcomes of being exposed to bullying in the workplace. *Personality and Individual Differences*, 115, 43-49. <https://doi.org/10.1016/j.paid.2016.08.001>
- Postmes, T., Wichmann, L. J., van Valkengoed, A. M., & van der Hoef, H. (2019). Social identification and depression: A meta-analysis. *European Journal of Social Psychology*, 49(1), 110-126. <https://doi.org/10.1002/ejsp.2508>
- Rafferty, A. E., & Griffin, M. A. (2006). Refining individualized consideration: Distinguishing developmental leadership and supportive leadership. *Journal of Occupational and Organizational Psychology*, 79(1), 37-61. <https://doi.org/10.1348/096317905x36731>

- Rank, M. G., & Hutchison, W. S. (2014). An analysis of leadership within the social work profession. *Journal of Social Work Education, 36*(3), 487-502.
<https://doi.org/10.1080/10437797.2000.10779024>
- Reknes, I., Einarsen, S., Knardahl, S., & Lau, B. (2014). The prospective relationship between role stressors and new cases of self-reported workplace bullying. *Scandinavian Journal of Psychology, 55*(1), 45-52. <https://doi.org/10.1111/sjop.12092>
- Robinson, S. L., & O'Leary-Kelly, A. M. (1998). Monkey see, monkey do: The influence of work groups on the antisocial behavior of employees. *The Academy of Management Journal, 41*(6), 658-672. <https://doi.org/https://doi.org/10.2307/256963>
- Rosander, M. (2021). Mental health problems as a risk factor for workplace bullying: The protective effect of a well-functioning organization. *Ann Work Expo Health, 65*(9), 1096-1106.
<https://doi.org/10.1093/annweh/wxab040>
- Rosander, M., & Blomberg, S. (2018). *The WHOLE picture. Measurement of psychosocial work environment*. L. U. Press.
- Rosander, M., & Blomberg, S. (2019). Levels of workplace bullying and escalation – a new conceptual model based on cut-off scores, frequency and self-labelled victimization. *European Journal of Work and Organizational Psychology, 28*(6), 769-783. <https://doi.org/10.1080/1359432x.2019.1642874>
- Rosander, M., & Blomberg, S. (2022). Workplace bullying of immigrants working in Sweden. *The International Journal of Human Resource Management, 33*(14), 2914-2938.
<https://doi.org/10.1080/09585192.2021.1891113>
- Rosander, M., Hetland, J., & Einarsen, S. V. (2022). Workplace bullying and mental health problems in balanced and gender-dominated workplaces. *Work & Stress, 1*-20.
<https://doi.org/10.1080/02678373.2022.2129514>
- Rosander, M., Salin, D., & Blomberg, S. (2022). The last resort: Workplace bullying and the consequences of changing jobs. *Scandinavian Journal of Psychology, 63*(3), 124-135.
<https://doi.org/10.1111/sjop.12794>
- Rosander, M., Salin, D., Viita, L., & Blomberg, S. (2020). Gender Matters: Workplace Bullying, Gender, and Mental Health. *Frontiers in Psychology, 11*, 2683.
<https://doi.org/10.3389/fpsyg.2020.560178>

- Rosch, E. (1999). Principles of categorization. In E. Margolis & S. Laurence (Eds.), *Concepts: Core readings* (pp. 189-206). The MIT Press.
- Rugulies, R., Madsen, I. E., Hjarsbech, P. U., Høgh, A., Borg, V., Carneiro, I. G., & Aust, B. (2012). Bullying at work and onset of a major depressive episode among Danish female eldercare workers. *Scand J Work Environ Health*, 38(3), 218-227. <https://doi.org/10.5271/sjweh.3278>
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23(2), 224-253. <https://doi.org/https://doi.org/10.2307/2392563>
- Salin, D. (2003a). Bullying and organisational politics in competitive and rapidly changing work environments. *International Journal of Management and Decision Making*, 4(1), 35-46. <https://doi.org/10.1504/IJMDM.2003.002487>
- Salin, D. (2003b). Ways of explaining workplace bullying: A review of enabling, motivating, and precipitating structures and processes in the work environment. *Human Relations*, 56(10), 1213-1232. <https://doi.org/https://doi-org.e.bibl.liu.se/10.1177/00187267035610003>
- Salin, D. (2015). Risk factors of workplace bullying for men and women: the role of the psychosocial and physical work environment. *Scand J Psychol*, 56(1), 69-77. <https://doi.org/10.1111/sjop.12169>
- Salin, D. (2018). Workplace bullying and gender: An overview of empirical findings. In P. D'Cruz, E. Noronha, C. Caponecchia, J. Escartin, D. Salin, & M. Tuckey, Rae (Eds.), *Handbooks of workplace bullying, emotional abuse and harassment* (Vol. 3: Dignity and inclusion at work, pp. 331-361). Springer Nature.
- Salin, D., & Hoel, H. (2020). Organisational risk factors of workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research, and practice* (3 ed., pp. 305-330). CRC Press.
- Salin, D., Lee, R. T., & Hoel, H. (2013). Workplace bullying as a gendered phenomenon. *Journal of Managerial Psychology*, 28(3), 235-251. <https://doi.org/10.1108/02683941311321187>
- Samnani, A.-K., & Singh, P. (2012). 20 Years of workplace bullying research: A review of the antecedents and consequences of

- bullying in the workplace. *Aggression and Violent Behavior*, 17(6), 581-589. <https://doi.org/10.1016/j.avb.2012.08.004>
- Schat, A. C., & Kelloway, E. K. (2003). Reducing the adverse consequences of workplace aggression and violence: the buffering effects of organizational support. *Journal of Occupational Health Psychology*, 8(2), 110-122. <https://doi.org/10.1037/1076-8998.8.2.110>
- Schaubroeck, J. M., Hannah, S. T., Avolio, B. J., Kozlowski, S. W. J., Lord, R. G., Treviño, L. K., Dimotakis, N., & Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management*, 55(5), 1053-1078. <https://doi.org/https://doi.org/10.5465/ainj.2011.0064>
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annu Rev Psychol*, 64, 361-388. <https://doi.org/10.1146/annurev-psych-113011-143809>
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel Psychology*, 36(1), 19-39. <https://doi.org/10.1111/j.1744-6570.1983.tb00500.x>
- Shanks, E. (2016). *Managing social work. Organisational conditions and everyday work for managers in the Swedish social services* [Stockholm University]. Stockholm. <http://su.diva-portal.org/smash/record.jsf?pid=diva2%3A920490>
- Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., & Hetland, H. (2007). The destructiveness of laissez-faire leadership behavior. *Journal of Occupational Health Psychology*, 12(1), 80-92. <https://doi.org/10.1037/1076-8998.12.1.80>
- Skogstad, A., Torsheim, T., Einarsen, S., & Hauge, L. J. (2011). Testing the Work Environment Hypothesis of Bullying on a Group Level of Analysis: Psychosocial Factors as Precursors of Observed Workplace Bullying. *Applied Psychology*, 60(3), 475-495. <https://doi.org/10.1111/j.1464-0597.2011.00444.x>
- Spector, P. E. (2006). Method variance in organizational research: truth or urban legend? *Organizational Research Methods*, 9(2), 221-232. <https://doi.org/10.1177/1094428105284955>
- Stoetzer, U., Ahlberg, G., Bergman, P., Hallsten, L., & Lundberg, I. (2009). Working conditions predicting interpersonal relationship problems at work. *European Journal of Work and Organizational Psychology*, 18(4), 424-441. <https://doi.org/10.1080/13594320802643616>

- Svensson, L. (2010). *Mobbing at work: The impact of workplace organization on employee discretion and the mobbing process* [Örebro University]. Örebro.
- Tafvelin, S., Hyvonen, U., & Westerberg, K. (2012). Transformational Leadership in the Social Work Context: The Importance of Leader Continuity and Co-Worker Support. *British Journal of Social Work, 44*(4), 886-904. <https://doi.org/10.1093/bjsw/bcs174>
- Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2 ed., pp. 7-24). Nelson-Hall Publishers.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Brooks/Cole.
- Taylor, S. E. (2011). Social support: A review. In H. S. Friedman (Ed.), *The Oxford Handbook of health psychology* (pp. 189-214). Oxford University Press.
- Theorell, T., Hammarstrom, A., Aronsson, G., Traskman Bendz, L., Grape, T., Hogstedt, C., Marteinsdottir, I., Skoog, I., & Hall, C. (2015). A systematic review including meta-analysis of work environment and depressive symptoms. *BMC Public Health, 15*, 738. <https://doi.org/10.1186/s12889-015-1954-4>
- Thibault, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. John Wiley.
- Thoits, P. A. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. *Journal of Health and Social Behavior, 23*(2), 145-159. <https://doi.org/10.2307/2136511>
- Thylefors, I. (1987). *Syndabockar: om mobbning och kränkande särbehandling i arbetslivet [Scapegoats: on negative exposure and bullying in working life]*. Natur & Kultur.
- Thylefors, I. (1999). *Syndabockar: om mobbning och kränkande särbehandling i arbetslivet [Scapegoats: on negative exposure and bullying in working life]* (2 updated ed.). Natur & Kultur.
- Tokarev, A., Phillips, A. R., Hughes, D. J., & Irwing, P. (2017). Leader dark traits, workplace bullying, and employee depression: Exploring mediation and the role of the dark core. *J Abnorm Psychol, 126*(7), 911-920. <https://doi.org/10.1037/abn0000299>

- Torok, E., Hansen, A. M., Grynderup, M. B., Garde, A. H., Hogh, A., & Nabe-Nielsen, K. (2016). The association between workplace bullying and depressive symptoms: the role of the perpetrator. *BMC Public Health, 16*, 993. <https://doi.org/10.1186/s12889-016-3657-x>
- Tse, H. H. M., Dasborough, M. T., & Ashkanasy, N. M. (2008). A multi-level analysis of team climate and interpersonal exchange relationships at work. *The Leadership Quarterly, 19*(2), 195-211. <https://doi.org/10.1016/j.leaqua.2008.01.005>
- Tuckey, M. R., Chrisopoulos, S., & Dollard, M. F. (2012). Job demands, resource deficiencies, and workplace harassment: Evidence for micro-level effects. *International Journal of Stress Management, 19*(4), 292-310. <https://doi.org/10.1037/a0030317>
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Blackwell.
- Turner, J. C., & Reynolds, K. J. (2012). Self-categorization theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 399-417). Sage.
- Ursin, H., & Eriksen, H. R. (2010, May). Cognitive activation theory of stress (CATS). *Neurosci Biobehav Rev, 34*(6), 877-881. <https://doi.org/10.1016/j.neubiorev.2009.03.001>
- van de Vliert, E. (2000). Conflict and conflict management. . In P. J. D. Drenth, H. Thierry, & C. J. J. Wolff (Eds.), *Handbook of work and organizational psychology: Personnel psychology* (2 ed., Vol. 3, pp. 351-376). Psychology Press.
- Van den Brande, W., Baillien, E., De Witte, H., Vander Elst, T., & Godderis, L. (2016). The role of work stressors, coping strategies and coping resources in the process of workplace bullying: A systematic review and development of a comprehensive model. *Aggression and Violent Behavior, 29*, 61-71. <https://doi.org/10.1016/j.avb.2016.06.004>
- van Reemst, L., Fischer, T. F., & Zwirs, B. W. (2016). Social information processing mechanisms and victimization: A literature review. *Trauma Violence Abuse, 17*(1), 3-25. <https://doi.org/10.1177/1524838014557286>
- Vartia, M. (1996). The sources of bullying–psychological work environment and organizational climate. *European Journal of*

- Work and Organizational Psychology*, 5(2), 203-214.
<https://doi.org/https://doi.org/10.1080/13594329608414855>
- Viator, R., E. (2001). The relevance of transformational leadership to nontraditional accounting services: Information systems assurance and business consulting. *Journal of Information Systems*, 15(2), 99-125. <https://doi.org/10.2308/jis.2001.15.2.99>
- Warszewska-Makuch, M., Bedynska, S., & Zolnierczyk-Zreda, D. (2015). Authentic leadership, social support and their role in workplace bullying and its mental health consequences. *Int J Occup Saf Ergon*, 21(2), 128-140.
<https://doi.org/10.1080/10803548.2015.1028230>
- Weaver, G. R., TreviÑO, L. K., & Agle, B. (2005). "Somebody I look up to:" Ethical role models in organizations *Organizational Dynamics*, 34(4), 313-330.
<https://doi.org/10.1016/j.orgdyn.2005.08.001>
- Weisbord, M. R. (1991). *Productive workplaces*. Jossey-Bass.
- Westman, M. (2001). Stress and strain crossover. *Human Relations*, 54(6), 717-752. <https://doi.org/10.1177/0018726701546002>
- Xu, T., Magnusson Hanson, L. L., Lange, T., Starkopf, L., Westerlund, H., Madsen, I. E. H., Rugulies, R., Pentti, J., Stenholm, S., Vahtera, J., Hansen, A. M., Kivimaki, M., & Rod, N. H. (2018). Workplace bullying and violence as risk factors for type 2 diabetes: a multicohort study and meta-analysis. *Diabetologia*, 61(1), 75-83. <https://doi.org/10.1007/s00125-017-4480-3>
- Xu, T., Magnusson Hanson, L. L., Lange, T., Starkopf, L., Westerlund, H., Madsen, I. E. H., Rugulies, R., Pentti, J., Stenholm, S., Vahtera, J., Hansen, A. M., Virtanen, M., Kivimaki, M., & Rod, N. H. (2019). Workplace bullying and workplace violence as risk factors for cardiovascular disease: a multi-cohort study. *European Heart Journal*, 40(14), 1124-1134.
<https://doi.org/10.1093/eurheartj/ehy683>
- Yamada, D. C. (2020). Bullying and the law: Gradual progress on a global scale. In S. V. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 627-648). CRC Press.
- Yukl, G. (2013). *Leadership in organizations. Global edition.* (8 ed.). Pearson Education.
- Yukl, G., Gordon, A., & Taber, T. (2002). A hierarchical taxonomy of leadership behavior: Integrating a half century of behavior

- research. *Journal of Leadership and Organizational Studies*, 9(1), 15-32. <https://doi.org/10.1177/107179190200900102>
- Yussen, S. R., & Levy Jr., V. M. (1975). Effects of warm and neutral models on the attention of observational learners. *Journal of Experimental Child Psychology* 20(1), 66-72. [https://doi.org/https://doi.org/10.1016/0022-0965\(75\)90027-2](https://doi.org/https://doi.org/10.1016/0022-0965(75)90027-2)
- Zahlquist, L., Hetland, J., Skogstad, A., Bakker, A. B., & Einarsen, S. V. (2019). Job Demands as Risk Factors of Exposure to Bullying at Work: The Moderating Role of Team-Level Conflict Management Climate. *Front Psychol*, 10, 2017. <https://doi.org/10.3389/fpsyg.2019.02017>
- Zapf, D. (1999a). Mobbing in Organisationen. Ein überblick zum Stand der Forschung [Mobbing in organisations. A state of the art review]. . *Zeitschrift für Arbeits- und Organisationspsychologie*, 43, 1-25. <https://doi.org/10.1026//0932-4089.43.1.1>
- Zapf, D. (1999b). Organisational, work group related and personal causes of mobbing/bullying at work. *International Journal of Manpower*, 20(1/2), 70-85. <https://doi.org/https://doi.org/10.1108/01437729910268669>
- Zapf, D., & Einarsen, S. V. (2020). Individual antecedents of bullying: personalities and competencies of victims and perpetrators. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research, and practice* (3 ed., pp. 269-304). CRC Press.
- Zapf, D., Escartin, J., Scheppalahyani, M., Einarsen, S. V., Hoel, H., & Vartia, M. (2020). Empirical findings on prevalence and risk groups of bullying in the workplace. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 105-162). CRC Press.
- Zapf, D., & Gross, C. (2001). Conflict escalation and coping with workplace bullying: A replication and extension. *European Journal of Work and Organizational Psychology*, 10(4), 497-522. <https://doi.org/10.1080/13594320143000834>
- Zapf, D., & Vartia, M. (2020). Prevention and treatment of workplace bullying: an overview. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Theory, research and practice* (3 ed., pp. 457-495). CRC Press.

Ågotnes, K. W. (2022). *Work-related risk factors for workplace bullying. The moderating effect of laissez faire leadership*. Bergen University]. Bergen, Norway.

Ågotnes, K. W., Einarsen, S. V., Hetland, J., & Skogstad, A. (2018). The moderating effect of laissez-faire leadership on the relationship between co-worker conflicts and new cases of workplace bullying: A true prospective design. *Human Resource Management Journal*, 28(4), 555-568.
<https://doi.org/10.1111/1748-8583.12200>

Papers

The papers associated with this thesis have been removed for copyright reasons. For more details about these see:

<https://doi.org/10.3384/9789179295325>

FACULTY OF ARTS AND SCIENCES

Linköping Studies in Arts and Sciences No. 845, 2022
Linköping Studies in Behavioural Science No. 247, 2022
Department of Behavioural Sciences and Learning

At the Faculty of Arts and Sciences at Linköping University, research and doctoral studies are carried out within interdisciplinary research environments, often addressing broad problem areas. Linköping Studies in Arts and Sciences is the Faculty's own series for publishing research. This thesis comes from the Division of Psychology at the Department of Behavioural Sciences and Learning.

Linköping University
SE-581 83 Linköping, Sweden

www.liu.se